Research report

Digging deeper

Further examination of the association between Out of Home Care experience and poor outcomes, focusing on mental health and wellbeing

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CENTRE FOR LONGITUDINAL STUDIES

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We recognise that some of the information and situations described may be triggering to some readers and would urge anyone who is struggling to reach out for support. There are many organisations, local and national, who can provide support, advice and signposting such as:

Mind: www.mind.org.uk
Care Leavers Association: www.careleavers.com
Andy's Man Club: www.andysmanclub.co.uk.

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Contents

Key findings

This report builds on our previous research which highlighted the multiple challenges facing the children of mothers with out of home care (OHC) experience. Here we again draw on young people born in 2000 who are part of the UK Millennium Cohort Study (MCS) to help deepen our understanding of the association between maternal OHC experience and poor behavioural and mental health outcomes. We also examine post-16 outcomes of study members who themselves experienced OHC to further enrich the evidence base with research on a recent generation.

Children of mothers with OHC experience develop more socio-emotional and behavioural difficulties than those whose mother had no OHC experience. However, it is not maternal OHC *per se* but associated socio-economic and personal characteristics that play a critical role in mediating that risk. The observed disadvantages stem largely from structural inequalities, such as education and housing, maternal health and well-being.

For the first time we examined a wide range of outcomes at age 17 for teenagers by their *own* OHC experience. We show an alarming picture of the continued experience of adversity, social exclusion and discrimination for those with residential, foster care or kinship care experience in a current generation.
1 in 4 teenagers with foster or residential care experience were not in education, employment or training (NEET) compared to 1 in 17 (6%) with no OHC experience.

Teenagers with OHC experience show multiple negative mental health outcomes. They were more likely to have higher levels of behaviour and emotional problems, suffer symptoms associated with depression, to have recently self-harmed (in the past year) and to have ever attempted suicide than their peers. Although any number regarding suicidal intention is too high, compared to the 1 in 14 (7%) with no OHC experience, 1 in 4 (26%) with foster or residential care and 1 in 5 (21%) with kinship care experience have tried to end their own life.

Greater proportions of teenagers with OHC experience had underage sex and experienced a pregnancy. They were more likely to smoke cigarettes and to use cannabis. In particular those with kinship care experience had also tried harder drugs and first tried alcohol at a young age. All teenagers with OHC experience were both more likely to have been a victim of crime and to have had contact with the police, being particularly more likely to have been formally cautioned and even arrested.

Although based purely on descriptive statistics, these findings of a recent cohort of teenagers should be a call for action to adequately support this group of vulnerable young people and their support network – their parents, extended family or foster carers. The evidence presented here shows that the policy measures in place are grossly inadequate given the scale of the problems identified.

One year into the COVID-19 pandemic, study members – now young adults aged 20/21 – with maternal *or* their own OHC experience reported lower levels of social support, more experience of feeling lonely, poorer mental health and wellbeing. However, these differences were not driven by the pandemic but by their exposure to higher socio-economic risks, poor mental and physical health at earlier ages and the persistence of disadvantage into their early adult life.

Chapter 1:
Introduction

Background

Our previous research highlighted the multiple challenges facing the children of mothers with out of home care (OHC) experience. It was the first study to assess the intergenerational transmission of trauma and disadvantage associated with maternal OHC experience. Encouragingly, we found that the children of mothers with OHC experience demonstrated resilience and optimism for their future, once aspects of socio-economic disadvantage were taken into account. They had similar education and occupational aspirations and were as likely as their peers to still be in education or training as they moved towards their 18th birthday. However, our findings also highlighted a greater risk of mental health problems across a range of measures compared to teenagers whose mothers had no OHC experience. This report presents the results of a one-year "Digging Deeper" extension to the original project – also funded by The Nuffield Foundation. The objective was to deepen our understanding of the association between maternal OHC experience and poor behavioural and mental health outcomes to help better understand the potential intergenerational transmission of disadvantages in future generations. The analysis draws on young people born in 2000 who are part of the UK Millennium Cohort Study (MCS) which has also enabled us to examine post-16 outcomes of study members whose mothers or who themselves experienced OHC to further enrich the evidence base with research on a recent generation.

Research outputs

Digging Deeper has produced three key outputs which are presented in Chapters 2 to 4 of this report.

- **Patterns of cross-domain symptom development among children of mothers with OHC experience** (accepted by BMJ Open). In this paper we further examine the intergenerational transmission of trauma associated with maternal OHC experience, focusing on mental health trajectories between ages 3 to 17. More specifically we examine if maternal OHC experience is a distinct risk factor for externalising and internalising symptom development among their children compared to children in the general population controlling for other related common risk factors.
- **Challenges at age 17 faced by study members with OHC experience**. Here we extend the original focus of our research to report on study members own experience of OHC, differentiating between foster or residential care and kinship care. Questions about study members own experience of OHC were asked for the first time in the MCS age 17 survey. We provide a descriptive profile of the experiences of teenagers by OHC experience across a number of domains – early post-16 education transitions, higher education and occupation aspirations, physical health and mental health problems, health behaviours, relationships and sexual activity, misconduct and experience of crime.
- **Outcomes in early adulthood during the COVID-19 pandemic: a focus on social support, loneliness, mental wellbeing and physical health by OHC experience.** In this analysis we examine different aspects of mental and physical wellbeing of MCS study members at age 20/21 to assess the potential impact of the COVID-19 pandemic. In February – March 2021, study members completed an online questionnaire which coincided with the third lockdown in March 2021. The restrictions were hard, but possibly particularly so for individuals with OHC experience. We focus on aspects of social support, loneliness, mental wellbeing and physical health among young adults one year into the pandemic, and how this varied by measures of their own OHC and their mother's OHC experience.

Pen portraits: Identifying resilience and protective factors

To help bring the statistics to life further, at the end of each chapter we include pen portraits or 'thumbnail sketches' to depict the lives of selected study members who have certain characteristics associated with the focus of the research. Pen portraits are a method traditionally used to analyse and summarise qualitative data from participants, highlighting recurring themes or patterns (Blundel & Oakley, 2024). Here we apply this method to describe quantitative data collected over time in a more accessible way. Pen portraits offer better confidentiality and anonymity than direct case studies by using less specific identifying details, focusing on a holistic assessment rather than exhaustive factual data, and providing a narrative format that allows for more flexible presentation and less disclosure of individual information. We focus on study members who have spent time in OHC or with kinship care experience, and/or their mother had OHC experience in her own childhood. We cover some of the key outcomes covered in each chapter and focus on study members who have shown resilience and 'beaten the odds' to try and identify key protective factors. The individuals were selected at random after applying an initial selection criterion. We use the imputed data, fictitious names and no personal identifiers. We have limited details on the OHC experience of both study members and/or their mothers, as highlighted in the introduction. As such, we focus primarily on the family and individual circumstances during the study members early childhood and adolescent years.

Data and Methods

The Millennium Cohort Study

This research is based on the Millennium Cohort Study (MCS), 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 & Platt, 2014; Joshi & Fitzsimons, 2016). Data have been collected when the children were aged around 9 months, 3, 5, 7, 11, 14 and 17 when 10,625 families participated. The latest data, collected when the cohort was aged 23, will be available in early 2026. Over the cohort members' lives, a wide range of information has been gathered on their health, physical, educational and social development, and socioeconomic circumstances among other factors. Further details on MCS are available here. MCS has established data sharing processes, with all anonymised datasets and corresponding documentation being available to download through the UK Data Service (see here). We have used information from all available datasets.

COVID-19 Surveys

During the coronavirus pandemic, a series of surveys were carried out to find out about the experiences of the participants in five national longitudinal cohort studies (Brown, et al., 2020). The aim was to understand the economic, social and health impacts of the COVID-19 crisis, the extent to which the pandemic is widening or narrowing inequalities, and the lifelong factors which shape vulnerability and resilience to its effects. A first online survey took place in May 2020, the second survey in September – October 2020 and the third survey in February – March 2021. Here we concentrate on information collected in the third survey, when MCS study members were age 20. Further details on the COVID-19 surveys are available here.

Multiple Imputation

As in all longitudinal studies, the MCS has experienced attrition over time, which affected the two main analytic samples of this study. The first sample comprised the mothers of the study members who provided information on their own OHC experience (n=18,810). The second sample were the MCS study members who provided information on their own OHC experience when interviewed at age 17 in 2017 (n=10,199). The response rate in 2017 among families with maternal OHC experience was 47%, compared to 55% of other families. Given the potential for biases arising due to differential sample attrition among those with OHC experience in their family, we used Multiple Imputation (MI) to address attrition and item non-response and restore sample representativeness. We used a chained equations approach (White, Royston & Wood, 2011) under the assumption of 'missing at random' (MAR). To maximise the plausibility of the MAR assumption we included the most important predictors of missing data in our models (e.g., disadvantaged socioeconomic background in childhood, poor mental health and lower cognitive ability in early life) to further reduce bias and retain power (see Silverwood et al., 2021; Mostafa et al., 2021; Mostafa & Wiggins, 2015). The central aim of MI is to provide accurate estimates of the experiences of (or 'bring back') the families and individuals with these disadvantaging characteristics who are most likely to drop out of the survey. All reported analyses are averaged across 25 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 0.25 (Little & Rubin, 2014).

Measures of OHC experience

Maternal OHC Experience: information on the study member mother's OHC experience. This 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?**' Mothers who had spent time in a children's home or with foster carers, run by either a local authority or voluntary society, were identified as having been in out-of-home care. Focusing on biological mothers who provided information on OHC and their ethnicity (n=18,810):

- 98.4% of mothers had no OHC experience (n=18,505)
- 1.6% of mother had OHC experience (n=305)

OHC Experience of the study member: at each sweep of MCS data collection between 2000/2 – 2018/9 (age 9 months – 17 years), we know whether the study member had been living with a foster parent. In the age 17 survey, study members were asked about their experience of OHC for the first time with the question '**Can I just check, have you lived in any of the places on this card away from your parents?**'[2] Study members who reported that they had spent time in a children's home or with foster carers, run by either a local authority or voluntary society, were coded as having OHC experience.

Study members who had spent time living with relatives were coded as having experienced 'kinship care'[3]. Of the 10,625 families who took part at age 17, n=10,199 study members provided information on their own OHC experience. We thus know if they had ever lived with a foster parent or in a residential home, or in kinship care:

- 98.5% of study members reported no OHC experience (n=10,028)
- 0.5% of study members had OHC experience (foster or residential care)[4] (n=56)
- 1.0% of study members had experienced 'kinship care' (n=155)

In our previous report we have detailed the characteristics of mothers and study members by maternal OHC experience, and the socio-economic and demographic disadvantages experienced by mothers (and their children) with OHC experience were very evident. Here we also focus on their children's own experience of OHC. Table 1.1 details the socio-demographic characteristics by study members' own OHC experience. The findings suggest that teenagers with kinship care experience were more likely male, and teenagers with any form of OHC experience were less likely to have gained 5+ grade 4-9 GCSEs (or equivalent) – particularly those with residential or foster care experience. In terms of family socio-economic background, teenagers with OHC experience were far more likely than those with no OHC experience to have been part of a workless household, to have lived in rented housing in a deprived area and to be less likely to have a mother with NVQ2 or higher qualifications. Again, differences were most pronounced for those with residential or foster care experience.

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[2] 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.

[3] Kinship care refers to the situation where a child is raised by a relative, friend, or other connected person who is not their birth parent. It's a common arrangement where parents are unable to care for their child, whether for temporary or long-term reasons, such as because the parent has died, is unwell, has gone to prison, is experiencing problems with drugs and alcohol, or are neglectful or abusive. This can involve various family members like grandparents, aunts, uncles, brothers or sisters, a stepparent, stepbrother or stepsister, or someone who isn't related but knows the child well.

[4] This was overwhelmingly foster care, with only n=9 reporting time spent time in a residential care home.

Table 1.1: Teenager's individual and family background characteristics by OHC experience

	No OHC	Foster/Resid	Kinship Care
Individual Characteristics	Percent	Percent	Percent
Female	51%	54%	*41%*
Ethnic minority	13%	9%	14%
Age (mean)	17.2	17.4	17.2
Gained 5+ grade 4-9 GCSEs (or equivalent)	65%	**27%**	**41%**
Family SES (in the early years)			
Workless household	13%	**68%**	**37%**
Mother NVQ2 or higher qualifications	82%	**42%**	71%
English +/or only Other Language spoken	10%	8%	6%
Rented housing	30%	**71%**	**65%**
Bottom two deciles of area deprivation	21%	**49%**	**39%**
N(100%) =	10,028	56	155

Note: **Bold** = differences significant p<.05 [95% CIs do not overlap] from No OHC group. *Italic* = differences significant p<.10 [90% CIs do not overlap] from No OHC group.

In the following chapters we summarise the findings from the three research outputs and then provide some concluding remarks.

Chapter 2:
Patterns of cross-domain symptom development among children of mothers with OHC experience

Background

There is a dearth of studies following the lives of the children of mothers with OHC experience over time – except for some evidence of emotional and behavioural problems in young children (Fitzsimons et al., 2024) and adolescents (Parsons et al., 2022). To fill the evidence gap, this study asked if maternal OHC experience is a distinct risk factor for their children's mental health development between age 3-17.

We examined the co-development of key behavioural and emotional mental health problems, including attention-deficit-hyperactivity disorder (ADHD), externalising problems such as conduct disorder and internalising problems such as anxiety, depression and peer problems (Danielson et al., 2021; Achenbach et al., 2016), comparing children of mothers with OHC experience and children in the general population. Gaining a better understanding of possible intergenerational continuity in adjustment problems and their development over time can provide guidance for screening, identification and intervention.

Recognising the high co-occurrence rates of mental health problems (Kotov et al., 2021; Caspi et al., 2020) we adopted a person-centred approach to examine heterogeneous typologies of cross-domain symptom development during early childhood to mid adolescence. We used a developmental focus since previous research has shown that emotional and behavioural problems start at a young age (Katsantonis & Symonds, 2023; Girard, 2021; Fanti & Henrich, 2010) and assessed temporal co-occurrence and variations in developmental patterns over the course of childhood and adolescence. Based on previous studies using population-based longitudinal samples, we expected to find groups of children who score high or low on both behavioural and emotional problems, and those who score high in behavioural and low in emotional problems or vice versa (Morales et al., 2024; Black et al., 2023; Katsantonis & Symonds, 2023; Speyer et al., 2022; Girard, 2021; Patalay et al., 2021; Fanti & Henrich, 2010). Moreover, we examined different childhood antecedents for child psychopathology, including common risk factors such as socio-economic deprivation, living conditions, parent-child interactions and dysregulation, in addition and above the role of maternal OHC. This information, if better understood at the population level, will have implications for screening, identification, and intervention.

Analytic strategy

Internalising and externalising symptoms

Emotional and behavioural problems among the children of mothers with OHC are assessed by the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997; Goodman, 2001), reported by the parent or guardian. Four five item scales (see Appendix Table A1) assessed emotional problems (e.g., often seems worried), peer problems (e.g., tends to play alone), conduct problems (e.g., often has temper tantrums) and hyperactivity (e.g., easily distracted). Each item is rated on a 3-point scale ('not true' (0), ‘somewhat true’ (1) or ‘certainly true’ (2)). Items in each scale are summed to create an overall scale score ranging from 0 to 10, with a higher score indicating greater difficulties. All scales were standardised to have a mean of 0 and a standard deviation of 1. Emotional with peer problems are combined to represent ‘internalising’ symptoms and conduct with hyperactivity problems to represent ‘externalising’ symptoms (Goodman, Lamping & Ploubidis, 2010).

Identifying typologies

We used latent profile transition analysis (LPTA) (Bauer, 2021) in Mplus8 (Muthen & Muthen, 2007) to identify typologies of internalising and externalising symptom development for the full sample (n=18810). LPTA enables the assessment of sample-level changes in distinct profiles over time and creates typologies and profiles to provide better-informed community-based policies and practice. Models with 2 to 8 profiles were estimated to identify the model with the best fit to the data and optimum number of profiles[5]. After careful inspection of the results for the different models, we opted for the 5-group model (see Appendix Table A2).

