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2     **The education of children in care and children in need: who falls behind**

3                                     **and when?**

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7

## 8 **Abstract**

9           We seek to explain the development of the educational gap between children in ‘out of home  
10 care’ (CLA), children deemed in social need (CIN), and other pupils.

11           A cohort of 642,805 pupils aged 16 in 2013 was used to chart the educational progress of the  
12 full cohort, the CLA ( $n = 6,236$ ), the CIN in 2012 or 2013 but not CLA ( $n = 20,384$ ), and a sample  
13 individually matched with the CLA ( $n = 11,084$ ).

14           At age 7 attainment of the CLA and CIN was approximately one standard deviation lower  
15 than the cohort average and predicted attainment at 16. At this point the persistent ‘CIN’ (those with  
16 earlier and persistent needs) had the lowest attainment relative to others and this declined further  
17 during secondary school. Those entering care before or during primary school had very low  
18 attainment at age 7 but their relative attainment did not decline.

19           Attainment of CLA and CIN at age 16 likely reflects early environment, special educational  
20 needs and poor relationships with secondary school. Policy, research and intervention should focus on  
21 CIN as well as CLA, do so before entry to care, and take account of the onset of, and probable reasons  
22 for, educational difficulties.

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24   Keywords: foster care, education, children in need

## Introduction

Children and young people looked after by the state (CLA) on average do not do well in education (Dill *et al.*, 2012; Stone and Zibulsky, 2015). Some enjoy educational success (Jackson and Cameron, 2012), and children who are looked after for longer tend to have better results than other CLA (Sutcliffe, Gardiner and Melhuish, 2017; DfE, 2018c). As a group, however, they are much more likely than their peers in the general population to score poorly on tests, fail exams, drop out of school, be excluded or have irregular attendance (Scherr, 2007; Trout *et al.*, 2008). In this way they are more likely to reach adulthood with few or no qualifications and equally poor prospects (Buehler *et al.*, 2000; Berlin, Vinnerljung and Hjern, 2011; Dregan, Brown and Armstrong, 2011; Dregan and Gulliford, 2012; Centre for Social Justice, 2015).

It is striking, if perhaps less well known, that in controlled comparisons between the CLA and those in receipt of social services but living in the community, the latter have equally poor (Smithgall *et al.*, 2004; Berger *et al.*, 2009, 2015; Font and Maguire-Jack, 2013; Piescher *et al.*, 2014; Cage, 2018) or even worse educational outcomes than those who are in care (McClung and Gayle, 2010; *Anonymous*, 2015). Socio-economic disadvantage, maltreatment and special needs are all common in these vulnerable groups, associated with poor educational performance and thus possible explanations for their low attainment (Smithgall *et al.*, 2004; *Anonymous*, 2007; Berger *et al.*, 2009; McClung and Gayle, 2010; DfE, 2018a). Children returning home from care to such circumstances do worse in certain respects than apparently similar children remaining in care (*Anonymous*, 2005; Wade *et al.*, 2011).

The comparisons cited above have been, for the most part, cross-sectional. As a result, we do not know when the CLA and CIN first fall behind educationally, how they progress over time, or what the relationship is between attainment at the start and towards the end of the child's education. On the evidence available the educational trajectories of the CLA may be similar to, or differ from, those of the CIN or of other children who start from a similar point of attainment but are not CIN or CLA. Their low attainment may first become apparent before entry to care, around entry, or during care itself. It may also become worse or improve over these different periods. A description of these

trajectories should improve our understanding of the likely impact of care, of the time before care, and of the difficult home circumstances of the CLA and CIN. It should also inform the timing of educational interventions and the relative priority given to improving the education of those already in care as against those at risk of entering it.

A second gap in the literature cited above reflects a tendency to treat CLA as a homogeneous group whose members have similar needs, educational trajectories and responses to care. This assumption does not seem to be true, since there are marked differences between early entrants (those entering care before 11) and later entrants. The former tend to have fewer difficulties with school (*Anonymous*, 2007) and better final attainment than later entrants and particularly so if they stay in care for an extended time (*Anonymous*, 2018; Sutcliffe, Gardiner and Melhuish, 2017; DfE, 2018c). These early entrants are almost always in care for reasons of abuse and neglect (*Anonymous*, 2007). The mechanisms that lead to their better attainment following removal to care may be similar to those that reduce cognitive deficits among maltreated Rumanian orphans following adoption (Rutter *et al.*, 2007) – both situations involve removal from a difficult environment. By contrast later entrants enter care for reasons which often include their own challenging behaviour and have much greater difficulties with school (*Anonymous*, 2007). These groups may benefit from removal from the setting in which their difficulties occur. However, their ‘antisocial behaviour’ may also need a more behavioural approach (NICE, 2013).

