

Disabilities in children receiving social care and support in Wales and factors associated with placement into care: A population-based data linkage study

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ABSTRACT

Objectives: To determine the prevalence of disability amongst children receiving care and support in Wales (2017–2021), and examine the proportion of disabled children with different combinations of disabilities, by their care status (in care/not in care). To investigate risk factors associated with placement in care amongst these children.

Method: We used Children Receiving Care and Support Census records held in the Secure Anonymized Information Linkage Databank linked to demographic records and the Children Looked After Census. We used bar charts and UpSet plots for data visualization and conducted multi-variable logistic regression analyses to model factors associated with disabled children being placed in care.

Results: Of 37,765 children receiving care and support, 10,720 (28 %) had a disability and 3385 (32 %) disabled children were placed in care. The most common impairments were risk perception (44 %) and mental health problems (41 %). Infants <1 year were more likely to enter care compared with children aged ≥16 (Odds Ratio 3.00, 95 % Confidence Interval 1.93–4.66). Black children (1.64, (1.09–2.42)), and children of mixed (2.34, (1.77–3.08)), or 'other' (1.81, (1.16–2.77)) ethnicity were more likely to enter care compared with White children. Child mental health problems were associated with entering care (1.82 (1.60–2.07)) as were the following parental factors: mental ill health (1.45 (1.31–1.62)), substance/alcohol misuse (3.23 (2.87–3.64)), learning disabilities (2.97 (2.56–3.45)), and domestic abuse (1.47 (1.30–1.65)).

Conclusions: This novel, population-wide evidence will contribute to the planning and provision of targeted care and support for disabled children and their families, to help prevent children entering care.

1. Introduction

Disabled children are one of the most vulnerable and marginalized groups in society. According to the [Equality Act, 2010](#), a person is defined as having a disability if they have a physical or mental impairment that has a substantial and long-term adverse effect on

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their ability to carry out normal day-to-day activities. Evidence suggests that there are rising numbers of disabled children with complex needs and/or life-limiting conditions in the United Kingdom (UK) (Fraser et al., 2023; Pinney, 2017). In Wales, the population of children aged <18 years with life-limiting conditions increased from 47 per 10,000 in 2009 to 58 per 10,000 in 2019, a 22.8 % increase in a ten-year period (Fraser et al., 2023). Disabled children typically have extra care needs in many areas of daily life and may require support from social services to ensure their needs are met. Care and support includes help with tasks that a person carries out as part of daily life, such as eating and drinking, communication, mobility, achieving developmental goals, and maintenance of personal and social relationships. In Wales, local authorities have a statutory responsibility to assess and meet the needs of children and adults who may require care and support, under Section 21 of the *Social Services and Well-being (Wales) Act* (2014). Following assessment, if a child is eligible for a service, a care and support plan must be put in place. *The Care and Support (Eligibility) (Wales) Regulations, 2015* set out the circumstances in which a child is eligible for care and support from the local authority. There are three main subsets of children in receipt of a care and support plan: those receiving care and support but not on the Child Protection Register (CPR) nor looked after; those on the CPR; and those looked after by local authorities (children “in care”).

Disabled children are also overrepresented in the care system. Estimating the number of disabled children in the UK is difficult due to the use of different definitions and data sources, and the lack of a national register of disabled people (Kirk-Wade, 2023). Nevertheless, it is reported that disabled children represented approximately 7 % of children in care compared to only 3 % of the general population in Wales at 31 March 2023 (Welsh Government, 2024a). The main reason why children in the UK are placed in care is due to concerns about abuse and neglect (Hill et al., 2017). Disabled children are known to be at increased risk of vulnerability to violence and abuse by their caregivers and peers compared to the general population of children (Maclean et al., 2017), with up to a quarter of disabled children experiencing violence in their lifetime (Jones et al., 2012). Disabled children will also enter the care system for other reasons (Ward et al., 2002); they may be more challenging to care for which is likely to contribute to their need for local authority care. Thus, it is perhaps reasonable to expect that disabled children may be more likely to be placed in care than non-disabled children. In some cases, disabled children can be placed in care by the state for short breaks, sometimes called respite care. These are planned placements and involve a period of time where the child is cared for away from the family home (Hill et al., 2017).

It is well established that care-experienced children have poorer health and educational outcomes compared to children in the general population (Allik et al., 2021; Fleming et al., 2021). There is also a wide range of evidence that demonstrates that care-experienced disabled children are more disadvantaged than their care-experienced non-disabled peers. Disabled children in care are more likely to experience placement instability (Clark et al., 2020; Platt & Gephart, 2022) and less likely to return home (Welch et al., 2015). They are almost five times as likely to be in a residential placement and are more likely to be placed ‘out of area’ than others (Pinney, 2017). They also have a lower chance of being adopted, wait longer to be adopted (Anthony et al., 2016; Welch et al., 2015), and are less likely to receive mental health support (Kelly et al., 2022). Safely reducing the number of children who are in care in Wales, including disabled children, is a priority for Welsh Government (Care Inspectorate Wales, 2021). The *Social Services and Wellbeing (Wales) Act* (2014) supports the principle of keeping families together and focuses on early intervention to prevent needs from becoming critical.

The Welsh Government captures and monitors information about all children in receipt of a care and support plan through the annual Children Receiving Care and Support census (CRCS, Lee et al., 2022). Some of this information is published as snapshots of aggregated data to describe overall trends. The latest data shows that over a fifth (21 %) of all children receiving care and support at 31 March 2023 had a disability, a proportion which has remained relatively stable since 2016 when the *Social Services and Wellbeing (Wales) Act* came into force (Welsh Government, 2024b). Of these children, 21 % had been placed in care (Welsh Government, 2024c). In comparison, 20 % of children in need in Northern Ireland and 12.8 % of children in need in England had a disability recorded in 2023 (Department for Education, 2025; Rodgers & Kinghan, 2023).

The CRCS census also captures the individual disabilities of children receiving care and support each year, but this does not shed light on the complexity of children’s needs (i.e. multiple disabilities co-occurring). In addition, up until now, the census has not categorized children with mental health problems and Autistic Spectrum Disorders (ASD) as disabled. Whilst this is due to change in the next census (Welsh Government, 2024d), this means that previously reported Welsh figures of the prevalence of disabled children receiving care and support and the prevalence of disabled children in care are likely to be underestimates. Finally, whilst recent studies have examined risk factors for placement in care amongst the general population of children in Wales (Melis et al., 2023; Warner et al., 2024), little is known about the risk factors associated with placement in care amongst the population of disabled children specifically. Slayter (2016) examined a population of child welfare-involved youth with disabilities in the United States. The study found that children with disabilities were more likely to have been placed into care because of neglect, physical abuse, inadequate housing, the child’s behaviour, the parent’s inability to cope, abandonment, and parental alcohol/drug abuse compared to a comparison group of children without disabilities. In addition, a recent scoping review demonstrated that children with intellectual and developmental disabilities are at increased risk of entering out-of-home care due to a lack of support and resources for children and families, and that greater insights are urgently needed on how to prevent children with disabilities from entering care (Shannon et al., 2023). The planning, commissioning, and delivery of effective health and social care services for disabled children and their families is dependent upon an accurate understanding of the number and characteristics of disabled children receiving care and support, the nature and complexity of their disabilities, and the reasons why they may be placed in local authority care (Blackburn et al., 2010).

Given the gaps in the evidence-base, we aimed to: 1) determine the overall prevalence of disability amongst children receiving care and support when child mental health problems and ASD are taken into account, 2) examine the proportion of disabled children with different types of disability and different combinations of disabilities by their care status (in care/not in care), and 3) investigate risk factors associated with placement in care amongst disabled children receiving care and support. To our knowledge, this is the first nationwide study to examine risk factors for placement into care specifically amongst a population of disabled children who are in

contact with social services.

2. Methods

2.1. Study design

This was an observational, cross-sectional study using routinely collected data held in the Secure Anonymized Information Linkage (SAIL) Databank (www.saildatabank.com). The SAIL Databank is a privacy-protecting data safe-haven containing anonymized, individual-level data about the population of Wales, UK, including health, social care, and administrative data (Ford et al., 2009; Jones et al., 2014, 2020; Lyons et al., 2009). Data are anonymized via a standard split-file and linkage process, described elsewhere (Ford et al., 2009; Jones et al., 2020). Unique identifiers, known as Anonymised Linking Fields (ALFs), enable individual-level linkage across different data sources.

2.2. Data sources

Whilst the authors adopt the social definition of disability, in which it is acknowledged that “people with impairments are disabled by barriers that commonly exist in society” (Welsh Government, 2024a), it should be noted that the data used in this study has been collected based on the Equality Act, 2010, which uses the medical definition of disability. The primary data source used to create the study cohort was the national Children Receiving Care and Support (CRCS) Census (Lee et al., 2022), also referred to hereafter as the ‘care and support census’. This dataset holds information pertaining to children who have care and support plans in place across all 22 local authorities in Wales, including their demographic characteristics, disability status, functional impairments, care status and parental factors. The census is completed by the local authority social work team. It captures ‘open cases’ from 01 January–31 March of each year, that is, all children who were receiving care and support during this period, and covers the census years 2016/2017 to 2020/2021. Further information about the census is available in the completion guidance (Welsh Government, 2022). The national Children Looked After (CLA) Census holds information relating to a subset of children receiving care and support, namely, children who are placed in care by the local authority within a given year (01 April to 31 March). Children placed in care are defined in Welsh legislation as children who are in care or provided with accommodation for a continuous period of >24 h (Social Services and Wellbeing [Wales] Act, 2014). The data includes demographic characteristics and information about children’s care episodes, including their legal status, and covers the period from 01 April 2002 to 31 March 2021 (Allnatt et al., 2022).