Predictors of identified groups

We examined the predictors of identified typologies in two ways. We first showed the associations between the individual predictors[6] and a) the identified groups and b) by mother OHC descriptively. We included a broad range of risk factors, grouping them under five headings: socio-economic status factors, living conditions, maternal health and wellbeing, parent-child interactions and child characteristics (for details see Appendix Table A3). We then carried out a series of seven multinominal logistic regression models and report the relative risk ratios (RRR)[7]. We first entered mother OHC (Model 1) and then added the measures in each of the five groups of risk factors separately (Model 2 to 6), before entering all risk factors in a final model (Model 7)[8].

Results

We identified five typologies (groups),

- Group 1: consistently very low internalising and externalising behaviour problems (33%)
- Group 2: consistently low internalising and externalising behaviour scores (40%)
- Group 3: high internalising and moderate externalising behaviour scores (10%)
- Group 4: moderate internalising and high externalising behaviour scores (12%)
- Group 5: high internalising and high externalising behaviour scores that increase over time (5%)

As Group 1 and Group 2 were very similar to each other (in terms of mean SDQ scores and risk factor characteristics), they were combined for further analysis into a ‘normative group’ of typically developing children with persistently low levels of both internalising and externalising problems. Figure 2.1 shows the age-standardised mean for the sample in each of the four groups.

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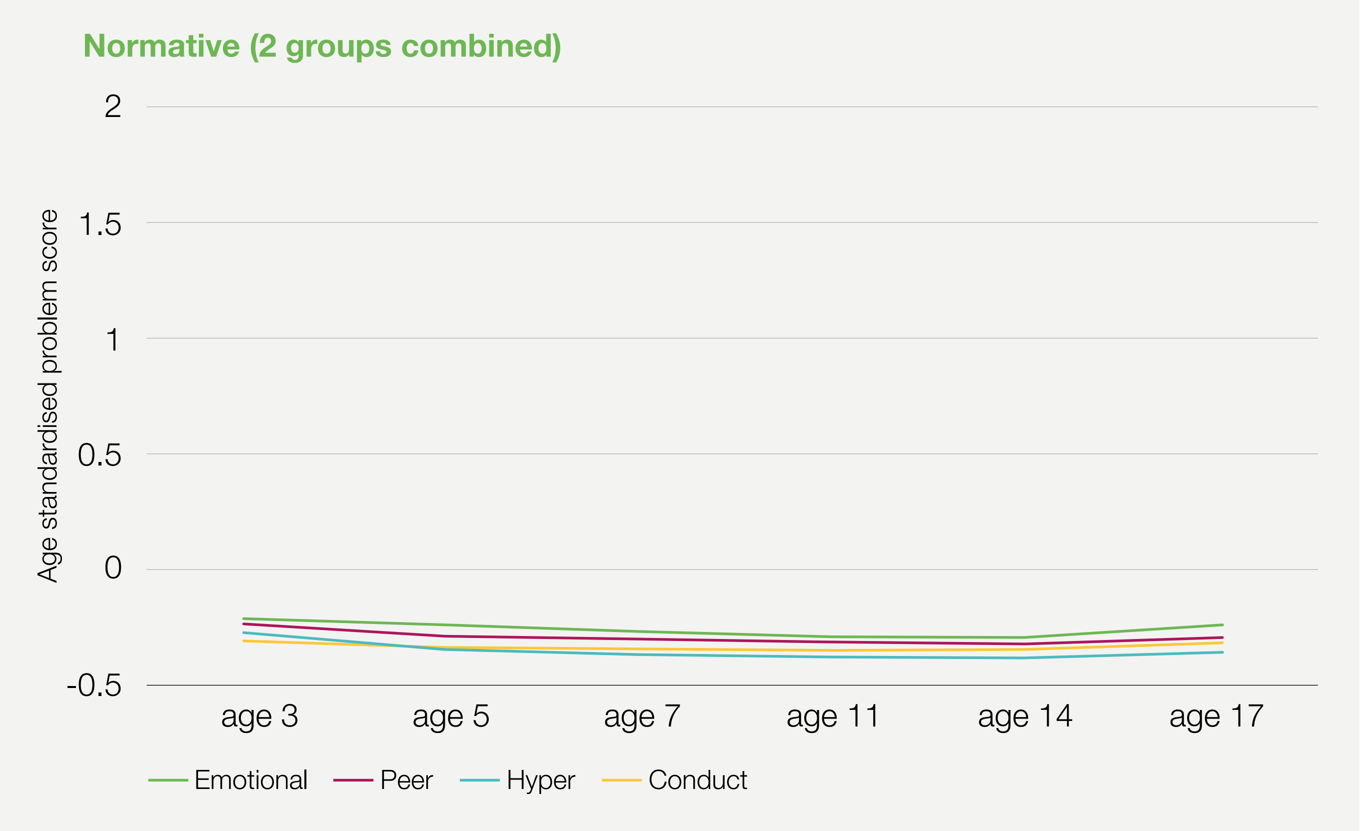
[5] Criteria used to assess model fit include the log-likelihood value (LL) and the sample-adjusted Bayesian Information Criterion (s-BIC). For the first index (the LL), the higher the value the better the solution, whilst the opposite is true for the s-BIC. The other result to consider is the Entropy measure, which is an indicator of the quality of the classification with values above .800 being desirable (Muthen & Muthen, 2007) . Finally, search for the optimal solution is guided by the adjusted Lo-Mendel-Rubin likelihood ratio test (Adjusted LRT) and its p-value, which compare the appropriateness of the last estimated model with k groups with the previous one with k-1 groups (Finch & Bronk, 2011; Nylund-Gibson et al., 2007).

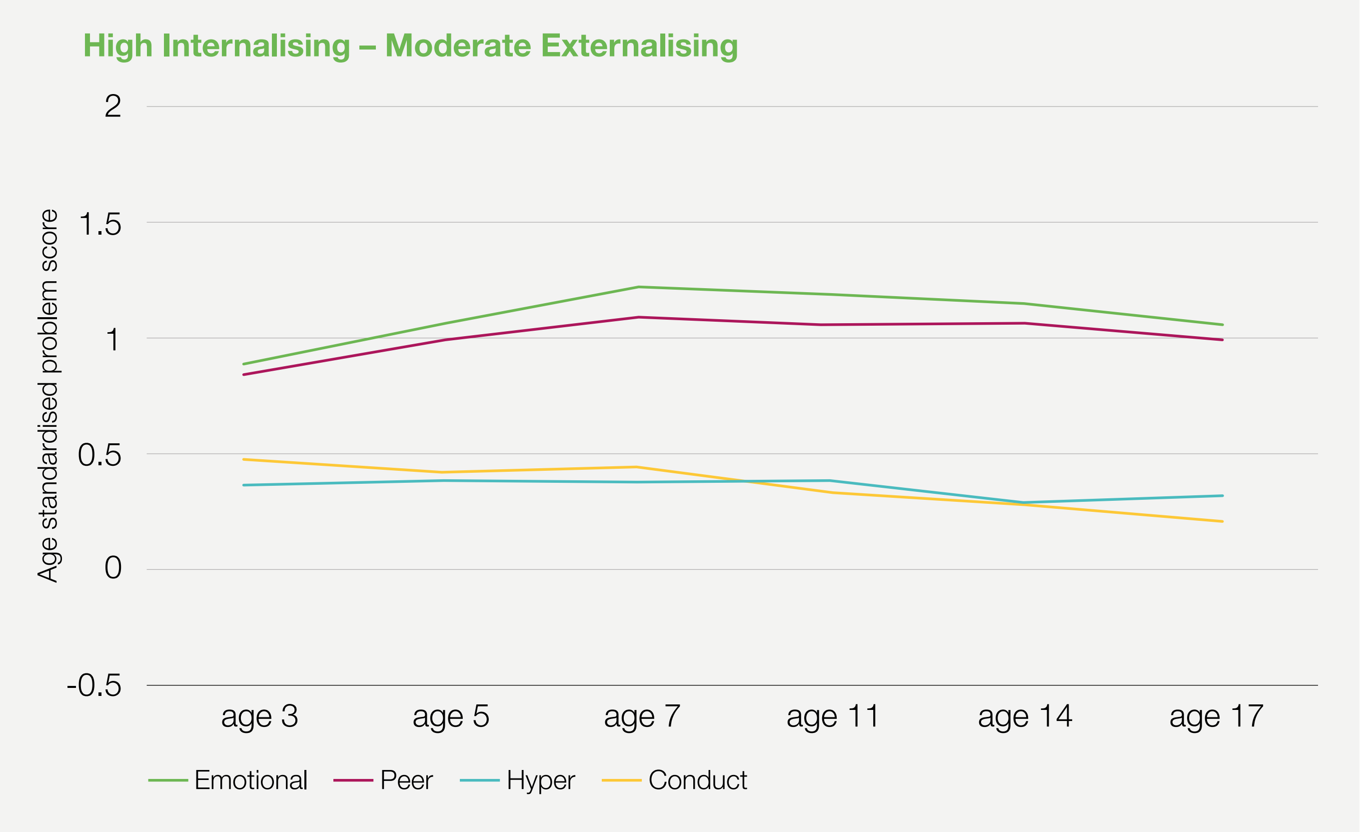
[6] All antecedents were gathered at wave 1 or wave 2 when the children were aged 9 months or three years respectively.

[7] Multinomial Logistic Regression (Mlogit) is a statistical model used for analysing outcomes with multiple, non-ordered choices, while the RRR (Relative Risk Ratio) expresses how the risk of an outcome in a specific category changed relative to a reference group for a one-unit change in a predictor variable. The RRR in Mlogit is interpreted similarly to an odds ratio in binary logistic regression models, but specifically as the odds of being in the compared category versus the reference category.

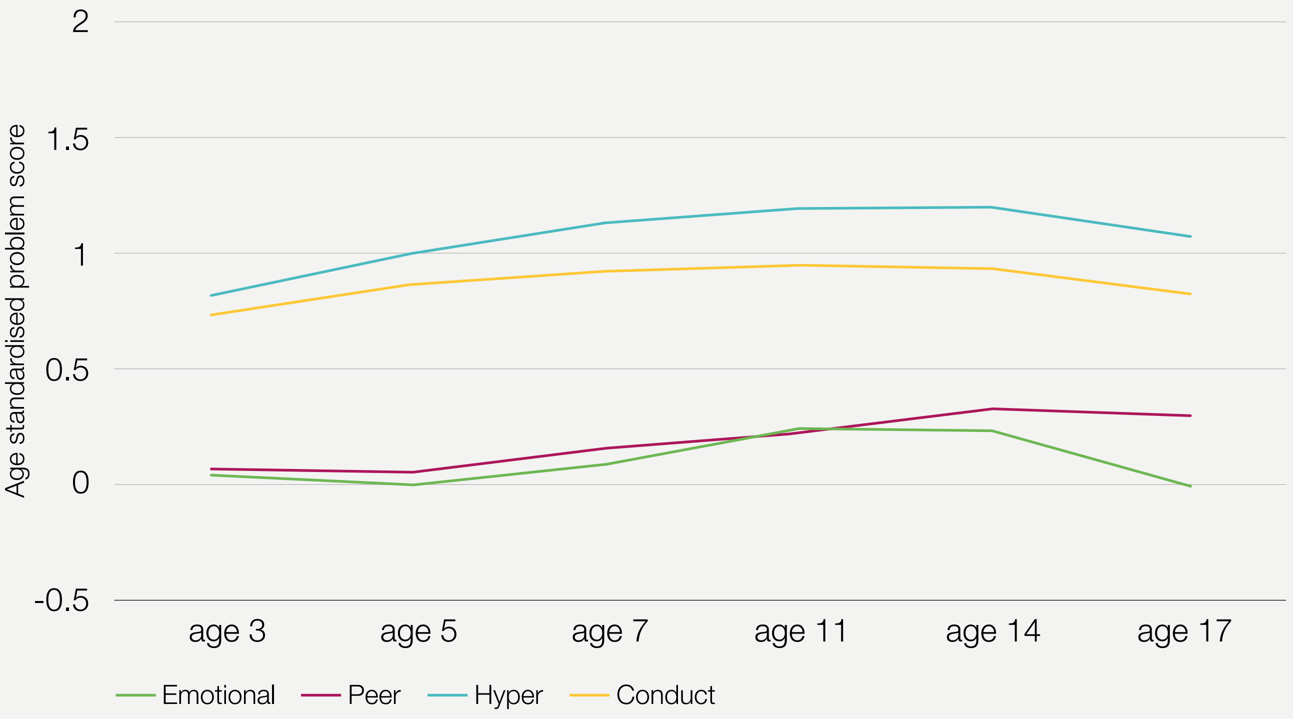
[8] Survey design features (strata, clusters, and weighting) were additionally incorporated in all stages of data preparation and analysis (Plewis et al., 2007).

Figure 2.1: Mean symptom and age standardised problem behaviours at 3, 5, 7, 11, 14 and 17 years of age in the identified groups





Moderate Internalising – High Externalising



High Internalising – High Externalising

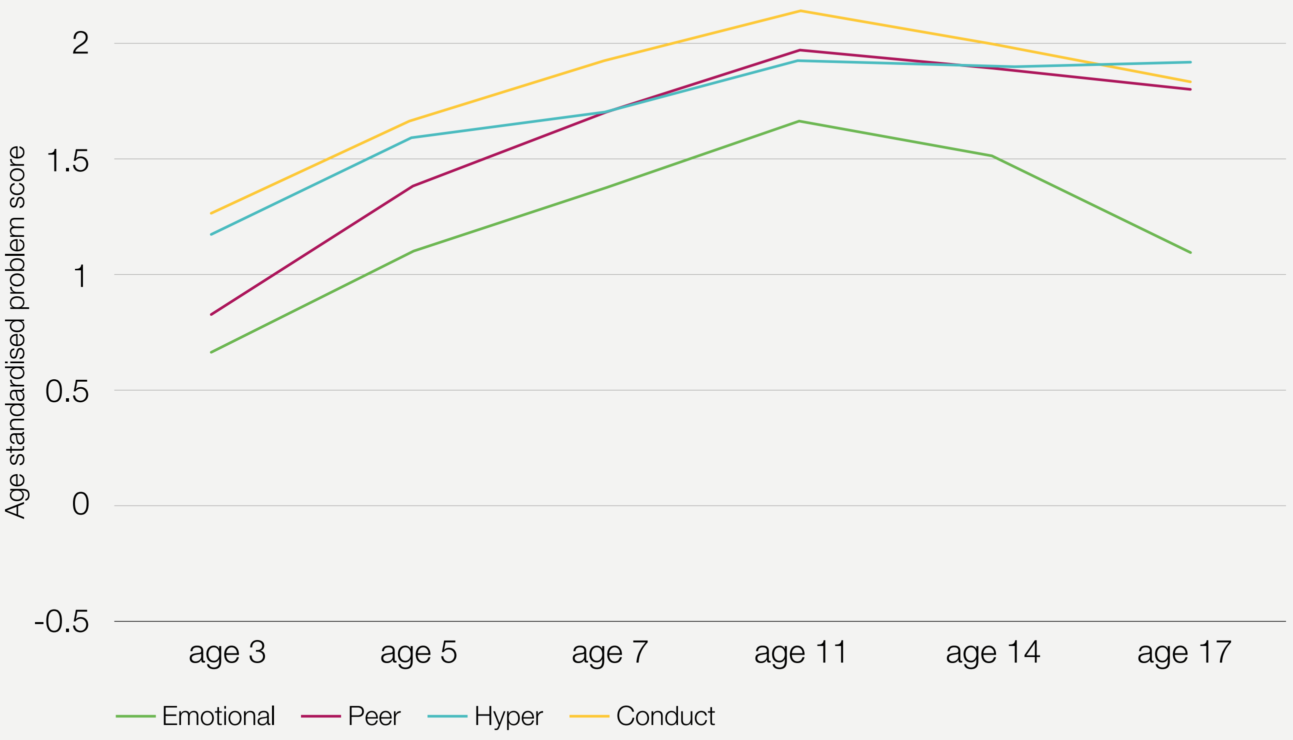
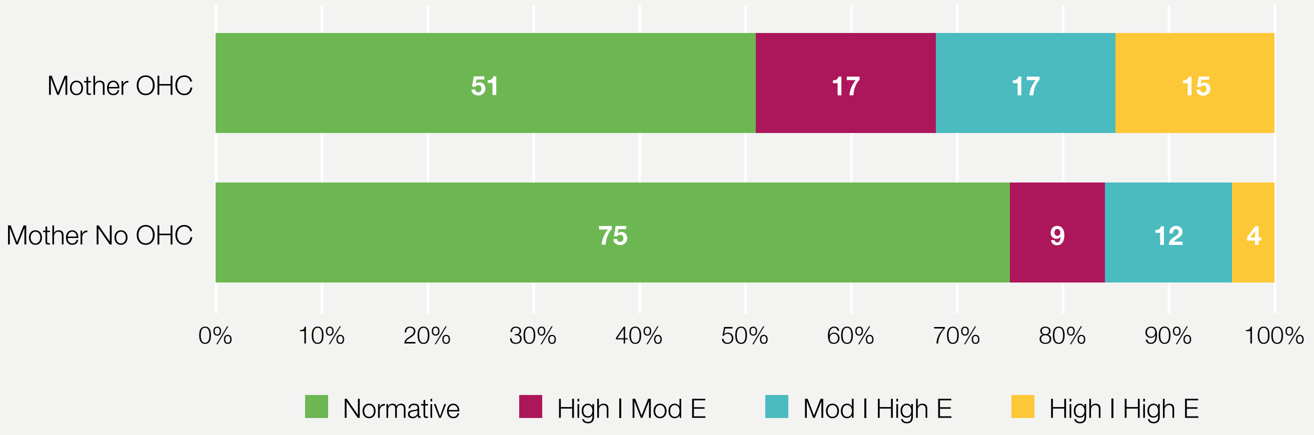


Figure 2.2 Percentage study members in each behaviour group by Mother's OHC status



Note: I = Internalising; E = Externalising.

