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Psychiatric inpatient admissions and discharges of people with intellectual disabilities: A time series analysis of English national data

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Abstract

Background: We examined whether a series of variables were related to the number of psychiatric inpatients using publicly available data about English psychiatric bed utilisation and NHS workforce.

Method: Using linear regression, with auto-regressive errors, we examined relationships between variables over time using data from December 2013 to March 2021.

Results: Over time, the number of inpatients reduced by either 6.58 or 8.07 per month depending upon the dataset utilised, and the number of community nurses and community nursing support staff reduced by 7.43 and 2.14 nurses per month, respectively. Increasing numbers of consultant psychiatrists were associated with fewer inpatients over time. More care and treatment reviews (CTRs) were associated with more admissions over time, while more post-admission CTRs were associated with increased discharges over time.

Conclusions: Future studies should examine whether psychiatric bed utilisation elsewhere within the NHS by people with intellectual disabilities has increased.

KEYWORDS
assuring transformation, hospital admission, learning disabilities, neurodevelopmental disorders, transforming care, transforming care

1 | INTRODUCTION

The British Broadcasting Corporation exposed the systematic abuse of people with intellectual disabilities detained in a psychiatric hospital in 2011 when they broadcast the panorama television programme, 'Undercover Care: The Abuse Exposed'. Following this, a concerted effort was launched by the National Health Service (NHS) in England (2015a, 2015b, 2017) to reduce the number of people with intellectual disabilities within psychiatric hospitals referred to as the 'transforming care' initiative. One of the key goals was to reduce

inpatient numbers by up to 35%–50% and a core part of the initiative was the creation of care and treatment reviews (CTRs; NHS England, 2017) for adults, and care, education and treatment reviews (CETRs; NHS England, 2017) for children to promote admission avoidance and discharge. The aim of these were, 'to bring a person-centred and individualised approach to ensuing that the care and treatment and differing support needs of the person and their families are met, and that barriers to progress are challenged and overcome' (p. 10; NHS England, 2017).

As part of 'transforming care', and to monitor progress, NHS digital began to collect and publish anonymised national data on behalf of NHS England, referred to as assuring transformation (AT) data, about psychiatric inpatient bed utilisation by people with intellectual disabilities and/or autism. There have been a variety of attempts to appraise the success of the transforming care agenda within England using publicly available data. For example, initially, there was some indication that the programme may have led to a 35% reduction in the number of inpatients, but there were concerns about the validity of these data at that time (Glover et al., 2014). James et al. (2017) analysed later national data and reported that admission rates varied by geographical region, and this appeared was related to whether these areas actually had an inpatient unit. Brown et al. (2017) went on to report that a higher inpatient rate per million of the population registered with a general practitioner within a Transforming Care Partnership was associated with a length of stay longer than 5-years and areas with a lower house price index. The authors suggested that a higher inpatient rate was associated with a lower house price index because providers may be more likely to establish inpatient units in areas with lower property costs. They also reported that a length of stay longer than 5-years was associated with a higher inpatient rate, a greater number of inpatient settings, and a greater number of people receiving funded community care packages who had previously been an inpatient.

The transforming care programme has been criticised for not achieving the goal of drastically reducing the number of people with intellectual disabilities and/or autism within psychiatric hospitals (Evans, 2018), while in some areas, substantial success had been reported (Dean, 2017). There is evidence that the actual achieved reduction in the number of inpatients during transforming care has been 5%–6% (Taylor, 2021). There is little evidence to indicate that CTRs or CETRs are effective in preventing admission and promoting discharge. Further, the programme has been criticised for failing to recognise the complex care needs of some individuals, especially those who have forensic mental health problems and a history of committing criminal offences, where the risk posed to others, and associated legal restrictions, mean that discharge from hospital is not always possible (Alexander et al., 2015). Others have expressed concern that the programme places pressure on services to move those with a forensic mental health needs who present with risk to either themselves or others out of hospital and into the community without an associated investment in the development of robust community services (Taylor, 2019). Concerns have been raised that an increasing number of vulnerable adults with intellectual disabilities and/or autism would consequently end up in prison (Taylor, 2019), while it should also be recognised that people with intellectual disabilities do have higher rates of mental illness (Deb et al., 2001a, 2001b), and require increased service utilisation. It could be the case that closing psychiatric beds specifically commissioned for use by someone with an intellectual disability may lead to an increase in the utilisation of psychiatric beds by this population elsewhere within the NHS.

