# Educational pathways and outcomes

## for care-experienced children

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## Contact us:

If you would like us to talk to your organisation about this research, or are interested in us presenting this research in your organisation, please contact Dr Emily Lowthian – e.m.lowthian@swansea.ac.uk. We are very keen to work with policymakers, government and third-sector organisations in this area to enhance research and practice.


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# Introduction

Care-experienced children can have lower educational attainment and a poorer experience of school.[1, 2, 3] They may also experience deprivation, have special educational needs, behavioural difficulties, and considerable instability. Lower attainment has considerable implications for life outcomes. Research suggests that poor school performance is related to psychosocial problems among children in foster care;[4] educational attainment is also often related to employment and socioeconomic status, which has associations with poor health and life expectancy.[5, 6, 7]

## Gaps in our knowledge

To date most statistical research has explored associations between care-experience and educational attainment without delving into reasons for attainment gaps. A report[8] found that longer-term care-experienced children have the highest grades, whereas shorter-stay children perform the lowest; whereas early and late care-experienced children perform in-between. A recent study[9] found that risk factors for care-experienced children's educational outcomes included those with autistic spectrum disorder or had permanent exclusion; another study[10] found that a fifth of children caught up academically when placed in schools where educationally disadvantaged pupils perform academically. While these studies are valuable, there are many unexplored areas of care-experienced children's lives which contribute to their educational performance, and research shows[11] few interventions or programmes have been successful for improving educational outcomes. We must first understand the relationship between care-experiences and educational attainment on a large scale, and then identify key risk and protective factors to help schools to make informed decisions.

# Our project aims and objectives

1. We will use data on children's duration of care, the age they first entered care, and the type of placement(s) to profile them into homogenous groups – or profiles. We will do this at two stages:
   a. For the early years – first 6/7 years of life
   b. For pre-adolescent – first 10/11 years of life

2. Using these two new groups, we will estimate their educational attainment at ages 7 and 11 (KS1, KS2); these assessment periods follow the care-profiles identified above.

3. To understand "what works" for schools, we will explore aspects of individual health and school-factors to explain the relationship between the care-experience over the first 10 years of life and GCSE attainment (5 A* – C, including Language and Maths).



# Methodology

The research used anonymised individual-level population-scale data, held within the Secure Anonymised Information Linkage (SAIL) Databank, a trusted-research environment.

We built an electronic cohort of children, where we identified all births in Wales from 1st September 2000 to 31st August 2003 and followed them up until the end of secondary school. Social care data was used to identify children with care-experience, and their educational records were linked. Information on mental health, deprivation, sex, birth characteristics and learning difficulties was from obtained from other data sources in SAIL.

## How we measured care-experiences and education

Below we outline each of our measures used in the analysis to define how we approached our aims.

### Care-experience

We aggregated the data over the years and developed estimates of i) the age children went into care, ii) the duration of care, iii) the type of placement (foster, kinship, adoption, parents), and iv) reasons why their care placement ended (returned home, ceased due to adoption).

### Educational attainment

We estimated whether the child had met the nationally expected level of education at KS1 (age 6/7 years), KS2 (age 10/11 years) and GCSEs (5 A* – C, age 15/16 years); all assessments included language and mathematics.

## Variables which may explain educational attainment

We used the following secondary school and individual measures to explore if they helped explain the relationship between care-experiences and educational attainment:

- **Special educational needs (Yes/No)**
- **School moves (Yes/No)**
- **Suspension or exclusion (Yes/No)**
- **Free school meals (Yes/No)**
- **School attendance (<80% a cause for concern/>80%)**
- **Mental health diagnosis (Yes/No)**

## Other important factors

Our research also factored in other aspects which can predict educational attainment:

- **Deprivation**
- **Child Sex**
- **Ethnic group**
- **Birth characteristics**
- **Mothers age**
- **Year of birth**

# Involving stakeholders and those with lived experience

Firstly, we worked with CASCADE Voices, an advisory group of care-experienced young people who support research ideas and development, to explore the relevance of different placement types in the development of the groups shown in this report. We also communicated our results to these young people before any publications or dissemination of results to understand the impact of our results. From this, we recognised that our measures of educational outcomes were crude, and they obscure wider educational outcomes felt and understood by care-experienced children. Our research is not intended to be stigmatising, but rather to identify which groups need support to reach their potential.

