NOTTINGHAM TRENT UNIVERSITY

Evaluation of Adult Mental Health Rehabilitation Services for Nottinghamshire Healthcare NHS Foundation Trust

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Contents

Executive summary

Following the closure in 2013-2015 of 93 inpatient mental health rehabilitation beds by Nottinghamshire Healthcare NHS Trust an evaluation of re-provisioned rehabilitation services was commissioned in 2017 from Nottingham Trent University.

The evaluation aimed to:

- Identify if the remaining 36 rehabilitation beds were being used effectively and if they were cost efficient
- Examine service users and carers' experiences of the closure of rehabilitation beds and the service re-provision from local adult mental health teams
- Examine the impact of rehabilitation bed closures and service re-provision on the experiences of staff
- Inform future provision of rehabilitation services in adult mental health based on the emerging evidence from the evaluation

A tried and tested realistic evaluation design and framework was used (Bailey et al., 2017; Bailey & Kerlin, 2015; Ward & Bailey, 2015). This included using both quantitative and qualitative data:

Quantitative data from 47 services users from current rehabilitation services (Bracken House and 145 Thorneywood Mount) were used to examine the effectiveness of inpatient rehabilitation provided by these services. Quantitative data included number of (re)admissions, contacts in the community, and use of Mental Health Act sections.

Cost data relating to inpatient admissions and community contacts for these service users were also analysed to examine the cost effectiveness of these services.

Qualitative data from a listening event with 2 staff who had extensive experience of working in rehabilitation inpatient facilities within the Trust was used to provide an insight into their experience of the re-provisioned service.

Qualitative data from 3 listening events with a total of 20 service users and carers were used to ground the quantitative findings relating to service usage in the lived experience of those with a mental illness and their carers.

Key findings

- Analysis of data relating to 47 service users who had experienced an admission to one of the two existing inpatient rehabilitation facilities evidenced that the number of inpatient admissions and the number of occupied bed days both significantly reduced in the 3 years following their rehabilitation stay when compared to the three years prior to their rehabilitation stay.
- A significant correlation was found between the amount of time spent in rehabilitation and the number of inpatient re-admissions and occupied bed days post rehabilitation stay. This finding suggests that the more time spent in rehabilitation the less re-admissions and occupied bed days a service user will

experience post rehabilitation. The analysis showed that for every day spent in rehabilitation the amount of occupied bed days post rehabilitation decreased by 0.16 days and the number of admissions decreased by 0.003. The findings were based on service users who had spent between 1 week and 5 years in rehabilitation. Further research is needed to establish what the optimum length of stay in rehabilitation would be.

- The use of Mental Health Act Sections also significantly reduced in the 3 years post rehabilitation stay compared to the 3 years prior a rehabilitation stay.

- The amount of contact hours/time in the community did not significantly change in the 3 years following rehabilitation compared to the 3 years prior to rehabilitation.

- Inpatient rehabilitation was considered 'effective' by staff members' because it enabled a successful transition into the community for service users who had been in inpatient care. Staff said they thought this was an easier transition for service users with severe and enduring mental illness than if they were discharged straight from an acute setting.

- Rehabilitation allows for good relationships to be built between staff and service user over longer periods of time. Ultimately inpatient rehabilitation was reported to provide service users with the opportunity for reflection on their lives and a chance to learn important skills for managing in the community. It promotes independence though a range of activities and skill building exercises. These interventions are currently unique to a rehabilitation setting and are not typically experienced in acute inpatient settings.

- Service users and carers concurred that more alternative sources of support are needed in the community to enable a more holistic approach to be taken. For example mental health drop in services, daycentres etc. This would provide service users with the opportunity to meet others with mental health problems. Currently service users and carers felt community support could be improved.

- Analysis of cost data relating to occupied bed days and face to face community contacts from the same 47 service users showed a significant reduction in costs associated with inpatient admissions in the 3 years following rehabilitation. Costs associated with community support provided by the Trust remained unchanged following rehabilitation. These findings suggest that rehabilitation has the potential to save costs due to the reduction in re-admissions but this reduction would need to remain over a greater period than 3 years to offset the cost of the rehabilitation stay.

Findings from the evaluation demonstrate that the use of inpatient mental health rehabilitation beds provides an opportunity to reduce costs associated with repeat

readmissions to acute wards for those with severe and enduring mental illness. In the absence of rehabilitation service users' continued support needs place high levels of demand on adult mental health inpatient services. Importantly lower readmissions rates are indicative of recovery in mental health and would therefore suggest that rehabilitation results in improved outcomes for service users.

1. Introduction

1.1 Background

1.1.1 What are mental health rehabilitation services?

Mental health rehabilitation services typically treat service users with complex needs including severe and enduring mental illness, challenging behaviour and poor social function (Killaspy et al., 2008). It has been estimated that around 1% of people with severe and enduring mental health problems require inpatient mental health rehabilitation (Holloway, 2005). Killaspy et al. (2005 p. 163) define mental health rehabilitation as ''*A whole system approach to recovery from mental ill health which maximizes an individual's quality of life and social inclusion by encouraging their skills, promoting independence and autonomy in order to give them hope for the future and which leads to successful community living through appropriate support*.''

Service users are admitted to inpatient rehabilitation services for a variety of reasons including when they are not well enough to leave an acute mental health ward but are unlikely to benefit from further care in this setting (Holloway, 2005; Wolfson et al., 2009). The aim of rehabilitation is to enable personal recovery. Personal recovery places an emphasis on the individual priorities of the service user as opposed to reducing clinical symptoms. It is focused on interventions that impact on goals and outcomes that are important to the service user (South London and Maudsley NHS Foundation Trust & South West London and St George's NHS Mental Health Trust, 2010).

All NHS Trusts in England continue to use inpatient rehabilitation beds to provide rehabilitative care. In 2018 the Care Quality Commission (CQC) identified 54 NHS Trusts and 87 services in the independent sector providing inpatient rehabilitation services. The CQC reported that the median length of stay in a rehabilitation bed was 323 days. They estimated that the annual expenditure on mental health rehabilitation beds is approximately £535 million.

A 2013 review of 52 NHS Trusts providing mental health rehabilitation services in England found that on average service users had experienced 4 previous admissions and had a 13 year history of contact with mental health services prior to their admission to rehabilitation services (Killaspy et al., 2013).

1.1.2 Effectiveness of mental health rehabilitation

Inpatient rehabilitation services differ from other acute mental health inpatient services because service users receive interventions provided over very long periods of time (Wolfson et al., 2009). Concerns have been raised about the amount of time service users can spend in inpatient rehabilitation. CQC (2017) have highlighted concerns about inpatient settings that risk institutionalising service users rather than enabling them to regain their independence. To be successful rehabilitation services must provide an active programme of treatment and therapy that provides service users with the skills to live independently (CQC, 2018). The lack of availability of step down services, such as supported living accommodation, following rehabilitation means that service users can often spend longer occupying a rehabilitation bed than is necessary. However, studies offer no evidence about

the optimum length of stay for those in rehabilitation beds (Killaspy et al., 2013; Wright, 2017). The CQC has also found poor discharge planning in rehabilitation inpatient services (CQC, 2016) and this may compound or contribute to lengths of stay that maybe longer than necessary to be effective.

Criticisms of long stay services include a lack of meaningful activities together with a lack of person centred or holistic care (CQC, 2016). Killaspy et al. (2013) found that in 52 NHS Trusts in England providing mental health rehabilitation, 17% of inpatient rehabilitation units had no clinical psychologist and 10% had no occupational therapist. Furthermore 85% of units reported that their service users had fewer than 10 Cognitive Behavioural Therapy sessions.

CQC (2017) have raised concerns about the high number of out of area rehabilitation placements for service users with very complex needs. This can lead to service users becoming isolated when they are being treated away from their home and families. The increase in out of area placements is due to the increased provision of beds in the independent sector and a concomitant decrease in NHS rehabilitation services (Brooker & Brown, 2015; Royal College of Psychiatrists, 2005). CQC (2018) found that service users using rehabilitation beds in the independent sector were being treated on average 49 km away from their home compared to NHS patients who were being treated on average 14 km away. CQC (2018) have recommended that the number of patients being placed in out of area mental health rehabilitation beds needs to decrease.

Research does suggest that inpatient rehabilitation can reduce the number of further hospital inpatient admissions and days spent in hospital post discharge from rehabilitation (Petrie & Mountain, 2009). Using a sample of 35 service users from mental health rehabilitation wards at one Scottish NHS Trust, Petrie and Mountain showed that the mean number of occupied bed days reduced from 478 to 115 days following a rehabilitation stay. This study was limited by its small sample size. A study which took place 5 years after discharge from rehabilitation for 141 services users from 1 NHS Trust in London showed that although 33% of the sample had relapsed, 40% of the sample had progressed and 27% had remained stable suggesting rehabilitation had led to positive outcomes in the majority of the sample. Non-adherence with medication was more likely in those who had relapsed. (Killaspy & Zis, 2013). Again, this study is limited to only 1 NHS Trust. Research using a larger sample of service users (n=739) from 52 NHS Trusts in England suggests high levels of service user satisfaction with care (assessed using Your Treatment and Care questionnaire) in rehabilitation services (Killaspy et al., 2013). At the time of the research, there were 60 NHS Trusts in England providing rehabilitation services. Therefore Killaspy et al. (2013) were able to capture the opinion of service users from the majority of NHS Trusts in England suggesting satisfaction is high across NHS rehabilitation services nationally.

Research (Bredski et al., 2011) examining discharge from inpatient rehabilitation services found that past prescription of high-dose antipsychotic medication was significantly related to non-discharge. History of self-harm/suicide attempts and previous time spent in forensic mental health services were also significantly related to non-discharge from rehabilitation services. This suggests that for patients who have complex needs and may be non-compliant

with treatment (as evidenced by a high use of antipsychotic mediation) discharge from rehabilitation can prove to be difficult.

There is limited research in this area and it has been argued that more research is needed that demonstrates the effectiveness of rehabilitation services (Jones, 2013; Killaspy et al., 2005). For example, qualitative data is needed to understand why rehabilitation may reduce further inpatient admissions (Jones, 2013). Holloway (2005) suggests that one reason why rehabilitation is effective is because this environment can promote independence and social function in a way that cannot be achieved in acute inpatient wards (Holloway, 2005). However, more research is needed to provide evidence on which to judge the success of inpatient rehabilitation particularly because it is so expensive to provide.

1.1.3 Cost effectiveness

The CQC have estimated that the total annual cost of mental health rehabilitation beds across both the NHS and the independent sector is £535 million with out of area placements accounting for two thirds of this cost. Some of these costs may be unnecessary for example Ryan et al. (2016) found that when examining rehabilitation facilities, acute units and out of area placements in Wales, using a sample of 100 service users, 26% of service users were inappropriately placed with an over provision of support. As rehabilitation has been shown to reduce the number of subsequent inpatient stays and enable service users to remain successfully in the community (Pertie & Mountain, 2009) inpatient costs for rehabilitation have the potential to be overset by cost savings post discharge and evidenced over longer time periods. Providing rehabilitation through community rehabilitation teams may be a more cost effective alternative to inpatient rehabilitation beds. Yet this relies on community services being available that are able to support those with complex mental health problems. It is not known if community rehabilitation services can reduce future readmissions thereby demonstrating cost savings longer-term and whether these services can provide an active programme of treatment and therapy that the CQC have found to be lacking in some inpatient services (CQC, 2018).