Criticisms aside, NHS digital has continued to publish anonymised national data about psychiatric inpatient bed utilisation by people with intellectual disabilities and/or autism. At the same time, NHS digital also publish national data about the NHS workforce, including data about the number of psychiatrists and nurses working within intellectual disabilities services within the NHS. Considering the aforementioned issues with transforming care and the availability of data, we made use of time series modelling to understand the relationship between a series of hypothesised predictors and the following outcomes as found within the AT data over time: (a) monthly total number of inpatients, (b) monthly total number of admissions, (c) monthly total number of discharges, (d) the number of admissions relative to the number of discharges, and (e) the use of forensic relative to acute inpatient beds. We specifically hypothesised that the number of people with intellectual disabilities in contact with intellectual disability services, the number of psychiatrists and nurses working within these services, local authority awareness of a person with an intellectual disability, and the use of care and treatment reviews will likely relate to our chosen outcomes.

2 | METHOD

2.1 | Data extraction

We downloaded online AT data from NHS Digital (2022a) pertaining to inpatient psychiatric bed utilisation from December 2013 to March 2021. We also downloaded online NHS workforce statistics from NHS Digital (2022c) for the same time period. We also extracted data from the Mental Health Services Monthly Statistics, and specifically, the number of people in contact with services for people with intellectual disabilities and/or autism within the NHS (NHS Digital, 2022b). Data were extracted for each month and a new database was created for our analysis.

Data about the following chosen outcome variables were extracted from the AT data and were either frequency counts or converted to ratios where the proportion of individuals with a particular characteristic were considered. Our outcome variables were: (a) total monthly number of inpatients, (b) total monthly number of admissions, (c) total monthly number of discharges, (d) the monthly ratio of admissions to discharges (numbers greater than 1 indicate more admissions relative to discharges), and (e) the monthly ratio of forensic to acute bed usage (numbers greater than 1 indicate more secure beds relative to both LD and mental health acute beds). From March 2015, NHS Digital began publishing two types of data about the total monthly number of inpatients. The first was the original data as submitted, and the second was updated data taking late submissions or errors into

account, and we extracted both, but only included the updated data within our time series analysis.

Monthly data were also extracted about the following predictor variables from either the AT data, Mental Health Services Monthly Statistics, or the NHS workforce statistics which tended to be reported as the value at the end of the month: (a) the number of people in contact with intellectual disability and autism services (as recorded within the Mental Health Services Statistics Monthly Report published by NHS Digital), (b) the number of intellectual disability consultant psychiatrists (these are psychiatrists who have completed specialist training in the psychiatry of intellectual disabilities and are eligible for specialist registration with the General Medical Council), (c) the number of intellectual disability community nursing staff (these are often nurses who are registered with the Nursing and Midwifery Council as a learning disability nurse, having completed specialist training), (d) the number of intellectual disability community support staff (these are often unqualified staff), (e) the ratio of those using advocacy to those who are not, (f) use of independent mental health advocates (IMHA) (this is an independent person who is trained in mental health law and provides advocacy and support to individuals), (g) use of independent mental capacity advocates (IMCA) (this is an individual who is trained to support people who lack capacity to make decisions for themselves), (h) the ratio of those with a care plan involving family to those without, (i) whether a pre-admission CTR had occurred, (j) ratio of those with and without a post-admission CTR, (k) ratio of those where the local authority was aware of the person or not (a local authority is a region of local government responsible for the provisions of services, including social care, employing social workers), (l) the number classed as not dischargeable because of level of behaviour that presents a risk to the person or others, or mental illness, and (m) the number of those with a transfer or discharge plan that has been agreed by the patient.

2.2 | Data analysis

Initially, the monthly number of inpatients were plotted as submitted to NHS Digital and following a correction for any errors along with the number of consultant psychiatrists and nursing staff working with people with intellectual disabilities in the NHS. This was to allow for the examination of any trends over time.

Linear regression with auto-regressive (AR) errors was used to consider relationships between the explanatory and outcome variables. In an AR model, the modelled outcome is considered dependent (linearly) on the previous time points and this dependency between the residuals is explicitly accounted for in the model. The 'order' of the autoregressive proves defines the number of previous time points which the outcome depends upon. In this case, an order of 2 ('AR2 model') was used for all models, except for the 'Monthly Total Number of Inpatients' outcome ('AR1 model') where this was reduced to an order of 1 to allow for a better model fit. Our results are based upon the best fitting model accordingly to the Akaike Information Criterion (AIC) fit index (lowest AIC indicates best fitting model).

