

Short report:
Special educational needs, social care and health

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Abstract

Better understanding of the proportion of children who ever receive special educational needs (SEN) provision or social care services during school years is highly relevant for healthcare as reductions in one or more of these services could impact on healthcare. Using the National Pupil Database linked to the all-of-England looked after children return and child in need census, we estimated the cumulative incidence of SEN status among (1) children ever in care during school (2) children in need but not care and (3) neither. We observed a very high proportion of children who were in care or need during school years had SEN provision at some point (83% and 64%, respectively), and that a high proportion of children children in neither of these groups did so, too (37%). Healthcare, SEN provision and social care services focus on a similar population of children. Better integration of these services could lead to synergies and cost efficiencies and better support for these children and their families.

Introduction

Cuts to special educational needs (SEN) provision and social care [1] have resulted in pressures on these services which may impact on healthcare. Children with SEN may have complex health needs or learning disability and some have health or behavioural needs. Department for Education figures estimate that 15% of children in 2019 received SEN provision [2], but this underestimates the extent of SEN provision across childhood. Little attention has been given to children with SEN involved with social care. We therefore aimed to estimate the proportion of children ever receiving SEN provision and whether this varied between children in care, in need or the general population.

Methods

Cohort

We identified all children (n = 547,665) in National Curriculum Year 1 in academic year 2005/6 (or age 5 and not following the National Curriculum). In England, this is the first year of compulsory education at age 5/6. The cohort was followed up to 2015/16, the year of final school exams at age 15/16 (Year 11). We used the National Pupil Database [3]. All children in state-funded education in England are included in the database, which is linked to the children looked after (CLA) return [4] and the child in need (CiN) census [5]. Because being enrolled in school was necessary to observe whether a child received SEN provision, we excluded 72,302 (13%) children who were not enrolled in any year between 2005/6 and 2015/16. The final cohort was 475,363 children.

Outcome: SEN status

Whether a child receives SEN provision is recorded each year as: (1) receiving Action, Action Plus or Support; (2) having a statement of SEN or an Education Health & Care Plan (EHCP); (3) neither. Action and Action Plus were lower levels of support replaced with 'Support' in 2014 (collectively, 'AAP/S' in this manuscript). Statements of SEN began to be phased out in 2014 and replaced with EHCPs (collectively, 'S/EHCPs' in this manuscript). Support (and its predecessor) is arranged by each school or college and includes a wide range of provision such as extra help from a teaching assistant, help with communication, special learning programmes and support with physical needs. S/EHCPs are arranged by local authorities where children require more help and cover education, health and social care needs. A plan includes specific measures to meet identified needs such as attendance at a specific school. Our outcome was the cumulative proportion of children receiving these two types of provision from academic year 2005/6 to 2015/16.

Exposure: social care

Data on social care contact were obtained from the CLA return [4] and the CiN census [5], which were linked using an encrypted identifier (Pupil Matching Reference). The CLA return covers all care episodes in England. These are children removed from the home by the local authority, with or without parental consent, mainly because of serious welfare concerns [4]. Data were linkable from 1 September 2005 to 31 March 2016 (the end date of our data extract). The CiN census covers all children assessed as being 'in need' of local authority services to maintain their health or well-being [5]. We also included children as being 'in need' if they were in the CLA dataset due to receiving an agreed series of short-term breaks (respite care). Such children, who typically have complex health needs, are normally excluded from

counts of CLA as they are only legally looked after on the days they are on breaks and are looked after under legal provisions akin to provisions for CiN. The CiN census began in October 2008 and our extract ends on 31 March 2015.

Ethics

Ethics approval and data protection registration were not required as we were working with de-identified data. The project was registered with our institute's Research and Development Office (17PE25).

Analysis

We categorised children as: (1) ever being in care from 1 September 2005 to 31 March 2016 ('CLA'); (2) ever being in need (including short-term breaks) from 1 September 2008 to 31 March 2015, but never in care ('CiN'); (3) neither of these ('Neither'). Although children's statuses can change, we took the fact that they had ever been in care or need as indication of underlying need of social care. We calculated the cumulative proportion of children in each of these groups receiving SEN provision as described above. Analysis was done in R 3.4.3 and 3.6.3 with RStudio 1.1.414 and 1.2.1335.