1.2 Closure of inpatient rehabilitation beds in Nottinghamshire

In 2011 the CCGs in Nottinghamshire County and Nottingham City conducted a review of Nottinghamshire's mental health inpatient rehabilitation services. The review was conducted in partnership with Nottinghamshire County Council and Nottinghamshire Healthcare NHS Trust. This involved 111 beds (excluding Bassetlaw). The findings of this review showed that out of the 95 service users occupying the beds, 55 of these service users were thought to be in an inappropriate care setting. This meant out of these 55 service users, 30 were classed as being provided with a higher level of care than what they required and 25 were identified as having the wrong level of care and needed to be reviewed. In addition, it was found that 41 remaining service users had already reached or would do so in the next 6 months, a 2 year stay and therefore needed transition plans in place. At the time of the review there were at least 15 service users in acute and low secure wards waiting for an inpatient rehabilitation bed thereby blocking beds in these other services, and albeit inadvertently contributing to poor patient flow. Forty service users were placed out of area for rehabilitation services due to there being no available beds in Nottinghamshire.

The review also estimated that 25 service users currently using the rehabilitation beds needed a review by health and social care regarding their continuing care needs. If these service users remained in the rehabilitation service long term the annual cost to the NHS was estimated to be £2,281,250. Data from 2013 illustrated that Nottinghamshire had a higher number of rehabilitation beds than the national average (NHS Benchmarking Network 2013). Therefore, and as a result of the review findings, Nottinghamshire Healthcare NHS Trust closed 93 inpatient rehabilitation beds across five Nottinghamshire locations between 2013 and 2015 (see Table 1).

Table 1: Nottinghamshire rehabilitation bed closures

Type	**Location**	**Number of beds**
Inpatient Rehabilitation	Broomhill House, Gedling	12
	Dovecote Lane, Beeston	12
	Enright Close, Newark	24
	Heather Close, Mansfield	18
	MacMillan Close, Mapperley	27
Total		93

Nottinghamshire NHS Healthcare Trust reinvested the cost savings from the bed closures into the development of Community Rehabilitation Teams (CRTs) to support the rehabilitation of adults with mental health problems in their own accommodation and within their local community thereby supporting an active 'recovery' environment.

In 2016-17 the CRTs were brought together with other adult mental health services (including Assertive Outreach, Early Intervention in Psychosis and Social Inclusion and Wellbeing) to form the Local Mental Health Teams (LMHTs). These teams provide community mental health services across Nottinghamshire County and Nottingham City. There are 11 LMHTs each one includes Mental Health Nurses, Psychiatrists, Psychologists, Occupational Therapists, Community Support Workers, Peer Support Workers and Employment Specialists.

1.2.1 Current inpatient rehabilitation beds in Nottinghamshire

Inpatient mental health rehabilitation services continue to be provided by Nottinghamshire Healthcare NHS Trust at Bracken House and 145 Thorneywood Mount. Thorneywood Mount is an open rehabilitation service in Nottingham. Bracken House is a locked rehabilitation service in Mansfield which provides care and treatment to service users with higher dependency needs. Service users at Bracken House have been assessed as not being safe to be cared for within an open rehabilitation environment such as Thorneywood Mount.

1.3 Evaluation aims

Given the rehabilitation bed closure programme and the re-provision of CRTs into local mental health teams, Nottinghamshire Healthcare NHS Trust commissioned an evaluation of the rehabilitation services they provide from Nottingham Trent University. The aims of the evaluation were to:

- Identify if the remaining 36 rehabilitation beds were being used effectively and if they were cost efficient
- Examine service users and carers' experiences of the closure of rehabilitation beds and the service re-provision from local adult mental health teams
- Examine the impact of rehabilitation bed closures and service re-provision on the experiences of staff
- Inform future provision of rehabilitation services in adult mental health based on the emerging evidence from the evaluation
- Examine the evidence available to identify if following the closure of 93 rehabilitation beds, Nottinghamshire Healthcare continue to provide clinically excellent, cost efficient care within mental health services for adults.

2. Methods

A mixed methods approach was used in the evaluation (Bailey et al., 2017; Bailey & Kerlin, 2015; Ward & Bailey, 2015) to combine quantitative data relating to service use with qualitative data from service users and staff about their experiences of rehabilitation services. Quantitative data was provided from Nottinghamshire Healthcare NHS in the form of large anonymised data sets. These data related to service users' readmissions to inpatient services within the Trust, contacts with community mental health teams and Mental Health Act Sections used.

Data sets pertained to current rehabilitation services (Bracken House and Thorneywood Mount) and for patients from the closed rehabilitation beds. It was not possible to analyse the data by gender, ethnicity or diagnosis as the Trust considered that providing these details for service users would compromise their anonymity.

Three listening events were conducted at Nottingham and Rosewood Involvement Centres with service users and carers. The Involvement Centres give service users and carers the opportunity to get involved with activities and volunteering opportunities within the Trust. The Nottingham Involvement Centre is based within Trust Headquarters at Duncan Macmillan House. The Rosewood Involvement Centre is in Ollerton, North Nottinghamshire.

2.1 Sampling

2.1.1 Quantitative data

Data was provided from all service users who had been discharged from a current rehabilitation bed since 2013 (n =193). Mean age of the sample was 37.6 years (sd = 11.85)

Data was used from service users who had 3 years prior and 3 years post rehabilitation stay available. This sample consisted of 47 service users (Bracken House n = 26, Thorneywood n = 21). The mean age of the sample was 35.11 years (sd =12.68). To assess the effectiveness of rehabilitation data were examined for a 3 year period prior to a service user's rehabilitation stay and in the 3 year period post their rehabilitation stay. This method has been previously

been to assess the impact of inpatient mental health rehabilitation on readmission rates using a 2 year time frame prior and post rehabilitation stay (Petrie & Mountain, 2009).

Data were also provided regarding service users from closed rehabilitation beds. This was data was from service users who were a patient on the closed rehab bed in the 3 months before closure. Data related to their inpatient admissions and community contacts in the total time, post closure of the rehabilitation bed.

2.1.2 Qualitative data

All service users and cares that participated in the Listening Events had lived experience of mental illness or experience of caring for someone with mental illness. In total 20 service users/carers took part in the 3 events.

One listening event was also conducted with staff at Bracken House. This consisted of 2 staff who had extensive experience of working in rehabilitation services. Staff from Thorneywood were invited to attend by the Matron for Rehabilitation and LMHTs but declined to do so.

2.2 Data collection tools

Interview guides for the listening events were designed for service users/carers (see Appendix 1) and separately for staff (see Appendix 2). Questions included in the guides were around the preliminary findings and covered areas identified in the academic literature as being important for understanding the effectiveness of rehabilitation services.

At the listening events service users and carers were presented with some preliminary findings from the data analysis to discuss. In addition, they were presented with anonymised examples of actual service users' care journeys into and through rehabilitation services. This method was used to obtain their opinions and views regarding the initial findings and to offer them an opportunity to use their own experiences to understand and/or comment on these findings. The listening events also meant that data analysis could be further refined based on any suggestions from service users and carers.

Findings from the data analysis were also discussed with staff at the listening event at Bracken House to gain their perspective in respect of delivering current rehabilitation services.

At the time the evaluation took place staff in the CRTs were being reorganised into the LMHTs. It was therefore deemed inappropriate to involve these staff as part of the evaluation although consideration should be given to including their experiences in future.

2.3 Cost data

Data relating to the unit costs of care activities were provided by the finance department at Nottinghamshire Healthcare NHS Trust. The values provided were the unit costs for 2016/17. These were as follows:

Inpatient services:

- Acute mental health bed - £352 per occupied bed day
- Ordinary rehabilitation bed - £396 per occupied bed day

- Locked rehabilitation bed - £347 per occupied bed day
- Psychiatric Intensive Care Unit bed - £752 per occupied bed day

Community services

- Face to face contact with the mental health team - £163 per contact

The cost of a face to face contact was regardless of the contact duration. This is because of how finance calculate the value of contacts (these services are part of cluster costs, which do not take into account separate service contacts, but provide an average cost per day - a national currency which is mandated for use for both commissioning of adult and older adult mental health services and national costing submissions).

At the time of data analysis it was not possible for finance to provide costs for any other type of community contact (e.g. daycare, ward based activities etc). The Trust is working towards providing more detailed costs at a patient level, as this is mandatory for mental health services from 2019/20.

In the samples of service users included used here the majority of contacts in the community were face to face contacts therefore the analysis should give a relatively accurate representative of the true cost.

It was not possible to cost any services, care or activities other than those provided by the Trust.

2.4 Data analysis

The quantitative data were analysed in IBM SPSS statistics (version 24) using Analysis of Variance (ANOVA), bivariate correlations and t tests.

Qualitative data from listening events with service users, carers and staff were audio recorded and transcribed verbatim. These transcripts were analysed thematically to identify overarching themes and sub-themes (Lincoln and Guba, 1985).

2.5 Ethics

Ethical approval for the evaluation was obtained from Nottingham Trent University's Research Ethics Committee. The information provided to service users, carers and staff at listening events confirmed that all information gathered during the course of the evaluation would be anonymised if included in any evaluation reports.

All quantitative data that was provided by the Trust was in anonymised form and had no identifiable information relating to individual service users.

3. Findings

3.1 Service users, carers and staff views on rehabilitation bed closures

Qualitative data captured during the Listening Events with service users and carers and staff were analysed thematically to identify some key areas that were thought to be important when considering the rehabilitation bed closures. These were:

Gap in service re-provision

Qualitative data from the listening events with staff members, service users and carers highlighted some concerns around the closure of rehabilitation beds. Data from staff members suggested that they felt the closure of large numbers of rehabilitation beds had left a gap in service provision.

> *"But there is a big hole for rehab services, you know we're [Bracken House] the only, apart from…the 145 at Thorneywood. We're the only rehab service in the county that's not private." [Staff member]*

Staff considered that rehabilitation was an important part of stepping down from care in an acute setting and without inpatient rehabilitation beds it could mean that service users are re-admitted to acute settings in future not necessarily because of acute symptoms but because they have not learnt the skills to remain in the community.

> *"And you know a lot of patients, ones that had come from acute beds as well, and gone straight into the community without any chance of going through any rehab. And er again I think that's impacted on them coming straight back and revolving in and out of care again." [Staff member]*

Staff felt that the closure of open rehabilitation units had created a lack of opportunity for service users to experience rehabilitation in a less restrictive setting with the only open rehabilitation facility now being at 145 Thorneywood Mount.

> *"I've saw, seen, a lot of negative erm things that have happened with it, a lot of revolving door patients that were never given that chance to experience that more informal er patient setting, open rehab unit….I think that's maybe contributed to like I say the revolving door patients scenario. They come out in the community, they find they weren't quite ready yet because they've not had that extra step down level." [Staff member]*

> *"I've worked in an acute ward and rehab. Yeah. I see the difference. And obviously you see that step down from acute to rehab and how beneficial it is." [Staff member]*

Service users and carers who attended the listening events felt that after the closure of rehabilitation beds there was no increased rehabilitation support provided by the community teams to replace these beds.

> *"I think that's the trouble with the approach is that the Trust cuts something and doesn't put provisions in for what else is going to happen with those people. So they kind of say we're not doing that anymore, somebody else will deal with it. They don't know who!" [Service user]*

Lack of meaningful involvement in the closure process

Service users and carers that had attended the consultation around the closure of the rehabilitation beds felt that they had not been given genuine opportunities to influence the decisions being made.

> *"The thing is it wasn't a genuine consultation cause the decisions was already made and we couldn't have change in it. And if it had been a meaningful consultation they'd have been taking our advice on board and our concerns and they'd have put more provision in the community…. But nobody was listening because the decisions had already been done." [Service user]*

> *"The usual tick box scenario like we've got to have a consultation, you know and now we're going to close it like we said we would. A cynic might say." [Carer]*

Service users and carers felt decisions regarding bed closures were made by individuals in management who were 'out of touch' with what service users needed.

> *"They've no idea, these who make these decisions they've no idea what it's doing to the patients and the patients' loved ones. They want to live like we live and know what our families go through and what the service users go through because they have no idea at all." [Carer]*

> *"Someone just comes from the top hierarchy and just says right it's no more, they don't come down to the bottom line." [Service user]*

<u>Assessment and social care involvement</u>

Staff highlighted that there had been some problems with the closed rehabilitation beds in that these beds were not always being used appropriately. However, it was thought by staff that the current rehabilitation beds are now being used effectively through a more efficient assessment process.