With one recent exception (DfE, 2018b) there is an absence of similar evidence for the lack of homogeneity of the CIN. This group are thought to need social work services and would be expected to contain similar sub-groups to the CLA albeit with difficulties that are not so serious as to require care. In addition, they include disabled children, a category sufficient to qualify a child as CIN, but not, in itself, sufficient to justify admission to care (DfE, 2018a). Some of these needs, for example severe or multiple learning difficulties, are likely to be apparent early. It is therefore likely, although not yet shown, that the CIN also vary in ways likely to reflect the time at which their needs are first noticed by the authorities.

Against this background this article will use a national data set to:

- Compare the attainment and characteristics of the CIN and CLA at age 7 with that of all children at that age and a comparison group of similar initial attainment and socio-economic status
- Assess how far differences in the attainment of these groups at this can be explained by variables in our data set
- Examine how far the final outcomes are determined by attainment at age 7
- Describe the educational trajectories from age 7 of the comparison group and sub-groups of the CLA and CIN along with their relationship to the timing of any admission to care
- Use information available on the characteristics and behaviour of these children to suggest explanations for these trajectories and the differences between them.

## Methods

### Sample

The study used national data collated by the English Department for Education about the educational status of 642,805 children in England who appeared on the National Pupil database (NPD) and who were eligible for GCSEs (examinations at age 16 years) in 2013. We were able to link this dataset to Local Authority Returns (also known as SSDA903) on children who were looked after (CLA) at 31<sup>st</sup> March 2013 and children who were assessed as in need (CIN) in 2012 or 2013. Local authority data records information about children's time in care and in contact with social care. There have not been any major changes to the policy or legislation context, so that the analysis below has important implications for children currently in care.

Our analysis examines the attainment and trajectories of four key sub-samples:

- the CLA, children looked after in out of home care on 31<sup>st</sup> of March 2013 ( $n = 6,236$ )
- the CIN, children deemed in need in 2012 or 2013 ( $n = 20,383$ )
- a matched comparison group, comprising two 'nearest neighbour' children matched to each CLA child on attainment and eligibility for free school meals at age 7 ( $n = 11,804$ )

- an unmatched comparison group ( $n = 605,102$ )

These sub-samples are based on all children in each category but have been made mutually exclusive, so that the CIN do not include CLA and the CIN are excluded from the matched comparison group. In order to include all the CLA and CIN, we allowed matching on missing information on the matching variables. The missing values were later imputed, where necessary. The first three sub-samples formed our analysis sample and are the exclusive focus of later parts of this paper.

The NPD gives data on attainment and other education related variables at the end of four 'Key Stages' (KS) of schooling: KS1 (at age 7), KS2 (at age 11), KS3 (at age 14) and KS4 (at age 16). Key Stage 1 and 2 take place in primary school and Key Stage 3 and 4 cover the period of secondary school to age 16.

The CLA sub-sample was further sub-divided into entry groups with the KS1 entry group comprising those first entering care between birth and end of KS1, the KS2 entry group comprising those first entering care between end of KS1 and end of KS2 and so on. We further divided the KS4 group into two, as we expected that young people who entered care less than a year before their KS4 exams (KS4b) would significantly differ from those who had been in care at least a year at that point (KS4a).

In England, children who return home from care, before the age of 18 almost always do so within the first year, and then return to care within a short period if they are not going to remain with their families. In keeping with this, the average time the entry groups spent in care following their first entry varied from 11 years 6 months (KS1 group), through 6 years 11 months (KS2 group), 3 years 3 months (KS3 group), 1 year 6 months (KS4a group) to 10 months (KS4b group). If we had classified our groups by their last as opposed to their first entry into care, we would have allocated no more than 5 per cent of them to a later entry period.