Predictors of identified groups

Figure 2.2 shows that children of mothers with OHC experience were more likely classified in the three problem behaviour groups and less likely in the normative group. 1 in 2 (49%) are placed in a problem behaviour group compared to 1 in 4 (25%) children of mothers with no OHC experience, and they are nearly four times as likely to have both high internalising and externalising behaviour problems (15% to 4%). However, it is of note that half of the children of mothers with OHC experience did not show raised behavioural and emotional problems – compared to 75% of children of mothers with no OHC experience.

Table 2.1 provides information on the most prominent risk factors, with full details provided in the appendix (See Appendix Table A4). Across all three problem groups, risk factors were more prevalent than in the normative group, with the greatest disadvantages observed in children exhibiting high internalising and externalising problems. Girls were less likely to be in either of the groups characterized by high levels of externalising behaviour.

Table 2.1: Risk factors across the normative and three problem behaviour groups

	Normative	Mod I High E	High I Mod E	High I & E
	Percent	Percent	Percent	Percent
Maternal OHC experience	1%	**2%**	**3%**	**5%**
Other etiological risks				
Single parent	12%	**24%**	**23%**	**31%**
No/nvq1 quals	9%	**22%**	**24%**	**27%**
Workless household [paid]	13%	**31%**	**33%**	**42%**
Rented home	31%	**55%**	**57%**	**71%**
Reports poor/fair general health	13%	**24%**	**31%**	**39%**
High Malaise score (4+)	10%	**22%**	**29%**	**35%**
Parenting comp: trouble/average	38%	**56%**	**53%**	**67%**
Child never/some reg mealtime	7%	**14%**	**17%**	**21%**
N(100%)=	13,828	2,281	1,814	887

Note: I = Internalising; E = Externalising. **Bold** = differences significant p<.05 [95% CIs do not overlap] from Normative group.

Multinomial Logistic Regression

Risk of mother OHC experience

To assess if maternal OHC experience a distinct risk factor shaping their children's behavioural and emotional adjustment, in addition and above other common etiological risk factors we ran a stepwise multinomial logistic regression. We grouped the etiological risks under five headings: socio-economic status factors, housing conditions, maternal health and wellbeing, parent-child interactions and child characteristics. We first tested an unadjusted model (M1) using only maternal OHC experience as predictor. The subsequent models iteratively added and removed distinct risk groups. In Model 2 indicators of socio-economic status (M2), Model 3 housing conditions (M3), Model 4 maternal health and wellbeing (M4), Model 5 parent-child interactions (M5) and Model 6 the child own characteristics (M6). Model 7 includes all risk factors together (fully adjusted M7)[9]. The stepwise modelling strategy enables us to account for the complexity and multiple challenges that children and adolescents experience across different domains. Comparing the estimates of the unadjusted model 1 to the other adjusted models, allows us to assess if maternal OHC experience remains a significant risk factor once the other potential risks are taken into account. Not doing so could lead to erroneously concluding that it is maternal OHC that is responsible for the anxiety and behaviour problems of their children (Model 1). However, as can be seen from Figure 2.3, the role of maternal OHC experience on child behaviour is superseded once other, more significant drivers of behaviour problems are included.

Figure 2.3 shows the relative risk ratio (RRR) for mother OHC and her child's membership in the three problem groups compared to the normative group in each of the seven models. In the unadjusted model (Model 1), having a mother with OHC is a significant risk factor for all three problem groups, with the highest relative risk (RRR 4.82) observed for children exhibiting high internalising / externalising problems. For children with high internalising and either moderate or high externalising behaviour problems, this significant association with mother OHC remains significant until the final model when all other risk factors are included (Model 7). For children with high externalising and moderate internalising behaviour problems, the significant link to maternal OHC disappears when socio-economic factors (Model 2), housing conditions (Model 3), or maternal health and wellbeing (Model 4) are considered.

Other risk factors

Concentrating on Model 7 where all risk factors are included, a number of risks significantly predicted all three problem trajectories. These risks include low maternal qualifications, rented housing, maternal health (general health, malaise, depression/anxiety), low parenting competence, low quality of the parent-child relationship and no regular mealtimes. In addition, low birth weight and low language skills of the child were general risk factors.

The two profiles characterised by high internalising problems are uniquely associated with growing up in a workless household. The two profiles characterised by high externalising problems are associated with maternal smoking behaviour (being a current smoker and smoking during pregnancy) and the child being a boy. Poverty and having nowhere for the child to play safely was associated with profiles suggesting high internalising and moderate externalising as well as moderate internalising and high externalising behaviour. Moderate internalising and high externalising behaviours were also associated with living in an overcrowded home and not being breastfed. High internalising and moderate externalising behaviours were associated with not having regular bedtimes. The full results for Model 7 are included in the Appendix (see Appendix Table A5).

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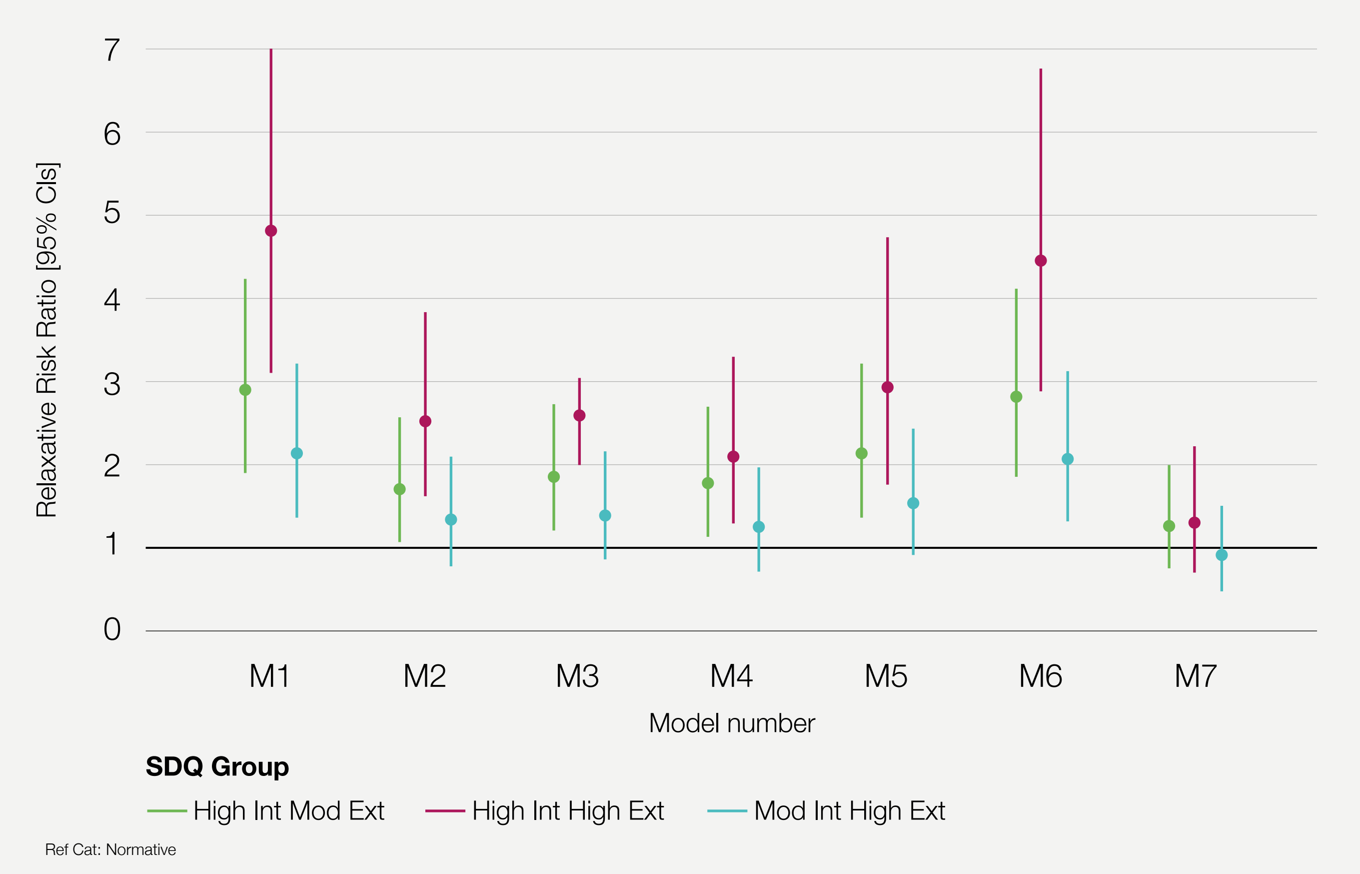
[9] Survey design features (strata, clusters, and weighting) were additionally incorporated in all stages of data preparation and analysis (Plewis et al., 2007).

Figure 2.3: Relative Risk Ratios (95% CIs) for problem behaviour group membership by Mother OHC experience



Pen portraits: Maternal OHC experience and internalising and externalising behaviour in their sons

Here we have seen that children of mothers with OHC experience had a 1 in 2 chance of having internalising and/or externalising behaviour problems, compared to 1 in 4 among their peers. We also showed that once family socio-economic and maternal health inequalities were accounted for, the heightened risk diminished to a non-significant level. Here we look at the lives of **Josh** and **Arran** to get a better and more holistic understanding of varying experiences of children of mothers with OHC experience during their childhood and adolescence years. We do not know the reasons why their mothers had been in care, but both had spent between 2 and 5 years in OHC during their childhood.

High behavioural problems but doing ok otherwise

Josh was a planned pregnancy. His mum Kelly was 23, married and living with her partner Dan and Josh's two older siblings when he was born. The family lived in a rented, crowded and damp home in a deprived area throughout Josh's childhood. They did not have a garden, and Kelly was dissatisfied with both the area and her home, particularly as there was nowhere for her children to play safely. Neither Kelly nor Dan ever worked, and they found it difficult to manage financially.

Maternal characteristics and parenting

Kelly had gained GCSE or equivalent qualifications and had no problems with the basic skills of literacy and numeracy. She saw her own mum every few months, but not her father. Kelly was in poor general health and reported that she had been diagnosed with depression by a doctor in the past, but not currently. However, she was experiencing a high number of symptoms associated with depression during Josh's early years. Kelly did not drink alcohol, smoked regularly and occasionally had recreational drugs. She was not satisfied with how her life had turned out and she was not confident in her parenting competence, feeling that their home was disorganised, that at times she couldn't hear herself think and it was not a calm environment. However, Josh had regular mealtimes and usually regular bedtimes. Kelly and Josh had a good relationship with each other and did not report raised conflict or low closeness levels. Kelly provided Josh with a standard home-learning environment[10].

Developmental Outcomes

Josh had slightly lower than average cognitive skills at age 3, and this continued into his adolescence. Although Josh displayed high internalising and externalising behaviour problems throughout, he also had high levels of social skills from an early age. In his later teenage years, Josh was doing okay. He was satisfied with himself and felt he was a person of value. Although Josh did not get the gold standard of 5 or more Grade 4-9 (A*-C) in public examinations at the end of Year 11, he remained in education at 17 and was reasonably confident that he would go on to university, although in his earlier years Josh wanted to work in construction. Josh had not yet had a girl- or boyfriend, had dappled with cannabis and ketamine use in the past and had contact with the police, although not of a serious nature. Although Kelly felt she and Josh were extremely close, they never talked about things that were important, and she did not feel very involved in his life. Both Kelly and Josh agreed that when he went out Kelly never knew where he was going or who he was with.

Low behavioural problems

Arron was a surprise pregnancy to single mum Debbie. Debbie was 30 when she had Arron and already had a child. By the time Arron was three, she was cohabiting, although she was once again living as a single parent when Arron was 11. In his early years, Arron lived in a workless household, but Debbie felt they were doing okay financially.

Maternal characteristics and parenting

Debbie was in paid employment when she returned to living as a single parent. The family rented their home which had a garden, and it was neither crowded nor suffered from damp. Debbie was satisfied with her home and the area it was in. Debbie was in good health and had no experience of depression or anxiety. She smoked cigarettes but had never taken drugs or drank alcohol. Debbie did not have support from her wider family, as both of her parents were dead. Debbie felt she had average parenting skills. Arron had regular bed- and mealtimes when he was young and Debbie had lots of household rules that she strictly imposed. She ran an organised, calm home and had a good locus of control. She and Arron had a close relationship with very low levels of conflict between them. However, the overall home learning environment provided for Arron was relatively poor.

Developmental outcomes

Arron had good cognitive skills when he was three. Arron had no internalising or externalising behaviour problems and was skilled socially throughout his childhood and adolescence. Looking further ahead into his later adolescence, Arron was generally satisfied with who he was and felt good about himself. He was in good health, had never smoked or taken drugs, and had no history of self-harming. He had however had problems with the police and had been formally cautioned. Arron had a girlfriend. When he went out, he usually told his mum where he was going but not with whom. Debbie agreed with this and felt they talked about important things and that they were close. Like Josh, Arron also did not get the five or more good grade GCSEs but was in education at age 17. From an early age he aspired to be an engineer, but by 17 he wanted to be a fitness instructor or to work in a gym. Going forward, by age 30 Arron wanted to have a worthwhile job, own his home, have a car, and be living with his partner and child.

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[10] The home learning environment is a composite scale of the regularity a range of activities are carried out with the study member at age 3, covering being taught letters and numbers, singing songs and nursery rhymes, being taken to the library, etc. For further details see de la Rochebrochard (2012).

Summary remarks: Problem behaviour in childhood does not necessarily lead to poor post-16 outcomes

Both mothers, Kelly and Debbie, had spent a similar amount of time in OHC. However, Kelly was in a stable relationship with Dan while Debbie was a single parent who entered a new relationship which did however not last. Kelly experienced poor health and depression, had little confidence in her parenting skills and was bringing Josh up in a home she wasn't very satisfied with. In contrast, Debbie was in good health, lived in a home with a garden, was a working single parent and felt that she has ok parenting skills. Both mothers gave their sons regular structure regarding bed and mealtimes. Possibly Kelly's experience of poor mental health and low satisfaction with how her life had turned out influenced the development of Josh's behaviour problems while Arron was ok. However, if we consider both Josh's and Arron's post-16 outcomes, it appears that behavioural problems are not inextricably linked to poor post-16 outcomes across the board. Both Josh and Arron did not do great in their GCSEs, and despite some use of drugs and or contact with the police, both remained in education at 17 and held aspirations for their future. Maybe a critical factor for their relative positive development is the good level of social skills that the boys commanded.