The Welsh Demographic Service Dataset (WDS) is a register containing demographic information about all individuals registered with a Welsh General Practice, and is hereafter referred to as the ‘demographic register’. It covers 86 % of the population of Wales (<https://healthdatagateway.org/en/dataset/355>) and includes anonymised residential information and corresponding Lower-Layer Super Output Area (LSOA) codes. LSOAs are geographic units comprised of around 1600 individuals. The Welsh Index of Multiple Deprivation 2019 (WIMD 2019) dataset (‘deprivation dataset’) contains area-level deprivation scores corresponding to all 1909 LSOAs in Wales (Welsh Government, 2019). Area-level deprivation refers to unmet need within a neighborhood, caused by a lack of services, resources and opportunities. The WIMD is the official measure of relative deprivation for small areas in Wales and ranks all LSOAs from most (1) to least (1909) deprived (Welsh Government, 2019). These scores can then be divided into quintiles or deciles of deprivation levels for research purposes.

2.3. Data linkage

The care and support census contains information on whether or not children have been placed in care, however, as noted above, this dataset only includes cases open between 01 January and 31 March in each year. Therefore, it is possible that some children were recorded as not placed in care but were placed in care outside of this period. We linked our cohort to the dataset on children looked after to determine whether children were in care outside of the care and support census data capture period, and to determine their legal status. We also linked our cohort to the demographic register and the deprivation dataset to obtain the LSOA code and corresponding area-level deprivation quintile for each child at the time of their first appearance in the care and support census. This was a necessary mitigation strategy because the care and support census only contains information about the child’s most recent residence (Lee et al., 2022). Only children with a valid ALF were linked, i.e. those who had either an exact match on National Health Service (NHS) number or demographics (name, date of birth, gender code and postcode) or a probabilistic match of 90 % or greater (Lyons et al., 2009). The data linkage process is outlined in Fig. 1.

The proportion of children in the social care datasets with an ALF is known to be lower than in healthcare datasets, partly because the NHS number is not collected as part of the social care returns (Allnatt et al., 2022; Lee et al., 2022). ALF assignment uses the Unique Pupil Number (UPN) to access the child’s personal identifiers, which is only allocated at the time of entry to a school maintained by the local authority, when children are four or five years old (Welsh Government, 2023). Some children aged two or three may be allocated a UPN through attendance at a maintained Nursery, but few children under the age of two years will have an ALF. Therefore, prior to linking to the demographic register, we applied an algorithm that has been created to improve ALF allocation in the children looked after census (Bailey et al., 2025). This algorithm follows a six-step process and utilizes quasi-identifiers from several datasets already available to obtain the routine pre-assigned ALF held in the SAIL Databank. Since children can be linked across the children looked after and care and support censuses using their local authority system identifier (Lee et al., 2022), if a child in the care and support census did not have an ALF but appeared in the children looked after census with an ALF, we took their ALF as recorded in the children

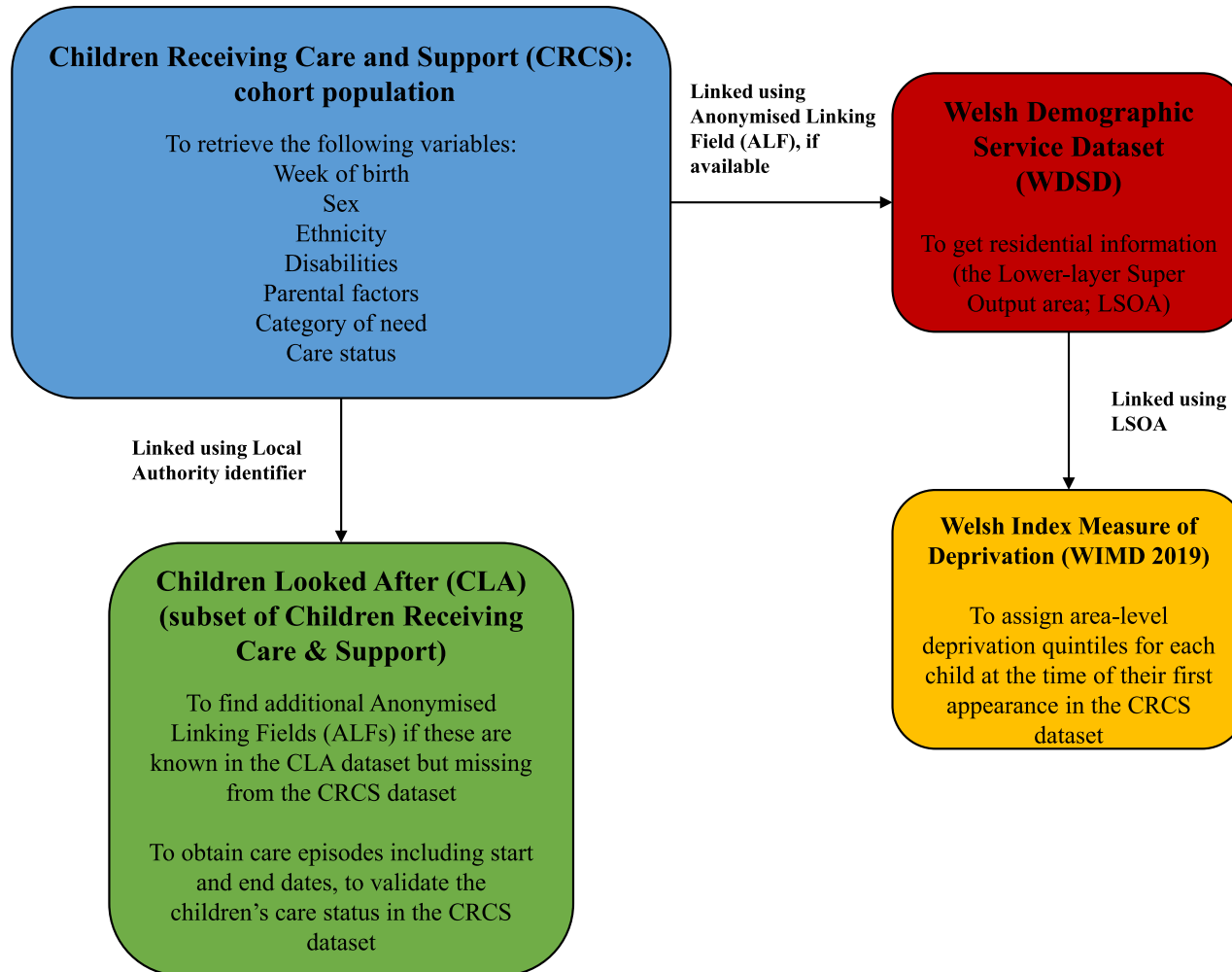


Fig. 1. Data sources and linkage process.

looked after census. This increased the number of ALFs available within the care and support census, which resulted in improved coverage of information from the demographic register. Nevertheless, some children were not assigned an ALF and therefore could not be linked to other datasets, meaning that area-level deprivation information for these children is missing (Fig. 2). The SAIL Databank was interrogated using Database 2 Structured Query Language (DB2 SQL).

2.4. Study population

Our study cohort consisted of all children (0–17 completed years old) who appeared in one or more of the care and support census returns (i.e. who were receiving care and support in Wales) between the years 2017–2021 ($N = 37,765$). This cohort was used to determine the prevalence of disability amongst children receiving care and support and to describe the characteristics of children receiving care and support by their disability status. A sub-cohort consisted of all children (0–17 completed years old) who appeared in the care and support census between the years 2017–2021 and who were recorded as having a disability ($N = 10,720$). This sub-cohort was used to describe the characteristics of disabled children receiving care and support by their care status, to visualize the proportion of these children with specific types of disability and combinations of disabilities by their care status, and to model risk factors associated with placement in care amongst these children.

Children should only appear in the care and support census once per return year, but they may appear in multiple years. The census records whether a child has a disability based on the Equality Act, 2010, using eight specified categories of functional impairment (see Measures section below). Each child is recorded under each applicable category, meaning that children may be counted in more than one category. Additionally, the census records whether children have an Autistic Spectrum Disorder (ASD), and whether children from the age of 10 have a mental health problem. In this study, we considered a child to have a disability if they were ever recorded as having a *disability*, *mental health problem*, or *ASD* between 2017 and 2021. Disabled children were categorized as either ‘placed in care’ or ‘not placed in care’ (Fig. 2).