Our data allowed us to define three sub-groups for the CIN, according to whether they were deemed CIN in 2012 but not 2013, 2013 but not 2012, or both 2012 and 2013.

The study sample and analysis samples are shown in figure 1 below.

**Insert figure 1 here**

## **Outcome measures**

We standardised the nationally mandated ‘end of Key Stage’ attainment scores across the total study sample so that each Key Stage score had a mean of 0 and standard deviation of 1. Changes in this score over time reflect changes in the child’s educational attainment relative to their peers.

## **Explanatory variables**

Independent variables were created from data available in the NPD and which were shown in earlier work (AUTHORS) or analyses (AUTHORS) to relate to educational outcomes. They comprised:

- Demographic characteristics: gender, ‘ethnicity’ (White British or not white British) and language spoken at home (whether ever in a home where English was not the first language)
- Early family poverty (as indicated by the proxy measure, eligibility for free school meals (EFSM) when aged 7 in 2004)
- Special educational needs (SEN): whether the child was ever recorded as having Autism Spectrum Disorder (ASD), Behavioural, Emotional or Social Difficulty (BESD), Severe or Multiple Learning Difficulty (SMLD), Moderate Learning Difficulty (MLD), and Other SEN.
- School type attended at different key stages: whether at a non-mainstream state (NMS) school (i.e. special schools, pupil referral units, alternative provision, secure provision and further education colleges) or not
- Change of school during KS4: whether the child moved school in either Year 10 or Year 11
- Unauthorised absences from school: absences lasting half a day expressed as a percentage of possible half-day attendances in a given year

- Exclusions from school: whether the child was recorded as excluded on a fixed term or permanent basis, within a given Key Stage period.

Demographic variables, EFSM status and special educational needs were treated as fixed variables.

Taken together the explanatory variables allow us to see how far the CLA and CIN differ from other children in their gender, the apparent poverty of their families, ethnicity, and cognitive and psychological difficulties. Regression and other techniques then allow us to examine how far these differences explain the age 7 attainment and subsequent educational progress of the CLA and CIN and how far this needs to be explained by variables not contained in our data, which include those relating to their family functioning.

## **Missing Data**

All children had an attainment score at KS4 but there were missing scores at KS1 (12%), KS2 (12%) and KS3 (10%). Those with missing attainment scores at any point were roughly 4 times as likely as others to be recorded as not speaking English as a first language at home, 4 times as likely to be in NMS at KS4 and 180 times as likely to be in an independent school at KS4.

The likely explanations for these associations and for the great majority of missing values is that some children had no data returned at one or more key stages. Most commonly this was because: their independent school did not make these returns; they were awaiting placement for NMS and not ‘on the books’ of any school; they were not in the country (hence the association with language spoken at home, although some children will have not been returned because they were in Scotland, Wales or Northern Ireland or abroad elsewhere with English-speaking parents).

We treated missing values as a categorical variable where possible. This method was not suitable for the calculation of means, or regressions with missing outcome data which were estimated through multiple imputations using variables associated with missing values or outcomes. SPSS does not support this option for component analysis for which we used its default option (mean

substitution). Children who were never recorded as having SEN or as not having English as a first language at home were treated as not having these characteristics.

## **Analytical Strategy**

We used crosstabulations, correlation and linear regression analysis (ordinary least squares) to compare the four sub-samples of the total study sample and to examine the relationship of attainment at age 7 to attainment at age 16. The purpose was to explore the extent of, and possible reasons for, low initial attainment among the CLA and CIN and its association with later progress.

Subsequent analysis used the analysis sample (CLA, CIN and matched comparison group), graphing the educational trajectories of its sub-groups and relating them to entry to care where appropriate. A component analysis was used to identify underlying variables that might explain the average level of performance in these groups and their tendency to improve or fall behind. Scores derived from these components were related to the different sub-groups and suggested explanations for their trajectories. All analyses used SPSS v.24.

## **Ethical Approval**

Approval was granted by the Department for Education for England and Wales for the use of the anonymised data for the specified purposes and by the University of XXXX for the secondary analysis.