Concluding remarks: The impact of maternal OHC experience on their children's socio-emotional development is fully mediated by socio-economic stressors

This study is one of the first to examine the intergenerational transmission of adjustment problems associated with OHC into the second generation. Children of mothers with OHC experience report more socio-emotional and behavioural difficulties than those whose mother had no OHC experience. However, it is not maternal OHC per se, but the associated psychosocial risk factors that play a critical role in mediating that risk. The observed disadvantages stem largely from structural inequalities, such as maternal education, housing conditions, maternal health and well-being. Targeted interventions aimed at improving socio-economic conditions, housing, maternal health and wellbeing may be particularly effective in reducing the risk of maladjustment in children and improving child well-being – both among children with maternal OHC experience and others. Given the strategies in place to support families with OHC experience across the generations have largely proven inadequate, a radical rethinking is required to better support the needs of these families and to help prevent adjustment problems in future generations.

Chapter 3:

Challenges at age 17 faced by study members with OHC experience

Background

In England there are currently around 83,630 children in local authority care, representing 0.7% of the total child population (Department for Education, 2024), and it is well documented that care-experience is associated with more problematic post-16 transitions and poorer adult outcomes. Individuals with OHC experience tend to have a high risk of exposure to adverse psychosocial circumstances across their life course, i.e., risks encountered in their family of origin and their own experiences (Parsons & Schoon, 2021; Sacker, Lacey, Maughan, & Murray, 2022), together with enduring stigma and low expectations held by both educators and social care professionals (Mannay et al., 2017; Roberts, 2021). In this initial examination of post-16 outcomes for a recent generation of teenagers with OHC experience we assess if this story continues for current cohorts, using data collected for the Millennium cohort.

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. The recent independent review of children's social care (MacAlister, 2022) and the 'Stable Homes, Built on Love' strategy of the previous Government (DfE, 2023) promised to help transform the experiences and outcomes of children and families with care experience. Josh MacAlister's recent appointment as Parliamentary Under-Secretary (Department for Education) with responsibilities (including others) for children in care, foster-care, kinship care and care-leavers adds further hope that this renewed commitment to ensuring children in care have placement stability, which is key for positive outcomes, will this time be followed through.

Although there are several interventions and agencies[11] whose aim is to improve the early transitions and life chances of those with care-experience, today's children who are looked after (CLA) continue to achieve lower grades in public examinations at age 16 (DfE, 2025; HCEC, 2022), and are more likely to have been refused admission to 'good' or 'outstanding' Ofsted rated schools (HCEC, 2022). In 2024 among children currently in social care, just 4.4% of children looked after (CLA) for less than 12 months and 9.0% of CLA for 12+ months achieved the grade 5 'good pass' threshold in English and mathematics GCSEs, compared to 45.9% of all other children (DfE, 2025). This finding might indicate that shorter OHC placements might be more disruptive than longer periods of OHC, particularly in the run up to an assessment or examination at school[12].

Regarding higher education, only 13% of care-leavers progressed to higher education by age 19 in 2019/20, compared to 43% of all other pupils (DfE, 2022), although many care-leavers do go on to university at later ages (Harrison, 2020). Additionally, children in care and care-experienced young adults are consistently over-represented in the criminal justice system (Berman & Dar, 2013; Kennedy, 2013; Crawford et al., 2018; Yoon et al., 2018), are vulnerable to exploitation (Hallett,

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[11] For example: pause.org.uk, becomecharty.org.uk, careleaversfoundation.org, careleavers.com

[12] This could be an indication that a short-term placement is more unsettling than a longer placement. A child needs time to both get used to their new living arrangement and to start to recover from the (often) traumatic circumstances that first let to the care placement.

2016) and have a higher incidence of substance misuse, physical, behavioural and mental health problems (Tarren-Sweeney & Vetere, 2013; DfE, 2019). Research also shows 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).

The current research explores the hopes and aspirations for the future among teenagers with OHC experience as well as a range of other outcomes, including education, employment, physical and mental health, risky-behaviours and crime outcomes, to help inform strategies to assist agencies working with adolescents and adults with care experience who might be struggling across multiple domains. We compare those with OHC experience divided into a) those who have spent time in foster care or a residential care home, and b) those with kinship care experience, against the majority of teenagers with no OHC experience. We aim to further understanding of the key challenges the teenagers with OHC experience continue to face, and thereby we address some of the key areas of concern identified in the 2013 Care Leavers Strategy (HM Government, 2013), the ‘Putting Children First’ and ‘Keep on Caring’ initiatives which remain at the heart of current policy (DfE, 2016, HM Government, 2016). Given the disadvantages children with OHC experience continue to experience, we are hopeful that new initiatives following the MacAlister review (2022) such as the ‘Stable Homes, Built on Love’ will indeed put the needs of these very vulnerable children first and centre stage in a meaningful way that will bring long overdue parity in their outcomes.

Analytic strategy

In these analyses we employ descriptive statistics (percentages and means) to show the bivariate associations between a study member’s OHC experience – foster/residential care or kinship care – and their hopes and aspiration for the future, together with a range of outcomes at age 17 across different domains. Specifically, we profile the **education and occupation aspirations of the young people** (how likely they think it is that they will go to university, what kind of job do they aspire to and what they want to achieve by age 30), the **post-16 education transitions** (being in education, employment or training (EET)), their **physical health and mental health problems** (e.g., general health, longstanding illnesses, mental health and wellbeing), **health behaviours** (e.g., smoking, use of alcohol and recreational drugs), **sexual activity** (e.g., had sex, had unprotected sex, been/made someone pregnant), **misconduct and experience of crime** (being a victim of misconduct/crime, contact with the police). We highlight significant differences between OHC and no OHC groups but note that the (relatively) small number of teenagers with residential or foster care experience (n=56) restrict differences gaining statistical significance, even when differences are wider than between those with no OHC and kinship care experience (n=155).

Results

Post-16 occupation aspirations, education transitions, and higher education participation

Table 3.1 shows the association between OHC experience and the hopes and expectations of teenagers. Teenagers with OHC experience have similar expectations of what they will achieve by age 30, with the exception that those with OHC experience had lower expectations of having a worthwhile job – particularly those with kinship care experience – and that more of those with foster/residential care experience wanted to be famous or to have achieved in sport, art or travel. However, the findings also suggest that in comparison to their peers, teenagers with OHC experience – and especially those with kinship care experience – have lower expectations of going to university, or to aspire to a professional or managerial occupation. Confirming previous evidence (see Table 1.1) far fewer teenagers with OHC experience – foster/residential care or kinship care – had achieved 5+ grade 4-9 GCSEs (or equivalent). Here we also see that compared to those without OHC experience, teenagers with OHC experience were less likely to be in education or training, or education, employment or training (EET) when interviewed at age 17 – especially those with foster/residential care experience.

Table 3.1: Teenage university and occupation aspirations; expectation of achievements by age 30 by their OHC experience

	No OHC	Foster/Resid	Kinship Care
Career Aspirations	Percent	Percent	Percent
How likely go to university: 0-100% [mean]	58%	44%	**38%**
Want to have a prof/man job	42%	27%	29%
Expectations for the future: **What they hope to have achieved by age 30**			
Own home	74%	76%	74%
Have a good car	65%	67%	59%
Earn a lot money	45%	46%	46%
Have a worthwhile job	77%	66%	**59%**
Have children	49%	55%	60%
Have a partner or be married	76%	67%	74%
To be famous or made a name for self	12%	24%	13%
Achieved in sport, art or travel	24%	34%	21%
Post-16 transitions			
In education or training	91%	**72%**	**81%**
In employment	2%	2%	7%
N(100%)=	10,028	56	155

Bold = differences significant p<.05 [95% CIs do not overlap]; *Italic* = differences significant p<.10 [90% CIs do not overlap]

Health, behaviour and mental wellbeing

What are the health outcomes associated with own OHC experience? We consider a wide range of outcomes in this section, including established scales of mental well-being (assessed by the Shortened (7-item) Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS)), depression (assessed by the Kessler Psychological Distress (K6) scale, Kessler et al., 2003), and behaviour problems, which are detailed in the appendix (see Appendix Table A1). In terms of teenagers' health and mental wellbeing, Table 3.2 suggests that compared to their peers, far more teenagers with OHC experience have a longstanding illness (47% foster/residential care, 31% kinship care, 18% no OHC) and experience a high number (13+) of symptoms associated with psychological distress (39% foster/residential care, 29% kinship care, 16% no OHC), or to have been told by a doctor that they have depression (19% kinship care, 10% no OHC). They are also twice as likely to have self-harmed in the year prior to interview – 1 in 2 (56% foster/residential care, 45% kinship care) compared to 1 in 4 (24% no OHC) – and three times more likely to have ever attempted suicide: 26% foster/residential care, 21% kinship care, 7% no OHC. More of those with kinship care experience have (externalising) conduct or hyperactivity and (internalising) peer behaviour problems as assessed by the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997, 2001).

Table 3.2: Teenage mental and physical health; behaviour problems; self-harm and suicide attempt by their OHC experience

	No OHC	Foster/Resid	Kinship Care
	Percent	Percent	Percent
SWEMWBS scale: 7-35 [mean]	22.42	21.62	21.50
Kessler (depression) scale: 0-24 [mean]	7.26	**10.67**	**8.99**
Kessler (high levels of depression: 13+)	16%	**39%**	**29%**
Told by a doctor have depression	10%	16%	**19%**
Poor or fair general health	7%	11%	13%
Longstanding illness	18%	**47%**	**31%**
SDQ Emotional problems	14%	24%	19%
SDQ Peer problems	4%	8%	**16%**
SDQ Conduct problems	5%	11%	**16%**
SDQ Hyperactivity problems	15%	26%	**24%**
Self-harmed: scale 0-6 [mean]	0.46	1.54	0.98
Self-harmed: any	24%	**56%**	**45%**
Attempted suicide	7%	**26%**	**21%**
N(100%)=	10,028	56	155

Bold = differences significant p<.05 [95% CIs do not overlap]; *Italic* = differences significant p<.10 [90% CIs do not overlap]

Health behaviours: smoking, alcohol use and drug taking

Table 3.3 shows the direct association between indicators of the teenager's health behaviours and their OHC experience. We can see that a higher proportion of teenagers with OHC experience – both foster/residential and kinship care – have ever smoked, started smoking when they were younger than age 15, with 1 in 3 (32% foster/residential care, 31% kinship care) being a current smoker when interviewed, compared to 1 in 9 (11%) with no OHC experience. Teenagers with kinship care experience were also more likely to have vaped, though not to be a current vaper, and to have tried alcohol and to have had their first alcoholic drink before age 15. In terms of illegal drug use, higher proportions of teenagers with OHC experience had tried cannabis (57% foster/residential care, 45% kinship care, 32% no OHC), and those with kinship care experience also being more likely to have tried cocaine (16% kinship care, 6% no OHC) and psychoactive drugs (11% kinship care, 2% no OHC). It is important to note here that early cannabis use has been associated with a decline in psychological development and worsening mental health (Volkow, 2016; Cooper & Williams, 2018).

Table 3.3: teenage smoking, alcohol and drug taking by their OHC experience

	No OHC	Foster/Resid	Kinship Care
	Percent	Percent	Percent
Ever smoked	46%	**72%**	**63%**
Age first smoked: <15	16%	**39%**	**32%**
Currently smokes daily	11%	**32%**	**31%**
Ever vaped	51%	53%	**62%**
Currently vapes daily	5%	4%	10%
Ever had alcohol	84%	79%	**91%**
Age first had alcohol: <15	36%	41%	**53%**
Ever taken cannabis	32%	**57%**	**45%**
Ever taken cocaine	6%	11%	**16%**
Ever taken ecstasy	8%	11%	14%
Ever taken ketamine	4%	5%	8%
Ever taken psychoactive	2%	3%	**11%**
N(100%)=	10,028	56	155

Bold = differences significant p<.05 [95% CIs do not overlap]; *Italic* = differences significant p<.10 [90% CIs do not overlap]

Relationships and sexual activity

Table 3.4 shows the direct association between OHC experience and indicators of the teenager's sexual activity. The findings suggest that in comparison to their peers, teenagers with OHC experience – notably those with kinship care experience – were more likely to have had sex, and if they had, to have had underage sex and to have either been or made someone pregnant – 1 in 6 (16%) compared to 1 in 25 (4%) of those with no OHC experience. To have either been or made someone pregnant was highest of all for those with foster/residential care experience, although this did not gain statistical significance from the no OHC group.

Table 3.4: sexual activity and pregnancy by their OHC experience

	No OHC	Foster/Resid	Kinship Care
	Percent	Percent	Percent
Had sex	42%	52%	**64%**
Had underage sex [if had sex]	45%	*66%*	*58%*
Had unprotected sex [if had sex]	43%	31%	52%
Experienced a pregnancy [if had sex]	4%	18%	**16%**
N(100%)=	10,028	56	155

Bold = differences significant p<.05 [95% CIs do not overlap]; *Italic* = differences significant p<.10 [90% CIs do not overlap]

Experience of crime and contact with the police

Table 3.5 shows the direct association between OHC experience and indicators of the teenager's involvement in crime and contact with the police. The findings suggest that compared to their peers, teenagers with OHC experience were more likely to report being a victim of crime, with more teenagers with kinship care experience having had gossip spread about them and something of theirs stolen. Teenagers with any OHC experience were also more likely to have had someone physically attack them, and teenagers with foster/ residential care experience to have been harassed.

Teenagers with OHC experience have had more contact with the police. Compared to those with no OHC experience, twice as many teenagers with kinship care experience have been stopped and questioned (40% to 22%), and at least three times as many teenagers with any OHC experience had received a caution (30% foster/residential care, 26% kinship care, 8% no OHC), with 1 in 13 (8%) in kinship care and 1 in 17 (6%) foster/ residential care having been arrested compared to 1 in 100 (1%) of teenagers with no OHC experience.

Table 3.5: victim of misconduct or crime and police contact by their OHC experience

	No OHC	Foster/Resid	Kinship Care
	Percent	Percent	Percent
Victim of crime: mean [0-9]	1.45	*2.13*	**2.04**
Victim of crime: any	58%	69%	66%
Victim of crime: someone insulted you	39%	51%	47%
Victim of crime: spread gossip	40%	44%	*50%*
Victim of crime: been physically attacked	17%	*35%*	*32%*
Victim of crime: hit you	3%	5%	5%
Victim of crime: stolen from you	8%	19%	**19%**
Victim of crime: harassed you	15%	*30%*	18%
Victim of crime: sent pictures	7%	11%	13%
Victim of crime: unwelcome sex attention	13%	12%	16%
Victim of misconduct/crime: assaulted you	3%	5%	5%
Police contact: stopped and questioned	22%	33%	**40%**
Police contact: cautioned	8%	**30%**	**26%**
Police contact: arrested	1%	*6%*	**8%**
N(100%)=	10,028	56	155

Bold = differences significant p<.05 [95% CIs do not overlap]; *Italic* = differences significant p<.10 [90% CIs do not overlap]

Pen portraits: Diverging destinies at age 17

In this chapter the wide range of disadvantaged outcomes associated with teenagers who have spent time in OHC during their childhood or adolescence has been clear to see. We now highlight four different stories, showing how disadvantages tend to cluster together but that having care experience in a family – being either the experience of the teenager or their mother – does not lead to breakdown or failure.

Two girls with OHC experience and their psycho-social development

We first concentrate on the lives of **Jess** and **Ella**. Jess and Ella had both spent time in foster care, their mothers had no experience of OHC. We do not know when or why Jess and Ella were in care, but their placement(s) were relatively short in total – more than three months, but less than one year.

Home life, maternal characteristics and early parenting

Jess and Ella had both been a surprise pregnancy, which their mothers were not that pleased about when they found out. Both Jess and Ella had older siblings, and their families lived in rented, overcrowded homes in a deprived area, but they each had a garden. Jess lived with a single mother (Julie). Ella lived with both her parents in early childhood (Louise and David), although they later separated and Louise entered a new relationship. Both Jess and Ella were part of a workless household, receiving state benefits which resulted in the family having a low household income that their mothers Julie and Louise found difficult to manage on and neither of them could save on a regular basis.