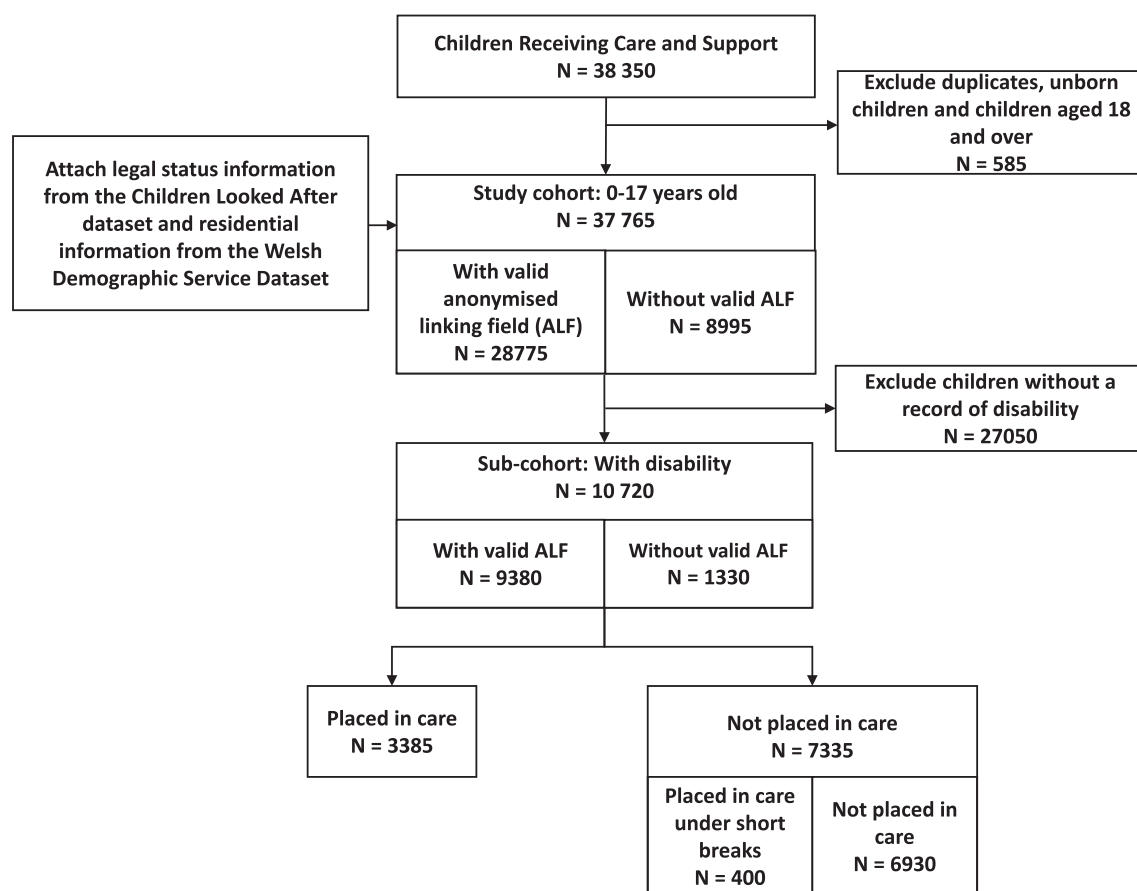


Fig. 2. Data preparation and cohort creation

All counts are rounded to the nearest multiple of 5 to comply with SAIL statistical disclosure control rules.

2.5. Measures

2.5.1. Outcome of interest: Care status

We categorized children as being ‘placed in care’ if they were ever recorded as being placed in care in either the care and support or children looked after dataset. However, some children are placed in respite care under a series of short-term placements, to provide parents or carers with a break, and a special legal status code (V1) is used to identify these children. Children who were only ever placed in care for respite reasons were categorized as ‘not placed in care’ (Table 1) as they constitute a special group of children who normally live at home and are moving in and out of care (Welsh Government, 2024e).

2.5.2. Predictor variables: Children’s demographic characteristics

We calculated the age of the child at the year they first appeared in the care and support census using their week of birth and the end of the data capture period, i.e. 31st March. Children were categorized as aged <1, 1–4, 5–9, 10–15, or 16 and over. Sex and ethnicity were taken from the child’s first appearance in the care and support census. Area-level deprivation quintiles were coded as 1 = most deprived and 5 = least deprived, and “unknown” where data were missing. We extracted the Designated Family Judge (DFJ) area where children were living at first appearance in the care and support census, to explore whether disabled children in certain areas of Wales were at greater risk of placement in care. DFJ areas are geographical areas led by the designated family judge who has responsibility for providing leadership to the family judiciary within a group of courts or court centre. There are three DFJ areas in Wales – Cardiff and Southeast Wales, North Wales, and Swansea and Southwest Wales. The use of the ‘category of need’ codes is inconsistent across years and local authorities (Lee et al., 2022) and this is a subjective judgement made by the social worker completing the census return. In line with this, we decided not to include the category of need variable in our statistical models.

2.5.3. Predictor variables: Functional impairment categories

In line with 2021/2022 guidance notes for completing the care and support census return (Welsh Government, 2022), categories of functional impairment included perception of the risk of physical danger; speech, hearing and eyesight; memory; physical coordination; continence; mobility; manual dexterity; and inability to lift or carry objects. These categories are specified in the Equality Act, 2010 and are defined in the Glossary of Terms (Appendix A).

2.5.4. Predictor variables: Parental factors

These included substance misuse, learning disabilities, physical ill health, mental ill health, and domestic abuse as recorded in the care and support census. Please see the Glossary of Terms (Appendix A) for specific definitions.

2.6. Data visualization

We examined the proportion of children with different types of disability by their care status using bar charts, and the proportion of children with different combinations of disabilities using UpSet plots created with the ‘ComplexUpset’ R package (Krassowski, 2020).

2.7. Statistical analysis

We summarized the cohort and sub-cohort using descriptive statistics and calculated differences between groups using chi-squared tests of independence. We then investigated which risk factors were associated with placement in care amongst disabled children who were receiving care and support, using standard modelling procedures. We used multivariable logistic regression to calculate adjusted odds ratios (OR) with 95 % confidence intervals, by exponentiating the beta coefficients (Hosmer et al., 2013). For this, we used the *glm* package (Marschner & Donoghoe, 2018) within R version 4.1.3. In our models, we used individual categories for different types of disability to facilitate an understanding of whether particular types of disability were associated with care placement. We report three models: (1) adjusted for demographic characteristics (age group, sex, ethnicity, area-level deprivation and DFJ area), (2) adjusted for

Table 1

Assignment of children’s care status based on Children Receiving Care and Support (CRCS) and Children Looked After (CLA) records.

CRCS status	CLA status	Description	Placed in care status
Placed in care	Not present in the dataset	If children appeared in CRCS as ‘placed in care’ and they were not present in CLA, e.g. due to linkage issues	Placed in care
Placed in care	Had legal status code other than V1	If children appeared in CRCS as ‘placed in care’ and were recorded as being in care in CLA for reasons other than for respite care	Placed in care
Not placed in care	Had legal status code other than V1	If children appeared in CRCS as ‘not placed in care’ and were recorded as being in care in CLA for reasons other than respite care, e.g. they were placed in care outside the CRCS data capture period	Placed in care
Not placed in care	Not present in the dataset	If children appeared in CRCS as ‘not placed in care’ and they were not present in CLA, e.g. they were not placed in care	Not placed in care
Not placed in care	Only had a legal status code of V1	If children appeared in CRCS as ‘not placed in care’ and were only recorded as being in care in CLA for respite care	Not placed in care
Placed in care	Only had a legal status code of V1	If children appeared in CRCS as ‘placed in care’ and were only recorded as being in care in CLA for respite care	Not placed in care

demographic characteristics and children's disabilities (eight categories of functional impairment, mental health problems, and ASD), and (3) adjusted for demographic characteristics, children's disabilities, and parental factors. Since the purpose of the final model was not to predict future cases, we did not use a step-wise approach to variable entry. *P*-values of <0.05 were considered statistically significant. We assessed each model using pseudo-R² values, i.e., McFadden's R-squared, where higher values indicate a better model fit. We followed disclosure control procedures (rounding and suppression) to ensure anonymity of individuals. Specifically, counts of <10 individuals were suppressed, counts of individuals were rounded to the nearest multiple of 5, and percentages were only reported for groups consisting of ≥23 individuals.

2.8. Study reporting

This study is reported in accordance with the Reporting of Studies Conducted using Observational Routinely Collected Data (RECORD) guidelines, Appendix B (Benchimol et al., 2015).

Table 2

Characteristics of children receiving care and support in Wales, 2017–2021, by their disability status.

Characteristic	Total sample, N (%)	With disability, N (%)	No disability, N (%)	X ² , d.f., and p-value
	37,765 (100 %)	10,720 (28 %)¹	27,050 (72 %)	
Sex				X ² = 237.0398*** d.f. = 1
Female	17,480 (46 %)	4290 (40 %)	13,195 (49 %)	
Male	20,285 (54 %)	6430 (60 %)	13,855 (51 %)	
Age group at entry				X ² = 3334.169*** d.f. = 4
Under 1	3030 (8 %)	135 (1 %)	2895 (11 %)	
01–04	8300 (22 %)	1105 (10 %)	7190 (27 %)	
05–09	10,070 (27 %)	2600 (24 %)	7475 (28 %)	
10–15	12,395 (33 %)	5130 (48 %)	7265 (27 %)	
16 and over	3970 (11 %)	1750 (16 %)	2220 (8 %)	
Ethnic group				X ² = 99.62448*** d.f. = 6
Asian or Asian British	750 (2 %)	250 (2 %)	500 (2 %)	
Black, African, Caribbean or Black British	500 (1 %)	150 (1 %)	350 (1 %)	
Mixed ethnic groups	1160 (3 %)	275 (3 %)	885 (3 %)	
Not Obtained	1635 (4 %)	315 (3 %)	1320 (5 %)	
Other ethnic group	445 (1 %)	115 (1 %)	330 (1 %)	
Refused	160 (0 %)	35 (0 %)	125 (0 %)	
White	33,120 (88 %)	9585 (89 %)	23,535 (87 %)	
Care status				X ² = 236.3647*** d.f. = 1
Not placed in care	23,555 (62 %)	7335 (68 %)	16,225 (60 %)	
Placed in care	14,210 (38 %)	3385 (32 %)	10,825 (40 %)	
Category of need code				X ² = 12,454.96*** d.f. = 7
Abuse/Neglect	20,315 (54 %)	3235 (30 %)	17,080 (63 %)	
Disability/Illness	4930 (13 %)	4660 (43 %)	270 (1 %)	
Family Dysfunction	5215 (14 %)	1025 (10 %)	4185 (15 %)	
Family in Acute Stress	4635 (12 %)	1155 (11 %)	3480 (13 %)	
Other ²	630 (2 %)	120 (1 %)	510 (2 %)	
Parental disability	945 (2 %)	200 (2 %)	745 (3 %)	
Unacceptable Behaviour	1105 (3 %)	325 (3 %)	780 (3 %)	
WIMD 2019				X ² = 1307.363*** d.f. = 5
1. Most deprived	9885 (26 %)	2720 (25 %)	7160 (65 %)	
2	6235 (17 %)	1965 (18 %)	4270 (16 %)	
3	4295 (11 %)	1580 (15 %)	2715 (10 %)	
4	3330 (9 %)	1300 (12 %)	2030 (8 %)	
5. Least deprived	2415 (6 %)	1070 (10 %)	1345 (5 %)	
Unknown	11,610 (31 %)	2075 (19 %)	9535 (35 %)	
Number of years the child was identified in the census across the study period				X ² = 2591.918*** d.f. = 4
1	18,100 (48 %)	3270 (31 %)	14,830 (55 %)	
2	8180 (22 %)	2310 (22 %)	5885 (22 %)	
3	4245 (11 %)	1645 (15 %)	2605 (10 %)	
4	3070 (8 %)	1385 (13 %)	1690 (6 %)	
5	4170 (11 %)	2110 (20 %)	2060 (8 %)	

Note: All counts were rounded to the nearest multiple of 5. df = degrees of freedom. WIMD 2019 = Welsh Index of Multiple Deprivation 2019. ¹ We found 40 children who were recorded as having a disability, but with no specific type of disability recorded.