The number of data points available for the analysis varied from model to model due to missing data. The maximum number of months available for analysis was 78 and the minimum number was 37. Some of the explanatory variables were highly collinear, and variables were excluded according to their magnitude of variance inflation factor (VIF). The number of excluded explanatory variables varied for different outcomes and only those with a VIF <5 were retained in the analysis.

3 | RESULTS

3.1 | Inpatient numbers and workforce

The number of inpatients over time reduced from December 2013 to March 2021, Figure 1. Considering the data, as originally submitted to NHS Digital, the number of inpatients during December 2013 was 2577, and this decreased to 2035 in March 2021. While based upon the first and last data point within the dataset we analysed, and noting that there was variability across time, this represented a decrease of 21%. The least squares regression line of best fit for these data was, $y = -6.58x + 2624.8$, $R^2 = .58$. This means that the number of inpatients decreased over time by an average of 6.58 per month. The data as originally submitted were corrected for errors and late submissions from March 2015 by NHS Digital. The number of inpatients as reported within the corrected data in March 2015 was 2865, and this decreased to 2165 by March 2021, and again recognising variability over time, this was a 24% decrease. The least squares regression line of best fit for these data was, $y = -8.07x + 2947.3$, $R^2 = .93$. This indicates an average monthly reduction of 8.07 inpatients over time, which is greater than that found within the data as originally submitted, Figure 1.

At the same time, the number of community intellectual disabilities nurses working in the NHS declined, Figure 1. The difference between the first and last data point represented a 20% reduction. The least squares regression line of best fit for these data was, $y = -7.43 + 3673.2$, $R^2 = .81$, and this means that 7.43 intellectual disability community nurses were lost each month from December 2013 to March 2021. Similarly, and while there were relatively fewer community nursing support staff working with people with intellectual disabilities in the NHS, the number declined during the same period at a rate of −2.14 per month, $y = -2.14 + 628.92$, $R^2 = .51$, or by 34% based upon the first and last data point, while the number of intellectual disabilities consultant psychiatrists remained stable over time, $y = -.06 + 259.99$, $R^2 = .11$, Figure 1.

3.2 | Modelling

Descriptive statistics pertaining to our outcome variables are found within Table 1. We removed the following variables from our analysis due to problems with collinearity leading to poor model fit: (a) number of community nurses, (b) the ratio of those using advocacy to those