Both Jess and Ella usually had regular meal- and bedtimes, although their mums reported the family home was disorganised and the home environment was not calm. The home-learning environment provided for both Jess and Ella was below average. The mothers reported very similar levels of closeness with their daughters Jess and Ella, although there was a higher level of conflict in the relationship between Jess and Julie than between Ella and Louise.

Ella's mum Louise reported poor health and wellbeing in Ella's early years. Louise had a longstanding limiting illness, was in poor health and symptoms of depression, which were also diagnosed by a medical doctor. Louise was not satisfied with her life and felt she had no control with how it was turning out. Jess's mum Julie on the other hand, reported good health and wellbeing and felt satisfied and in control of her life.

Another difference in their childhood was that, whereas Julie remained single and out of work throughout Jess's childhood and adolescence, Ella experienced disruption at home. Louise split from David by the time Ella was seven and married a new partner by the time Ella was 11. Ella and her mum now lived in a home they owned, and Louise returned to work. She had worked in sales before Ella was born and returned to a similar role but on a self-employed basis. Importantly, Louise was now much happier and enjoyed a close relationship with her daughter.

Development outcomes: Persisting struggles

When she was 3, **Jess** was assessed as not being 'school ready' and at age 5 remained below the expected level of achievement at the end of the foundation year of schooling. Julie read to Jess in her early years, although she did not manage it every day. Julie reported that Jess had a higher number of behaviour problems from early childhood, with emotional problems emerging in adolescence. Throughout her childhood and adolescence, Jess consistently scored below average on a range of cognitive assessments but despite seemingly to struggle academically, Jess liked going to primary school – although she said she did not always behave herself when at school – and at age 11 was looking forward to going to secondary school. Jess had lots of friends, but although she was not bullied, she always felt left out of things and worried a lot. Jess had been at the same primary school throughout, and her teacher thought she was well prepared for the move to the 'big school'. At age 14 Jess had only been to one secondary school, she was happy there and thought that her mum was interested in her education. However, her emotional struggles and potentially rebellious nature was evident, as she often truanted – although she had not been suspended from school by age 14.

Looking to her future, at age 14 Jess hoped she would own her own home by the time she was age 30 but had no aspirations of having a family of her own or a worthwhile job. However, she did want to have a lot of money. In her very early years (age 7) Jess wanted to be a police officer or a sports professional, but by age 17 she wanted to be a working in the care profession. Jess went on to perform poorly in public examinations at the end of Year 11, was not in education, employment or training at age 17 and thought it was 0% likely that she would go to university. Jess was probably ‘a bit of handful’ during her teenage years. She had smoked cigarettes and had sex before she was 15. By age 17 Jess had been pregnant, although she terminated the pregnancy. She remained a daily smoker but although she had tried drugs, she did not use them at age 17. Jess had also been the victim of a range of personal crimes [harassment, violence, sexual assault], and had been formally cautioned and arrested by the police. Jess suffered from poor health and depression, had low esteem and did not think she was a person of value. She had self-harmed in many ways and had attempted suicide.

Development outcomes: Doing alright

At age 3 **Ella** was very ready for school and by the end of her foundation year at school was performing above the expected level for a 5-year-old. Louise had read to Ella, but not daily. Louise reported that Ella had few behaviour problems over the years, although she consistently felt that Ella displayed emotional problems.

Over the years, Ella consistently scored above average on a range of cognitive assessments and liked going to primary school and was looking forward to secondary school. As for Jess, Ella had lots of friends and had been at the same primary school throughout, and her teacher thought she was very prepared for the move to secondary school. Unlike Jess, Ella was never worried and never felt she was being left out. Ella did not experience any disruption in her schooling, having only been at one primary and one secondary school by age 14. Ella was happy at school, always behaved herself, and thought that her mum was interested in her education, and they both thought she would stay at school post-16 and most likely go to university.

Ella performed very well in public examinations at the end of Year 11, remained in full-time education at age 17 and now thought it was 50-50 that she would go to university. She wanted to be a professional sportswoman, an aspiration she had held since she was first asked at age seven. When she was 14, Ella hoped that she would have her own home, a partner, a child and a car by the time she was 30. By the time Ella was 17, she had never smoked, taken any drugs, had sex, experienced any personal crime against her or had any contact with the police. Ella was in excellent health and showed no symptoms of depression, had a good opinion of her self-worth and had never self-harmed in any way.

Summary remarks: Importance of parent-child relationship

In **Jess’s** story the findings suggest that the experience of persistent socio-economic deprivation in combination with a difficult parent-child relationship (conflict) is associated with continuing behavioural adjustment problems and cognitive difficulties. It is possible, that these experiences lead to Jess showing rebellious behaviour as a response to her frustrations. **Ella’s** story, in contrast, suggests that as a young child she had to [potentially] take on early care responsibilities for her mother who had poor health and depression, or that Ella was concerned for her mother’s wellbeing. Ella experienced family disruption (instability) and a move to a different family home. Surprisingly, in the long-run, these experiences did not negatively affect Ella’s mother Louise whose health and wellbeing improved and she returned to work. Seeing her mother more content and (presumably) in a happier relationship, might also have been a positive influence for Ella. She would not be so concerned for her mother and could focus on herself and her future.

Teenagers with kinship care AND maternal OHC experience

We now highlight the experiences of **Lauren** and **Tom**. Both of their mother’s spent substantial parts of their childhood in care, with Lauren and Tom spending time living with relatives.

Getting the grades but struggling emotionally

We first turn to **Lauren**. Lauren was born when her mother Jenny was in her late twenties. Jenny had spent between 5 – 10 years in a residential care home and Lauren herself had spent part of her childhood living with relatives (kinship care), but she did not specify for how long this was for. Again, we do not know the reasons why Lauren or Jenny had been in care.

Home life, maternal characteristics and early parenting

Lauren had older siblings, and her parents were cohabiting at the time of her birth. She had been an unplanned pregnancy and Jenny had smoked throughout her pregnancy with Lauren, who was born with low birthweight, but otherwise in good health. Jenny did not breast feed Lauren and struggled with parenting Lauren in the early months of her life. She experienced a high number of depressive symptoms at this time, and she felt unsatisfied with her life and that she had no control over how her life was turning out. Her relationship with Lauren's father was potentially volatile as she did not want to answer whether he had ever used force during their time together.

In Lauren's early years, the family lived together in a rented, overcrowded and damp home in a very deprived area where there was nowhere for children to play out safely. Jenny was very dissatisfied with the area where they lived and her home; it was disorganised and was not a calm space to be in. Jenny had read to Lauren every day when she was young. The family did not participate in the study during Lauren's primary school years but returned when Lauren was 11 and Jenny had now separated from Lauren's father. We can imagine that this 'gap' was a disruptive period in their lives and possibly coincided with when Lauren spent time living with relatives. Jenny had never worked up to this time and had no formal qualifications. However, by the time Lauren was 14, Jenny had moved her life forward and had a more positive outlook – she was self-employed, had remarried, and the family were living in their own home.

Developmental outcomes: persisting psycho-social adjustment problems

Lauren was deemed school ready at age 3 and was performing at the expected level at the end of her foundation year of primary school. Later on, Lauren had average scores in the cognitive tests she completed at age 11 and 14. From a young age Lauren experienced emotional problems and was hyperactive. At the end of primary school, Lauren was not very happy at school and was bullied. She was not happy at all with her family, felt Jenny was not that interested in her school life and her teacher was always getting at her. At this time both Lauren and Jenny did not think she would stay at school after age 16, but by age 14 it was all change. Lauren had been looking forward to going to secondary school – maybe seeing it as a fresh start – and she and Jenny now thought she would continue in education post-16. Lauren did not truant and had never been suspended. Lauren went on to achieve 5+ good grade GCSEs at 16, remained in education at 17 and was 100% certain she would go to university. At age 11 Lauren wanted to be an actor but by age 17 she had aspirations of working more broadly in the media. By age 30, Lauren wanted to be living in her own home with a partner and child. At age 17, Lauren did not have a boy- or girlfriend and had not yet had sex. She did not smoke or take drugs, was in excellent health and had not been in any trouble with the police. However, at the same time Lauren continued to experience emotional and hyperactivity problems, which had been omnipresent since her early years. By age 17 this manifested in her having depressive symptoms, that she had self-harmed and attempted to end her own life.

Summary remarks: Family disruption and school bullying can undermine positive adjustment

In Lauren's story it might be possible that the disruption in her early family life negatively affected Lauren's early school life and her mental health. With the stability that came later, Lauren enjoyed her time at secondary school and went on to achieve good results in public examinations at age 16 and had positive ambitions and expectations for her future. However, her mental health was poor in her adolescence, with early emotional problems coming to the fore. We do not know when her self-harm and suicide attempt took place, but maybe this was in her earlier adolescence. What we do know is that despite these difficulties, Lauren was able to gain good GCSEs and had positive aspirations for her future. Lauren's case illustrates that achievement in one domain is not always evident in another, and that there is an urgent need to address early emotional problems and symptoms of depression as well as negative school experiences such as being bullied.

Getting on with life and feeling positive

We now turn our attention to **Tom**. Tom's mum Lisa had spent more than 10 years in a residential care home. During his own childhood, Tom had spent time living with a relative, but he did not specify for how long. We do not know why Lisa or Tom experienced OHC.

Home life, maternal characteristics and early parenting

Lisa lived in Wales and was 28 and single when she had Tom. Tom was a surprise pregnancy, and he was born prematurely at just 6 months with very low birthweight. Lisa had no problems with the basic skills of literacy and numeracy and had gained GCSE or equivalent qualifications. During Tom's early years Lisa received State benefits and the family were poor financially. Throughout Tom's childhood and adolescence, the two of them lived together in a rented home that Lisa was satisfied with, although it was in a very deprived area that she did not like and there was no safe play area to take Tom. Lisa never worked, but she had good health generally and did not experience depressive symptoms. Although she reported that their home was not always a calm environment in Tom's early years, Tom had regular mealtimes, usually a regular bedtime, and their relationship did not have heightened levels of conflict or lower levels of closeness when Tom was a toddler. Lisa also provided a good home learning environment at this time. The family did not participate in a couple of the interviews during Tom's early school years, which potentially coincided with Tom living with relatives, but took part again when he was a teenager.

Developmental outcomes: Move to independence

By age 14 Tom achieved average scores in the various cognitive assessments and although he did not go on to gain any good grade GCSEs at age 16, he remained in education at age 17. Earlier on, Lisa had thought it was 'fairly likely' that Tom would go on to university, but Tom wanted to get a job and start earning, specifically he wanted to enter a skilled trade and work in the construction sector.

Lisa thought Tom displayed certain conduct and hyperactivity behaviour problems in his teenage years, but both Lisa and Tom viewed him as being very socially engaged, offering to help others out and being considerate of others' feelings. At age 17 Tom also reported to be satisfied with his life and agreed he was a person of value with good qualities.

Tom and Lisa have a close relationship, but whereas Tom reports that Lisa never knows where he is or whom he is with when he goes out, Lisa reports that she usually does know. Tom has a girlfriend and first had sex before he was 15. Tom reported excellent health at age 17, although he had been a daily smoker since before age 15 and first drank alcohol at 15. He has tried cannabis and a few harder drugs and also admitted to harassing and pushing some people around, but he had not had any police contact and has not been a victim of crime himself.

Summary remarks: Good social skills and self-concept matter

Although Tom engaged in risky behaviour as a teenager, he seems well adjusted. Potentially his good social skills and self-concept provide a valuable base for effective functioning. In addition, Lisa and his wider family, reflecting a positive example of kinship care, have done a good job in bringing him up, being a constant presence and source of support.

Concluding remarks: Alarming levels of adjustment problems among teenagers with direct OHC experience

The findings draw an alarming and depressing picture of the continued experience of adversity, social exclusion and discrimination (see also Roberts, 2021) for those with residential, foster care or kinship care experience. Whereas 9 in 10 teenagers with no OHC experience remained in education or training at age 17, this applies to only 8 in 10 for those with kinship care experience and 7 in 10 for those with foster or residential care experience. Even when also including employment (EET), 1 in 4 teenagers with foster or residential care experience were not in education, employment or training (NEET) compared to 1 in 17 (6%) with no OHC experience. However, as highlighted in other research, a considerable number of care leavers do return to education at a later age (Brady & Gilligan, 2019; Harrison, 2020), so it is vital to ensure that the opportunity and support is made available for lifelong learning and for a return to education.

An even greater concern is that many teenagers with OHC experience have poor mental health outcomes. Previous research has highlighted that poor mental health is associated with OHC experience (Tarren-Sweeney & Vetere, 2013; DfE, 2019; Parsons & Schoon, 2022), although there is limited detailed research on the prevalence of mental health conditions for care leavers. An ONS report (Meltzer et al., 2003) indicated a prevalence of mental health disorder in children in care at 44% in 2003. If that is projected forwards, we should expect similar or even higher levels of prevalence in the current care leaver population. In this study we find stark evidence that in 2017 far more teenagers with OHC experience have higher levels of behaviour and emotional problems, suffer symptoms associated with depression, have self-harmed and attempted suicide. Any number regarding suicidal intention among teenaged children is too high. Here we find that compared to the 1 in 14 (7%) with no OHC experience, 1 in 4 (26%) with foster or residential care and 1 in 5 (21%) with kinship care experience have tried to end their own life. This constellation of negative mental health outcomes highlights the vital need to better support those with OHC experience over their lifecourse – not just when they are in OHC. There is a crucial need to provide sustainable support structures that extend beyond age 18. Our earlier research (Parsons & Schoon, 2022) based on the 1970 British Cohort Study at age 50 showed that study members with OHC experience are still at a greater risk of reporting poor general and mental health and higher levels of depression compared to those with no OHC experience some 30-40+ years later.

Other concerns are the greater proportions of teenagers with OHC experience who have had sex, or more specifically underage sex, and as shown in other research (Roberts et al., 2017; Svoboda, et al., 2012; Knight, et al., 2006), experienced a pregnancy. Add to this the greater incidence of smoking and cannabis use among teenagers with OHC experience (with greater prevalence among those with kinship care experience), under-age alcohol use and having tried harder drugs. The findings highlight clearly the lack of care, support and understanding that this group of vulnerable teenagers have received.

Existing research has also indicated the over-representation of care leavers in the criminal justice system (Berman & Dar, 2013; Kennedy, 2013; Crawford et al., 2018; Yoon et al., 2018). Here we find that teenagers with OHC experience were both more likely to have been a victim of crime and to have had contact with the police, particularly regarding having been formally cautioned and even arrested.

These findings are based purely on descriptive statistics, and more research is needed to take account of other associated risk factors (as in Chapter 2). Nonetheless, these findings of a recent cohort of teenagers are clearly a call for action to adequately support this group of vulnerable young people and their support network – their parents, extended family or foster carers. The evidence presented here shows that current policy measures in place are inadequate given the scale of the problems identified.

Based on the Government's "Pathway Plan" help should be provided and developed together with the young looked after person from age 16 to help prepare for independent living. Young people can remain in care beyond 18 if it is in their best interest, and local authorities must provide ongoing support and a personal advisor to care leavers up to a certain age, often 21 or 25 depending on their circumstances. There are also opportunities to get a bursary of £1,200 a year from their school or college if they stay in full-time education. They can also get a higher education bursary of £2,000 from their local council if they are going on to higher education (for example university). However, it needs to be noted that these initiatives are only available to care leavers, and not those with OHC experience in their younger years. In addition, it remains the responsibility of the young person to get in touch and claim the available support and there needs to be more assistance, information and guidance in identifying and navigating available support structures. Knowledge about available support structures is potentially a huge barrier for accessing such resources and more has to be done to guide and support teenagers with OHC experience in finding relevant support. Crucially, however, there needs to be more and accessible health care provision, in particular regarding mental health, self-harm and suicidal ideation. In 2017 a Barnardo's supported review of case files (Smith, 2017) found that 46% of young people leaving care have been flagged as having mental health issues. Among those identified, 65% were not receiving any form of support, and only 9% were on a waiting list for NHS mental health services. These are staggering figures, which given recent cuts and the experience of the pandemic will, if anything, have escalated. Far more needs to be done to meet the mental health needs of those with care experience, and indeed all young people.