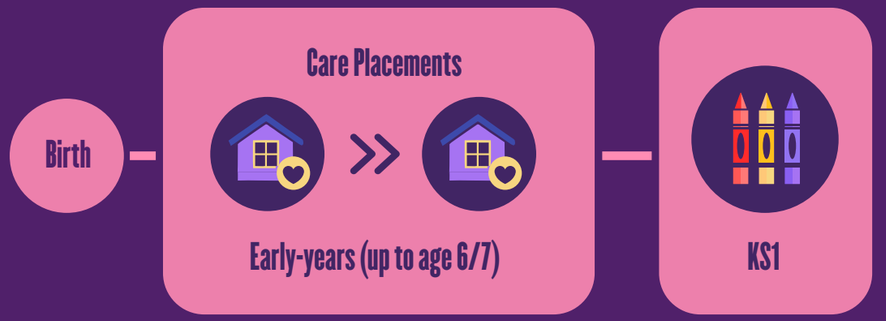
Second, before beginning the project, we worked with the SAIL Consumer Panel[12] group to understand wider public perception of our study aims and impacts. Thirdly, we worked with primary school teachers to understand professional perspectives and understanding of care-experienced children in the initial stages of our work. Lastly, we worked with an advisory group comprising of academics, government officials and social care associates to provide feedback on our research design, statistical analysis, and dissemination strategies. We fed all our consultation into our statistical analysis plan and attempted to meet the ideas and suggestions raised (where data was available).

# Ethics

**Ethical approval was granted for this study on 18th November 2022 by Swansea University (SU-Ethics-Staff-181122/541). This study makes use of anonymised data held in the Secure Anonymised Information Linkage (SAIL) Databank.[13, 14, 15, 16, 17] We would like to acknowledge all the data providers who make anonymised data available for research. We have SAIL Information Governance Review Panel (IGRP) approval for project number 1391.**

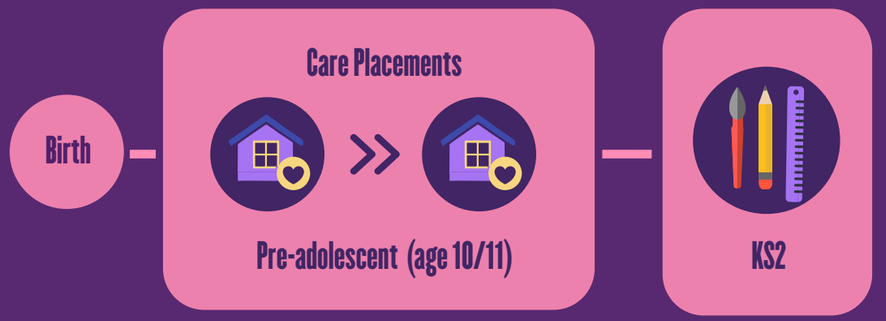


## How do care-movement profiles in the early years associate with KS1?



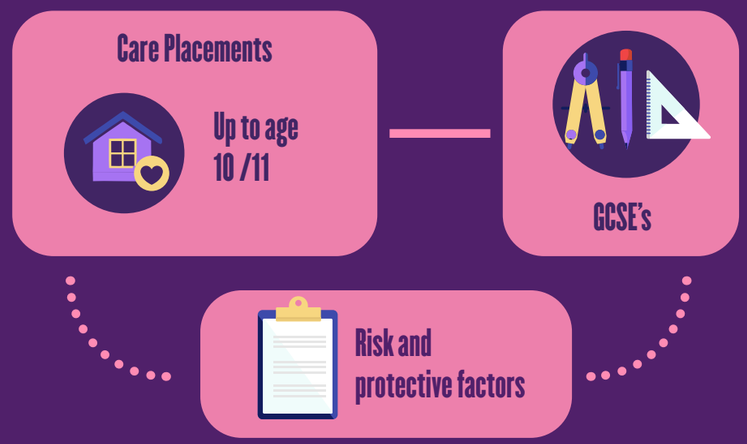

We used information on age in care, duration in care and type of placements (foster, kinship, parent, and adoption) in the early years until first exam (KS1). We will be able to understand how different care movements predict KS1.