Results

There were 475,363 children in Year 1 (or aged 5 and not following the National Curriculum) in 2005/6 who remained in state school until 2015/16. Of these, 6,240 (1.3%) were CLA at least once during school years, 57,015 (12.0%) were CiN between 2008/9 and 2014/15 and the rest (86.7%) were in neither group. Their characteristics in 2005/6 are given in Table 1. The cumulative proportions receiving each level of SEN provision are given in Table 2. By year 11, 83% of CLA and 64% of

CiN had received SEN provision compared to 37% of children in neither group. Most had AAP/S (76% CLA, 60% CIN, and 36%, Neither) but substantial proportions of CLA and CiN had S/ECHPs: 23% of CLA, 11% of CiN and 3% in neither group.

Discussion

We found high proportions of CLA and CiN during school years received SEN provision at some point (83% and 64%, respectively). This demonstrates considerable overlap between the population served by social care and SEN provision in school. Over a third (37%) of children who were neither CLA nor CiN during school also received SEN provision at some point, highlighting that SEN provision affect a significant proportion of the population.

Given the proportion of children who ever receive SEN provision and the strong links between chronic health conditions and SEN, the recent changes in SEN provision could have important impacts on children's health. The proportion of children receiving AAP/S provision each year has been falling steadily since 2011 [2] and there have been widespread cuts in social care funding. Better understanding of the interactions between health, SEN and social care may lead to better service integration, synergies and cost efficiencies, and better support for these children and their families. This could be achieved by linking CLA, CiN and NPD data to health data such as the Hospital Episode Statistics. Cross-sectoral linkage poses particular governance challenges, but has been done in Scotland and Wales and is in progress in England to assess joint health and education trajectories.

Some limitations are noted. CiN data were not available for every year. We were also unable to identify CLA if the child left care for the final time before starting school.

This means the period prevalence of CiN and CLA status was under-estimated and there would have been children in the 'neither' group who in fact were CiN or CLA. We could only account for children who actually received SEN provision, not all those who needed it.

The study relies on whole-population, linked data. The CLA return and CiN census are not subject to drop-out. We were, therefore, able to better estimate CLA and CiN status than cross-sectional or sampling-based studies. It is also the first study, as far as we know, to provide estimates of the cumulative proportion of SEN status according to social care provision, thus providing important policy context for decision-makers.

Tables

Table 1. Cohort characteristics in the 2005/6 spring National Pupil Database census

		Social care status			Special educational needs status		
		CLA n (%)	CiN n (%)	Neither n (%)	S/EHCP n (%)	AAP/S n (%)	None n (%)
N		6,240 (1.3*)	57,015 (12.0*)	412,108 (86.7*)	19,528 (4.1*)	188,283 (39.6*)	279,342 (58.8*)
Female		3,279 (52.5)	29,000 (50.9)	201,359 (48.9)	5,258 (26.9)	75,605 (40.2)	155,686 (55.7)
Ethnicity	White	5,040 (80.8)	46,427 (81.4)	338,881 (82.2)	16,240 (83.2)	152,310 (80.9)	231,923 (83.0)
	Black	410 (6.6)	3,035 (5.3)	16,825 (4.1)	940 (4.8)	9,955 (5.3)	9,848 (3.5)
	Asian	268 (4.3)	4,106 (7.2)	35,446 (8.6)	1,363 (7.0)	15,863 (8.4)	23,205 (8.3)
	Mixed	453 (7.3)	2,895 (5.1)	15,203 (3.7)	771 (3.9)	7,611 (4.0)	10,642 (3.8)
	Other	69 (1.1)	544 (1.0)	5,342 (1.3)	208 (1.1)	2,397 (1.3)	3,454 (1.2)
	Unknown	0 (0.0)	8 (0.0)	411 (0.1)	6 (0.0)	147 (0.1)	270 (0.1)
Primary language	English	5,779 (92.6)	50,983 (89.4)	361,386 (87.7)	17,547 (89.9)	163,244 (86.7)	248,182 (88.8)
	Other or unknown	461 (7.4)	6,032 (10.6)	50,722 (12.3)	1,981 (10.1)	25,039 (13.3)	31,160 (11.2)
Deprivation (IDACI fifths) (year 1)	1 (most deprived)	2,949 (47.3)	22,346 (39.2)	93,401 (22.7)	6,377 (32.7)	60,994 (32.4)	55,480 (19.9)
	2	1,512 (24.2)	14,273 (25.0)	81,829 (19.8)	4,490 (23.0)	42,815 (22.7)	53,045 (19.0)
	3	891 (14.3)	9,036 (15.8)	77,944 (18.9)	3,381 (17.3)	32,576 (17.3)	53,922 (19.3)
	4	521 (8.3)	6,556 (11.5)	78,883 (19.1)	2,812 (14.4)	27,628 (14.7)	57,112 (20.4)
	5 (least deprived)	323 (5.2)	4,522 (7.9)	78,248 (19.0)	2,352 (12.0)	23,364 (12.4)	58,620 (21.0)
	Unknown	44 (0.7)	282 (0.5)	1,803 (0.4)	116 (0.6)	906 (0.5)	1,163 (0.4)
Free school meal eligible [†] (year 1)		3,386 (54.3)	21,900 (38.4)	54,809 (13.3)	5,874 (30.1)	47,143 (25.0)	30,960 (11.1)