> *"The latter end of my rehab jobs were taking a lot of acutely unwell patients just to free beds up for the acute wards….So we were almost becoming a buffer for the acute beds and get some really inappropriately placed people."*

> *"Now they're making sure they've got the appropriate patients. Which is a positive."[Staff member]*

> *"Again like I said rather than just having anybody into fill the bed we've been…Make sure we do a full assessment. Get the right people to come in." [Staff member]*

Staff also discussed that they felt social workers were now more active in helping service users being discharged from the current rehabilitation facilities compared to what they had been in the past and spoke positively about the support they receive from them now.

> *"I'll be honest, the social workers that we have here are pretty good. Cause over the years I've worked with a lot of social workers that have been…have been really poor to be honest.*

So I think off the back of all the rehab units being closed down that has been a positive with social services have had to step up….As here we have a…we have a turnaround." [Staff member]

3.2 The effectiveness of inpatient rehabilitation bed use

To assess the effectiveness of the current inpatient rehabilitation services (Bracken House and Thorneywood) data were used regarding service users' inpatient admissions to other wards, use of Mental Health Act Sections and contacts with the community teams in the 3 years before their rehabilitation stay and in the 3 years after their rehabilitation stay.

Data was provided from all service users who had been discharged from a rehabilitation bed since 2013. However the time period both prior and pre rehabilitation stay needed to be the same to ensure the comparison was fair. Therefore, data could not be used from service users who had been discharged from rehabilitation later than May 2015 as 3 years of post rehabilitation data would not be possible. Data were only used from service users who had experienced 1 stay in rehabilitation in the specified time period to ensure the prior and post data were distinct.

Mean amount of time spent in rehab for this sample of 47 (Bracken House n = 26, Thorneywood n = 21) service users was:

- Bracken House = **508.96 days** (sd = 342.03)
  The longest stay was 1142 days (3.13 years)

- Thorneywood = **523.38 days** (sd = 623.00)
  The longest stay was 1852 days (5.12 years)

3.2.1 Inpatient stays prior and post rehabilitation

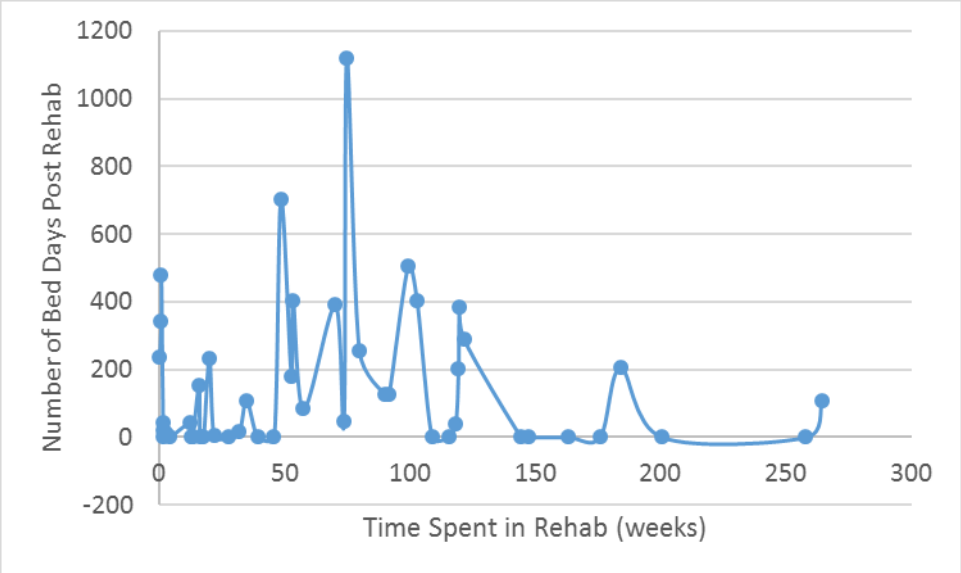
A 2 (Time Period: Prior, Post) x 2 (Rehab Bed; Thorneywood, Bracken House) mixed ANOVA was used to assess differences in total inpatient bed days prior and post rehab with time period acting as the within subjects factor and rehab bed as the between subjects factor. The results showed that on average total inpatient bed days were significantly different prior and post rehab, $F(1,45) = 6.31$, $p < .02$, partial $\eta^2 = .12$, with total bed days being significantly less post rehab compared to pre rehab. There was also a significant difference in inpatient bed days between service users from Thorneywood and Bracken House $F(1,45) = 8.61$, $p < .01$ partial $\eta^2 = .64$ with service users from Bracken House overall having more bed days than Thorneywood. This is likely to be due to service users from Bracken House having more complex needs as a result of it being a locked facility.

However there was no significant interaction found between the variables $F(1,45) = .00$, $p > .05$, partial $\eta^2 = <.001$, suggesting that the reduction in inpatient bed days seen post rehab was evident in both service users from Thorneywood and Bracken House. The findings are demonstrated in Figure 7.

Figure 1: Mean inpatient bed days 3 years prior and post a rehabilitation stay presented with 95% confidence intervals

The relationship between time spent in rehabilitation and future inpatient bed days post rehab was also examined for all 47 service users. This showed a significant correlation between time spent in rehab and total inpatient bed days post rehab, $r(47) = -0.34$, $p < .02$, indicating that as the amount of time in rehab increased the total number of inpatient bed days decreased. $b = -0.16$ which means for every day spent in rehabilitation the amount of occupied bed days post rehabilitation decreases by 0.16. This relationship is demonstrated in Figure 8.

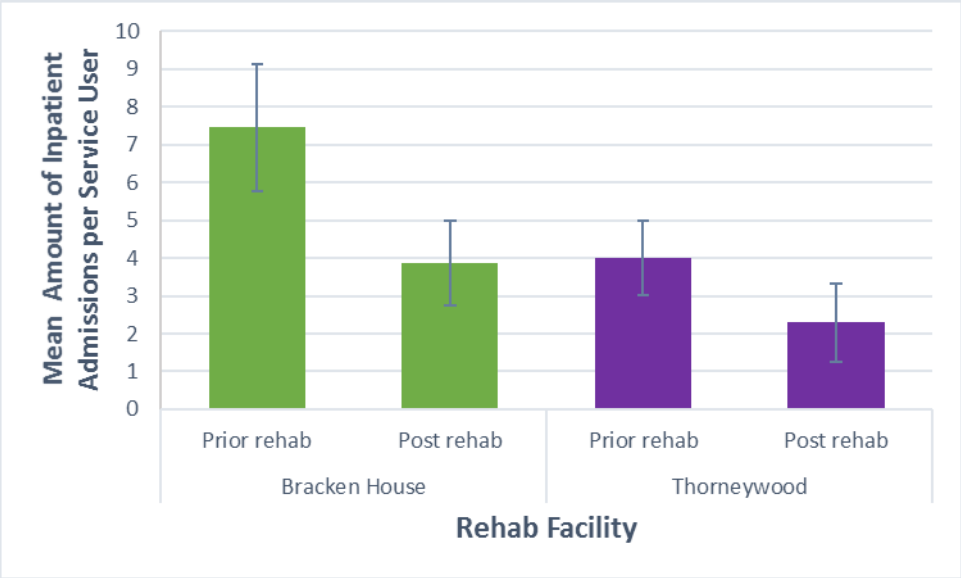
Figure 2: The relationship between time spent in rehabilitation and further occupied bed days in inpatient services in the 3 years post rehabilitation



A significant reduction was also found in the mean number of actual admissions (rather than bed days) to inpatient services, $F(1,45) = 13.69$, $p < .001$, partial $\eta^2 = .23$ with these being

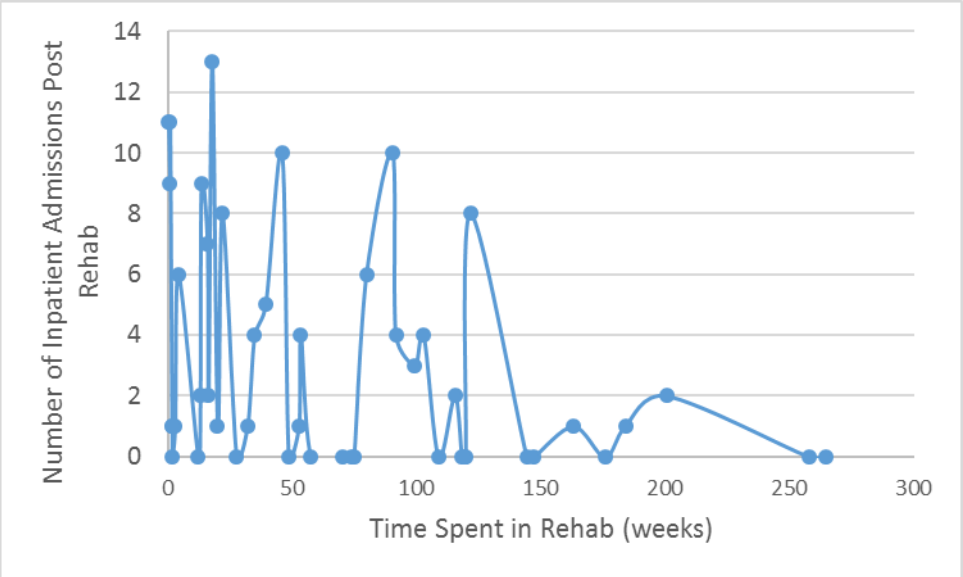
significantly lower post rehabilitation compared to prior rehabilitation stay. There was also a significant difference in inpatient admissions between service users from Thorneywood and Bracken House $F(1,45) = 5.49$, $p < .02$ partial $\eta^2 = .11$ with service users from Bracken House overall having more inpatient admissions than service users from Thorneywood. However, there was no significant interaction found between the variables $F(1,45) = 1.74$, $p > .05$, partial $\eta^2 = 04$, suggesting that the reduction in inpatient admissions seen post rehabilitation stay was occurred in both service users from Thorneywood and Bracken House. The findings are demonstrated in Figure 9.

Figure 3: Mean inpatient admissions 3 years prior and post a rehabilitation stay presented with 95% confidence intervals



The relationship between time spent in rehabilitation and future inpatient admissions was examined. This showed a significant correlation between time spent in rehab and total inpatient bed days post rehab, $r(47) = -0.3$, $p < .04$, indicating that as the amount of time in rehab increased the total number of inpatient admissions decreased. $b = -0.003$ suggesting that for every day spent in rehabilitation the number of re-admission post rehabilitation decreased by 0.003. This relationship is demonstrated on Figure 10.

Figure 4: The relationship between time spent in rehabilitation and the amount of further inpatient re-admissions



The findings are similar to the data analysed for 1 year prior and post a rehabilitation stay and also suggest that time spent in rehabilitation can significantly reduce the amount of inpatient bed days and the number of re-admissions, with these both being significantly less in the 3 years post rehabilitation. The length of time spent in rehabilitation is significantly correlated with the number of bed days and admissions following discharge meaning the more time service users spent in rehabilitation the less time that was spent in inpatient settings and the fewer occurrence of admissions in the future. This provides further evidence to suggest that the current inpatient rehabilitation services are effective at reducing the number, and duration of future inpatient stays.

3.2.2 Use of Mental Health Act sections prior and post rehabilitation.

A 2 (Time Period: Prior, Post) x 2 (Rehab Bed; Thorneywood, Bracken House) mixed ANOVA was used to assess differences in section use with time period acting as the within subjects variable and rehab bed as the between subjects variable. The results showed that on average total sections were significantly different prior and post rehab, $F(1,45) = 6.76$ $p < .02$, partial $\eta^2 = .13$, with section use being significantly less post rehab compared to pre rehab. There was also a significant difference in section use between service users from Thorneywood and Bracken House $F(1,45) = 20.72$, $p < .001$ partial $\eta^2 = .32$ with service users from Bracken House overall having a greater use of sections compared to Thorneywood.