## How do care-movement profiles in pre-adolescence associate with KS2?




We used age in care, duration in care and type of placements (foster, kinship, parent, and adoption) in the first 10-11 years of life (pre-adolescence) up to assessment at age 10-11 years (KS2). We will be able to understand how care-experiences were related to KS2 adjusted for other important aspects.

## Understanding "what works" for care-experienced children's educational outcomes




We will have a simple relationship between the care-experience profiles and educational outcomes, but the intervening path (dotted) allows us to understand if individual or school aspects could be risk or protective factors towards GCSE attainment. We adjusted all of our analyses here for sex and deprivation at birth.

# Findings

We had 610 children in our analysis for the early years care-experience analysis on KS1 outcomes, and then we had 1,140 children in our pre-adolescent analysis for the KS2 outcomes. We present each of our analyses by KS1, 2 and then for GCSEs (N=1,120) so there is some understanding of how the care-experience relates to education over the life-course.

**62%**

Passed KS1 assessment

**60%**

Passed KS2 assessment

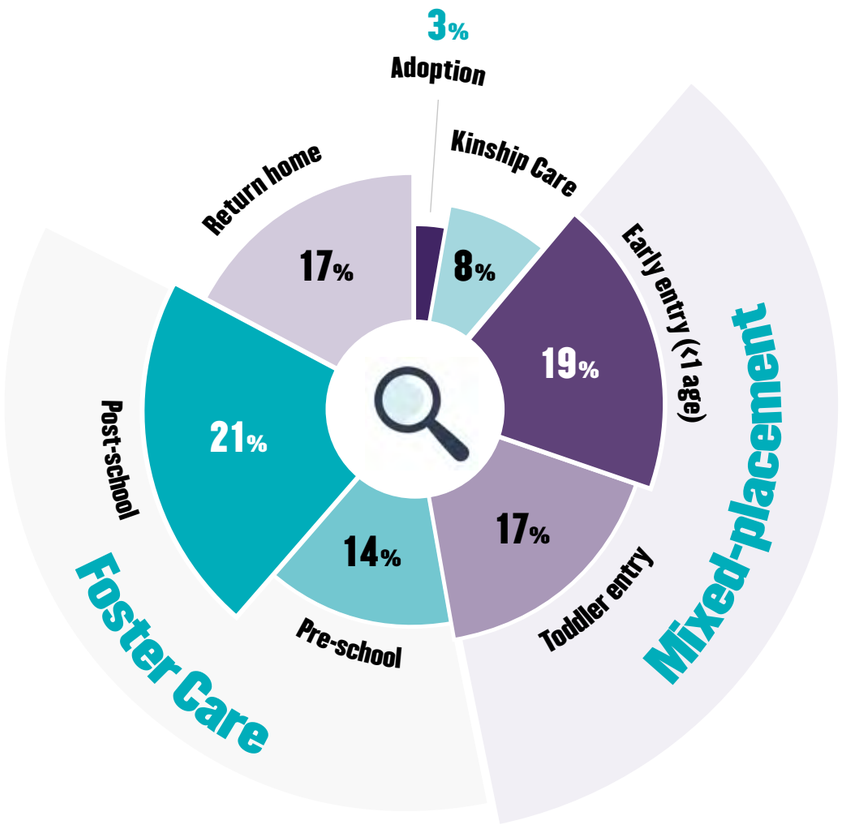
**14%**

5 A*-C GCSEs inc. language and mathematics

In the general population, around 80% meet KS1 and KS2, and 45% achieve 5 A* – C including language and mathematics

# Early years care-experiences and educational attainment

We used data on 610 children to capture their age of first entry to the care system, duration, and placement type (foster, kinship care, adoption, and parental care) to identify groups who had similar patterns of care. Below we show a diagram of the groups arising from this data, including different types and entries of foster care, adoption, those who returned home quickly, those who had mixed placements and then a kinship care group. All of these groups had different educational attainment.