Chapter 4:

Outcomes in early adulthood during the Covid-19 pandemic

A focus on social support, loneliness, mental wellbeing and physical health by OHC experience

Background

The onset of the COVID-19 pandemic in March 2020 brought about a rise in mental health problems, feelings of loneliness and isolation (Niedzwiedz et al., 2021; Pierce et al., 2020). The UK experienced three national lockdowns between March 2020 and March 2021, during which a range of ‘lockdown measures’ were introduced. This included prohibiting individuals from leaving their home without a reasonable excuse, banning people from gathering in public spaces and the introduction of ‘social distancing’ (Li & Wang, 2020; Saltzman et al., 2020). In February – March 2021, members of the Millennium Cohort Study (MCS) completed an online questionnaire which coincided with the third lockdown in March 2021. The restrictions were hard for everyone, but possibly particularly so for individuals with OHC experience. We focus here on aspects of social support, loneliness, mental wellbeing and physical health among young adults at age 20/21 – one year into the pandemic, and how this varied by measures of a study member’s own (direct) or maternal (indirect) OHC experience. In line with existing research, we find that young adults with OHC experience as well as maternal OHC experience report having lower levels of social support, increased experience of loneliness, poorer mental health and wellbeing and having a longstanding illness compared to those with no OHC experience.

Analytic strategy

We employ descriptive statistics (percentages and means) on imputed data to show the bivariate associations between study member’s own or their mother’s OHC experience and a range of outcomes across different domains for the MCS study members at age 20-21.

Results

Social support

The benefits of social support for maintaining mental health during the COVID-19 pandemic have been widely recognized (Dlugosz, 2021; Saltzman et al, 2020). Less is known about its importance for particularly vulnerable young people, such as those with OHC experience during times of a global pandemic.

A year into the pandemic, all study members were asked to indicate the extent to which each of these three statements described their current relationships with other people (coded on a 3-point Likert scale: ‘Very true’, ‘Partly true’ or ‘Not true at all’).

- I have family and friends who help me feel safe, secure and happy
- There is someone I trust whom I would turn to for advice if I were having problems
- There is no one I feel close to

Around a third of study members felt that it was 'not true' or only 'partly true' that they had family and friends who helped them feel safe, secure and happy or that they had someone to turn to for advice if they were having problems. A third also felt it was 'very true' or 'partly true' that they did not feel close to anyone. This did not vary for study members by their mother's OHC experience (pink bars). However, Figure 4.1 shows there were notable differences in the proportion of young people who felt it was 'not true' or only 'partly true' that they had family and friends who helped them feel safe, secure and happy by their own experience of OHC (green bars). Around half of study members with foster or residential care (49%) or kinship care (54%) experience felt they lacked this support from other people compared to less than a third (30%) with no OHC experience.

Study members were also asked if they could count on people to help if they were sick in bed, on a four-point scale from 'not at all' to 'a great deal'. Figure 4.2 shows that young people with experience of OHC – foster or residential care or kinship care – or maternal OHC experience (pink bars) were more likely to answer, 'not at all' or 'a little' rather than 'somewhat' or 'a great deal'. A third (34%) with kinship care and a quarter with foster or residential OHC experience (26%) or maternal OHC (24%) felt they did not have people to help if they were sick compared to no more than 1 in 8 with no OHC (12%) or maternal OHC (13%) experience.

Loneliness

When people feel lonely and deprived of social contact this can also negatively impact their mental wellbeing and physical health. This is true for individuals at all ages (Hämmig, 2019), but feelings of loneliness are heightened in late adolescence or early adulthood, evidenced both before (Ibbetson, 2019; Webster et al, 2020) and during the pandemic (Youth in Mind, 2020; Mental Health Foundation, 2020). Here loneliness was captured by three questions from the 20-item UCLA

Figure 4.1: % who felt it was 'not true' or only 'partly true' that they had family and friends who helped them feel safe, secure and happy by OHC experience

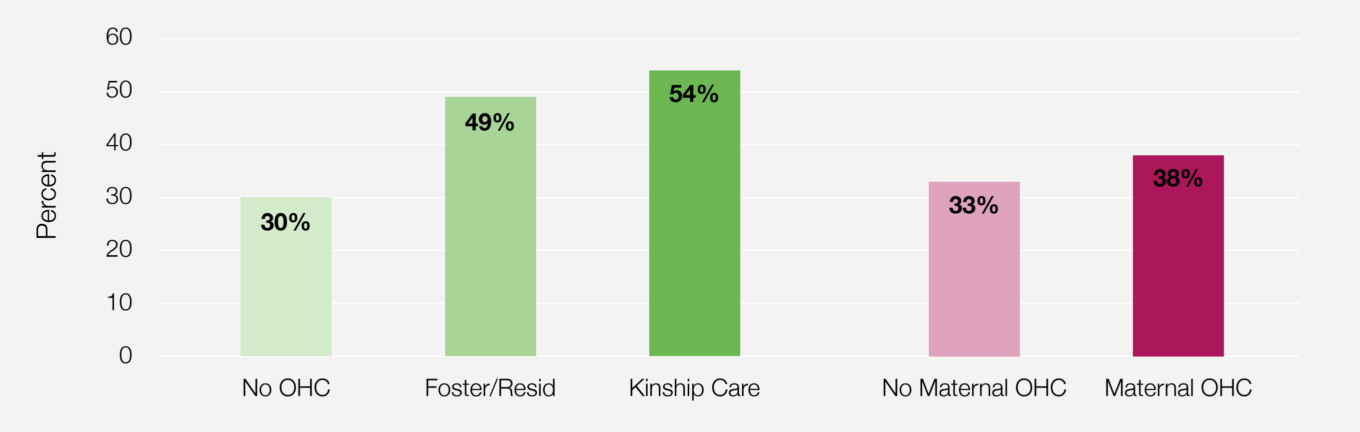
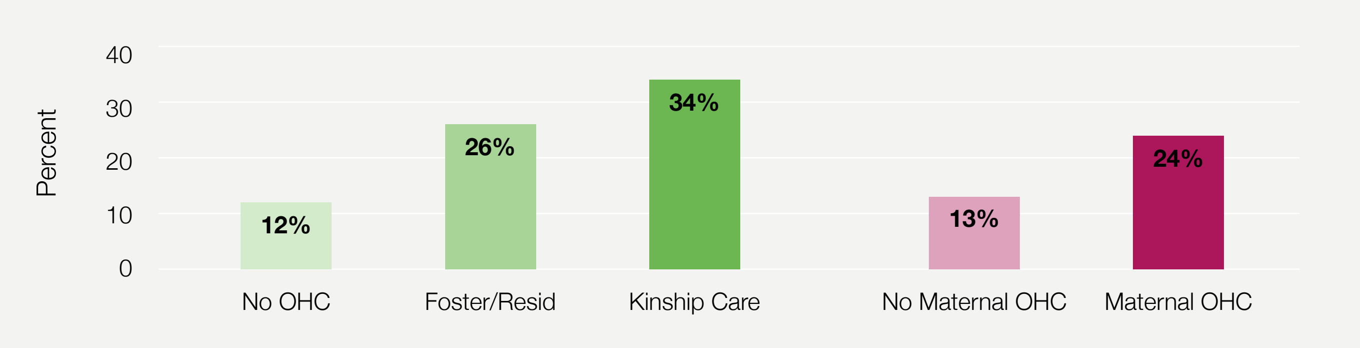


Figure 4.2: % who felt they did not have ['not at all' or 'a little'] someone to count on if they were sick in bed by OHC experience



scale of loneliness (Russell, et al. 1980; Hughes et al., 2004) and an additional fourth question:

- How often do you feel that you lack companionship?
- How often do you feel left out?
- How often do you feel isolated from others?

–

- How often do you feel lonely?

Each question had three response options: 1 ‘hardly ever’, 2 ‘some of the time’, 3 ‘often’. Responses to the three questions from the UCLA scale were summed together giving a score range from 3 – 9.

We found (Figure 4.3) that more study members with foster or residential OHC (40%) or kinship care (36%) experience ‘often’ felt lonely compared to those with no OHC (21%) experience. Those with foster or residential care or kinship care experience also had higher average scores on the UCLA loneliness scale (6.1 OHC; 5.9 Kinship; 5.3 no OHC). Differences were not as apparent by maternal OHC experience.

Mental health and wellbeing

A similar range of mental health and wellbeing measures were included in the Covid-19 questionnaire in 2021 as in earlier sweeps (full details of the measures are included in Appendix Table A1). We concentrate here on five mental health and wellbeing measures: three where a higher score indicates poorer wellbeing, and two where a higher score is more favourable.

Kessler Psychological Distress Scale

Using the 13+ cut-off, we find that more young adults with any kind of OHC experience display signs of serious psychological distress. Figure 4.4 shows that around 4 in 10 study members with foster or residential OHC (43%) or kinship care (39%) experience had a high number of symptoms associated with psychological distress compared to around 1 in 4 (23%) with no direct OHC experience. Differences were also apparent for young adults with maternal OHC experience: more than 1 in 3 (35%) with maternal OHC compared to 1 in 4 (24%) with no mother OHC experience.

Figure 4.3: % who ‘often’ felt lonely by OHC experience

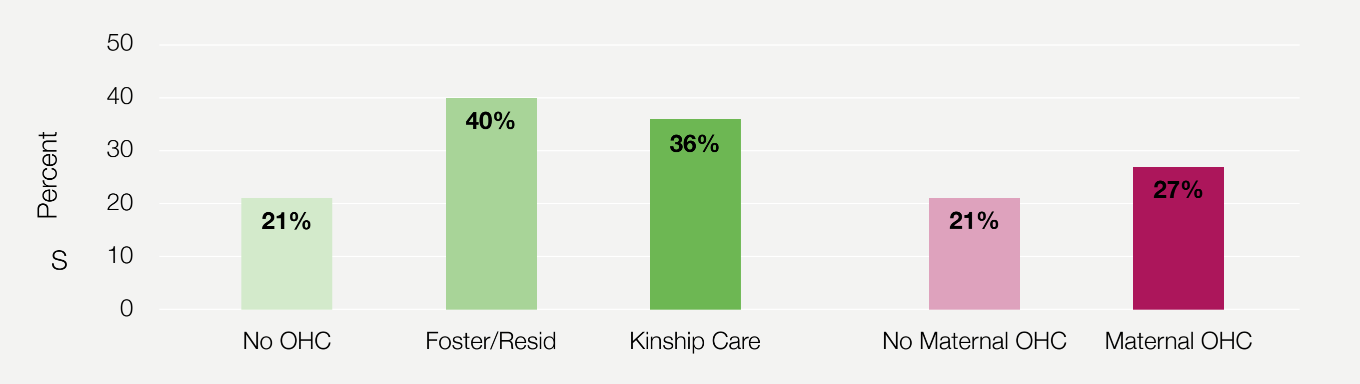
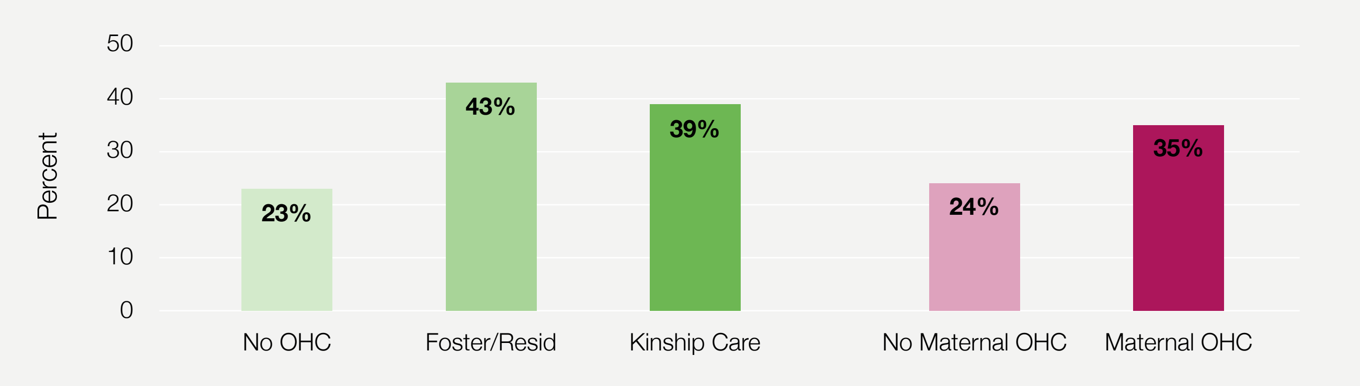


Figure 4.4: % with serious psychological distress by OHC experience



Patient Health Questionnaire (PHQ-2)

A study member's own or maternal OHC experience were also associated with a higher proportion of reported symptoms associated with depression as measured by the PHQ-2. 1 in 5 study members with no OHC (21%) or no maternal OHC (20%) experience reported depressive symptoms, but this increased to 1 in 3 with maternal OHC (32%) or kinship care (29%) experience and to more than 4 in 10 (43%) with foster or residential OHC experience. See Figure 4.5.

Generalized Anxiety Disorder (GAD-2)

Kinship care or maternal OHC experience were not associated with higher levels of generalized anxiety, as measured by a screening tool for Generalized Anxiety Disorder (GAD) – but foster or residential OHC experience was. Nearly 1 in 2 (47%) study members with foster or residential OHC experience were anxious compared to 1 in 5 (21%) with no OHC experience.

Shortened Warwick-Edinburgh Mental Wellbeing (SWEMWBS) and Life Satisfaction

In both of these measures a higher score represents a more positive outcome. Compared to study members with no experience of OHC, those with foster or residential OHC experience reported lower average levels of mental wellbeing on both the SWEMWBS (19.1 to 22.6) and satisfaction with life (4.8 to 5.9) measures. Scores were not significantly lower for those with kinship care experience and there was no difference by maternal OHC experience.

Physical Health

Study members also reported on their general physical health and whether they had a longstanding illness. Overall, 14% of study members reported to have 'poor' or 'fair' general health but there was no difference by a study members own or maternal OHC experience. However, Figure 4.6 shows that more study members with OHC experience or maternal OHC experience had a longstanding illness: 61% foster or residential care, 55% maternal OHC, 50% kinship care compared to 40% with no OHC or no maternal OHC experience.