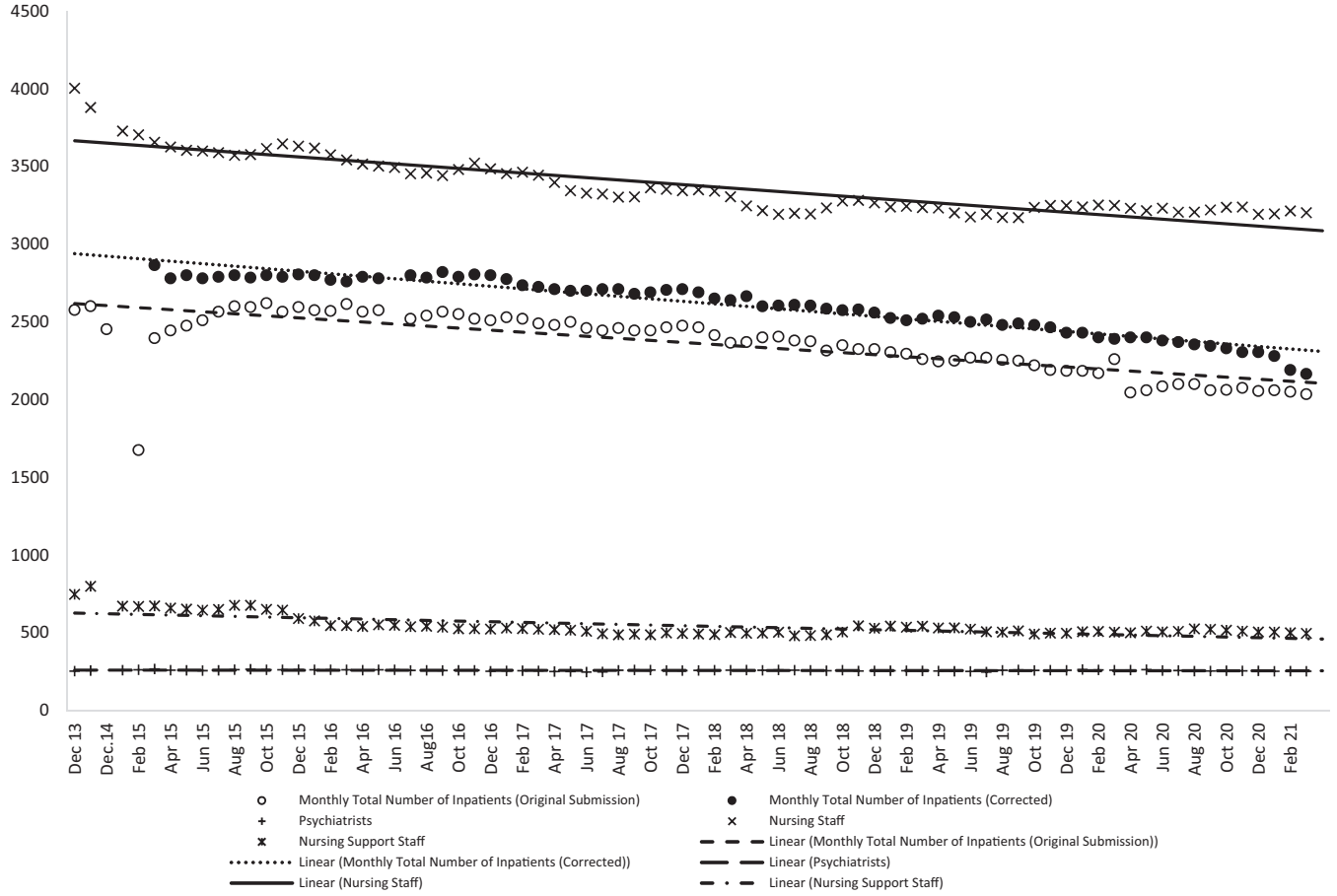

FIGURE 1 Monthly total number of inpatients, community nurses, community nursing support staff and psychiatrists over time. Inpatient data taken from assuring transformation (NHS Digital) and as originally submitted and following a correction for late

TABLE 1 Descriptive statistics for our outcome variables

Outcome variable	*N*=	*M* = (SD)	Min; max	Skew
Monthly total number of inpatients (corrected)	72	2606.11 (177.71)	2165; 2865	−.55
Total admissions	73	83.973 (17.83)	30;120	−.40
Total discharges	73	121.589 (22.98)	70; 165	−.18
Admission to discharge ratio	73	.69 (.11)	.40; 1.00	.10
Secure to acute beds ratio	73	1.91 (.25)	1.56; 2.49	.0.80

who are not, (c) independent mental capacity advocate use, (d) independent mental health advocate use, (e) care plan involves family, and (f) number of patients with an agreed discharge plan, Table 2.

3.2.1 | Number of inpatients

Considering the number of inpatients over time, there was a significant negative relationship with the number of people in contact with intellectual disability and autism services, $p < .0001$, and with the number of intellectual disability consultant psychiatrists working in the NHS, $p = .03$, Table 3. In other words, increasing numbers of people in contact with intellectual disability and autism services, and an increasing number of intellectual disability consultant psychiatrists in previous months, were both associated with fewer inpatients across time.

3.2.2 | Number of admissions

The number of admissions over time was negatively associated with the number of people in contact with intellectual disability and autism services, $p = .01$, and whether the local authority was aware of a person, $p = .01$, but positively associated pre-, $p \leq .00001$, or post-admission, $p = .0001$, CTR ratio, Table 4. These findings suggested that the number of people in contact with intellectual disability and autism services increased, this was significantly associated with fewer inpatient