# Educational attainment of early years care profiles

Around 81% of the general population achieve KS1. We found that adopted children were the most likely to achieve KS1, with 100% being a masked estimate due to small sample size. Kinship care was second with 66% achieving KS1, followed by those who were reunited with their family after a short stint in foster care. Those who had mixed placements were between 58 – 65%, with those who entered care in earlier life being more likely to achieve KS1. Our final group was foster care, which varied between 40 – 63%. Those who came into care just before school were less likely to achieve (40%) compared to those who came in after school had started (63%). Note, these are averaged proportions and there is some uncertainty across individuals.

| | |
|---|---|
| Adoption | 100% |
| Kinship Care | 66% |
| Reunited with family | 63% |
| Mixed-placements | 58-65% |
| Foster Care | 40-63% |

# Aspects which are related to care in the early years, and educational attainment at age 6/7 years

Girls had a 15% increase in odds of attaining the expected grades

**15%**

Children born at low birth weight had a 17% decrease in odds of attaining the expected grades

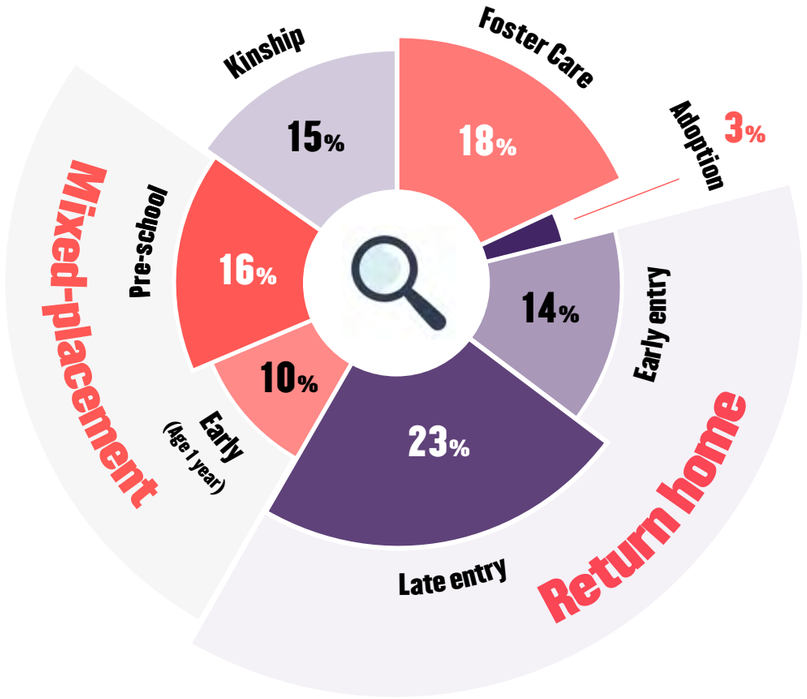
**17%**

**Deprived settings**

Children who experienced early foster care without other placements were less likely to be born into affluent settings

# Pre-adolescent care-experiences and educational attainment at age 10/11 years

**Here we follow children's care-experiences up until the end of primary school and their KS2 outcomes (N=1140). Below we show a diagram of the groups arising from this data, including age 6 foster care, adoption, those who returned home quickly from foster care at different ages, those who had mixed placements and then a kinship care group. All of these groups had different educational attainment.**




# Educational attainment of pre-adolescent care profiles

Around 80% of the general population achieve KS2. We found that adopted children were the most likely to achieve KS2, but at 60% they are still 20 percentage-points under the general population estimate. Those who were reunited with family from foster care in the early years were the 2nd highest (52%), however, children who were reunited with family from foster care in later childhood had the lowest attainment (36%). Children who had mixed-placements were between 42 – 48%, but those who had come into care earlier had lower outcomes compared to those who had entered just before primary school. Children who had only experienced foster care had a proportion of 43%, whereas kinship care was 45%. Hence, apart from adoption we are observing that children in care have similar mean proportions in KS2 achievement, and age of entry seems to differ depending on placement. We note these are average proportions and individuals do vary in our estimates.

| | |
|---|---|
| Adoption | 60% |
| Kinship Care | 45% |
| Foster Care | 43% |
| Mixed-placements | 42-48% |
| Reunited with family | 36-52% |

# What aspects were associated with care-profiles and educational attainment at age 10/11

Girls had 11% higher odds of achieving KS2

**11%**

Children of Black, Asian, Mixed or Other ethnic groups had 21% higher odds of attaining the expected grades

**21%**

Children born to older mothers had 4% lower odds in attaining the expected grades