*** significant at *p* < .001.

2.9. Ethical approval

This study did not require National Research Ethics Committee approval as we used anonymized data. The Information Governance Review Panel (IGRP) granted approval to access and link the data. The IGRP is an independent panel of representatives from relevant organizations who review all applications for use of data held in the SAIL Databank, ensuring that the proposed research complies with information governance principles and represents an appropriate use of data in the public interest (Ford et al., 2009). Data were linked and analyzed within the SAIL Databank secure research environment, and were treated in accordance with the Data Protection Act 2018 and the principles underlying the General Data Protection Regulation.

Table 3A
Demographic characteristics of disabled children receiving care and support in Wales, 2017–2021, by their care status.

Characteristic	Total sample, N (%)	Placed in care, N (%)	Not placed in care, N (%)	X2, d.f., and p-value
	10,720 (100 %)	3385 (32 %)	7335 (68 %)	
Sex				X2 = 57.99194***, d.f. = 1
Female	4290 (40 %)	1535 (45 %)	2755 (38 %)	
Male	6430 (60 %)	1850 (55 %)	4580 (62 %)	
Age group at entry				X2 = 157.1012***, d.f. = 4
Under 1	135 (1 %)	70 (2 %)	60 (1 %)	
01–04	1105 (10 %)	260 (8 %)	845 (12 %)	
05–09	2600 (24 %)	645 (19 %)	1950 (27 %)	
10–15	5130 (48 %)	1810 (54 %)	3320 (45 %)	
16 and over	1750 (16 %)	590 (17 %)	1160 (16 %)	
Ethnic group				X2 = 122.6396***, d.f. = 5
Asian or Asian British	250 (2 %)	50 (2 %)	195 (3 %)	
Black, African, Caribbean or Black British	150 (1 %)	40 (1 %)	105 (1 %)	
Mixed ethnic groups	275 (3 %)	135 (4 %)	140 (2 %)	
Not Obtained/Refused ¹	345 (3 %)	40 (1 %)	310 (4 %)	
Other ethnic group	115 (1 %)	40 (1 %)	75 (1 %)	
White	9585 (89 %)	3075 (91 %)	6505 (89 %)	
Category of need				X2 = 2502.331***, d.f. = 7
Abuse/Neglect	3235 (30 %)	1855 (55 %)	1380 (19 %)	
Disability/Illness	4660 (43 %)	340 (10 %)	4320 (59 %)	
Family Dysfunction	1025 (10 %)	485 (14 %)	540 (7 %)	
Family in Acute Stress	1155 (11 %)	400 (12 %)	755 (10 %)	
Other	120 (1 %)	85 (2 %)	35 (1 %)	
Parental disability	200 (2 %)	100 (3 %)	100 (1 %)	
Unacceptable Behaviour	325 (3 %)	125 (4 %)	200 (3 %)	
WIMD 2019				X2 = 73.20565***, d.f. = 5
1. Most deprived	2720 (25 %)	920 (27 %)	1800 (25 %)	
2	1965 (18 %)	665 (20 %)	1300 (18 %)	
3	1580 (15 %)	510 (15 %)	1070 (15 %)	
4	1300 (12 %)	465 (14 %)	840 (11 %)	
5. Least deprived	1070 (10 %)	320 (9 %)	755 (10 %)	
Unknown	2075 (19 %)	505 (15 %)	1570 (21 %)	
Designated Family Judge Area				X2 = 1.92938, d.f. = 2
Cardiff and Southeast Wales	4990 (47 %)	1605 (47 %)	3385 (46 %)	
North Wales	2295 (21 %)	700 (21 %)	1595 (22 %)	
Swansea and Southwest Wales	3430 (32 %)	1080 (32 %)	2350 (32 %)	
Number of years the child was identified in the census across the study period				X2 = 933.4788***, d.f. = 4
1	3270 (31 %)	495 (15 %)	2780 (38 %)	
2	2310 (22 %)	615 (18 %)	1700 (23 %)	
3	1645 (15 %)	590 (17 %)	1055 (14 %)	
4	1385 (13 %)	600 (18 %)	780 (11 %)	
5	2110 (20 %)	1090 (32 %)	1020 (14 %)	

Note: All counts were rounded to the nearest multiple of 5. 1 Combined due to small numbers, to prevent disclosure. WIMD 2019 = Welsh Index of Multiple Deprivation 2019.

*** significant at $p < .001$ level.

3. Results

3.1. Descriptive statistics

Of the 37,765 children (46 % female) receiving care and support, 10,720 (28 %) were recorded as disabled (Table 2). Most children receiving care and support were White (88 %), aged 10–15 (33 %), and living in the most deprived areas of Wales (26 %), although it is important to note that for the deprivation variable data was missing for 31 % of the sample. For non-disabled children, the most commonly recorded reason for receiving care and support (need code) was abuse/neglect (63 %), while for disabled children, the most commonly recorded reason was disability/illness (43 %), although it is worth noting that 30 % of disabled children were receiving care and support for abuse/neglect. There was a greater proportion of males (60 %) and children aged 10–15 (48 %) in the group with disability compared with the group with no disability. Most children (48 %) received care and support in only one of the years but 11 % received care and support in all five years of the study period (2017–2021).

Of the 10,720 children recorded as having a disability (40 % female), 3385 (32 %) were placed in care (see Tables 3A and 3B). For children placed in care, the most commonly recorded reason for receiving care and support (need code) was abuse/neglect (55 %), while for children who were not placed in care, the most commonly recorded reason was disability/illness (59 %), although again it is worth noting that 19 % of children who were not placed in care were receiving care and support for abuse/neglect (Table 3A). Chi-squared tests showed that children placed in care were more likely to have mental health problems, and less likely to have ASD or any of the eight functional impairments, compared with children who were not placed in care (Table 3B). In addition, children placed in care were more likely to have a parent who had experienced domestic abuse or who had learning disabilities, mental ill health, physical ill health, or substance misuse problems, compared with children who were not placed in care (Table 3B). One fifth of disabled children received care and support in all five years of the study period (2017–2021) and those who were placed in care were more likely to have received care and support in multiple years (Table 3A).

Fig. 3 shows the proportion of children with each type of disability, by their care status. For children placed in care, the most commonly recorded disability was mental health problems (61 %), while lack of perception of the risk of physical danger (risk perception) was the most commonly recorded for children not in care (48 %). For children placed in care, 64 % had one disability, 13 % had 2 disabilities, and 22 % had 3 or more. For children not placed in care, 35 % had one disability, 14 % had 2 disabilities, and 52 % had 3 or more. Fig. 4 shows the co-occurrence of different types of disability amongst disabled children receiving care and support. The most common disabilities were risk perception and mental health problems, with difficulties lifting/carrying objects being the least common disability. However, reading from left to right, the most common subset was mental health problems alone (29 %), followed by ASD on its own (5 %), and then an overlap of all eight functional impairments (4 %). For children placed in care, the most commonly recorded disability was mental health problems, and the most common subset was having a mental health problem only, with 48 % of children in this subset (Fig. 5, Panel A). Only 2 % of children placed in care had all eight functional impairments. In contrast, for children who were not placed in care, the most commonly recorded disability was risk perception, followed by speech and sensory difficulties, and ASD (Fig. 5, Panel B). The most common subset in this group was having a mental health problem on its own (20 % of children), followed by ASD alone (5 %), and then a combination of all eight functional impairments (5 % of children).

Table 3B

Characteristics of disabled children receiving care and support in Wales, 2017–2021, by their care status: disability types and parental factors.