TABLE 2 Descriptive statistics for our predictor variables

Predictor variable	N=	M = (SD)	Min; max	Skew
Number in contact with services	74	95964.78 (32314.36)	53,920; 161,463	.44
Number of consultant psychiatrists	77	257.59 (4.05)	247.16; 266.51	−.42
Number of community nurses[a]	77	3376.34 (184.59)	3170.97; 4003.23	1.00
Number of community nursing support staff	77	543.40 (66.95)	481; 799	1.74
Advocacy ratio[a]	73	5.81 (4.53)	2.68; 29.46	2.79
Independent mental capacity advocate use[a]	73	359.18 (59.58)	230; 490	.64
Independent mental health advocate use[a]	73	1254.12 (205.37)	966; 1570	.22
Care plan involves family ratio[a]	73	1.95 (.92)	1.26; 4.40	1.30
Pre-admission CTR ratio	62	29.76 (9.38)	10; 55	.38
Post-admission CTR ratio	52	9.21 (3.65)	0; 15	−.08
Local authority aware ratio	73	1.35 (.43)	.83; 2.31	.68
Number classed as not dischargeable	73	682.85 (68.76)	285; 780	−.28
Number of patients with agreed discharge plan[a]	73	828.58 (196.39)	555;1215	.62

[a]Removed from our analysis due to collinearity.

TABLE 3 The relationship between various predictor variables and total number of inpatients within the assuring transformation collection

	AR model[a] (N = 50; AIC = 458.363)			
Explanatory variable	Estimate	SE	t=	p=
Intercept	3661.52	61.06	10.14	<.0001
Number in contact with services	−.005	.0003	−15.33	<.0001
Number of consultant psychiatrists	−2.13	.96	−2.22	.03
Number of community nursing support staff	−.18	.29	−.64	.53
Pre-admission CTR ratio	−.07	.34	−.22	.83
Post-admission CTR ratio	1.01	.71	1.42	.16
Number classed as not dischargeable	.09	.16	.54	.59
Local authority aware[b]	21.00	20.43	1.03	.31

[a]Auto-regressive model of order 1.
[b]As a ratio to total of all options.

TABLE 4 The relationship between various predictor variables and the number of admissions within the assuring transformation collection

	AR model[a] (N = 52; AIC = 415.348)			
Explanatory variable	Estimate	SE	t=	p=
Intercept	130.22	177.05	.74	.47
Number in contact with services	−.0002	.0001	−2.92	.01
Number of consultant psychiatrists	−.06	.45	−.12	.90
Number of community nursing support staff	−.07	.10	−.76	.45
Pre-admission CTR ratio	.97	.18	5.34	<.00001
Post-admission CTR ratio	1.65	.38	4.38	.0001
Number classed as not dischargeable	.01	.06	.20	.84
Local authority aware[b]	−11.9917	4.61	−2.60	.01

[a]Auto-regressive model of order 2.
[b]As a ratio to total of all options;

admissions over time. Local authority awareness was significantly associated with fewer admissions across time, while both pre- and post-admission CTR ratios were significantly associated with increasing admissions over time.

3.2.3 | Number of discharges

The number of discharges over time was negatively associated with the number of people in contact with intellectual disability and

TABLE 5 The relationship between various predictor variables and the number of discharges within the assuring transformation collection

	AR model[a] ($N = 52$; AIC = 455.703)			
Explanatory variable	**Estimate**	**SE**	***t*=**	***p*=**
Intercept	529.99	251.2055	2.11	.04
Number in contact with services	−.0004	.0001	−3.65	.0007
Number of consultant psychiatrists	−.74	.6357	−1.16	.25
Number of community nursing support staff	−.29	.1304	−2.26	.03
Pre-admission CTR ratio	.46	.2727	1.70	.10
Post-admission CTR ratio	1.75	.5834	3.00	.0044
Number classed as not dischargeable	−.060	.0835	−.07	.94
Local authority aware[b]	−25.48	6.62423	−4.08	.0002

[a]Auto-regressive model of order 2.
[b]As a ratio to total of all options;

TABLE 6 The relationship between various predictor variables and the ratio of admissions to discharges within the assuring transformation collection

	AR model[a] ($N = 52$; AIC = 0.978)			
Explanatory variable	**Estimate**	**SE**	***t*=**	***p*=**
Intercept	−.11	1.54	−.07	.94
Number in contact with services	−.00	−.00	−.26	.80
Number of consultant psychiatrists	.002	.004	.54	.59
Number of community nursing support staff	.0003	.001	.40	.69
Pre-admission CTR ratio	.004	.002	2.53	.02
Post-admission CTR ratio	.006	.003	1.77	.08
Number classed as not dischargeable	−.0001	.001	−.20	.84
Local authority aware[b]	.025	.04	.69	.49

[a]Auto-regressive model of order 2.
[b]As a ratio to total of all options.