**4%**



Compared to adopted children, all other care groups were less likely to be born in affluent settings

## Comparing Adoption

Kinship care groups were less likely to be born to older mothers compared to adopted groups

## Kinship care groups

Compared to adopted groups, those who entered foster care in mid-childhood for long periods were less likely to have older mothers

## Mid-childhood foster care

# During secondary school, what are the risk or protective factors for GCSE attainment?

We were interested in what aspects could modify the relationship between the care-groups identified during the pre-adolescent period (birth – 10/11 years) and GCSE attainment. All the school and individual factors explored in this analysis occurred during secondary school (years 7 – 11). Opposite we show the characteristics of our sample.

## Special Educational Needs

We found that young people who had SEN identified at any point in secondary school had an 87% decrease in odds of attaining KS4; also, girls had a 47% decrease in odds of SEN identification compared to boys.

We did not find any evidence of SEN explaining the relationship between care-experience profiles and KS4 outcomes. However, long-term mixed placements had higher odds of SEN (around 84%).

## School Moves

School moves were related to a 46% decrease in the odds of achieving GCSEs. In addition, as the level of affluence increased at birth, children had 6% lower odds of moving schools; however, girls had 39% higher odds of moving schools.

In terms of the care-experience profiles, those who returned home earlier were at least two times more likely to move schools compared to all other care profiles. We also found that school moves were a disruptor variable for this group compared to other profiles. Therefore, we find that school moves could be a risk for GCSE attainment for those who returned home earlier to birth parents after a short-period in care.

## School Attendance

Unfortunately, this model did not work due to small numbers in our analysis.

## Free School Meals (FSM)

We found that more affluent children had 7% lower odds of FSM, and there were no differences for sex.

Children who entered care briefly and returned home were more likely to be in receipt of free school meals compared to other groups, as were those who had late short-term care. We found that FSM was a risk factor for GCSE attainment specifically for children who entered care early, stayed briefly and then returned home.

## Suspended and/or Excluded

Being excluded or suspended reduced the odds of GCSE attainment by 70%. More affluent children had 8% lower odds of being excluded/suspended, and girls had 37% lower odds of being suspended/excluded.

Compared to those who entered care early and returned home most other profiles had a lower likelihood of being suspended or excluded. Therefore, suspensions and exclusions are a risk factor specifically for those who enter care early and return home for GCSE attainment.

## Mental Illness

Unfortunately, this model did not work due to small numbers in our analysis.



**1/20**

1 in 20 experienced a mental health problem while in secondary school

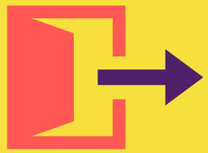
75% of children had been identified with SEN at any point

**75%**

**93%**

On average, attendance was 93% and 1 in 2 had free school meals

35% had been suspended or excluded



**35%**

**14%**

14% reached 5 A* – C including English or Cymraeg and Maths

# Interpretation of project results

**The care-experience and its relationship with educational attainment cannot be broken down into simple understandings of short-term vs. long-term, or early entry vs. later entry. Children have complex experiences of care, which our analysis attempted to capture, and these differences feed into educational experiences and outcomes.**

## Early years care-experiences and attainment

We found that those who were adopted met the national expectations for attainment in the first seven years of life. We believe that this is due to these children having more stability in the early years, along with being more affluent as documented here and in other research. For groups which had a care-experience where they stayed within the extended family unit – either short-term care, kinship, or parental care – had higher educational attainment (63 – 66%). We theorise that these children could be less likely to have experienced more severe experiences – such as abuse or neglect – given the option to place children with relatives. However, we recognise that most children who enter the care-system have experienced stress, adversity or trauma and we could not capture the extent of that in this research. We did not find any differences for those who had kinship or foster care placements – but those who had entered foster care just before school had lower average attainment in the early-years. Lastly, children who entered care just before school and remained in care appeared to be the least likely to attain and were more likely to be born in a deprived decile. The close timing between entering care and starting school, and deprivation could be co-occurring factors for attainment which requires more research.