There was no significant interaction found between the variables $F(1,45) = 2.12$, $p > .05$, partial $\eta^2 = .05$, suggesting that the reduction in section use seen post rehab was present in both service users from Thorneywood and Bracken House. The results are illustrated in Figure 11.

Figure 5: Use of Mental Health Act sections in the 3 years prior and post a rehabilitation stay presented with 95% confidence intervals

To examine the frequency of certain sections a chi square analysis was conducted. This showed a significant difference in frequency of the type of section prior and post rehabilitation stay, χ^2 (2) = 56.1, p <.001. V = .42, suggesting that post rehab the use of Section 17 was significantly higher than prior to rehab. As this section relates to granted leave of absence by a patient's Responsible Clinician this is to be expected. The use of Section 3 Admission for Treatment was significantly lower post rehab compared to before rehab. This is shown in Table 2 below.

Table 2: The frequency of sections in the 3 years prior and post rehab stay.

	Section 2	Section 3	Section 17 A-G
Prior to Rehab	14.7 %	68 %	17.3%
Post Rehab	24.2%	25.8%	50%

The findings suggest that rehabilitation contributes to a reduction in the use of Mental Health Act sections for services users with this being significantly reduced post rehabilitation. In addition, the types of section being used changed with Section 17 use increasing post rehabilitation and Section 3 reducing.

3.2.3 Contacts in the community prior and post rehabilitation stay

3.2.3.1 Teams providing community contact

The type of team providing the community contact both in the 3 years prior and pre a rehabilitation stay were identified from the data. This is shown in Figures 12 and 13 which show the percentage of total contact time across the sample that each team accounted for.

Figure 6: Teams providing community contacts in the 3 years prior to a rehabilitation stay

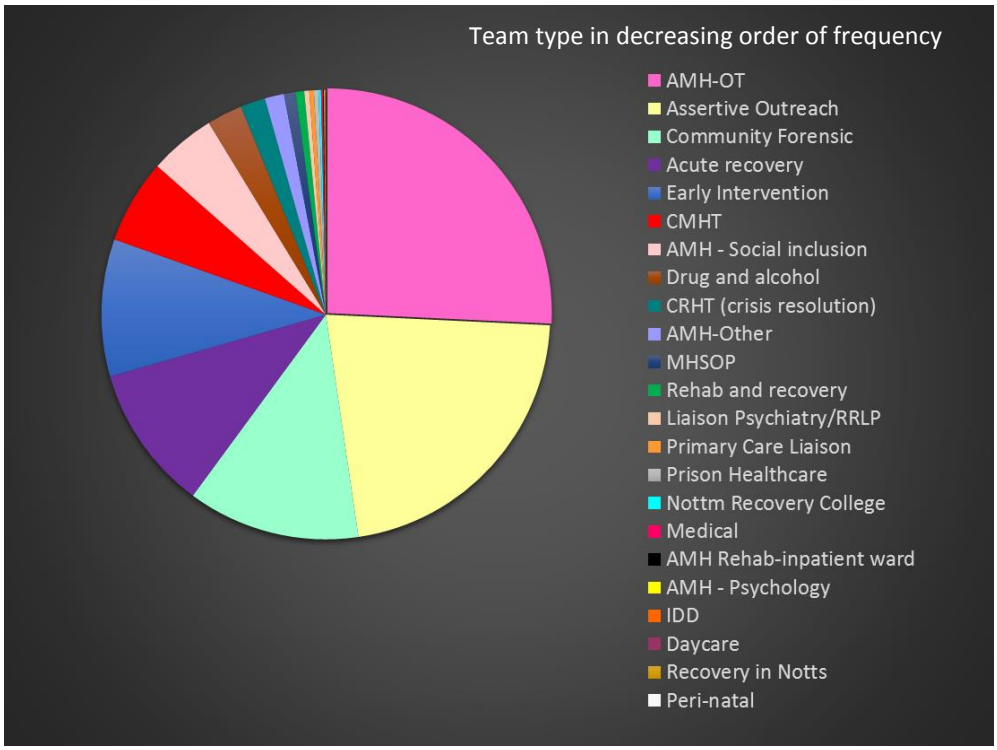
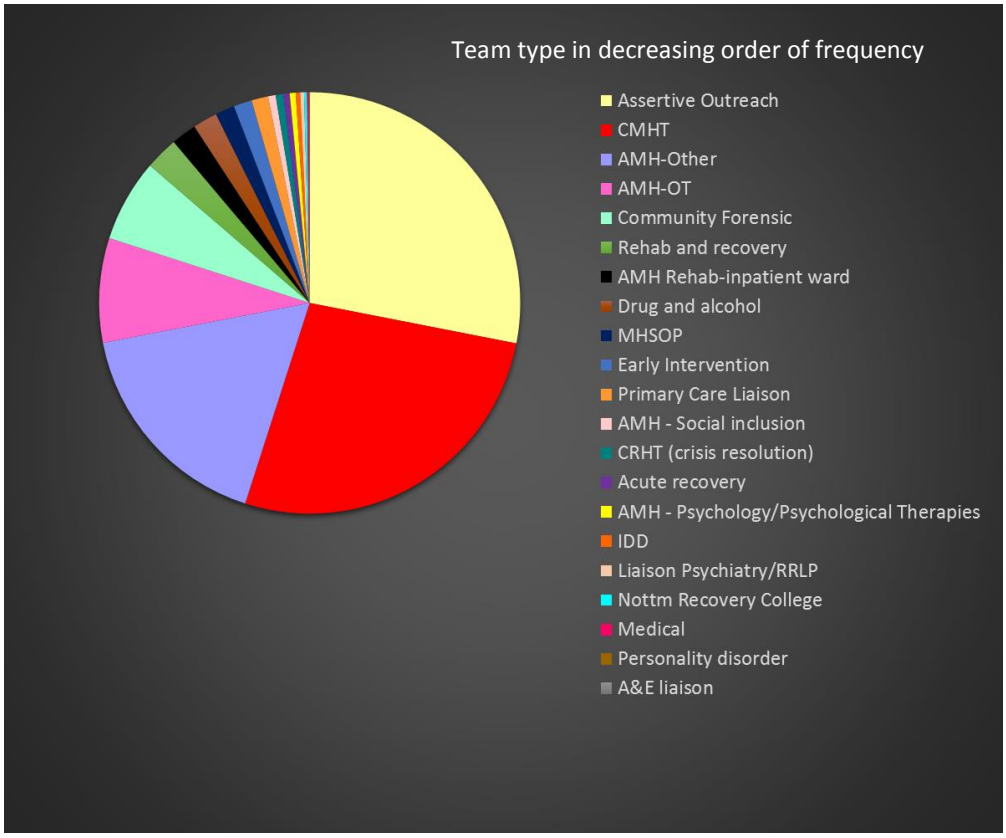


Figure 7: Teams providing community contacts in the 3 years post a rehabilitation stay



3.2.3.2 Types of community contact

The different types of contact type were identified both pre and post rehabilitation stay. This is shown in Figures 14 and 15 which show the percentage of each contact type across the sample

Figure 8: Type of community contacts in the 3 years prior to a rehabilitation stay

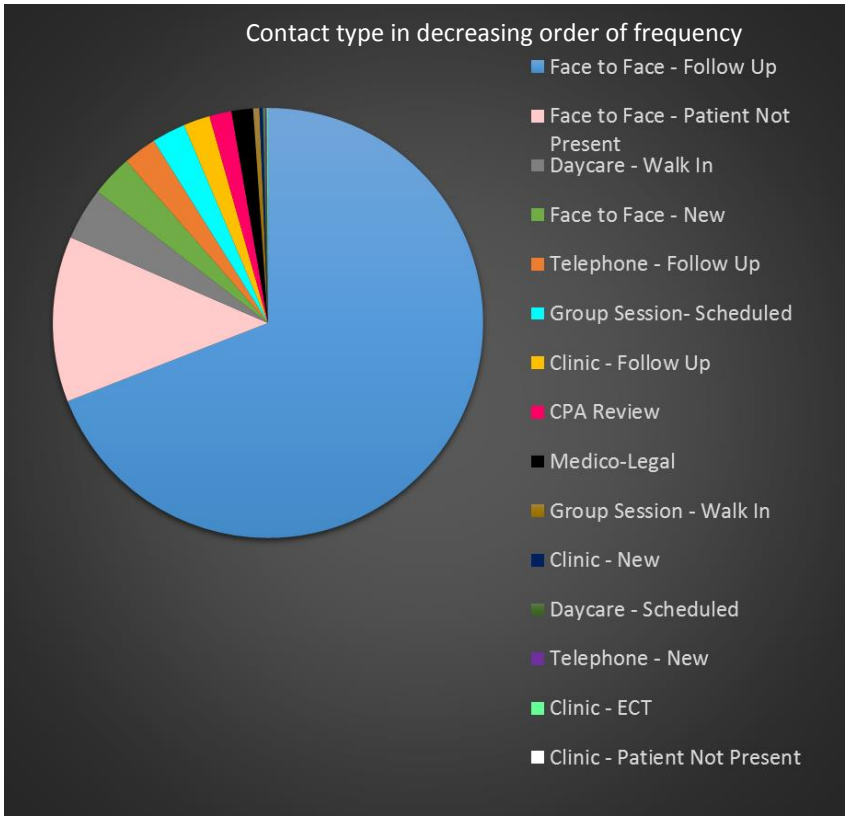
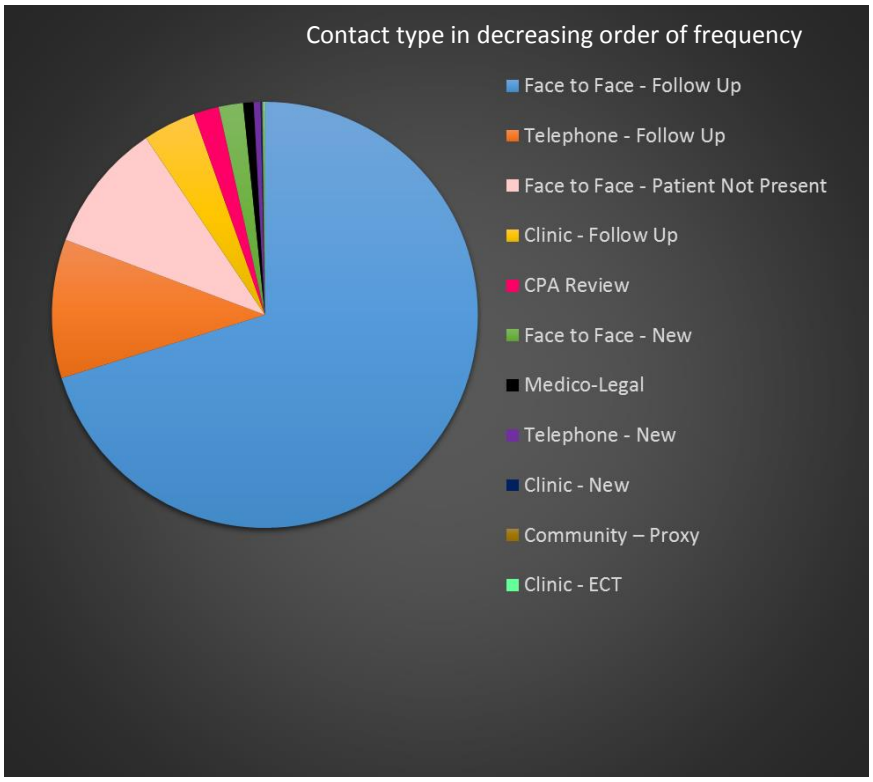