TABLE 7 The relationship between various predictor variables and ratio of forensic to acute beds within the assuring transformation collection

	AR model[a] ($N = 72$; AIC = −100.394)			
Explanatory variable	**Estimate**	**SE**	***t*=**	***p*=**
Intercept	2.26	1.05	2.15	.04
Number in contact with services	−.00	.00	−.68	.50
Number of consultant psychiatrists	.003	.003	.95	.35
Number of community nursing support staff	−.001	.001	−1.85	.07
Pre-admission CTR ratio[b]	–	–	–	–
Post-admission CTR ratio[b]	–	–	–	–
Number classed as not dischargeable	−.0004	.0003	−1.58	.12
Local authority aware[c]	.14	.08	1.84	.07

[a]Auto-regressive model of order 2.
[b]Removed due to inadequate fit.
[c]As a ratio to total of all options;

autism services, $p = .0007$, whether the local authority was aware of the person, $p = .0002$, and the number of community nursing support staff, $p = .03$, but positively associated with post-admission CTR ratio, $p = .004$, Table 5. The findings indicated that increasing numbers of people in contact with intellectual disability and autism services, local authority awareness of the person, and more community nursing support staff were associated with fewer discharges over time. An increasing number of inpatients with a post-admission CTR, relative to those without one was associated with more discharges over time.

3.2.4 | Admission to discharge ratio

The ratio of admissions to discharges was positively associated with pre-admission CTR, $p = .02$, Table 6. These findings mean that, over time, an increasing number of inpatients with a pre-admission CTR, relative to those without one, was associated with an increase in the number of admissions over time, relative to the number of discharges.

3.2.5 | Forensic to acute bed ratio

Finally, the ratio of forensic to acute bed usage was not significantly associated with any of our explanatory variables, Table 7. Both pre- and post-admission CTR ratio had to be removed from the model to allow for an appropriate fit, Table 7.

4 | DISCUSSION

The aim of this study was to use time-series modelling to explore the relationship between a series of outcomes and hypothesised predictors taken from the AT dataset, Mental Health Services Monthly Statistics, and the NHS Workforce Statistics. Our initial analysis of data about the number of occupied beds specifically commissioned for use by someone with an intellectual disability indicated that the number of inpatients had declined over time by a rate of 6.58 patients per month based upon uncorrected data, or 8.07 patients per month based upon data that were subsequently corrected for errors and late submission from December 2013 to March 2021. This represents a reduction of 21 or 24% over time, based upon the difference between the first and last data point from the uncorrected and corrected dataset, respectively. This reduction in the number of inpatients is in keeping with the Transforming Care (NHS England, 2015a) goal of reducing the number of inpatients with intellectual disabilities within a psychiatric hospital bed commissioned for use by someone with an intellectual disability. However, it should be noted that this reduction falls markedly short of the Transforming Care target to reduce the number of inpatients by 35%–50%.

It was also noted that throughout the period investigated, the number of community nurses and community nursing support staff working with people with intellectual disabilities reduced by 7.43 and 2.14 per month respectively, while the number of consultant psychiatrist remained relatively unchanged. Such a reduction in the community workforce is of marked concern considering the aims of the transforming care programme to discharge people with intellectual disabilities from psychiatric hospitals during a time when the community workforce is decreasing and may partially explain why the programme did not perform to target.

Considering the relationships between variables over time, an increasing number of people in contact with intellectual disability and autism services was associated with fewer numbers of inpatients, fewer admissions, and fewer discharges over time. These relationships are difficult to interpret as it would be expected that an increasing number of people in contact with intellectual disability and autism services would be associated with an increasing number of inpatients along with more admissions and discharges considering that this population are more likely to have difficulties with mental illness relative to the general population (Cooper et al., 2007; Deb et al., 2001a, 2001b; Smiley et al., 2007) and increased service demand might be expected, while recognising that this does not necessarily mean that more will require an inpatient admission. It may be the case that during the era of transforming care (NHS England, 2015a) and beyond, as the number of monthly inpatients over time decreased, associated with an increasing focus upon admission avoidance, while at the same time our population has increased and systems for correctly identifying people with intellectual disabilities and autism have improved, leading to an increase in the number of people in contact with intellectual disability and autism services. This may mean that discharge from hospital becomes more difficult as community services are overstretched.