## Pre-adolescent care-experiences and attainment

We found that those who were adopted had the highest academic attainment– however, this was 20 percentage-points lower than the general population level of 80%. It is possible that this group has a higher likelihood of achievement due to early stability and affluence, but there is an emerging attainment gap which requires research and intervention. Those who were reunified with their birth parents earlier in life achieved higher on average compared to other profiles (52%). This challenges the notion that those who return to their birth parents perform lower in attainment, suggesting that returning to a safer environment post-intervention can be supportive for educational outcomes.

However, the group which entered care later but were reunified with their birth parents had the lowest attainment (36%); this group made up a quarter of our sample. Research suggests that children who come into care later may have behavioural problems, whereas earlier care may denote challenging family situations. It is possible, that there is a causal pathway whereby adversities are experienced and are related to challenging behaviours, which later manifest as care-entry and lower educational attainment.

However, this is only theoretical and more research is needed in this area.

Our final groups – compromising of foster, parental or kinship care – had similar proportions of achieving KS2 outcomes, between 42 – 48%. For children who only had foster care placements, 43% on average achieved KS2 outcomes; these children had low likelihoods of parental or kinship care and were unlikely to return home. For our mixed-placement groups – there was a 6% attainment gap identified, and the defining difference in our data was the age on entry; all other metrics were largely similar (i.e., placement type likelihood). We found that those who entered mixed-placement care earlier at age 1 had lower attainment (42%), compared to those who entered later at age 3 (48%). For those who largely experienced kinship care, and not parental or foster care, we found 45% on average attained KS2 – this happened later in life at age 8 years, which compares to our other late-entry group who had 36% achieving on average (who later returned home with parents). We need further research to understand these findings, but we outline that those living with relatives did very similarly to each other.



## What works for care-experienced children's GCSE attainment?

First, school moves were twice as likely for those who entered care early and then returned home –and from this these moves were related to a 46% decrease in the odds of achieving GCSEs. Given that these children lived with their birth family pre-secondary school it is possible that school moves here signify issues at school, or care-movements. This aligned with our public involvement sessions with care-experienced young people who advocated against school-moves as they affected attainment.

We also found that free school meals could signify additional risks for attainment for those who return to their birth family in the early years. It is possible that these movements mean children enter levels of deprivation, as they become eligible for financial support. Deprivation is associated with an array of outcomes including behavioural, material access, and mental health problems which could be possible pathways towards lower attainment. Hence, there needs to be more support for young people who are on FSM who have care-histories, where there could be a double-disadvantage not recognised by schools.

Lastly, we found that those who returned home in the early years were at the most risk of suspensions and exclusions, and this experience was a specific risk factor for their educational attainment when comparing to groups who have experienced placements later in childhood. Similarly to above, we see that this group is specifically vulnerable to having FSM, school moves and suspensions and exclusions compared to other care groups at secondary school. We theorise here that there may be a multitude of issues going on for these groups, and that those who return home in early years require further research. Withstanding that, we press that this group likely needs further support in school settings as difficulties at school seem to pose a specific risk for GCSE attainment.

# Conclusions

We challenge the notion that attainment can be ascertained to simple characteristics of care such as short-term vs. long-term, and kinship care vs. foster care. We outline many factors which shape care-experiences, and have associations with educational attainment up to age 16 years. Research and policymakers should be aware of how the care-experience is much more complicated than simplistic cut-offs, and that children are not reaching their potential given KS2 levels were between 36 – 60% on average, compared to the 80% in the general population. Of which included adopted children, who saw a decrease in their average attainment levels from KS1 to KS2. In addition, children who enter care and shortly return home in the early years are at risk for deprivation, school moves and exclusion/suspensions – suggesting that behavioural problems and instability are on-going and need intervention despite no re-entry during primary school.

We note that our data has a small sample size but does allow for longitudinal follow-up over 16 years. The methods used are all based on probability and are not transferable to other contexts nor are causal – they are Welsh specific for those born in the early 2000s. We also acknowledge that our study does not capture detail on in-utero experiences (e.g., illicit drug use, cortisol), over focuses on mothers' influences, and under focuses on father (or co-parent) influences.

Despite these shortcomings, we reveal that children who have been in care are likely not reaching their educational potential, and further research needs to explore the contribution of pre-intervention factors which could further explain this, i.e. abuse or neglect. Lastly, we press for sustained support for children who return to their birth parents, as these families may become hidden to services despite requiring additional support.

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