AAP/S Action, Action Plus or Support; CiN Children in Need (but not CLA); CLA Children looked after; IDACI Income domain affecting children index (an area-based measure of deprivation based on receipt of means-tested benefits); S/EHCP Statement or Education, Health & Care Plan. * Row percentages (i.e. percentage of the entire cohort). All other percentages are column percentages (i.e. percentages within each social care group). † Children are eligible for free school meals if their parents are in receipt of means-tested benefits.

Table 2. Cumulative incidence of special educational needs status by social care status

Academic year	CLA			CiN			Neither		
	Any SEN	S/EHCP Cumulative %	AAP/S	Any SEN	S/EHCP Cumulative %	AAP/S	Any SEN	S/EHCP Cumulative %	AAP/S
2005/06 (Year 1)	45.4	7.6	37.8	30.8	4.6	26.2	14.4	1.2	13.2
2006/07 (Year 2)	57.4	9.4	49.6	40.7	5.4	36.0	20.7	1.4	19.5
2007/08 (Year 3)	64.2	11.2	56.5	46.6	6.2	42.0	25.0	1.6	23.8
2008/09 (Year 4)	68.7	13.1	60.9	50.8	7.0	46.1	28.1	1.8	26.9
2009/10 (Year 5)	72.2	14.8	64.5	54.2	7.8	49.5	30.6	2.0	29.5
2010/11 (Year 6)	74.4	16.6	66.7	56.4	8.8	51.8	32.2	2.3	31.0
2011/12 (Year 7)	78.3	18.4	70.7	59.7	9.8	55.1	34.6	2.5	33.5
2012/13 (Year 8)	80.3	19.5	72.6	61.4	10.2	56.8	35.6	2.6	34.5
2013/14 (Year 9)	81.5	21.2	73.8	62.8	10.8	58.1	36.3	2.7	35.2
2014/15 (Year 10)	82.4	22.2	74.8	63.6	11.1	59.0	36.8	2.8	35.7
2015/16 (Year 11)	83.2	22.7	75.5	64.4	11.3	59.8	37.4	2.8	36.3

Relative risk by Year 11 vs Neither group (95% confidence interval)

2.22 (2.21, 2.24)	8.11 (8.06, 8.16)	2.08 (2.07, 2.09)	1.72 (1.71, 1.73)	4.04 (4.01, 4.06)	1.65 (1.63, 1.66)	Reference	Reference	Reference
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AAP/S Action, Action Plus or Support; CiN Children in Need (but not CLA); CLA Children looked after; S/EHCP Statement or Education, Health & Care Plan;

SEN Special Educational Needs

Contributions

MAJ had full access to the data and takes responsibility for the analyses. MAJ drafted the initial manuscript. RG contributed critically to study design and the manuscript.

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