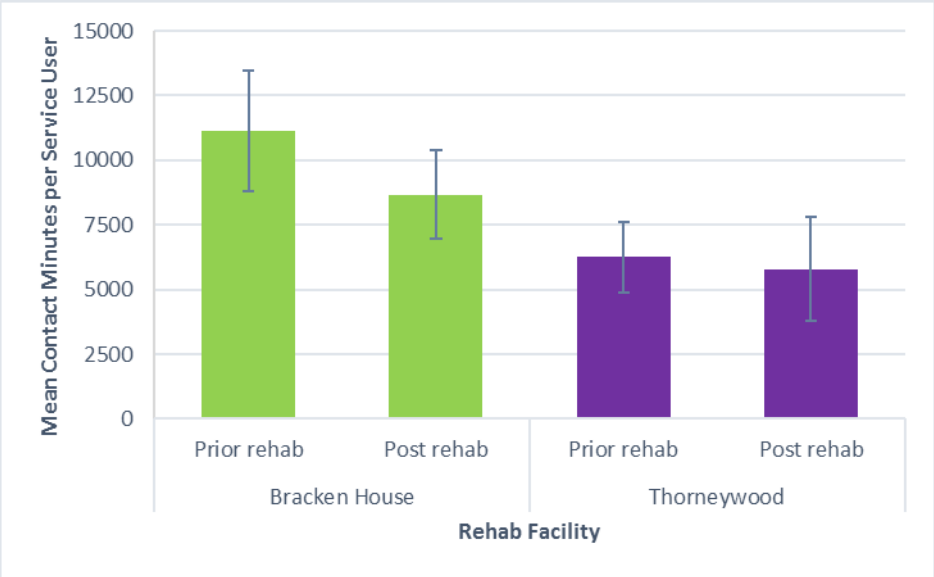
Figure 9: Type of community contacts in the 3 years post a rehabilitation stay



3.2.3.3 Amount of contact time prior and post rehabilitation stay

A 2 (Time Period: Prior, Post) x 2 (Rehab Bed; Thorneywood, Bracken House) mixed ANOVA was used to assess differences in community contact minutes with time period acting as the within subjects factor and rehab bed as the between subjects factor. The results showed no significant difference in contact time prior and post rehab stay, $F(1,45) = 1.32$ $p > .05$, partial $\eta^2 = .03$. There was a significant difference in the contact time between service users from Thorneywood and Bracken House $F(1,45) = 6.95$, $p < .01$ partial $\eta^2 = .13$ with service users from Bracken House overall having a greater amount of contact time compared to Thorneywood. This is to be expected due to Bracken House working with service users who require locked rehabilitation. There was no significant interaction found between the variables $F(1,45) = 0.62$, $p > .05$, partial $\eta^2 = .01$. This is illustrated in Figure 16.

Figure 10: Contact minutes in the community 3 years prior and post a rehabilitation stay presented with 95% confidence intervals



Although Figure 10 illustrates a slight reduction in contact time post rehabilitation stay in Bracken House this was not large enough to be significant suggesting rehabilitation has very little effect on the amount of contact time service users had in the community in the 3 years post discharge.

Overall, the findings suggest that a period spent in a rehabilitation bed will not affect the amount of community contact service users need in the three years following their stay. This may be because inpatient rehabilitation has little effect on the amount of time needed from community services because service users have continuing care needs that do not reduce over time. Alternatively given that service users and carers said there were gaps in community support, this lack of a difference might reflect that there are no alternative forms of support that service users could access, hence their continued dependence on community mental health teams. Now that the Local Mental Health Teams are in place it should be possible to evaluate the types of rehabilitation support offered by these community teams and whether in effect these teams are 'gap filling' or providing targeted mental health interventions.

Given the reductions seen in inpatient re-admissions a better understanding is needed of what purpose this community contact is serving and how it might contribute to service optimisation and cost efficiencies in the future.

3.2.4 Multiple stays in a rehabilitation bed

Since 2013, 33 service users had experienced more than 1 admission to a rehab bed. (Seven of these service users had stayed at both Thorneywood and Bracken House). The highest amount of admissions experienced by one service user was 5 which occurred between 2013 and 2015.

The mean length of stay for service users who had only 1 admission (n = 160) was compared with the mean length of the first stay for service users who went on to have further admissions (n =33). An independent samples t test showed this to be significantly different, $t(58.84) = 2.84$, $p < .01$, $d = 0.49$. Suggesting service users who experienced multiple admissions had on average a shorter first stay in rehab (231.58 days, sd = 291.08) compared to service users who only had 1 stay (400.61 days, sd = 393.2).

For the 33 service users who had more than 1 stay the mean length of their first stay was compared with mean length of their second stay. A paired samples t test showed no significant difference between length of first and second stay, $t(32) = 0.63$, $p > .05$, $d = 0.11$.

This findings suggest that when service users have a shorter first stay in rehabilitation they are more likely to experience further admissions to inpatient rehabilitation. Suggesting that longer stays are not only effective at reducing inpatient re-admissions as presented in Section 3.2.1 but also further re-admission to rehabilitation facilities.

3.3 Why is inpatient rehabilitation effective?

The findings presented above provide some evidence that inpatient rehabilitation contributes to reducing future inpatient re-admissions, occupied bed days and use of the Mental Health Act.

Qualitative data from the listening event with staff highlighted that staff believed rehabilitation was effective and important for three reasons. Firstly, staff asserted that rehabilitation makes it easier for service users to integrate back into the community. It was suggested that the transition from an acute setting to the community can be abrupt and rehabilitation provides an in-between step.

> *"To me it's just a breather. That's how I describe it. You're on the acute ward you get to a level where you are not acutely unwell, and you need a breather before you learn how to integrate back into society without just being pushed and then feel like somebody's chucked you into the sea, struggling to swim." [Staff member]*

Staff also suggested that rehabilitation could provide service users with the opportunity to learn new skills, manage anxiety and gain confidence to use community services.

> *"We have a men's group. I do er cooking with er one of the patients on that day. Erm on another day you know we have, we do gym and swim, patients go out and use the gym and go swimming. We have coffee groups, patients go out for coffee….We have the activities day where people go out running. You know can be out gardening… Some people do their own self catering. I, basically we cover all angles really, anxiety management. Lots and lots of different things." [Staff member]*

Inpatient rehabilitation gives staff the opportunity to build an effective therapeutic relationship with service users over a longer time period. Staff acknowledged that service users could remain in rehabilitation for extended periods and that this can be preferential to the quick turnaround that is experienced on acute wards.

> *"Erm we do like to try, and again that's one of things that we offer, we try to build a very good therapeutic relationship with our patients and work with, you know as close with them as possible erm and to a general level you know become quite friendly with some of the patients. Because some of them here can be here 15 months some have even been here a little bit longer."*

This type of relationship is much easier to achieve in an inpatient setting as opposed to a community setting and this is particularly useful for working with service users who are reluctant to engage.

> *"We can still see them every day, still chip away a little bit and slowly but surely over that 15 month period of time… you know we get chance to really work hard with some people. You know increase the motivation, increase the skills and everything hopefully give them a chance*." *[Staff member]*

Staff suggested that they believed that rehabilitation could be very effective in reducing future contact with services and this was often something they observed in patients they had worked with. Staff believed that the effects of rehabilitation could be long lasting and would continue past the 3 year period of the data analysed here.

> *"I've worked with patients who have been in services for years managed to come through, have the right level of rehab, and then go on to live in the community for a very long period of time." [Staff member]*

3.4 Patient Journeys

Examples from the patient journeys used in the analysis are shown below. Figures 17 and 18 demonstrate the experience of 2 service users who had 1 stay in a rehabilitation bed. They show for each service user the number of inpatient admissions, community contacts and Sections they had prior and post their rehabilitation stay. Figure 19 demonstrates the journey of a service user who had multiple stays in a rehabilitation bed.