## **Results**

### **How does attainment at age 7 compare for children in care, children in need, and children in the general population? What explains any differences?**

Table 1 gives the distribution of the standardised KS1 scores and our explanatory variables in the main sub-samples. As can be seen, the CLA, CIN and the matched comparison group (analysis sample) are all severely disadvantaged samples with low attainment. Irrespective of sub-group their KS1 scores were on average around 1 standard deviation below those of the unmatched comparison group (for example, the KS1 scores of the CLA were 1.02 standard deviations below those of the unmatched comparison group).

207 Children in the analysis sample were also much more likely than children in the unmatched  
208 comparison group to be: eligible for Free School Meals at age 7, assessed at some point between age 7  
209 and 16 as having an Autism Spectrum Disorder, a Behavioural, Emotional or Social Difficulty, a  
210 Severe/Multiple Learning Difficulty or a Moderate Learning Difficulty, or in a non-mainstream  
211 school (NMS) at 11 or 16.

212

**Insert Table 1 here**

Group comparisons within the analysis sample (CLA, CIN and the matched sample) were less stark than those described above but differences were significant ( $p < .001$ ) for all the variables in table 1 with the exception of ‘other SEN’ ( $p < .025$ ). The starkest differences within the analysis sample related to EFSM, SEN, particularly BESD (behavioural, social and emotional difficulties) and attendance at NMS (non-mainstream) schools (i.e. schools for children thought unsuitable for ordinary schooling for reasons connected with their special needs, behaviour or aptitudes).

The regression results in table 2 below are for the analysis sample only and show the strength of the relationship between the predictor variables and KS1 attainment. The table is based on pooled data generated by the SPSS imputation procedure. The variables entered into this procedure included the outcome (which had some missing values) and the independent variables in the regression, thus creating a danger of spuriously high associations with outcome in the regression. In practice a regression which does not include missing values generates a somewhat higher multiple correlation coefficient so this danger seems to have been avoided.

Most of these measures do not precede KS1 tests chronologically: for example, special educational needs (ASD to other SEN) are those identified at any point in a child’s career between 7 and 16, and at KS1 (age 7) only 16% of those subsequently deemed to display BESD at age 16 had already been identified. Most (79%) of the CLA were not yet looked after at KS1 and only 6% of the CLA and 11% of the CIN were in non-mainstream (NMS) schools (i.e. schools for children thought unsuitable for ordinary schooling for reasons connected with their special needs, behaviour or aptitudes). By the end of KS4, all the young people in the CLA sample were looked after and 38% of the CLA and 30% of the CIN were in NMS. The associations of these variables with attainment at 7 must therefore largely reflect the situations and characteristics of those who will have these experiences in the future and not the direct influence of the schools or care.

All of the variables in table 2 are dummy variables and the outcome variable is standardised. The coefficients estimate how much better or worse in terms of standard deviations a child is

estimated to do, if he or she has this characteristic. As can be seen there are substantial negative effects associated with all forms of special need, with being CLA (-.24) or CIN (-.23) or EFSM (-.39) or attendance at an NMS school. Speaking English as a first language at home is associated with higher scores at KS1 (although not later), while the positive association of ‘missing information on EFSM’, probably reflects its association with independent schooling.

## **Insert Table 2 here**

Irrespective of their causal interpretation, the associations in table 2 greatly reduce but do not fully explain the association between being CLA or CIN and attainment. This suggests that variables that are strongly related to being CLA or CIN but not available in our dataset have a strong impact on attainment. The most likely candidates for these unobserved variables are the family circumstances which are the legal justification for being CIN or CLA. Estimates of the size of this impact (the regression coefficients associated with CLA or CIN status) would be increased if we excluded the variables in table 2 that are likely to be, at least partly, direct or indirect consequences of these situations (e.g. attracting the label ‘BESD’ or attending an NMS school).

## **How far does attainment at age 7 predict attainment at 16 and does this vary by sub-group?**

How far does attainment at age 7 relate to attainment at age 16 in each group. Correlations between the raw KS1 and KS4 attainment scores within the four different sub-samples showed that continuity was strong in all four but less so among the CLA: CLA ( $r = .35$ ), CIN ( $r = .54$ ), matched comparison group ( $r = .51$ ) and unmatched comparison group ( $r = .53$ ).