	X2, d.f., and p-value	Total sample, N (%)		Placed in care, N (%)		Not placed in care, N (%)	
		No	Yes	No	Yes	No	Yes
Types of disability		10,720 (100 %)		3385 (32 %)		7335 (68 %)	
Memory	X2 = 305.581*** d.f. = 1	7210 (67 %)	3510 (33 %)	2670 (79 %)	710 (21 %)	4535 (62 %)	2795 (38 %)
Dexterity	X2 = 383.2171*** d.f. = 1	8490 (79 %)	2230 (21 %)	3065 (91 %)	320 (9 %)	5425 (74 %)	1910 (26 %)
Mobility	X2 = 392.8329*** d.f. = 1	8395 (78 %)	2325 (22 %)	3045 (90 %)	340 (10 %)	5350 (73 %)	1985 (27 %)
Coordination	X2 = 403.2856*** d.f. = 1	8065 (75 %)	2655 (25 %)	2965 (88 %)	420 (12 %)	5100 (70 %)	2235 (30 %)
Continence	X2 = 404.2887*** d.f. = 1	8230 (77 %)	2485 (23 %)	3010 (89 %)	375 (11 %)	5225 (72 %)	2110 (29 %)
Lifting or carrying	X2 = 286.1657*** d.f. = 1	9045 (84 %)	1665 (16 %)	3150 (93 %)	230 (7 %)	5895 (80 %)	1440 (20 %)
Speech and sensory	X2 = 443.8749*** d.f. = 1	6785 (63 %)	3935 (37 %)	2630 (78 %)	755 (22 %)	4155 (57 %)	3180 (43 %)
Risk perception	X2 = 582.6787*** d.f. = 1	6005 (56 %)	4715 (44 %)	2475 (73 %)	910 (27 %)	3530 (48 %)	3805 (52 %)
Mental health problems	X2 = 844.5706*** d.f. = 1	6335 (59 %)	4380 (41 %)	1315 (39 %)	2070 (61 %)	5020 (68 %)	2315 (32 %)
Autistic Spectrum Disorders	X2 = 428.5329*** d.f. = 1	7045 (66 %)	3675 (34 %)	2700 (80 %)	685 (20 %)	4345 (59 %)	2990 (41 %)
Parental factors							
Domestic Abuse	X2 = 870.796*** d.f. = 1	8135 (76 %)	2585 (24 %)	1960 (58 %)	1425 (42 %)	6170 (84 %)	1160 (16 %)
Learning disabilities	X2 = 355.8939*** d.f. = 1	9580 (89 %)	1140 (11 %)	2745 (81 %)	640 (19 %)	6835 (93 %)	500 (7 %)
Mental ill health	X2 = 698.8684*** d.f. = 1	6445 (60 %)	4275 (40 %)	1410 (42 %)	1970 (58 %)	5035 (69 %)	2300 (31 %)
Physical ill health	X2 = 48.79837*** d.f. = 1	8280 (77 %)	2440 (23 %)	2475 (73 %)	910 (27 %)	5805 (79 %)	1525 (21 %)
Substance misuse	X2 = 1482.866*** d.f. = 1	8295 (77 %)	2425 (23 %)	1845 (54 %)	1540 (46 %)	6450 (88 %)	885 (12 %)

Note: All counts were rounded to the nearest multiple of 5.

*** significant at $p < .001$ level.

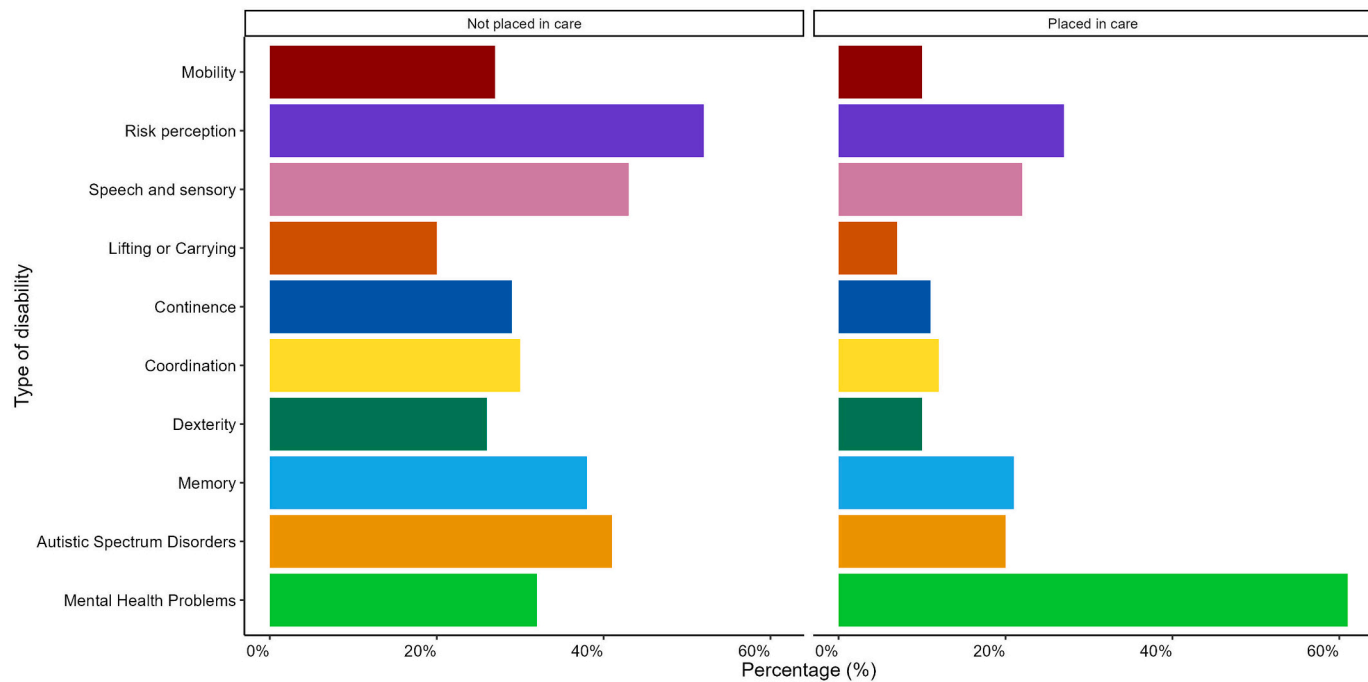


Fig. 3. Proportion of children with specific types of disability by their care status

Note: All counts ≥ 23 . Counts are rounded to the nearest multiple of 5.

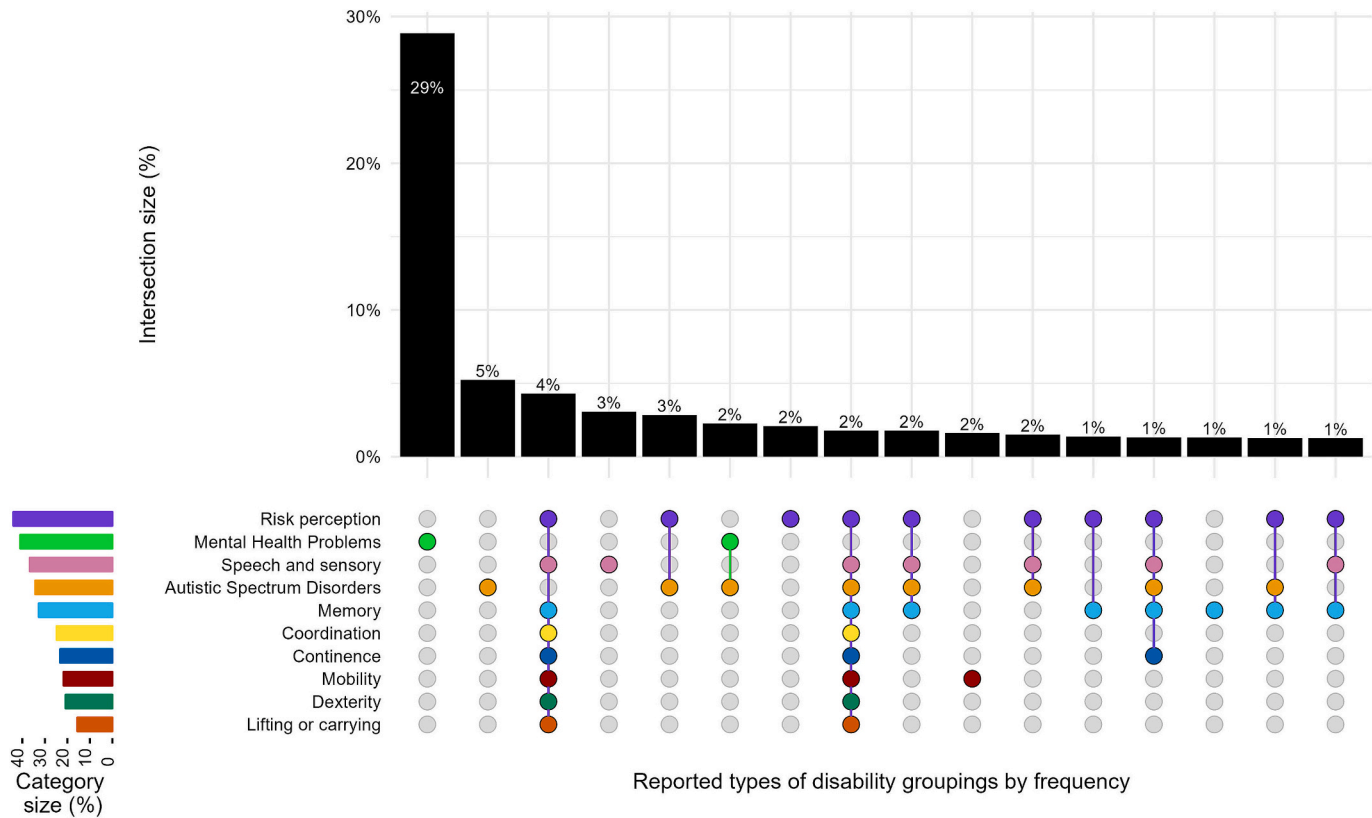
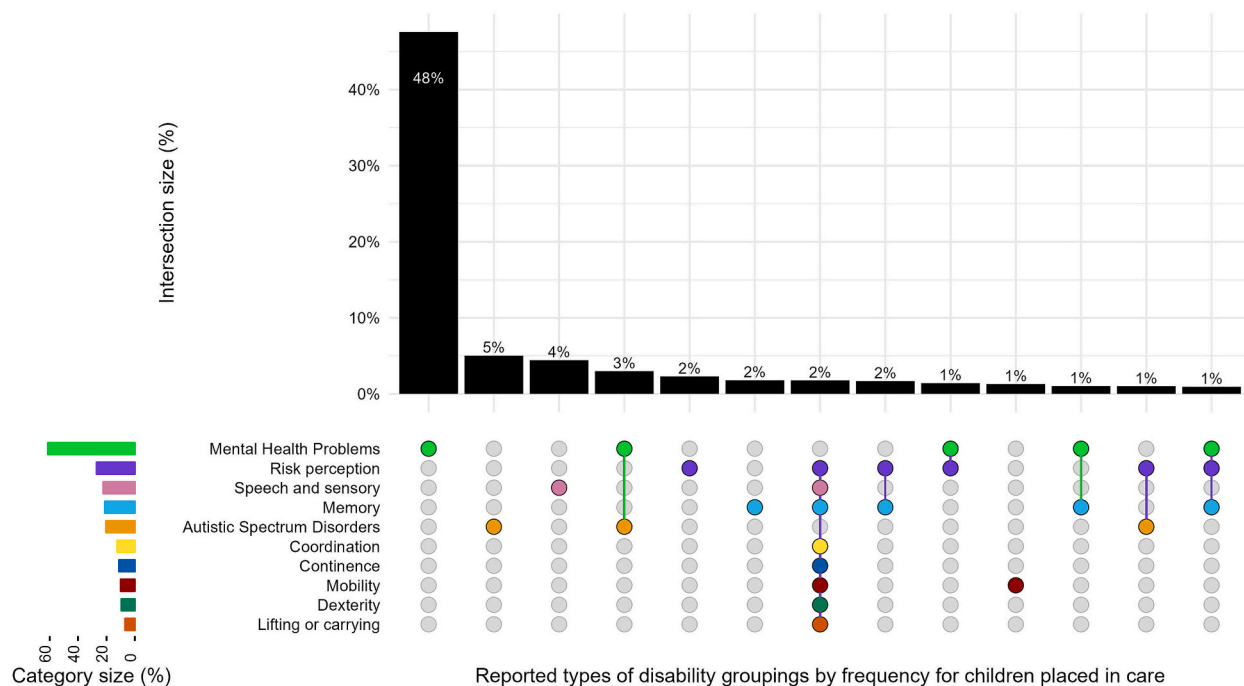