Figure 11: Example patient journey

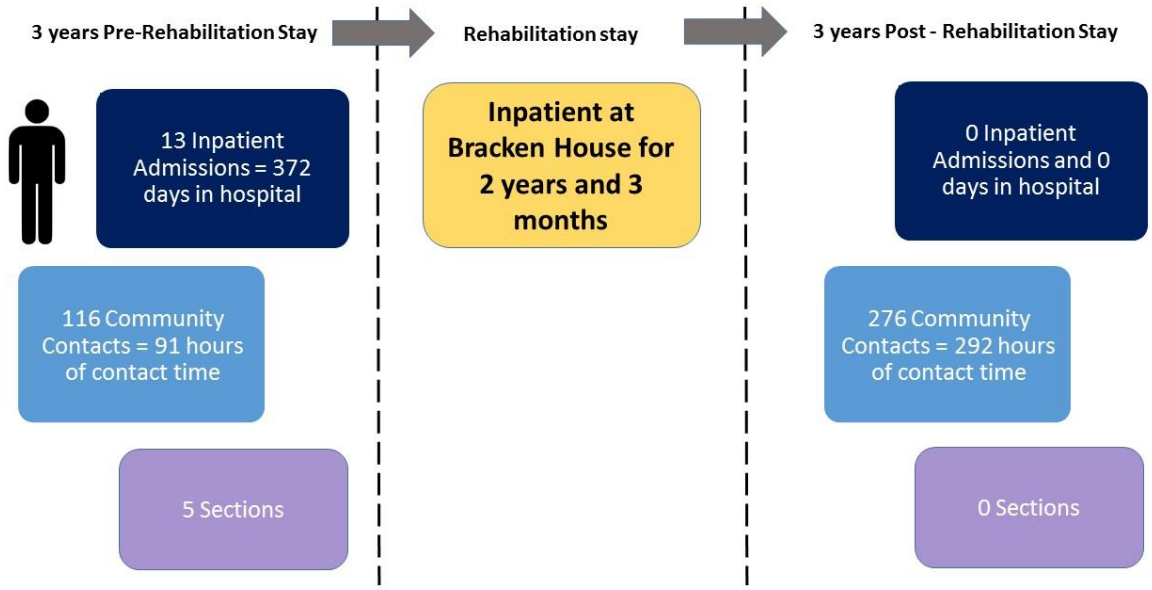


Figure 12: Example patient journey

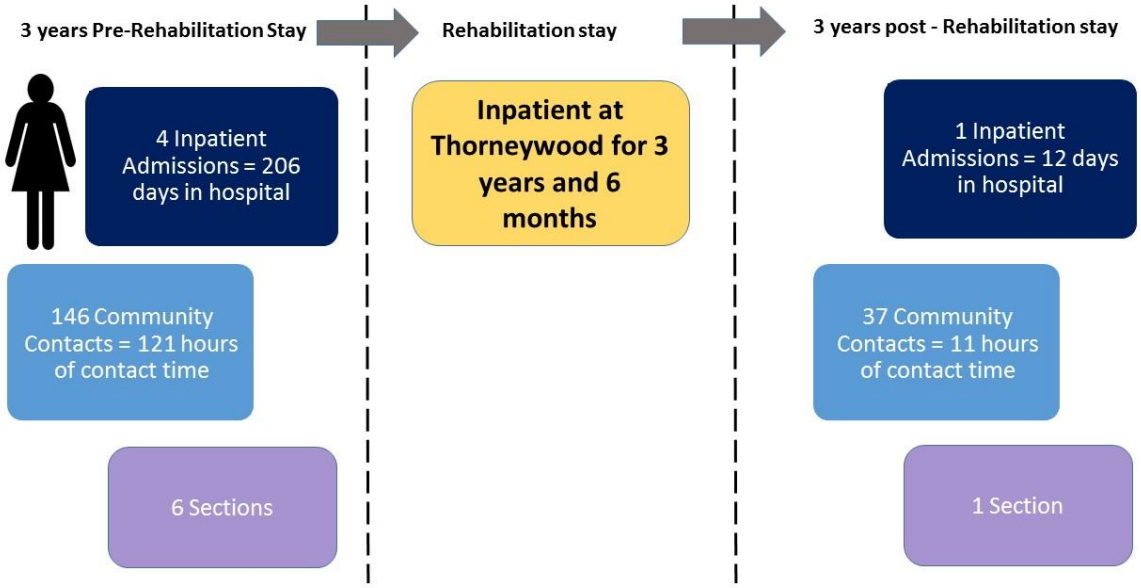
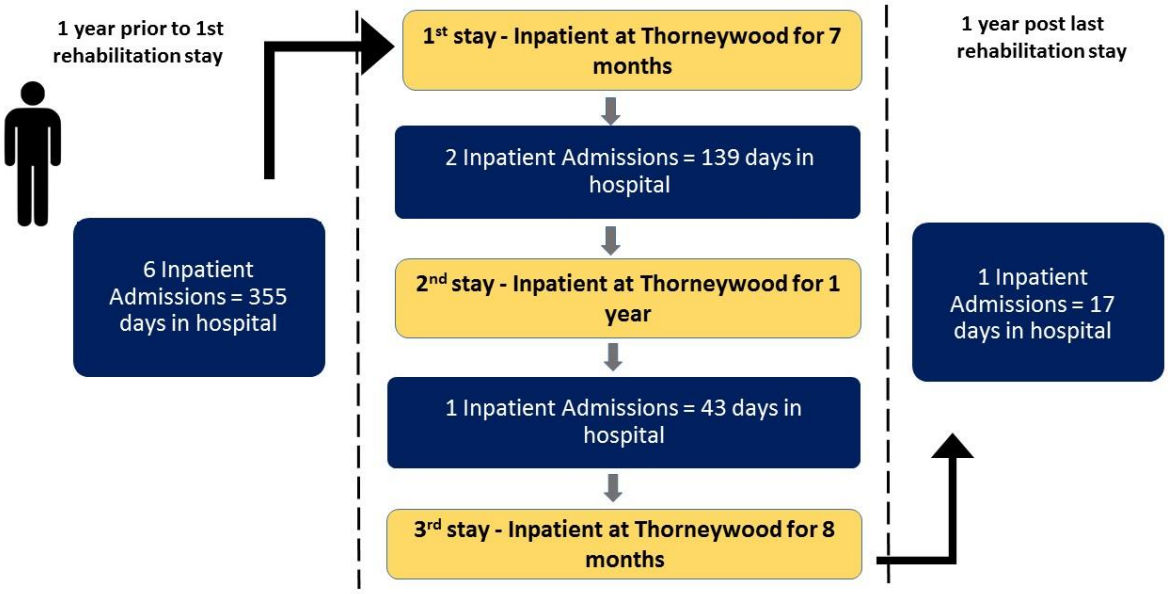


Figure 13: Example patient journey



3.5 Cost effectiveness of current rehabilitation services

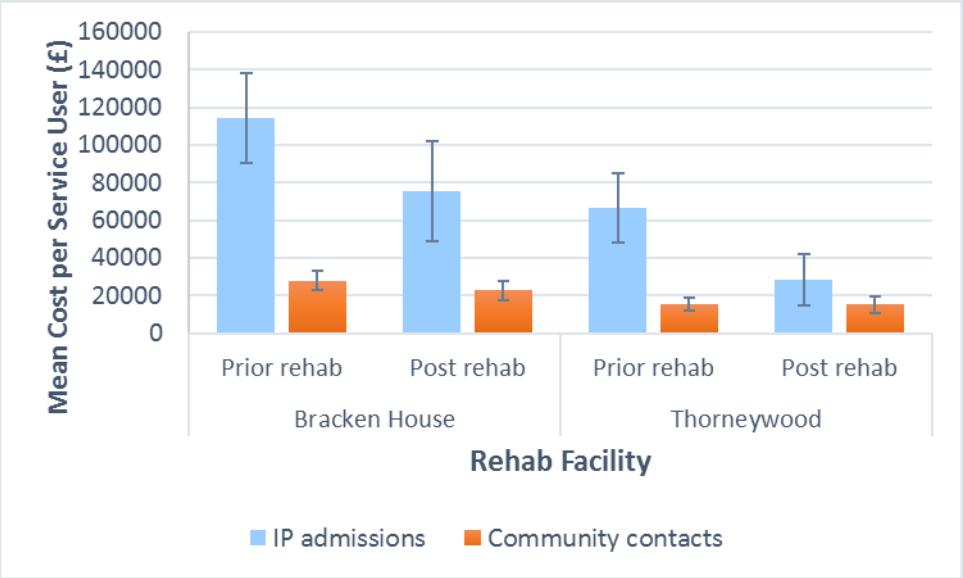
Providing inpatient rehabilitation is expensive due to the large amount of time service users tend to spend in the service. However, the findings suggest that some or all of these costs may be recouped post discharge with service users requiring fewer re-admissions and no increase in use of community support from the local mental health teams.

To further examine any impact on care costs due to inpatient rehabilitation data from costs in the 3 years prior and the 3 years post a rehabilitation stay was compared using a 2 (Time Period: Prior, Post) x 2 (Rehab Bed; Thorneywood, Bracken House) mixed ANOVA. The results showed a significant reduction in mean inpatient admission costs per service user, $F(1,45) = 6.31$, $p < .02$, partial $\eta^2 = .12$ when comparing the three years prior a rehabilitation stay to the three post a rehabilitation stay. There was also a significant difference in inpatient costs between service users from Thorneywood and Bracken House $F(1,45) = 8.61$, $p < .01$ partial $\eta^2 = .16$ with service users from Bracken House having higher care costs overall. There was no significant interaction found between the variables $F(1,45) = .00$, $p > .05$, partial $\eta^2 = <.001$, suggesting that the reduction in costs seen post rehab was evident in service users from Thorneywood and Bracken House. This is shown in Figure 20

To examine the change in costs related to face to face community contacts from prior to post rehabilitation stay a 2 (Time Period: Prior, Post) x 2 (Rehab Bed; Thorneywood, Bracken House) mixed ANOVA was used. The results showed no significant change in mean contact costs per service user from prior to post rehab stay, $F(1,45) = 0.75$, $p > .05$, partial $\eta^2 = .02$. There was a significant difference in community contact costs between service users from Thorneywood and Bracken House $F(1,45) = 8.2$, $p < .01$ partial $\eta^2 = .15$ with service users from

Bracken House overall having higher community contact costs. There was no significant interaction found between the variables $F(1,45) = 0.63$, $p > .05$, partial $\eta^2 = .01$. The findings are illustrated in Figure 20.

Figure 14: Mean costs per service user in the 3 years prior and post a rehabilitation stay presented with 95% confidence intervals



Therefore, the data suggests that the significant reduction in inpatient admissions is reflected in a significant reduction in costs associated with this. As the amount of contact time provided by the local mental health teams was not significantly reduced pre and post rehab stay no reductions in costs associated with this are discernible. Table 3 below provides the mean cost per service user incurred from inpatient admissions and face to face community contacts in the 3 years prior to their rehab stay and in the 3 years post their rehab stay.

Table 3: Mean costs for inpatient admissions, community contacts and rehabilitation stay.

	Mean cost per service user for inpatient admissions – Prior rehabilitation stay	Mean cost per service user for inpatient admissions – Post rehabilitation stay	Mean cost per service user for face to face contacts – Prior rehabilitation stay	Mean cost per service user for face to face contacts – Post rehabilitation stay	**Total mean cost saving per service user**	Mean cost per service user for their rehabilitation stay	Estimated mean cost per service users of community contacts and inpatient admissions if service user had not been in rehab*
Bracken House	£114,183.38	£75,382.15	£27,985.85	£22,832.54	**£43,954.54**	£176,609.66	£66,083.37
Thorneywood	£66,863.24	£28,294.10	£15,415.14	£15,197.81	**£38,786.47**	£207,258.86	£39,326.77

*The spend on inpatient admissions and community contacts cost in the 3 years prior to the rehab stay is used to estimate this cost based on the meant amount of time service users spent in rehabilitation.

This finding demonstrates that the costs savings made in the 3 years following discharge from rehab are offset by the costs of inpatient rehabilitation. For greater cost savings to be made the reduction in inpatient admissions would need to be maintained for longer than 3 years suggesting the need for a longitudinal evaluation spanning 5 years or more.

However even though a rehabilitation stay is costly if these service users had not been in rehabilitation they would likely have continued to experience repeated inpatient admissions which would have had associated costs in addition to any costs associated with community support. This has been estimated and is shown in Table 3. These costs are likely to be an underestimate as they do not include any costs associated with these service users being inappropriately placed in other services or out of area thereby potentially blocking a bed that could have been more appropriately used by a service user with acute needs.

Therefore, rehabilitation may be expensive but over a longer period of time it can have the potential to significantly reduce costs and enable service users to remain in the community post discharge. Qualitative data from listening events with service users, carers and staff suggested that they often felt that costs would be incurred further down the line if the transition from inpatient setting to the community was not successful. Appropriate support during this crucial period of transition could act as a preventative measure which in the long run would save the high costs associated with repeated inpatient admissions

> *"It was, in my eyes, it [rehabilitation] always a good way of saving money because you know that revolving patient thing is one of the biggest costs to the NHS."[Staff member]*

> *"I'm not so sure that…caring for people in the community in their own homes is that much cheaper than in hospital….I think the costs involved in pushing people into their own homes when really they would be better served elsewhere and I think, I don't think the Trust has an understanding of all those costs." [Service user]*

Service users and carers felt investment in or promotion of more alternative sources of support in the community would help further reduce costs.

> *"I feel more funding should go into like drop in centres…. And then, then you could kill two birds with one stone for the want of a better word, people can go to them er and then they can be monitored er casually there. But at least they're present and they aren't going off the map and getting er perhaps iller and then they end up back in the hospitals which costs more money than erm the intended purpose of closing these rehabs." [Service user]*

This suggests that costs efficiencies would be optimised further by health and social care working more effectively together to deliver coordinated rehabilitation support.

3.6 What happened to service users from closed rehabilitation beds?

3.6.1 Patient journeys

The patient journeys shown in Figures, 21, 22 and 23 are examples from three service users who had been inpatients at the closed rehabilitation facilities. The journeys' illustrate what happened to them following the closure of the rehabilitation beds.