In order to examine the extent of individual mobility in terms of relative attainment at each Key Stage, we divided the standardised Key Stage attainment scores into thirds, labelling these ‘top’, ‘middle’, and ‘bottom’. Table 3 examines the chances that an individual in the top, middle or bottom third of attainment at KS1 would be in a substantially different position at KS4.

## **Insert table 3 here**

The trajectories of the unmatched comparison group contrast starkly with those of the CIN and CLA. Excluding those with missing KS1 scores comparatively few CIN (12%) or CLA (9%) start in the top third and even fewer (CIN 8%, CLA 6%) finish there. Conversely many start in the bottom third (CIN 66%, CLA 72%) and more (CIN 76%, CLA 80%) finish there. It is striking that around half of those who start in the top group (CIN 44%, CLA 55%) finish in the bottom one.

By definition the distribution of the matched group initially resembled that of the CLA (the slight deviations reflect the omission of the CIN). In 2004 (KS1), 10% this group were in the top third and 70% in the bottom one. By the KS4, the overall distribution of this group had improved with 14% in the top group and only 58% in the bottom one. The downward mobility of this group was far less marked than that of the CLA or CIN. Around half of the CLA or CIN who started in the top third finished in the bottom third (CIN 44%, CLA 55%); the same was true for only 11% of the unmatched comparison group.

### **How do the educational trajectories of children in care, children in need, and children in the general population compare?**

So far, we have documented the relationship between initial attainment at 7 and attainment at 16, and the trend for downward trajectories amongst the CLA and CIN. We have not examined the ages at which any deterioration took place or its relationship to any entry to care. Figure 2 below looks in more detail at the sub-groups of the analysis sample, their average standardised attainment scores at the four Key Stages (KS1 at age 7 in 2004; KS2 at age 11 in 2008; KS3 at age 13 in 2011; and KS4 at age 16 in 2013) and its relationship to the timing of their first entry to care.

**Insert figure 2 here**

The top left quadrant of Figure 2 gives the trajectories of the CLA, CIN and matched comparison group (not CLA or CIN). Initial attainment including imputed scores is on average highest in the matched group, next highest among the CIN and lowest among the CLA. By KS4 this order has changed with the matched group improving, the CLA falling slightly, and the CIN falling

more substantially to a position slightly below that of the CLA. These changes are concentrated in the secondary school period between the end of KS2 and KS4.

The top right quadrant gives the trajectories of the sub-groups of the CIN. They show a sharp difference between the ‘persisting CIN’ who were CIN in 2012 and 2013 and those who were CIN in one or other of these years but not both. The persisting CIN had by far the lowest initial attainment of all the groups, suffered a sharp drop on entry to secondary school and then flatlined at roughly the same number of SDs below the main cohort and at a very low position. The non-persisting groups had relatively high starting points, declining very slightly over primary school, and then more sharply over the secondary school period.

The bottom two quadrants give the trajectories of the CLA groups by entry point. The left-hand quadrant shows that those entering care before or during primary school tended to improve or hold their own until entry to secondary school when they declined slightly or held their own. Overall, they more or less ‘flatlined’. By contrast the trajectories of those entering care during secondary school show a very slight decline over the primary school period and then sharp if varying decline during secondary school. The KS4b subgroup (who entered care less than a year before the last census date) had the sharpest decline relative to peers, with attainment at the end of KS4 1.95 standard deviations below the average for the study cohort.

An estimated 30% of this gap between the average for this group and that for the cohort could have been associated with time in care (to measure this, we calculated the average deterioration between the start of the key stage in which the child first entered care and the final attainment. We then divided this by the overall group deficit (i.e. the number of SD the child was below the cohort average at 16 and multiplied by 100). The comparable percentages for the KS4a and KS3 groups were 23% and 11%. A further article (Anonymous in press) examines how far declines subsequent to entry were explained by characteristics such as truancy rates which were evident before entry.

**Do the characteristics of the sub-groups in the analysis sample vary in ways that might explain variations in their initial attainment and rates of decline?**

We used a principle component analysis (PCA) without rotation to explore the correlations between the variables in the analysis sample. PCA is a technique for representing a set of inter-correlated data (for example, answers to a personality questionnaire) by a much smaller set of uncorrelated components (for example, extroversion and neuroticism). The first component explains the most variation in the data set, the second component the most after allowing for the first, and so on. The degree to which a component explains variation in a particular item in the original data is given by its ‘loading’ on that item and this identifies the contribution of that variable to the overall component score. The individual variables that load most heavily on a particular component guide the interpretation of what that component might represent.