Fig. 4. UpSet plot showing the co-occurrence of types of disability amongst disabled children receiving care and support

Note: All counts ≥ 23 . The UpSet plot has three components. The bar chart shows the proportion of children with some particular combination of disabilities, with each bar representing a different combination. Underneath it is a graphical table showing what those combinations are. Each row is one of the types of disability. The dots and lines show the combination of disabilities that make up each subset. The third component of the plot is the smaller bar chart to the left of the graphical table. This shows the unconditional frequency count of each type of disability across all subsets.

A



B

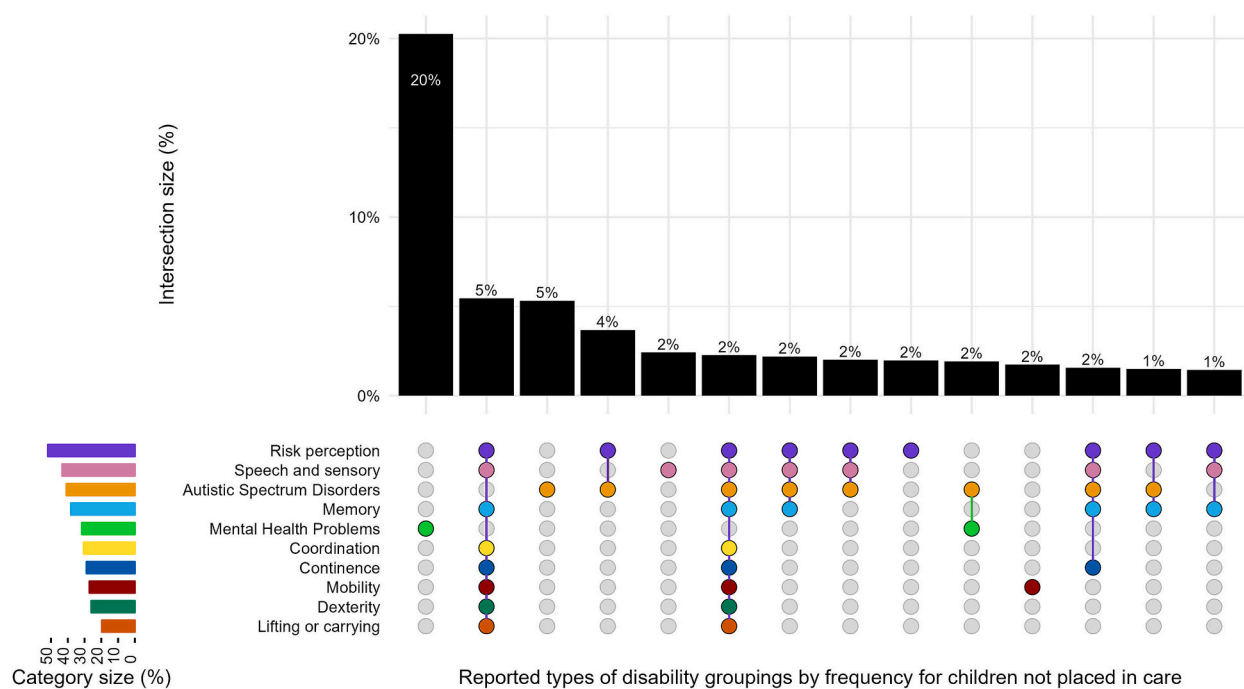


Fig. 5. UpSet plots showing the co-occurrence of reported types of disability amongst children who were A) placed in care and B) not placed in care

Note: All counts ≥ 23 and rounded to the nearest multiple of 5. Children can have multiple types of disability.

3.2. Factors associated with placement in care

Table 4 presents adjusted odds ratios and 95 % confidence intervals for three statistical models examining risk factors for placement in care amongst children receiving care and support with disabilities. Model 1 included children's demographic characteristics only,

Table 4

Adjusted odds ratios and 95 % confidence intervals for three statistical models examining risk factors for placement in care amongst children receiving care and support with disabilities.

Terms	Model 1 (R2 = 0.03)		Model 2 (R2 = 0.12)		Model 3 (R2 = 0.21)	
	Odds ratio	95 % CI	Odds ratio	95 % CI	Odds ratio	95 % CI
(Intercept)	0.56***	[0.47, 0.67]	0.51***	[0.41, 0.63]	0.36***	[0.29, 0.45]
Age group (reference 16 and over)						
Under 1	3.18***	[2.20, 4.61]	7.21***	[4.85, 10.74]	3.00***	[1.93, 4.66]
01–04	0.68***	[0.57, 0.81]	1.54***	[1.26, 1.87]	0.88	[0.71, 1.09]
05–09	0.67***	[0.58, 0.76]	1.28***	[1.10, 1.48]	0.80**	[0.68, 0.94]
10–15	1.06	[0.94, 1.19]	1.11	[0.98, 1.26]	0.81***	[0.71, 0.92]
Sex (reference Female)						
Male	0.78**	[0.72, 0.85]	1.03	[0.94, 1.14]	1.05	[0.95, 1.16]
Ethnic group (reference White)						
Asian or Asian British	0.59***	[0.43, 0.80]	0.80	[0.57, 1.10]	1.17	[0.83, 1.63]
Black, African, Caribbean or Black British	0.86	[0.59, 1.23]	1.16	[0.78, 1.70]	1.64*	[1.09, 2.42]
Mixed ethnic groups	2.05***	[1.61, 2.62]	2.12***	[1.63, 2.76]	2.34***	[1.77, 3.08]
Not Obtained/Refused	0.29***	[0.2, 0.4]	0.27***	[0.18, 0.37]	0.32***	[0.22, 0.46]
Other ethnic group	1.10	[0.73, 1.61]	1.23	[0.80, 1.87]	1.81**	[1.16, 2.77]
Designated Family Judge (DFJ) Area (reference Cardiff and Southeast Wales)						
North Wales	0.92	[0.83, 1.03]	0.92	[0.82, 1.04]	1.02	[0.89, 1.15]
Swansea and Southwest Wales	0.97	[0.88, 1.06]	1.26***	[1.13, 1.40]	1.14*	[1.02, 1.28]
Deprivation Information (reference 5. Least deprived)						
4	1.31**	[1.10, 1.57]	1.21	[1, 1.46]	1.15	[0.94, 1.41]
3	1.13	[0.96, 1.35]	1.00	[0.83, 1.20]	0.89	[0.73, 1.09]
2	1.21*	[1.03, 1.42]	1.00	[0.84, 1.19]	0.88	[0.73, 1.07]
1. Most deprived	1.20**	[1.03, 1.42]	0.94	[0.79, 1.11]	0.77***	[0.64, 0.92]
Unknown	0.75	[0.64, 0.89]	0.58***	[0.49, 0.70]	0.54***	[0.44, 0.65]
Disability reported (reference - No)						
Memory - Yes			1.09	[0.96, 1.24]	1.08	[0.94, 1.24]
Dexterity - Yes			0.86	[0.70, 1.05]	0.88	[0.71, 1.08]
Mobility - Yes			0.53***	[0.44, 0.62]	0.64***	[0.53, 0.77]
Coordination - Yes			0.91	[0.76, 1.08]	0.93	[0.77, 1.13]
Continence - Yes			0.76***	[0.65, 0.89]	0.74***	[0.62, 0.87]
Lift / Carry - Yes			0.84	[0.69, 1.03]	0.86	[0.69, 1.06]
Speech and Sensory - Yes			0.89	[0.78, 1.01]	0.94	[0.82, 1.07]
Risk perception - Yes			0.73***	[0.64, 0.83]	0.73***	[0.64, 0.83]
Mental health problems - Yes			2.11***	[1.87, 2.38]	1.82***	[1.60, 2.07]
Autistic Spectrum Disorders - Yes			0.47***	[0.42, 0.52]	0.58***	[0.51, 0.65]
Parental factors (reference - No)						
Domestic abuse - Yes					1.47***	[1.30, 1.65]
Learning disabilities - Yes					2.97***	[2.56, 3.45]
Mental ill health - Yes					1.45***	[1.31, 1.62]
Physical health - Yes					0.97	[0.86, 1.09]
Substance misuse - Yes					3.23***	[2.87, 3.64]

Note:

* significant at $p > .05$ level.