Figure 15: Example patient journey

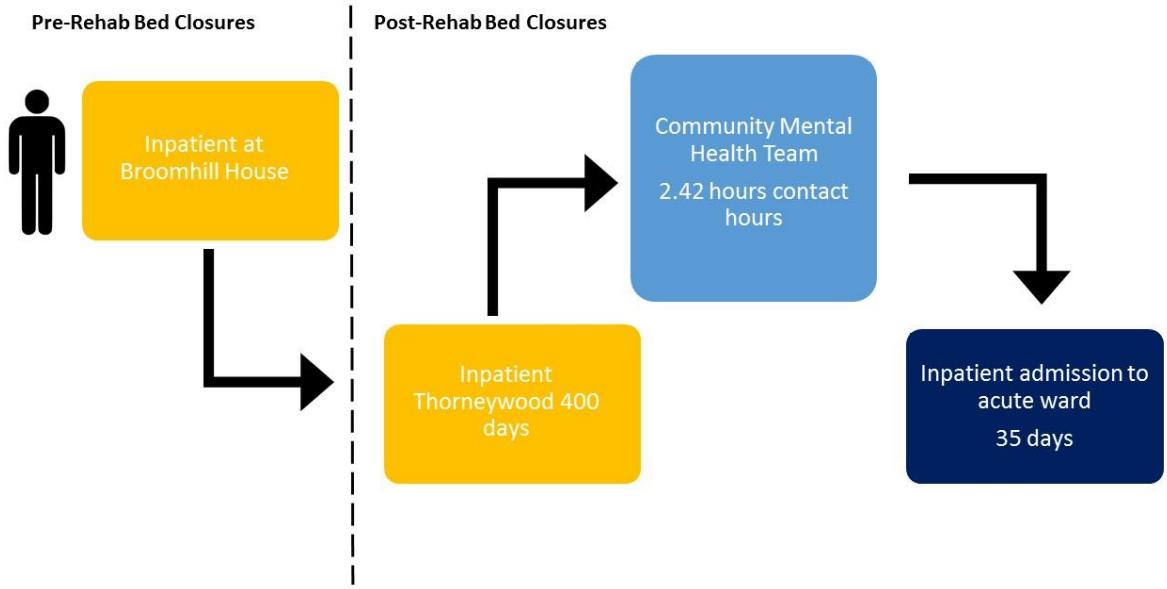


Figure 16: Example patient journey

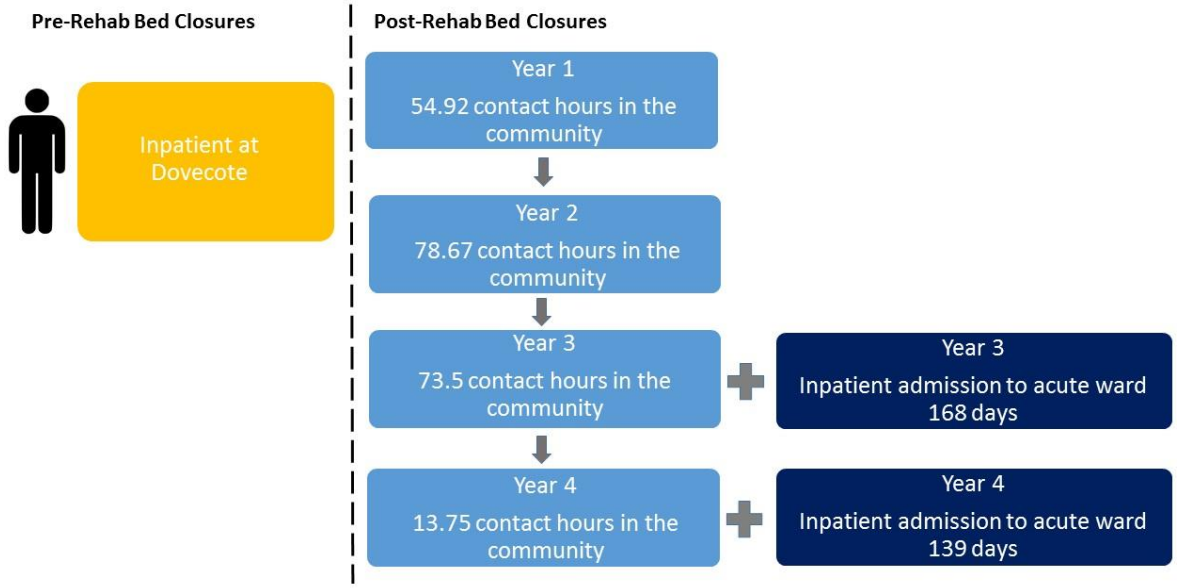
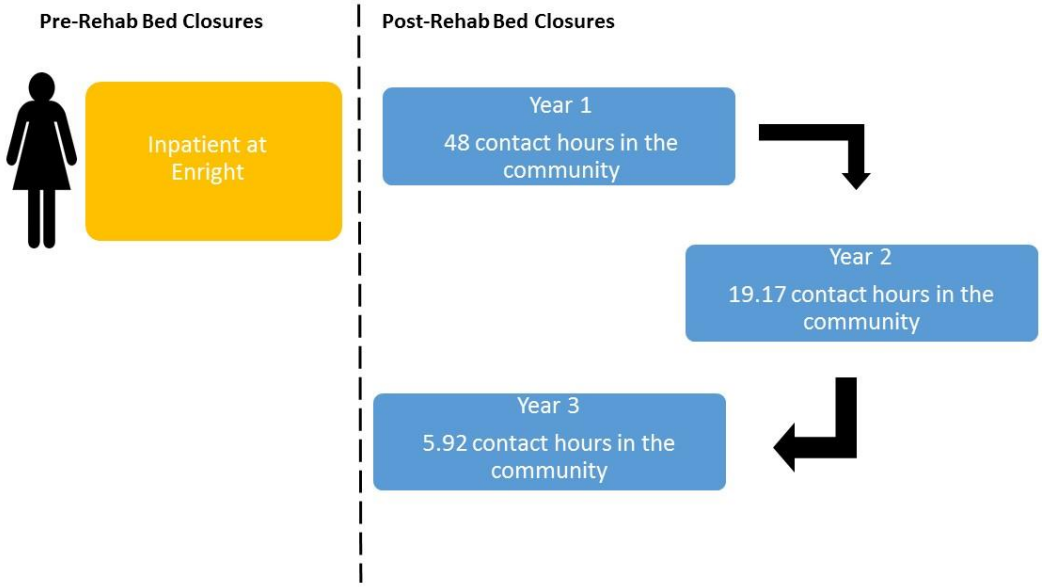


Figure 17: Example patient journey



The patient journeys illustrate the different and varied experiences of service users from closed rehabilitation beds with some experiencing further rehabilitation admissions and others remaining in the community.

3.6.2 Further inpatient rehabilitation

As seen from Figure 9 some service users were transferred to another rehabilitation facility following closure. The data revealed that 14 service users who had been in one of the closed rehab beds either at the point of closure or during the three months up to the point of closure went on to require further inpatient stays at either Bracken House or Thorneywood. Nine of these service users had one single rehabilitation stay at either Thorneywood or Bracken House, and five service users had more than one stay at these facilities. These service users had on average been a patient on a closed rehab bed for 261.07 days (sd = 127.91) before closure. On average each service users went on to spend a further 257.86 days (sd = 207.76) in rehabilitation at either Bracken House or Thorneywood.

Out of these 14 service users, 5 had a stay at Bracken House meaning that these services users moved from an open to a locked rehabilitation facility. Staff, service users and carers discussed how Bracken House provides rehabilitation services in a different way given the higher level of restrictions in place. It was felt by staff that for these service users a move from an open to a locked rehabilitation environment was actual detrimental to their recovery.

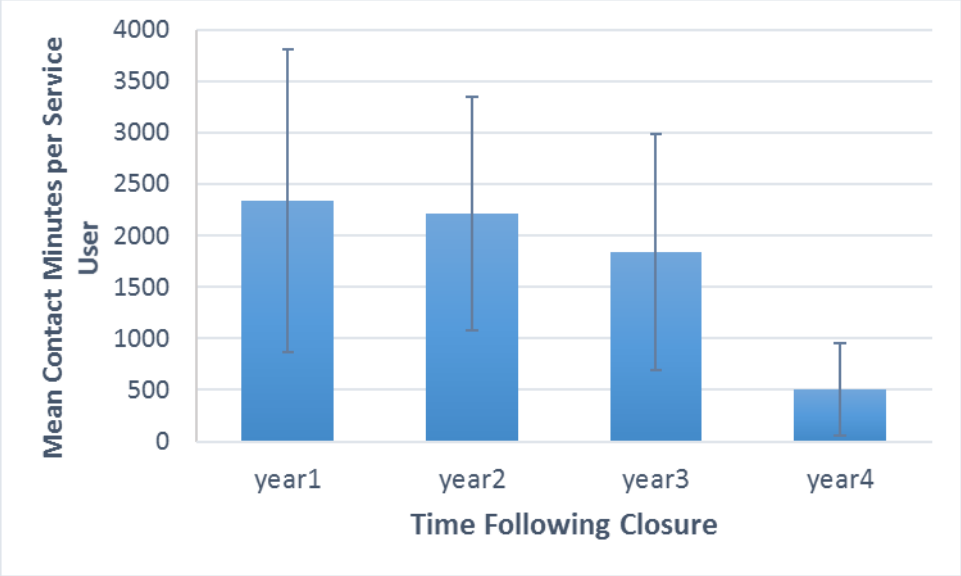
> *"Especially if they've come from an open rehab unit to here which is a locked rehab unit. One of the big, one of the main factors we have here is the psychological problems when people actually realise it's a locked unit." [Staff member]*

"A few of my patients from where I've been redeployed from, actually went round the system again they deteriorated, mental state. Because obviously that level of support wasn't there, they felt that, and obviously that was quite sad." [Staff member]

3.6.3 Community support

It is possible that some service users were able to remain in the community after the rehabilitation beds were closed and therefore the experience was positive. Dovecote Lane closed in 2013 and therefore had several years of data available. Data regarding the amount of contact hours in the community following closure were examined for these service users (n =10) to see if they changed significantly over time. A one-way repeated measures ANOVA was conducted to examine contact hours over the 4 years following closure, this showed a significant difference in contact hours over the 4 years, F (3,27) = 4.75, p <.01, partial η^2 = .35. Post hoc analysis with Bonferroni corrected t tests showed contact hours in year 4 to be significantly less than contact hours in year 2 (t(9) = 3.68, p <.05) with contact hours remaining similar in the first 3 years. This is shown in Figure 24.

Figure 18: Community contact hours in the 4 years following closure of Dovecote Lane presented with 95% Confidence Intervals



These findings suggest that the need for contact with the community teams continues to decline and by the fourth year support is significantly less than what it was directly following closure.

3.7 What is needed for support in the community to be effective?

Staff considered that inpatient rehabilitation was a way of preparing service users with severe, enduring mental health problems and associated complex needs for life in the community. Key themes emerging from the qualitative data captured during the Listening Events with service users and carers were analysed thematically to identify some key areas

that were thought by service users and carers to be important when considering community support and enabling it to be successful. These were:

Level of support

Service users and carers felt there is not always adequate support in the community. They felt that community teams are sometimes under staffed and cannot respond to crisis.

> *"I don't think they've got the time and the teams to get round to everybody." [Service user]*

Even though service users spoke of a dedicated crisis team they felt this did not sufficiently meet their needs in a crisis. It was felt that support was not always available outside the 9 to 5 daytime period and at weekends when it was most needed.

> *"But when you go at night time, say 10 o'clock Saturday night, you're sitting there taking all your tablets and you decide to ring them and you get an answering machine and leave a message, someone will call you back. It's like no I'll just carry on taking my tablets sod it." [Service user]*

Service users and carers were doubtful about whether the findings reflected a decrease in the need for community support post rehab and over time or whether this was simply a reflection in the reduction of support available.

> *"Yes we've seen a lot of evidence, all of own experiences I think, of people who go out into the community and the contact they have is reduced and reduced and reduced. So there's got to be a robust decision making on who's getting reduced contact from people, from whoever it may be. It's got to be properly done cause we've found haven't we? That isn't it, just seems to slip for no reason. It's not, it's not as a result of a comprehensive discussion that carers or service users have been involved in."[Carer]*

Reducing risks of isolation

One of the biggest risks of care in the community was considered to be isolation and there were concerns that this may have been a negative result of rehabilitation bed closures.

> *"But if you're gonna make cuts you've got to think about what else you're going to put in place, people are then isolated if you're stuck at home, waiting for somebody to come who only sees them for an hour a week you know. The damage caused by isolation is massive and the knock on costs are massive." [Service user]*

Although service users and carers agreed that service users could become too dependent on inpatient services if they were not integrated back into the community in a timely manner, there were feelings that being isolated in the community could have greater negative consequences.

"It's like what you've just been saying basically, people can get isolated, no social interaction and that's probably even worse than being institutionalised because at least you're around people in an institution and you've got some sort of social contact." [Carer]

Service users and carers agreed that to reduce this isolation a range of support is needed in the community. It was felt that social interaction and opportunities to meet with other service users and carers are an important part of recovery.

"I think that's where er drop in centres and rehabilitation centres can come in, that, that the social interaction that people need has got to be there. I think people er who've had mental health difficulties, and I'm one of them, it's when you haven't got that social interaction that's when you can really…." [Service user]

"The clue is in the word community they should be having contact with people. Not sitting at home behind a closed door waiting for a visit once a week." [Service user]

<u>Variety of support</u>

Service users and carers wanted more varied support in the community. It was felt by service users and carers that currently there is very little support in the form of Daycentres or Drop In Services.