Figure 4.5: % with symptoms associated with depression on the PHQ-2 by OHC experience

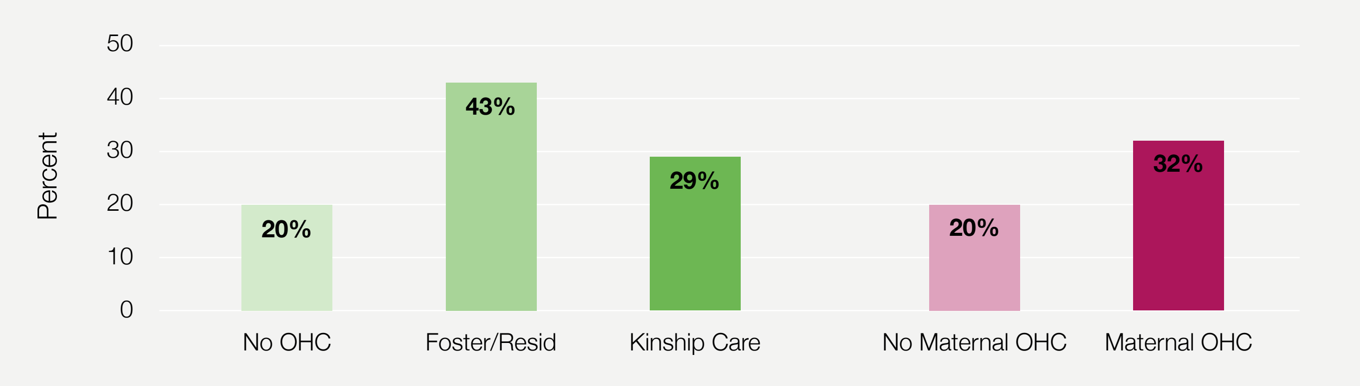
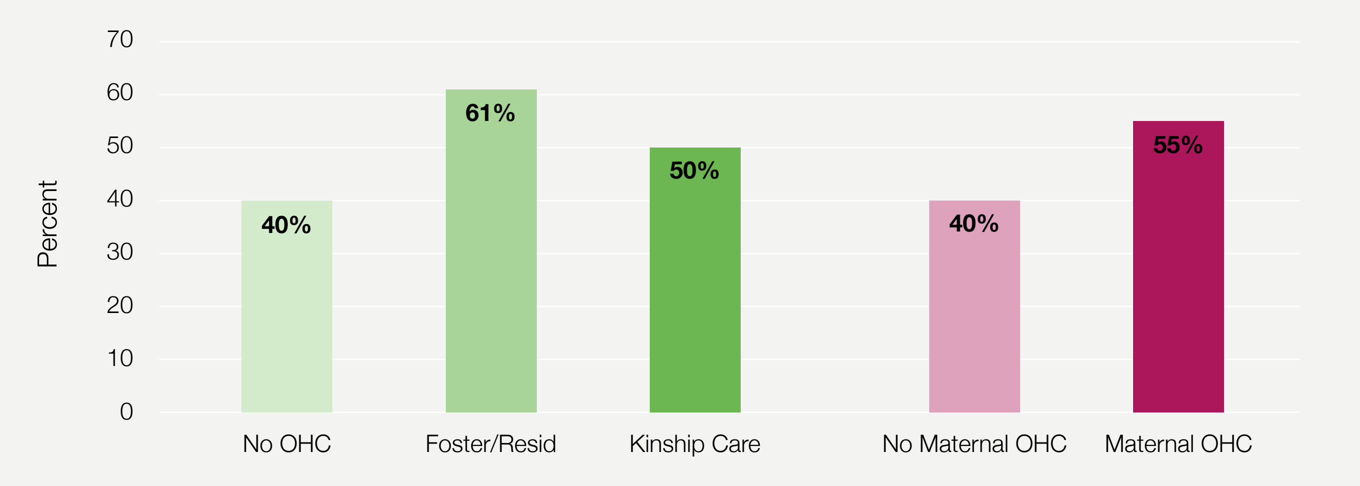


Figure 4.6: % with a longstanding illness by OHC experience



Pen portraits: Teenagers with kinship care experience in their adult years

The quantitative results have shown that more study members with OHC experience, including kinship care, experienced a tougher time during the pandemic that those whose mother had OHC experience or who had no OCH experience in their family. Earlier research has shown that much of this was related to poorer health and well-being pre-pandemic, and we saw in Chapter 3 that having experienced OHC was strongly related to poor mental health in the teenage years. Here we focus on **Jade** and **Amy**, who had both experienced times away from home living with relatives. We do not know for how long or when this took place. Neither of their mothers had OHC experience.

Declining wellbeing in teenage years persisting into the pandemic

Home life, maternal characteristics and early parenting

Jade had been a planned pregnancy and when she was born her mum, Sarah, was 23, had GCSE or equivalent qualifications, was married and living with her husband and older children. The family lived in their own home with a garden. Although the home was crowded, Sarah was satisfied with it and the area where they lived. Sarah did not work during Jade's early years, but her husband did. Sarah thought she had average parenting skills, that their home was organised and calm and Jade had regular bed and mealtimes. Sarah was in good health, had smoked in the past but not since Jade was born, had never taken recreational drugs or been diagnosed with depression by a doctor, however she struggled with depression by the time Jade was three and was generally not satisfied with how her life had turned out. In Jade's early years, there was heightened levels of conflict in her relationship with Sarah, although they had an averagely close relationship. Sarah provided a good home-learning environment and read to Jade everyday. Sarah did not want to answer questions about whether her partner had ever used force in their relationship, but by the time Jade was five, she was living as a single parent. Sarah was in paid work from when Jade was seven and was cohabiting with a new partner from when Jade was 11.

Developmental outcomes: Adjustment problems emerging in adolescence

Jade was 'school ready' at age three and was performing above the expected levels at the end of the foundation year at primary school. Jade enjoyed school, had lots of friends, had been at the same primary school throughout and was looking forward to going to secondary school when she was 11. She felt her mum was interested when they spoke about her school day and was completely happy with her life overall. Jade performed at or above average in the cognitive assessments she completed over the years, however, she did not gain five or more grade 4-9 GCSEs, although she remained in education at 17. Jade had been in good health throughout her childhood, but by the time she was 17 had problems with her peers and emotions. She had self-harmed, had high levels of depression, and a low self-esteem, which was a complete change from earlier years. Perhaps the instability in her home life – her father moving out, living with her mother and then a new father figure moving into their home – had an impact on Jade. The decline in her wellbeing during her teenage years continued into the pandemic. Jade had worked throughout the pandemic as a care worker. At age 17 she reported a poor locus of control, felt she did not have someone to always listen to her problems or look after her is she was unwell. She was now in poor general health, poor mental health, reported high levels of depression and often felt lonely.

Getting by

Home life, maternal characteristics and early parenting

We now turn to **Amy**. Amy had also been a planned pregnancy, her parents were married when she was born and her mother Julia, was age 32 at the time. Amy was an only child. Julia had low level qualifications and did not work when Amy was born, although her husband was in paid work. The family was not in poverty and were able to make regular savings. They lived in a rented home with a garden and Julia was very satisfied with both her home and the area where she lived. She saw her own mother every week and her father every few months. At three, Amy usually had a regular bedtime, but never regular meals and Julia felt her home was very disorganised and that at times she couldn't hear herself think. Julia was in excellent health, had no mental health problems, had never smoked or taken drugs. She had the odd glass of wine. Julia and Amy had slightly raised conflict but good levels of closeness in their relationship. Julia provided an average home-learning environment and read to Amy every day. In Amy's early life Julia had good locus of control and was satisfied with her life. Julia was a single parent by the time Amy was seven but was cohabiting with a new partner from when Amy was 11. Julia's financial resources were less secure after the split with her husband, and Amy was living in a workless household from this point on.

Developmental outcomes: A balanced life

Amy was deemed school ready at age 3 and performed at the expected level by the end of her first year of primary school. She did, however, score below average in the cognitive assessments she completed for the MCS. Amy was happy at primary school, never felt school to be a waste of time, had lots of friends, had high self-esteem, did not misbehave and was looking forward to going to secondary school. Her teacher did not think she was very prepared for the transition and did not think Amy was likely to remain in post-compulsory education or go to university. When Amy was 14, Julia wanted her to remain in school post-16 but was not sure about university. Amy had not truanted from school and although she did not achieve good grade GCSEs at age 16, she remained in education at age 17. However, she only thought it was 10% likely that she would go on to university. Amy had been unemployed when the pandemic hit but, like Jade, was working as a full-time care worker when she was interviewed around one year later. In her very early years, she had wanted to work in animal care, but in her teenage years she had changed to wanting to work in the care profession.

Amy had good health and wellbeing throughout her childhood and adolescence. She seems a very balanced young woman. She had no behaviour or emotional problems and had no history of self-harming. She had never smoked or vaped and did not try alcohol until after she was 16. Her good health and mental wellbeing continued into the pandemic, and she obviously had a good support network. She felt that she had someone to listen to her, to look after her if she was sick, had a good locus of control and was very satisfied with her life only sometimes feeling lonely.

Summary remarks: diverging pathways despite similar upbringing

Both Jade and Amy had instability in their early life, although it seems this was more detrimental for Jade than for Amy. Possibly, for Jade early conflict with and poor wellbeing of her mother negatively influenced her own wellbeing in her teenage years which persisted into young adulthood. This highlights the need for both early identification and support to help stop the continuation – or escalation – of problems, but also the desperate need for more support to be available for young adults – with or without OHC or kinship care experience. However, both young women were in paid employment, working in jobs that they had wanted to do from an earlier age.

Concluding remarks: The Covid-19 pandemic amplified pre-existing adjustment problems

In this study, focusing on wellbeing one year into the COVID-19 pandemic, the MCS study members are young adults, age 20-21. We found that those with foster or residential care experience, kinship care experience, as well as maternal OHC experience reported having lower levels of social support, more experience of feeling lonely, poorer mental health and wellbeing and a longstanding illness compared to those with no OHC or no maternal OHC experience.

However, these differences were not driven by the pandemic. Evidence has shown that individuals who have spent time in OHC are at a higher risk of poorer mental and physical health (Murray et al., 2020; Martin et al., 2014). We have also shown in this report that at age 17, MCS teenagers with foster or residential OHC or kinship care experience reported more mental health problems across multiple indicators than those without OHC experience. What this current section adds, is that for the same groups of individuals, poorer mental health persists into their 20s (together with more having a longstanding illness and lower social support).

Our earlier research using MCS has also shown that the children of care experienced mothers reported higher levels of distress than those of mothers with no OHC.

In Figures 4.1 to 4.6 this is shown in the pink bars. There is thus persisting evidence of the intergenerational transmission of trauma associated with OHC experience into the second generation (Parsons, Schoon & Fitzsimons, 2024).

In earlier work using the 1970 cohort (Parsons & Schoon, 2022) we looked into the mental wellbeing of 50-year-old adults pre- and during the early stages of the pandemic by OHC experience, specifically those who a) had direct OHC experience in their childhood or b) indirect experience, being the adult children of mothers with OHC experience. This research highlighted the importance of extending support to those with OHC experience and their families into the adult years. Adults with OHC experience are more likely to have a high number of symptoms associated with depression, were more than twice as likely to report poor mental health both pre- and during the pandemic and to report feelings of loneliness.

The high levels of poor mental health among those with OHC experience and maternal OHC experience highlights the need to pay special attention to the emotional scars associated with OHC experience which can continue long into adulthood and transmit to the next generation. The association between disadvantage and kinship care is of particular interest and suggests an important area for further research. Effective health care provision needs to be directed to those who are most vulnerable, people who cannot rely on their families for social, emotional or financial support. Effective support structures need to be in place, so that these young adults have somewhere to go to, someone to talk to, for help with their mental health wellbeing and to lead a satisfactory and rewarding life after tough experiences in their childhood or adolescence.

Chapter 5:

Final thoughts and next steps

Final thoughts

The findings in this Digging Deeper report have again highlighted the greater likelihood that those with OHC or maternal OHC experience will face a wide range of disadvantaged outcomes over their lifetime. We crucially show that much of this disadvantage is down to poorer socio-economic circumstances and structural inequalities and not OHC experience per se (Chapter 2). Perhaps even more importantly we show that poor outcomes are not inevitable, although the findings do present a disheartening picture of the continued experience of adversity, social exclusion and discrimination that teenagers and young adults with OHC experience face (Chapter 3 and 4). As noted in the MacAlister review (MacAlister, 2022), *"Without a dramatic whole system reset, outcomes for children and families will remain stubbornly poor and by this time next decade there will be approaching 100,000 children in care (up from 80,000 today) and a flawed system will cost over £15 billion per year (up from £10 billion now)."*

Overall, the findings further support the over-arching conclusions made from our earlier research. Care experience needs to be made a protective characteristic and support lines need to be kept open throughout a young person's lifecourse. The cliff edge where support stops need to be removed. Being placed in care – residential, foster or kinship care – can be a transformational experience, but it can also enhance the trauma that the child or adolescent had experienced, leading to the need of a placement. Without the right support being in place, these early disadvantages can persist for decades and crucially transmit into the second generation, i.e., the children of mothers with OHC experience.

The findings regarding kinship care are also of special interest. The move to place children with a family member is welcomed, but this should be widened out to include significant adults who have a special relationship with the child in need of a new home – temporarily or permanently. All necessary assessments needs to be made regarding the selection and assignment of a carer – and crucially, the voice of the child should be heard in the matter of who they are to be placed. Listening to the children is of great importance for the success of the *Stable Homes, Built on Love* initiative. In addition, the families who provide kinship care need to be better supported – financially and structurally – and this needs to be organised nationally, not at regional or an even more local level.

As with all disadvantages, the earlier they are addressed the better the chance of positive outcomes. Much of this comes down to adequate funding. This does not only concern support for families with OHC experience, but more generally all vulnerable groups of children and adolescents in our communities. If we aim to prevent escalation of disadvantaging circumstances and provide opportunities for different, positive pathways into adulthood, we have to act early and consistently, providing a sustainable scaffolding for those in care of the state. The cost of supporting children in the care system is vast, but the societal cost of not meeting the needs of these children is also immense, if we include long-term health inequalities, particularly poorer mental health, increased pregnancy, NEET and custodial sentence rates.

Next steps

In this report we have bought the profile of the MCS study members with and without OHC experience in their families up to date with the most currently available data at age 20/21. The latest round of data collection from the full MCS study took place in 2023 when study members were age 23. This data will become available to researchers at the beginning of 2026. Using the latest data of the study members will be crucial to assess the extent of intergenerational transfer of disadvantage, trauma and the resilience of study members by family OHC experience as they assume new responsibilities of adult life. Analysing the experiences of the study members in their early twenties, when most of them are likely to have completed their (extended) education, will provide new insights into the transitions they have made to independent living, moving away from the family home, building their career in the labour market, forming relationships and for some, becoming a parent.

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. The study included a retrospective question on parents' OHC experience during their own childhood, which has allowed us to examine the lives of their children in a (relatively) large sample of OHC experienced individuals who became parents. We can also report on study members with OHC experience, looking at foster, residential and kinship care experience.

MCS has a design that ensured adequate representation of disadvantaged groups and families from British minority ethnic backgrounds 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 OHC experienced mothers may already be relatively well adjusted and functional compared to all those with OHC experience. In addition, as study members were only asked about their own OHC experience for the first time at age 17, we do not know how many with OHC experience have dropped out the study over time after being involved in the first study at age 9 months. Our sample might thus not comprise all the most vulnerable mothers or teenagers with OHC experience, yet it enables crucial insights into a current generation of teenagers with OHC experience and the intergenerational transmission of disadvantage and trauma associated with OHC and what works in our sample of care experienced mothers and their children. Given that 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. 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 or unmeasured environmental influences and experiences before entering care cannot be ruled out. Moreover, as we are using secondary data for our analysis we are limited to the available measures. As the research presented here is focused on families in the UK and children born between 2000 and 2002, this limits the generalisability to other socio-cultural and historical contexts.

Conclusion

Despite these limitations, the current report provides new insights into the intergenerational transmission of disadvantage and trauma associated with the experience of maternal OHC experience, as well as the consequences of direct OHC experience among the young people themselves. The findings show that it is not maternal OHC experience as such that affects the developmental outcomes of their children, but the associated socio-economic stressors. In addition, the findings also suggest a very long shadow of the trauma associated with maternal or own OHC experience affecting in particular the mental health of young people, although we also uncovered significant pockets of resilience. Future research will have to show how the constellations of trauma and risk associated with OHC experience impact on the transition to adulthood.

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Appendix

Table A1: Scales used for the assessment of mental health and wellbeing

Scales used for the assessment of mental health and wellbeing

Strengths and Difficulties Questionnaire. Goodman (1997, 2001)

Behaviour problems were assessed from teenager self-reports on the Strengths and Difficulties Questionnaire [SDQ]. The SDQ is widely validated cross-nationally and cross-culturally for use in non-clinical settings. The SDQ includes 25 measures comprising five scales of five items each. For each negative attribute, the teenager is asked to say whether it is 'not true' (0), 'somewhat true' (1) or 'certainly true' (2) about their behaviour, with scores reversed for positive attributes. We use the four problem behaviour scales, conduct, hyperactivity, peer and emotional problems, and the non-problems scale of pro-social behaviour. Each behaviour scale ranges from 0-10 but can be dichotomised to indicate 'abnormal' behaviour. A score of 7+ indicates emotional or hyperactivity problems; 6+ peer problems; 5+ conduct problems; and <5 pro-social problems (Youth In Mind, 2016). In each binary variable no problems are coded as 0, behaviour problems as 1.