** significant at $p > .01$ level.

*** significant at $p \geq 0.001$ level.

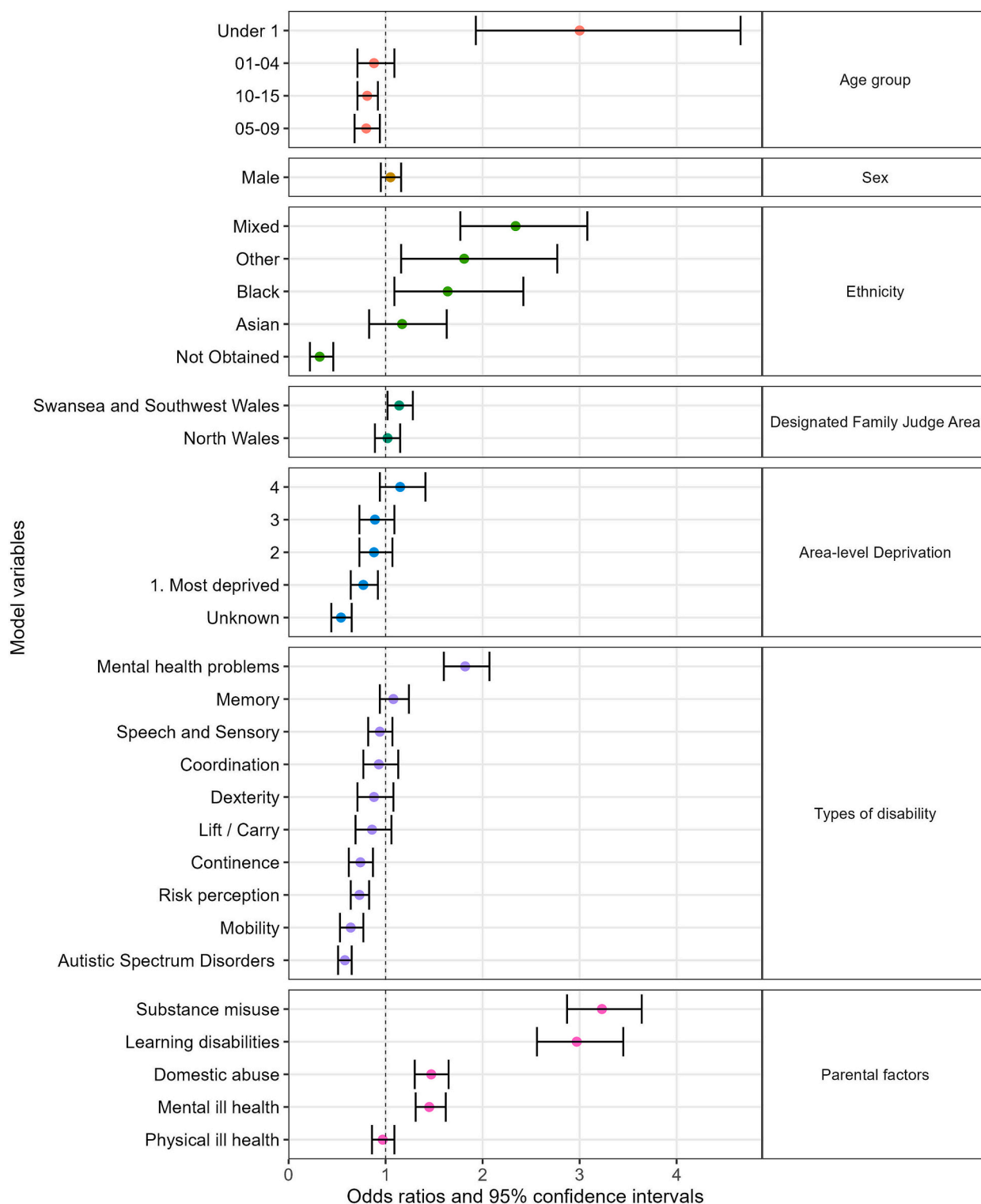


Fig. 6. Adjusted odds ratios and 95 % confidence intervals for risk factors for placement in care amongst children receiving care and support with disabilities; from Model 3, which explained the most variance ($R^2 = 0.021$)

Note: Odds ratios straddling the dashed line were not significantly associated with placement in care. Those to the right of the line were associated with increased risk, while those to the left of the line were associated with decreased risk.

Model 2 included children's demographic characteristics and disabilities, while Model 3 included children's demographic characteristics, children's disabilities, and parental factors. Model 3 was the best fitting model and explained the most variance, with an R^2 of 0.21. In Model 3, infants <1 year were more likely to be placed in care compared with children aged ≥ 16 (Odds Ratio [OR] 3.00, 95 % Confidence Interval [CI] 1.93–4.66), while children in the other age groups (1–4, 5–9, and 10–15) were less likely to be placed in care compared with children aged ≥ 16 (Table 4). Black children (OR 1.64, 95 % CI 1.09–2.42), and children of mixed ethnicity (OR 2.34, 95 % CI 1.77–3.08), or 'other' ethnic group (OR 1.81, 95 % CI 1.16–2.77) were more likely to be placed in care compared with White children, whilst those whose ethnicity was not obtained were less likely to be placed in care (OR 0.32, 95 % CI 0.22–0.46). Children whose area-level deprivation quintile was unknown (OR 0.54, 95 % CI 0.44–0.65) and those living in the most deprived areas (OR 0.77, 95 % CI 0.64–0.92) were also less likely to be placed in care compared with children living in the least deprived areas in Wales. Children from Swansea and Southwest Wales were more likely to be placed in care (OR 1.14, 95 % CI 1.02–1.28) compared with children from Cardiff and Southeast Wales. Sex was not significantly associated with placement in care.

Impairments in mobility (OR 0.64, 95 % CI 0.53–0.77), continence (OR 0.74, 95 % CI 0.62–0.87), and risk perception (OR 0.73, 95 % CI 0.64–0.83), as well as ASD (OR 0.58, 95 % CI 0.51–0.65), were significantly associated with a lower chance of placement in care. Child mental health problems were significantly associated with a higher chance of placement in care (OR 1.82, 95 % CI 1.60–2.07), as were the following parental factors: substance/alcohol misuse (OR 3.23, 95 % CI 2.87–3.64), learning disabilities (OR 2.97, 95 % CI 2.56–3.45), domestic abuse (OR 1.47, 95 % CI 1.30–1.65), and mental ill health (OR 1.45, 95 % CI 1.31–1.62). Fig. 6 shows the adjusted ORs and 95 % CIs for Model 3.

4. Discussion

This study found that the estimated prevalence of disability in the population of children receiving care and support in Wales is 28 %. In addition, 32 % of disabled children were placed in the care of the local authority. This latter figure excluded those who were only recorded as being placed in care for respite reasons. These estimates are higher than the most recent annual figures published by Welsh Government, who reported that 21 % of children receiving care and support were disabled, and 21 % of disabled children had been placed in care at 31 March 2023 (Welsh Government, 2024b, 2024c). This is explained by the fact that we have included child mental health problems and ASD in the definition of disability, whilst the care and support census does not.

The disability profiles of the children receiving care and support in Wales are varied, with many children experiencing multiple types of disability, demonstrating that this is a heterogeneous population with diverse needs that are ranging in their complexity. The disability profiles of children placed in care also appeared to differ from those not placed in care; for children in care, the most commonly recorded disability was mental health problems, while for children not in care, this was lack of perception of the risk of physical danger. When considering disability types in combination, in both groups, the most frequent subset was having a mental health problem on its own, with a higher proportion of children in care (48 %) in this subset compared to children not in care (20 %). In addition, multivariable modelling revealed that children with mental health problems had an 80 % increased likelihood of being placed in care than those without mental health problems. This is consistent with findings from a previous study that examined risk factors for care entry amongst children in the general population (Simkiss et al., 2012). In addition, a study conducted in Manitoba, Canada, reported that intellectual and mental health disabilities were the most frequent impairments amongst disabled children receiving child welfare services, with 56 % of children having a mental health problem (Gough & Fuchs, 2006). There are no official statistics on the prevalence of mental health problems in children in care in Wales, although this is thought to be high (Welsh Parliament, 2024). Our study found that altogether, 41 % of disabled children receiving care and support had a mental health problem, with this figure rising to 61 % for disabled children placed in care. The child mental health data in the care and support census is only recorded for children aged 10 or older, which is likely to underestimate the number of children with mental health problems.