The variables we selected for this analysis are those which we expected to predict outcome. Compared to regression analysis – which we can use to identify the contribution of individual variables to attainment at age 16 – PCA allows us to distinguish the contribution of our variables to attainment at age 7 and any subsequent decline relative to other children. As will be seen in figure 3, the components also mapped very usefully onto the different groups and their trajectories.

The first eight components (all those with eigen values greater than 1), explained 65% of the total variance and 80% of the variance in the individual attainment scores. The comparable figures for the first component were 19% (total variance) and 70% (attainment scores), and for the second component 13% (total variance) and 5% (attainment scores). The remaining 6 components accounted for 33% of the total variance, but only 5% of the variance in the attainment scores. As our interest is in the attainment scores, we limit our discussion to the first two components, which are shown in table 4 below.

**Insert table 4 here**

High scores on component 1 are marked by higher attainment at all time points and an absence of special needs other than BESD. We named this component ‘persistent attainment’. High scores on component 2 are marked by relatively high attainment at KS1 and relatively poor attainment

at KS4. This negative trajectory is marked by poor attendance and a label of BESD. We named this component ‘deteriorating attainment’.

In this model, a child’s attainment score at any key stage is related to their average attainment at all points (component 1) and – to a much lesser extent – their positive or negative attainment trajectory (component 2) and ‘deteriorating attainment’ (component 2). (The next two components accounted for 8 and 6 percent of the variance, and might have been labelled ‘female withdrawal’ (high loadings on being female, having poor attendance, and not being excluded) and ethnicity (high loadings on not being white British or speaking English as a first language at home). Their loadings on KS4 attainment were -.007 and .006).

Figure 3 shows the score on component 1 and component 2 for the subgroups in the analysis sample.

The key points to note are:

- The matched comparison group was characterised by relatively high persistent attainment and low deteriorating attainment (their average relative attainment was high and they improved over time)
- Young people who were CIN in 2012 or 2013 (but not both) had relatively high persistent attainment and high deteriorating attainment (they started relatively well but fell away)
- The persisting CIN group (CIN in 2012 and 2013) had very low persistent attainment and relatively low deteriorating attainment (their attainment was consistently very low)
- The CLA who were early entrants (in care by the end of Key Stage 2, so before secondary school) had low persistent attainment but relatively low deteriorating attainment (they had consistently low attainment but did not decline further)
- The CLA who were late entrants (after age 11) had relatively high persistent attainment but high deteriorating attainment, a feature which became increasingly pronounced the later they entered care.

These findings reflect the trajectories shown in figure 2, but also associate ‘persistent low attainment’ with special needs and ‘deteriorating attainment’ with BESD, exclusions and poor attendance at secondary school.

Those who were neither CIN nor CLA (the matched comparison group) improved relative to others in the analysis sample, a finding partly explained by their low level of absences, but also, perhaps and as discussed later, by regression to the mean. In contrast to the CIN and CLA they were selected because they had low initial attainment. This will have increased our chance of selecting children who happened to do badly at KS1 relative to their potential.

**Insert figure 3 here**

## **Discussion**

The origins of this paper lie in a controversy about the degree to which the care system is to blame for the low attainment of the CLA at 16, the degree to which the CLA should be regarded, for educational purposes, as a homogeneous group, and the comparative lack of research attention on the educational careers of the CIN. In this context we have found that

- At age 7 the attainment of the CLA was already 1.2 SD and the CIN -0.94 SD behind their peers
- Attainment at age 7 is the key predictor of final attainment at 16 for all groups, irrespective of whether or not they are in care
- In addition, average attainment falls among the CLA and CIN relative to their peer group but rises among others who are similar in socio-economic status and initial attainment

- The average decline of around 0.3 SD among the CLA is concentrated among the late entrants, is associated with unauthorised absences and exclusion, and begins before entry to care.

Given the above, the care system cannot explain the relatively poor early attainment of the CLA, 79% of whom were not in care at age 7 or most probably of the CIN, only a minority of whom are likely to have been in care prior to 2013 and that for relatively short periods. Explanations for the educational gap between the CLA, the CIN and their peers at 16 thus have to be sought primarily in the special educational needs, socio-economic status and, we presume, difficult family circumstances which characterise this group at age 7 and which predict performance at this point.