Internalising Problems

Emotional Symptoms

- Complains of headaches/stomach-aches/sickness
- Often seems worried
- Often unhappy
- Nervous or clingy in new situations
- Many fears, easily scared

Peer Problems

- Tends to play alone
- Has at least one good friend[1]
- Generally liked by other children[1]
- Picked on or bullied by other children
- Gets on better with adults

Externalising Problems

Hyperactivity/Inattention

- Restless, overactive, cannot stay still long
- Constantly fidgeting
- Easily distracted
- Can stop and think before acting[1]
- Sees tasks through to the end[1]

Conduct Problems

- Often has temper tantrums
- Generally obedient[1]
- Fights with or bullies other children
- Often argumentative with adults
- Can be spiteful to others

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[1] Item reverse coded

The questionnaire is available to download at http://www.sdqinfo.com

Kessler K6 scale (Kessler et al., 2003)

The six-item Kessler Psychological Distress (K6) scale is an abbreviated version of the K10. Each question pertains to an emotional state and response choices are based on five-point Likert-type scale ranging from 0 *(none of the time)* to 4 *(all of the time)*. The six questions are:

During the past 30 days, about how often did you feel...
- Nervous
- Hopeless
- Restless or fidgety
- So depressed that nothing could cheer you up
- That everything was an effort
- Worthless

Scores range from 0-24, with a cut-off of 6+ indicates moderate psychological distress; 13+ serious psychological distress.

The Patient Health Questionnaire (PHQ-2) (Kroenke et al., 2003)

The PHQ-2 comprises two questions taken from the original 9-item scale which ask about the frequency of depressed mood and anhedonia over the past two weeks.

Over the last 2 weeks, how often have you been bothered by the following problems?
- Little interest or pleasure in doing things
- Feeling down, depressed or hopeless

Response categories are on 4-point scale: Not at all (0); several days (1); more than half the days (2); nearly every day (3). Scores range from 0-6, with 3+ indicative of depressive symptoms.

Generalised Anxiety Disorder (GAD-2) (Kroenke et al., 2007)

This consists of 2 questions taken from the original 9-item scale which ask about feelings of generalised anxiety over the last two weeks.

Over the last 2 weeks, how often have you been bothered by the following problems?
- Feeling nervous, anxious or on edge
- Not being able to stop or control worrying

Response categories are on 4-point scale: Not at all (0); several days (1); more than half the days (2); nearly every day (3). Total score: 0-6. A score of 3+ is indicative of generalised anxiety: 0-2 = 0; 3-6 = 1.

Warwick-Edinburgh Mental Wellbeing Scale (Tennant et al., 2007)

There are two versions of WEMWBS- the original 14-item scale and the shortened 7-item scale (SWEMWBS). The WEMWBS was developed to enable the measuring of mental wellbeing in the general population. The items are all worded positively and cover both feeling and functioning aspects of mental wellbeing, thereby making the concept more accessible. The scale has been widely used nationally and internationally for investigating the determinants of mental wellbeing.

Each question has 5 response categories: ‘none of the time’ (1), ‘rarely’ (2) ‘some of the time’ (3) ‘often’ (4) and ‘all of the time’ (5). The questions in the 7-item SWEMWBS are:

- I’ve been feeling optimistic about the future
- I’ve been feeling useful
- I’ve been feeling relaxed
- I’ve been dealing with problems well
- I’ve been thinking clearly
- I’ve been feeling close to other people
- I’ve been able to make up my own mind about things

Responses are summed to provide a single score with a range of 7-35.

Life Satisfaction

Overall, how satisfied are you with your life nowadays, where 0 means ‘not at all’ and 10 means ‘completely’.

Table A2: Selection of number of profiles

No. of classes	Log-likelihood	s-BIC	Entropy	Adjusted LRT p-value for K-1 classes
2	-590037.378	1180567.907	0.929	0.3333
3	-571822.970	1144312.361	0.910	0.0000
4	-565022.597	1130884.882	0.890	0.0000
5	-558897.347	1118807.652	0.895	0.0000
6	-555363.842	1111913.910	0.872	0.0176
7	-552351.827	1106063.149	0.863	0.0778
8	-549654.733	1100842.231	0.864	0.2719

Table A3: Assessment of Antecedents

Socio-economic resources

- Single parent: two parent (0) vs single parent (1) families
- Teenage parent: no (0) vs yes (1)
- Highest level of qualification: National Vocational Qualifications (NVQ)2 (which is equivalent to a High School Graduation Diploma) or higher (0) vs NVQ1 or no formal qualifications (1)
- Workless household: someone in the household is in paid work (0) vs not in paid work (1)
- Poverty: family income > 60% median poverty indicator (0) vs <60% median poverty indicator (1)

Living conditions

- Overcrowding: home has <1 person per room (0) vs 1+ persons per room (1)
- Housing tenure: housing is owner occupied (0) or rented (1)
- Area safety: mother reports area they live in is safe for children to play (0) or not (1)

Maternal health and wellbeing

- Current smoker: the mother did not smoke (0) vs being a current smoker (1)
- Smoking during pregnancy: the mother did not smoke (0) vs smoked while pregnant (1)
- General health: excellent- average (0) vs fair-poor (1)
- Symptoms of depression (Malaise): depression was assessed by the shortened 9 question version of the Malaise Inventory (Rutter, 1970). Scores range between 0-9. A score 0-3 indicates no/low signs of depression (0) vs 4+ indicates signs of depression (1).
- Diagnosed with depression or anxiety: mother not told by a doctor she suffers from depression or anxiety (0) vs the mother told by a doctor that she suffers from depression or anxiety (1)

Parent-child relationship

- Breastfed: whether the mother had ever breastfed the CM (0) vs never breastfed (1)
- Parenting competence: the mother rated her own parenting skills as average or above average skills (0) vs below average or had trouble (1)
- Pianta Child-Parent Relationship Scale (CPRS) Short Form (Pianta, 1992): this 15-item self-report instrument assesses parents' perceptions of their relationship with their child. Each item is rated on a 5-point Likert scale and then summed into two distinct subscales. The conflict subscale (8 items) measures the degree to which a parent feels that his or her relationship with a child is characterized by negativity (range: 8-40. The closeness subscale (7 items) assesses the extent to which a parent feels that the relationship is characterized by warmth, affection, and open communication (range: 7-35). The conflict and closeness scales have a relatively low correlation between the scales (r = 0.16). The majority (0) vs those with low closeness (1) or high conflict (1), based on scores being 1 sd below/above the mean.
- Regular bedtime: the child always-usually (0) vs sometimes-never (1) had a regular bedtime
- Regular mealtime: the child always-usually (0) vs sometimes-never (1) had a regular mealtime

Child characteristics

- Sex: child is male (0) vs female (1)
- Ethnicity: child is White (0) vs British Minority Ethnic (1)
- Low birthweight: child normal-range birthweight (0) vs child had low birthweight (<=2.5kg) (1)
- BAS II Naming vocabulary (Elliott, 1996; Elliott et al., 1997): age standardised ability score, range 10-141

Table A4. Descriptive statistics of the predictors included in the analysis by Mother's OHC status and the identified groups

	No OHC Mean (95%CI)	OHC Mean (95%CI)	Normative Mean (95%CI)	Mod I High E Mean (95%CI)	High I Mod E Mean (95%CI)	High I and E Mean (95%CI)
N (%)	18505 (98.4)	305 (1.6)	13828 (73.5)	2281 (12.1)	1814 (9.6)	887 (4.7)
SES Risk Factors						
Mother OHC experience	–	–	0.01 (0.01;0.01)	0.02 (0.02;0.03)	0.03 (0.02;0.04)	0.05 (0.03;0.07)
Single parent	0.15 (0.14;0.16)	0.32 (0.25;0.38)	0.12 (0.11;0.12)	0.24 (0.22;0.26)	0.23 (0.20;0.26)	0.31 (0.27;0.35)
Teenage mother	0.08 (0.07;0.08)	0.19 (0.15;0.24)	0.06 (0.05;0.06)	0.13 (0.11;0.15)	0.12 (0.10;0.14)	0.18 (0.14;0.21)
No/nvq1 quals	0.13 (0.11;0.14)	0.38 (0.32;0.44)	0.09 (0.08;0.10)	0.22 (0.20;0.24)	0.24 (0.22;0.27)	0.27 (0.24;0.31)
Workless household [paid]	0.18 (0.17;0.19)	0.49 (0.42;0.57)	0.13 (0.12;0.14)	0.31 (0.28;0.33)	0.33 (0.30;0.36)	0.42 (0.37;0.46)
In poverty: <60% median income	0.30 (0.28;0.32)	0.67 (0.60;0.74)	0.24 (0.23;0.26)	0.47 (0.44;0.50)	0.51 (0.47;0.55)	0.57 (0.53;0.61)
Housing-Living Circumstances						
Rented home	0.37 (0.36;0.39)	0.81 (0.76;0.87)	0.31 (0.29;0.33)	0.55 (0.52;0.59)	0.57 (0.54;0.61)	0.71 (0.68;0.75)
Overcrowded home (>1 per room)	0.25 (0.23;0.26)	0.40 (0.33;0.47)	0.22 (0.21;0.24)	0.32 (0.30;0.35)	0.34 (0.30;0.37)	0.35 (0.31;0.38)
No place children play safely	0.35 (0.33;0.38)	0.51 (0.44;0.59)	0.32 (0.30;0.34)	0.44 (0.40;0.47)	0.46 (0.43;0.50)	0.50 (0.45;0.55)
Health and Wellbeing						
Currently Smokes	0.22 (0.20;0.23)	0.47 (0.39;0.55)	0.19 (0.18;0.20)	0.31 (0.29;0.34)	0.28 (0.25;0.31)	0.37 (0.33;0.40)
Smoked when pregnant	0.07 (0.06;0.08)	0.22 (0.16;0.28)	0.05 (0.05;0.06)	0.14 (0.13;0.16)	0.09 (0.07;0.11)	0.18 (0.15;0.21)
Reports poor/fair general health	0.16 (0.16;0.17)	0.36 (0.30;0.43)	0.13 (0.12;0.14)	0.24 (0.22;0.26)	0.31 (0.28;0.34)	0.39 (0.35;0.42)
High Malaise score (4+)	0.14 (0.13;0.14)	0.32 (0.25;0.38)	0.10 (0.09;0.10)	0.22 (0.20;0.24)	0.29 (0.26;0.31)	0.35 (0.31;0.39)
Dr diagnosed dep/anxiety	0.29 (0.28;0.31)	0.53 (0.46;0.60)	0.25 (0.24;0.26)	0.39 (0.36;0.42)	0.44 (0.41;0.47)	0.54 (0.49;0.58)
Parenting and Parent-Child relationship						
Did not breastfeed	0.29 (0.27;0.31)	0.41 (0.34;0.48)	0.26 (0.24;0.27)	0.41 (0.38;0.44)	0.36 (0.33;0.39)	0.44 (0.39;0.48)
Parenting comp: trouble/average	0.42 (0.41;0.43)	0.59 (0.51;0.68)	0.38 (0.37;0.39)	0.56 (0.53;0.59)	0.53 (0.50;0.56)	0.67 (0.63;0.71)
PIANTA – closeness scale	33.36 (33.30;33.41)	32.29 (31.85;32.73)	33.65 (33.60;33.70)	32.60 (32.45;32.75)	32.56 (32.40;32.72)	31.69 (31.43;31.96)
PIANTA – conflict Scale	17.41 (17.28;17.53)	19.80 (18.87;20.73)	16.24 (16.11;16.36)	20.62 (20.29;20.96)	20.38 (20.02;20.74)	23.33 (22.81;23.86)
Child never/some reg bedtime	0.21 (0.20;0.22)	0.32 (0.25;0.39)	0.18 (0.17;0.19)	0.28 (0.25;0.31)	0.33 (0.30;0.35)	0.34 (0.30;0.38)
Child never/some reg mealtime	0.09 (0.08;0.10)	0.11 (0.06;0.15)	0.07 (0.06;0.08)	0.14 (0.12;0.15)	0.17 (0.15;0.19)	0.21 (0.17;0.24)
Child Characteristics						
Female	0.49 (0.48;0.49)	0.48 (0.41;0.55)	0.51 (0.51;0.52)	0.33 (0.30;0.35)	0.54 (0.51;0.57)	0.34 (0.31;0.38)
Minority Ethnic	0.13 (0.11;0.15)	0.13 (0.08;0.19)	0.13 (0.10;0.15)	0.11 (0.09;0.13)	0.23 (0.18;0.27)	0.10 (0.07;0.12)
Low birthweight	0.07 (0.06;0.07)	0.12 (0.07;0.16)	0.06 (0.05;0.06)	0.09 (0.08;0.11)	0.10 (0.09;0.12)	0.12 (0.09;0.14)
BAS II Naming Vocabulary	73.39 (72.71;74.07)	70.08 (67.64;72.53)	75.40 (74.75;76.04)	68.81 (67.74;69.88)	66.56 (65.05;68.08)	64.37 (62.66;66.08)

Table A5: Multinominal regression predicting group membership by Mother OHC experience and family and individual characteristics: RRRs [95%CIs]

	Moderate Internal – High External	High Internal – Moderate External	High Internal – High External
Mother OHC	0.91 [0.60,1.39]	1.28 [0.87,1.88]	1.31 [0.81,2.14]
Family SES			
Single Parent	1.03 [0.85,1.26]	0.88 [0.74,1.06]	1.00 [0.75,1.35]
Teenage Parent	1.07 [0.90,1.28]	1.03 [0.82,1.29]	1.11 [0.83,1.47]
No or NVQ1 Quals	1.29*** [1.12,1.48]	1.36*** [1.18,1.57]	1.35** [1.08,1.70]
[Paid] Workless Household	1.21 [0.99,1.49]	1.38** [1.12,1.71]	1.35* [1.01,1.81]
Poverty	1.32** [1.12,1.56]	1.36*** [1.16,1.60]	1.19 [0.92,1.53]
Living Circumstances			
Overcrowded Home	1.17* [1.02,1.34]	0.99 [0.84,1.15]	1.09 [0.88,1.34]
Rented Housing	1.24** [1.06,1.45]	1.26* [1.06,1.50]	1.94*** [1.54,2.44]
Nowhere child play safely	1.14* [1.01,1.29]	1.22** [1.06,1.39]	1.22 [0.99,1.49]
Health and Wellbeing			
Current smoker	1.39*** [1.20,1.60]	1.08 [0.91,1.27]	1.42** [1.13,1.79]
Smoked when pregnant	1.87*** [1.53,2.30]	1.01 [0.76,1.33]	1.81** [1.27,2.57]
Poor/Fair General Health	1.29** [1.10,1.51]	1.65*** [1.42,1.93]	1.91*** [1.54,2.36]
High Malaise [4+]	1.45*** [1.24,1.71]	1.83*** [1.52,2.21]	1.81*** [1.42,2.32]
Dr diagnosed dep/anxiety	1.19* [1.04,1.37]	1.45*** [1.26,1.67]	1.55*** [1.24,1.95]
Parent-Child Relationship			
Did not breastfeed	1.28*** [1.14,1.45]	1.15 [0.99,1.34]	1.11 [0.91,1.36]
Below/average parent comp	1.40*** [1.24,1.58]	1.24** [1.09,1.42]	1.71*** [1.39,2.10]
Pianta: Conflict	1.12*** [1.10,1.13]	1.10*** [1.09,1.12]	1.17*** [1.15,1.20]
Pianta: Closeness	0.95*** [0.93,0.98]	0.95*** [0.92,0.97]	0.92*** [0.89,0.95]
Never/some reg bedtime	1.14 [0.97,1.34]	1.29** [1.11,1.50]	1.15 [0.93,1.43]
Never/some reg mealtime	1.31** [1.09,1.58]	1.47*** [1.18,1.81]	1.71*** [1.32,2.22]
Child Characteristics			
Girl	0.45*** [0.40,0.52]	1.10 [0.97,1.25]	0.50*** [0.41,0.60]
Minority Ethnic	0.60*** [0.50,0.72]	1.21* [1.02,1.45]	0.41*** [0.30,0.55]
Low birthweight	1.40** [1.14,1.73]	1.41*** [1.16,1.71]	1.53** [1.12,2.08]
BAS Naming Vocabulary	0.99*** [0.99,0.99]	0.99*** [0.98,0.99]	0.98*** [0.97,0.98]

Exponentiated coefficients; 95% confidence intervals in brackets
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$