We also found that infants aged <1 year and children from Black and Mixed ethnic groups are at higher risk of placement in care compared with older children and White children, respectively. This is consistent with studies highlighting high rates of infants in the general population entering care in Wales (Alrouh et al., 2018; Cowley et al., 2023) and recent research highlighting ethnic disparities within the care system in England and Wales, which reported that children from Black and Mixed ethnic groups are over-represented (Edney et al., 2023; Jing et al., 2024). In addition, in our study some types of disability were associated with a lower risk of placement in care, including ASD. This finding is more difficult to interpret, with previous research finding a greater risk of foster care involvement amongst children with ASD compared with typically developing children (Cidav et al., 2018). In Wales at 31 March 2023, 5 % of children in care had ASD compared to 2 % of pupils aged 5–15 as recorded in the Pupil Level Annual Schools Census (Welsh Government, 2024b). Evidence from England suggests that the numbers of autistic children in care could be under-represented in official statistics (Parsons et al., 2019) and it is likely that the situation is similar in Wales. Qualitative evidence suggests that social workers in Wales may struggle to differentiate between ASD, trauma symptoms and attachment disorders, and that children in care with suspected ASD encounter long delays for diagnostic assessments (Heady et al., 2022).

Children whose parents experienced substance misuse, learning disabilities, mental health problems and domestic violence were more likely to be placed in care after controlling for child demographic factors and disability types. These findings are consistent with the results of Slayter (2016) who found that children in the US with disabilities were more likely to enter care if they experienced parental alcohol or drug abuse, compared to children without disabilities. Our findings are also perhaps unsurprising since these are all factors which can impact on a parent's capacity to respond to a child's needs and keep them safe from harm. Caring for a child with a disability may result in high levels of financial and psychological stress, which in turn can cause family conflict, poor coping strategies and mental health problems (Chen et al., 2023; Marquis et al., 2020). Another recent study using the care and support census used latent class analysis to identify typologies of adversity experienced by children receiving care and support (Anthony et al., 2023). That

study identified a distinct group of children with a high proportion of child disability alongside other adversities mostly related to parental factors and found that children in this group were more likely to be placed in care compared to a group of children with a low number of adversities (Anthony et al., 2023). However, our findings are also in line with two studies in Wales that linked social care data to health and other administrative data to identify risk factors for care entry amongst children in the general population (Melis et al., 2023; Warner et al., 2024). Melis et al. (2023) found that maternal mental health problems in pregnancy, alcohol problems, and substance use in pregnancy were associated with higher risk of care entry. Similarly, Warner et al. (2024) identified a wide range of parental factors that were associated with increased risk of care entry including drug and alcohol misuse, assault at home, having a learning difficulty or disability, and various mental health conditions including schizophrenia, anxiety, and depression.

One factor that is consistently associated with placement of children into care is deprivation. One study found that children in the most deprived neighbourhoods in Wales were almost twelve times more likely to enter care than those in the least deprived (Elliott, 2020). In Model 1, where only child demographic factors were considered, deprivation appeared to play a role, where children living in the more deprived quintiles in Wales were more likely to be placed in care compared with children living in the least deprived quintile. However, once child disability types and parental factors were incorporated, children living in the most deprived quintile were less likely to be placed in care. We were not able to capture deprivation information for all of the children in the study, as not all of them had an ALF enabling linkage to the demographic register; this information was missing for 19 % of the sample of disabled children and may explain why a negative association was found between deprivation and care entry once other factors were introduced. One other possible explanation is that families with disabled children who are also living in more deprived areas may receive more help and support from social services, which prevents their children from needing to be placed in local authority care.

Previous studies (Jones et al., 2012; Maclean et al., 2017) report that disabled children are at higher risk of abuse and violence from their caregivers. In the current study, disabled children were less likely to be placed in care compared to non-disabled children receiving care and support; the proportions were 32 % and 40 %, respectively. However, abuse/neglect was the second most commonly recorded primary category of need for disabled children receiving care and support (30 %), after disability/illness (43 %). Of disabled children who were placed in care, over half (55 %) were initially receiving support for abuse/neglect. However, 19 % of those who were not placed in care had a category of need code of abuse/neglect. This could suggest that social workers are successfully working with these families to support them without the need for the child to enter local authority care. However, as described in the methods, the primary category of need is a subjective judgement made by the social worker completing the census return for the child and therefore these findings should be interpreted with caution.

4.1. Strengths and limitations

A strength of the current study is the large sample size afforded by using routinely collected social care data, providing a population-level cohort and findings that are generalizable to all children receiving care and support in Wales. This enabled us to examine all disabled children who were receiving care and support from 2017 to 2021. In addition, unlike the care and support census, the children looked after census captures all episodes of care throughout the year. We were able to link these datasets to identify whether children had been placed in care outside of the care and support census data capture period, and identify children who were only ever placed in care for respite reasons. This will not be an issue for future research, as the next care and support census will report episodic data.

One limitation is that the data are collected for administrative and not research purposes and so data quality may be variable, and is dependent on local authorities providing complete and accurate data to Welsh Government. Information on deprivation was missing for 19 % of disabled children and therefore the associations between deprivation and care entry may have been underestimated. Due to a technical error, the care and support census data from one local authority was missing from the 2020/2021 dataset provisioned within SAIL. The data was also limited to the period of capture. Up until now, the care and support census has only reported on children who were receiving care and support from January to March each year; as such, this is likely to miss some children receiving care and support in a given year. In addition, the census only captures those with an active care and support plan and not those waiting for a service or assessment (Lee et al., 2022), or those with no contact with social care services. There are no available data on the proportion of children who are in need of care and support but are unknown to services. Altogether, this means that there may be more disabled children requiring care and support in Wales who are not included in our analysis. Additionally, we were unable to examine the severity of children's disabilities with the available data, which is an important indicator of needs and dependency.

Another potential limitation is that we did not include a comparison cohort, i.e. we did not examine the risk factors for placement in care amongst non-disabled children receiving care and support. This is because the primary focus of the study was disabled children and identifying their support needs to help prevent their entry into the care system. However, future research could investigate risk factors for placement in care amongst the whole of the population of children receiving care and support, and the findings could complement those presented here. Our analyses examined associations between the risk factors and placement in care and did not examine whether there was a causal relationship between the variables. Finally, the care and support census data is limited to the knowledge that local authorities have and their perceptions of the family's problems. Although the care and support census reports on the types of disabilities that children experience, we did not explore the health conditions of these children, which would have required linkage to additional datasets. Another project is currently underway that will link social care data to health and education data to obtain a more comprehensive picture of the lives of disabled children who are placed in care.

4.2. Implications for research, policy and practice

Our inclusion of mental health problems and ASD in the definition of disability highlights the historical underreporting of disabilities in children receiving care and support in Wales. Going forward, Welsh Government have changed their guidance so that mental illness and neurodevelopmental disorders will be counted as disabilities (Welsh Government, 2024d). This should mean that the number of children reported as being disabled will increase in the next census, and could highlight changes in the needs of disabled children receiving care and support. Overall, the risk factors for placement in care amongst disabled children were similar to those found in the literature for the general population of children (O'Donnell et al., 2016; Simkiss et al., 2012), suggesting that social workers should remain vigilant of these factors when assessing every child. Given the potential negative impact on parents of caring for a disabled child, parents should be supported to manage their own needs as well as their child's health and developmental needs. The high proportion of children with mental health problems and the risk that poor mental health confers on the likelihood of placement into care demonstrates that there is an urgent need for mental health support amongst disabled children receiving care and support. It is important to keep in mind that the mental health support needs of disabled children may be masked by their severe complex needs (NICE, 2023). This diagnostic overshadowing is likely to lead to delayed treatment and support for an already vulnerable group of children. The National Institute for Clinical Excellence recommends that education, health and social care professionals work together to provide more coordinated support to disabled children and their families, and for each service to consider whether children with complex health needs or disabilities may also have other health, special educational or social care needs (NICE, 2023).

More broadly, our study highlights the need for improved data collection on disabled children both in the UK and internationally. We focused on a cohort of children already receiving care and support from social services, due to the absence of a complete national dataset on disabled children in Wales. Disparities in the methodologies used to collect child disability data have led to challenges in producing internationally comparable statistics and make it difficult for countries to plan and deliver effective services. A recent report highlighted the apparent under-recording of disability amongst children who are in need of care and protection in Scotland (McTier, 2024). It is clear that accurate data are urgently needed to fully understand the needs of disabled children and the factors associated with their placement into care, in Wales and beyond.

5. Conclusions

The estimated prevalence of disability in children receiving care and support in Wales is 28 %, and 32 % of these children are placed in care. The strongest modifiable risk factors for placement in care were parental substance misuse, child mental health problems, and parental mental health problems. Findings suggest an urgent need for improved mental health services for children receiving care and support, and recognition that mental health diagnoses in disabled children are often obscured by their other complex needs. We recommend that practitioners and policy-makers provide targeted services to children and families based on this evidence to safely reduce the need for disabled children to be placed in care. Joined-up working across health, education and social care services will help to ensure that disabled children and their families receive appropriate support at the earliest opportunity.

CRediT authorship contribution statement

Michael Jeanne Childs: Writing – review & editing, Writing – original draft, Visualization, Formal analysis, Data curation, Conceptualization. **Grace A. Bailey:** Writing – review & editing. **Lucy J. Griffiths:** Writing – review & editing, Supervision. **Helen Hodges:** Writing – review & editing. **Martin Elliott:** Writing – review & editing. **Laura Elizabeth Cowley:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Formal analysis, Data curation, Conceptualization.

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Declaration of competing interest

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.chiabu.2025.107510>.

Data availability

The data used in this study is available from the Secure Anonymised Information Linkage (SAIL) Databank at Swansea University, Swansea, UK, which is part of the national e-health records research infrastructure for Wales. All proposals to use this data are subject to review and approval by the SAIL Information Governance Review Panel (IGRP). When access has been granted, it is gained through a privacy-protecting safe-haven and remote access system, referred to as the SAIL Gateway. Anyone wishing to access data should follow the application process guidelines available at: www.saildatabank.com/application-process.

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