Explanations for the persistence of this low attainment must also be sought outside the care system. All children perform at or within the limits set by this initial attainment, and the reasons for this may have to do with the persisting effects of socio-economic status, gender and ethnicity, the persistence of family environments associated with attainment and, perhaps, a tendency for educational systems to respond to initial attainment in a way that reinforces its effects (Kern and Friedman, 2008; Lesnick, Goerge and Smithgall, 2010; Sylva *et al.*, 2014; Crawford, Macmillan and Vignoles, 2015). ‘Care’ may be one of the signals or labels that play a part in this process. None of this has to do with the quality of the care system per se.

The distinction between earlier and later entrants to care reflects other work. Early long-staying entrants are predominantly admitted for reasons of abuse and neglect, make better educational progress (Sutcliffe, Gardiner and Melhuish, 2017; DfE, 2018c) and are seen by their social workers and carers as adapting relatively well to school (*Anonymous* 2007). With the exception of the minority of young people in care because they are seeking asylum independently (*Anonymous*, 2018), later entrants seem to be in conflict with their school, and particularly so if they enter care for reasons of behaviour (*Anonymous*, 2007, McClung and Gayle, 2010). Neither the initial low attainment of the early entrants nor the rapid decline of the later entrants can easily be seen as the fault of the care system.

The issue that remains for investigation is how far the ‘flat-lining’ of the early entrants and continuing decline of later ones reflects characteristics (for example, a difficulty in concentration or a habit of truancy) they brought with them to the care system. The evidence presented here suggests that care does not make the situation worse (hence the flat-lining) but that like the CIN those in care do not, like the comparison group, benefit from regression to the mean. The reason for the progress of the latter is probably that unlike the CIN and CLA they were selected from a group of much higher average attainment. Thus, there was, again in contrast to the CLA and CIN, no obvious reason for their low attainment and their natural level to which they ‘regressed’ may well have been considerably higher. We need to know whether high quality care can, if accompanied by high quality education, reverse the educational deficits of both early and late entrants.

For the moment, the practical implications of this study seem to be:

- Start early: the CLA are already over 1 SD behind their peers at seven and this is the main driver of their subsequent performance
- Be inclusive: a preventive approach cannot exclusively target the CLA, if only because they cannot be sharply identified at an early age. The CLA are part of a wider group of vulnerable, commonly low-attaining children whose identification by either teachers or social workers should lead to early intervention
- Pay particular attention to the period around entry to secondary school which seems to be the start of the downward trajectories of the later entrants to care and non-persisting CIN. More generally the deterioration that characterises some groups needs to be identified when it begins and methods developed to address the behaviour accompanying it
- Be multi-disciplinary and use a variety of methods: children enter care for different reasons, their educational deficits have different correlates and the specific causes of their deficits need to be understood if they are to be helped
- Involve both care and education. Care may protect children from the causes of their deteriorating performance but relief from psychological stress does not, in itself, make good

their lack of educational skills. Researchers made the same point over 20 years ago (Heath, Colton and Aldgate, 1994).

**Limitations of the study** Almost by definition the CIN and CLA in our samples had faced severe social difficulties by the age of 15 or 16. Low or declining performance in these groups needs to be explained but is hardly surprising. Similar enquiries need to be directed at those who have been CIN or CLA at an earlier age but who no longer have this status at the end of KS4. They also need to seek information on the family circumstances of the CIN on which we did not collect data but which we infer are a major reason for their educational decline. We have now been funded to undertake research of this kind.

As argued above, we would see the priorities for research as being to establish a) whether, after allowing for the characteristics that children bring with them into care, care counters, reverses, or exacerbates the effects of the pre-existing environment b) whether and, if so in what circumstances, care can enable children to improve on their relative attainment at entry to care and so catch-up with their peers. We are currently undertaking analyses that bear on these issues.

In the end, however, the truth, as well as the usefulness, of the explanations need to be tested by an integrated programme of research and development that would develop more specific interventions, test their effectiveness and extend them to wider groups at risk (see for example Scott *et al.*, 2009).

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