It was observed that over time, months when the number of intellectual disability consultant psychiatrists were higher were associated with future months when the monthly number of inpatients were fewer. It is likely the case that increasing the workforce in this way helps prevent admission to hospital and promote discharge. However, it was noted that future periods when the monthly number of discharges were higher were associated with fewer NHS community nursing support staff in the previous month. It was noted that there was a decreasing trend in both the number of inpatients and the number of community nursing support staff over time, Figure 1, and our findings represent this relationship. It may be the case that support staff are moving out of the NHS and working in other community-based settings, continuing to support people with intellectual disabilities, but we have no evidence to support this view. It was unfortunate that we were unable to include the number of community nurses in our modelling due to issues with collinearity.

We also observed that both pre- and post-admission CTR ratio were associated with more admissions, while pre-admission CTR ratio was associated with a higher admission to discharge ratio over time. This is somewhat unsurprising as patients with intellectual disabilities in England are required to have a pre-admission CTR before they are admitted to a psychiatric hospital and should have a post-admission CTR following admission, and during the period studied, these were rolled out and implemented within England. However, post-admission CTR ratio was associated with future discharges, while pre-admission CTR ratio was not within our AR model. The purpose of a post-admission CTR is to help overcome barriers and promote timely discharge from hospital, and this finding is as expected. However, there was no relationship between either pre- or post-admission CTR ratio and the number of inpatients over time within our AR model.

Finally, when the local authority was previously aware of a patient, this was associated with fewer admissions, and fewer discharges within our AR model. In England, a local authority is a region of local government responsible for the provisions of services, including social care, employing social workers. It is likely the case that people with intellectual disabilities who are experiencing mental health

crisis are more likely to be admitted, and at the same time, are more likely to come to the attention of the local authority, who may be able to intervene and mitigate the risk of admission in the future. However, for those who are admitted, and the local authority is aware, it may be challenging to work in such a way as to promote discharge.

There are weaknesses associated with this study. First, our data are observational, and while we made use of autoregressive modelling to investigate relationships between data over time, the relationships remain correlational and no conclusions about causation were possible. Second, there were problems within the data with collinearity which limited our ability to include some of our hypothesised variables within our models. While reducing the number of variables led to better model fit, it meant that we could not examine some relationships with some predictors (e.g., the number of community nurses working within people with intellectual disabilities). Third, there were also problems with a limited number of observations within the data which prevented us from modelling some categorical outcome variables that were of interest, for example, readmission within 30-days and 1-year. Fourth, we reduced the order of our autoregressive model to 1 when modelling the total number of inpatients to allow for a better fit. Nevertheless, it is a strength that we made use of time-series modelling which allowed us to examine which variables are associated with changes across time, incorporating dependency between residuals.

Our findings indicated that there has been a reduction in the number of inpatients with intellectual disabilities in a psychiatric bed specifically commissioned for people with intellectual disabilities in England over time, and while this is generally positive, the degree of reduction is not in keeping with the target set as part of the transforming care initiative. At the same time, there has been a substantial reduction in the community nursing workforce. It is unsurprising that targets to discharge inpatients with intellectual disabilities into community settings have been missed as the strength of the community workforce has decreased. It is of note that the number of intellectual disability psychiatrists were associated with fewer inpatients over time, while it was not possible to examine any relationships with other professional groups, for example, clinical psychology or allied health professionals due to the way these data are recorded within the NHS workforce statistics. As there had been a reduction in the utilisation of beds specifically commissioned for people with intellectual disabilities, future studies should closely examine whether there has been an associated increase in the number of people with intellectual disabilities being admitted to non-specialised psychiatric beds in England. There may also be some geographical variation across England as some areas do not have local specialist inpatient beds, which on the one hand may mean that community services are required to provide more robust support as inpatient admission becomes more difficult, while on the other hand, it may also lead to patients from these areas being admitted to beds which are located out of region. Finally, it would be valuable to examine inpatient psychiatric bed utilisation by people with intellectual disabilities internationally, making comparisons between countries.

AUTHOR CONTRIBUTIONS

All authors made substantial contributions to the conception, design, and interpretation of data, revising the work for important intellectual content, approved the final version to be published, and agreed to be accountable for all aspects of the work in ensuring accuracy and integrity. Peter E. Langdon, Gisela Perez-Olivas, Paul A. Thompson and Lee Shepstone were responsible for the initial acquisition of data and analysis. Peter E. Langdon and Paul A. Thompson drafted the initial version of the manuscript.

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None.

CONFLICT OF INTEREST

We have no known conflict of interest to declare.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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