"But they've closed all the Daycentres, they've closed everything. There's nowhere for them to go." [Service user]

"There are no suitable rehab activities which help the patient's wellbeing. And when a patient comes out of hospital we feel that it's then usually down to the family and friends to give the necessary care that they need because there's not enough contact time from the NHS." [Carer]

It was felt there should be more activities and alternative sources of support available as well. Service users felt a more holistic approach and integration with other services was necessary.

"Yeah, I, I think that there should be things like relaxation rooms. Er massaging and er teaching people how to relax and er yeah." [Service user]

"What about integration with other services in our society? Like housing, education, welfare, transportation and things like that because if there's no safety net, you know integrated safety network, then it's very unlikely they're going to recover or get back on their feet or be integrated back into society." [Service user]

Service users spoke about some current initiatives for example the Café Sobar in Nottingham city centre that they particularly liked. However it was felt there needed to be more of this. Peer support was considered important and it was felt this could still be further improved by the Trust.

"And er I think the Trust says a lot about peer support but I don't think it's forthcoming that much I think because a lot of it's still tokenism." [Service user]

Communication

Good and effective communication between staff and service users/carers was seen as being important factors for the success of community care.

"Communication. It's one of the biggest issues and one of the biggest problems….So I think everybody, if it's going to work, everybody's got to work together, the communication's got to be there." [Service user]

"It's got to be the right personalities fit the right people to work with them and everybody's after the same goal to keep them well and preferably out of hospital and in the community." [Service user]

"So if you're saying yes we're going to have this person in the community whatever, that's fine but there's got to be a robust system in place with everybody and that includes us." [Carer]

4. Conclusions

The findings suggest that a rehabilitation admission is effective at reducing occupied bed days in inpatient services, admissions to inpatient services and use of Mental Health Act sections post admission. All these measures are indicative of 'recovery' in the mental health research literature and together offer consistent evidence that inpatient rehabilitation services provided by Nottinghamshire Healthcare NHS Foundation Trust continues to contribute to improved outcomes for many service users. The significant correlation between duration of inpatient admissions and occupied bed days following discharge needs further investigation but offers some evidence that a longer time spent in rehabilitation at least initially has the potential to reap improved outcomes post discharge. This 'element' of longer term prevention of service use needs to be factored into cost efficiency schemes.

Support for this comes from the findings that showed that service users who had shorter stays in rehabilitation were more likely to have further re-admissions to rehabilitation. Findings suggests that longer stays in rehabilitation at least initially, may be necessary for it to be effective. The longest stay from service users in the sample here was around 5 years with the average stay being just under 18 months. Service users experiencing stays of up to 5 years still showed a lower number of re-admissions and bed days post rehab. However, further research is needed to understand whether there is an optimal length of stay or whether this varies depending on the needs of each service user. The findings support previous research from Petrie and Mountain (2009) which demonstrated that rehabilitation can contribute to reduced readmission rates to acute services.

As rehabilitation beds are expensive it is important to demonstrate if commissioning them is a good use of resources and money. The reduction in inpatient admissions and occupied bed days results in a significant reduction in associated costs post rehabilitation stays. Although the cost of the rehabilitation stay is high these costs can be offset with savings over time. The opportunity for potential longer term savings were also supported by staff's experience that rehabilitation would save money by enabling service users to live successfully in the community. These cost savings may be optimised by delivering targeted rehabilitation support in the community and could be the focus of a further evaluation.

Future research needs to provide a more detailed costs analysis that looks at costs associated with other activity data such as attendance at Emergency Departments and care provided by the independent sector as this will allow for a more comprehensive analysis. It is likely that costs savings due to rehabilitation could be demonstrated for other services, contributing to efficiencies within the wider health and social care system. If more detailed costs become available in the future they can be factored into the cost analyses provided in this report to offer a more comprehensive picture.

The data showed that the amount of community contact hours did not significantly change post a rehabilitation stay, possibly because service users have continuing care needs that are not effected by rehabilitation. It is also possible that due to the gaps in alternative forms of community support identified by service users they continue to rely on support from community mental health teams. In listening events service users spoke about the benefits of this type of support. Community support not provided by the Trust was not measured here so it is not known how the rehabilitation process might influence contact with other groups, activities or support services. Again this suggests the need to understand the wider system of rehabilitation support available.

Qualitative data from staff who had extensive experience of working in rehabilitation facilities was valuable in offering insight into these services. It was suggested that rehabilitation is effective at preparing service users for life in the community by aiming to provide them with the skills that they need. This supports research that also suggests that rehabilitation takes a more holistic approach. This is in contrast to acute wards which are not always able to promote independence and improve service users' social functioning (Holloway, 2005). Staff also spoke of how over long periods of time, they are able to build a good therapeutic relationship with the service uses, which is different from acute wards which typically have a higher turnover. Therefore, an inpatient rehabilitation stay is very different from an inpatient stay on an acute ward.

Staff felt that rehabilitation support would not be as effective if delivered in the community for some service users because they are reluctant to engage. Service users and carers felt it important that a variety of support is made available in the community such as drop in centres or cafes and more opportunities for service users to meet with other users and

share experiences. This indicates that the more holistic approach promoted in rehabilitation is also needed in the community.

Previous research which has demonstrated the effectiveness of rehabilitation services (e.g. Petrie & Mountain, 2009) has not used qualitative data, therefore by using a mixed methods approach in this evaluation, and gaining qualitative data from staff who work in inpatient rehabilitation services, the research has been able to give a more complete understating of the effectiveness of rehabilitation services and the reasons why rehabilitation is effective.

At the time of conducting the evaluation it was not possible to obtain qualitative data from a sample of service users who had extensive experience of using rehabilitation beds. Therefore, although the service users who took part all had lived experience of mental illness; they had not necessarily used a rehabilitation bed provided by the Trust. Service users and cares who attended the listening events were all aware of the rehabilitation bed closures that had occurred and many of them had attended consultations regarding these closures. Therefore, the discussions held at the listening events were insightful and particularly important when gaining service user perspectives on service provision within current mental health services.

Based on the evaluating findings to date we cannot know if inpatient admissions, bed days and Mental Health Act sections continue to remain low over a time period longer than 3 years. A period of 3 years either side of inpatient rehabilitation was chosen as this was a similar timeframe to that used in previous research. A longitudinal study would be necessary to address this although this might prove difficult if mental health services continue to change in response to commissioning decisions.

One limitation with the data is that it is possible that service users had spent time in inpatient services waiting for a rehabilitation bed to become available therefore effecting the prior admission cost data. Unfortunately, there was no way to identify this from the data provided as this would need to have been extracted from service users' case notes. However, the reduction in number of admissions found that was found in addition to a reduction in bed days post rehab, suggests that service users were experiencing a more chaotic pattern of repeated admissions in the 3 years prior to their rehabilitation stay.

An additional limitation with cost data was that unit costs for 2016/2017 were applied throughout for standardisation and may not have been the actual costs incurred for the services outside of this time period. Also face to face contact costs were calculated by contact and not by time duration. If this data were available in future it should offer a more accurate calculation of costs associated with service usage.

Rehabilitation services have been described as 'the forgotten need within contemporary mental health services' (Holloway, 2005). Indeed staff at the listening events also spoke about a 'systemic decline' in rehabilitation services. This evaluation suggests that inpatient rehabilitation offers a unique opportunity for support that can be very effective for service

users before they return to the community. It is important therefore that rehabilitation services are used appropriately and are reserved for service users with the appropriate level of need and who will benefit from the approach.

Service users who do not manage well in the community can be frequently readmitted to inpatient facilities. This 'revolving door syndrome' places a huge demand on services, prevents other service users accessing beds when they really need them and results in high costs. Therefore, the appropriate and continued use of rehabilitation beds is instrumental in being able to reduce these repeated inpatient admissions and offering service users effective mental health interventions when they need them.

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7. Appendices

Appendix 1: Listening event guide for service users and carers

OPENING STATEMENT: welcome participants, review purpose and topic of the listening event, set ground rules and complete consent forms

INTRODUCTIONS: everyone to introduce themselves

ACTIVITY – Discuss findings from data analysis

1. How do you feel that service users were readmitted to inpatient facilities?
2. Why do you think that contact hours in the community reduced over time?
   Prompt: Are these contact hours enough?
3. How do you explain that the frequency of section 17s increased post rehabilitation closure?
   Prompt: Does this suggest that more service users are being treated in the community using a Section 17 rather than inpatient settings?

ACTIVITY – Discuss patient journeys

1. Tell us your thoughts of the patient journey 1 and 2.
2. Describe to us how you would feel if this was your journey.
3. Describe to us any positives of patient journey 1 and 2.
4. Describe to us any aspects of patient journey 1 and 2 that could have been improved.
5. How do you feel the contact hours between journey 1 and 2 compare?
6. Do you feel patient journey 1 and 2 still provide clinically efficient care for service users?
7. Could any other support have been provided to service users in the community following the closure of rehabilitation beds?

ACTIVITY 3 FOCUS GROUP

From your own or others experiences of inpatient and/or community care …

Can you describe to me your experience of inpatient care/rehabilitation beds?

What does effective inpatient care look like?

Tell me how you are supported in leaving inpatient care and returning to the community?

Can you describe to me your experience of community care?

What does effective community care look like?

What do you think are the 'magic ingredients' for effective support in the community?

Can you share with me your thoughts on dependence?

Can you share with me your thoughts on independence?

How do you feel the closure of the rehabilitation beds affected service users?

CLOSING STATEMENT: thank you, debrief form and contact details regarding withdrawal of data, voucher and receipt

Appendix 2: Listening event guide for staff

OPENING STATEMENT: welcome participants, review purpose and topic of the listening event, set ground rules and complete consent forms

INTRODUCTIONS: everyone to introduce themselves

From your own or others experiences of working in rehab facilities and/or community care can you describe to me your experience of working in an inpatient rehabilitation facility?

Prompt: How is it different from other inpatient wards?
Prompt: Did you have any experience of working at any of the closed rehab beds?

Discuss findings from data analysis:

4. Do you believe inpatient rehabilitation is effective?
   Prompt: If yes in what way?

5. Prompt: If no why not Why do you think a rehab stay would reduce inpatient admissions to other services?
   Prompt: What happens in rehab to help service users stay out of hospital when they leave?

6. Are you surprised by these findings?

7. This data examined the 3 years following discharge do you think admissions would remain low over a longer time period?
   Prompt: If not why?

8. Why do you think community contact hours don't significantly change?

9. Is it a good thing that they don't change?
   Prompt: Would you expect them to increase or decrease?

What type of service users do you think benefit from an inpatient rehab stay?

Prompt: Service users with complex needs? Service users who have previously had a lot of admissions to acute wards?

What does effective inpatient rehabilitation care look like?

Prompt: Are there enough meaningful activities?
Prompt: Is care holistic and person centred?

Can service users have effective rehab in the community?

Prompt: Is this preferable to inpatient care?

How do you feel the closure of the rehabilitation beds affected service users?

Prompt: Did you think anything could have been done better to help service users following the closure of these beds?
Prompt: Do you feel the consultations were a genuine opportunity for service users to voice their opinions?

What do you feel were some of the problems, if any, with the closed rehabilitation beds?

Prompt: Were the beds being used appropriately?
Prompt: Did service users have discharge plans in place?

Are there any problems with the current rehab beds (Bracken house and Thorneywood)?

Do you think the current rehabilitation services are enough to meet the demand?

Prompt: What happens if these beds are full, do service users have to go out of area?

Tell me how service users are supported in leaving an inpatient rehab bed and returning to the community?

Prompt: Are there enough supported living services available for them to move on to?
Prompt: What does community care look like for service users when discharged?
Prompt: What does discharge planning involve?

Can you describe to me your experience of working in the community (if any)?

Prompt: How does this differ from inpatient care?

What does effective community care look like?

CLOSING STATEMENT: thank you, debrief form and contact details regarding withdrawal of data, voucher and receipt