Journal of Mental Health

ISSN: 0963-8237 (Print) 1360-0567 (Online) Journal homepage: http://www.tandfonline.com/loi/ijmh20

An evaluation of service use outcomes in a Recovery College

Philippa Bourne, Sara Meddings & Adrian Whittington

To cite this article: Philippa Bourne, Sara Meddings & Adrian Whittington (2017): An evaluation of service use outcomes in a Recovery College, Journal of Mental Health, DOI: 10.1080/09638237.2017.1417557

To link to this article: https://doi.org/10.1080/09638237.2017.1417557

Published online: 23 Dec 2017.

Journal of MENTAL HEALTH

http://tandfonline.com/ijmh
ISSN: 0963-8237 (print), 1360-0567 (electronic)

J Ment Health, Early Online: 1–8
 DOI: 10.1080/09638237.2017.1417557

Taylor & Francis
Taylor & Francis Group

Check for updates

ORIGINAL ARTICLE

An evaluation of service use outcomes in a Recovery College

Philippa Bourne[1], Sara Meddings[2,3], and Adrian Whittington[2]

[1]Salomons Centre for Applied Psychology, Canterbury Christ Church University, Kent, UK, [2]Sussex Partnership NHS Foundation Trust, Sussex, UK, and [3]ImROC, Nottingham, UK

Abstract

Background: Recovery Colleges offer educational courses about recovery and mental health which are co-produced by mental health professionals and experts by lived experience. Previous evaluations have found positive effects of Recovery Colleges on a range of outcomes including wellbeing, recovery and quality of life.
Aims: To evaluate service use outcomes for Sussex Recovery College students who use mental health services.
Method: The study used a controlled-before-and-after design. It used archival data to analyse service use before and after participants registered with the Recovery College ($n = 463$). Participants acted as their own control.
Results: Students used mental health services less after attending the Recovery College than before. Students who attended the Recovery College showed significant reductions in occupied hospital bed days, admissions, admissions under section and community contacts in the 18 months post compared with the 18 months before registering. Reductions in service use were greater for those who completed a course than those who registered but did not complete a course.
Conclusion: These findings suggest that attending Recovery College courses is associated with reduced service use. The reductions equate to non-cashable cost-savings of £1200 per registered student and £1760 for students who completed a course. Further research is needed to investigate causality.

Keywords

Recovery, Recovery College, evaluation, service use

History

Received 8 April 2017
Revised 30 July 2017
Accepted 17 October 2017
Published online 23 December 2017

Introduction

Recovery

In 2011, the Department of Health (2011) in the UK published ''No health without mental health'', a national policy paper outlining six key mental health objectives. One objective was for more people with mental health difficulties to recover, highlighting a move towards more recovery-focused policies and interventions and the importance of allowing people to plan their own recovery. Recovery is also key in international health planning and is included in the current World Health Organization (WHO, 2013) vision and action plan for mental health.

''Recovery. . .involves making sense of and finding meaning in, what has happened; becoming an expert in your own self-care; building a new sense of self and purpose in life; discovering your own resourcefulness and possibilities and using these and the resources available to you, to pursue your aspirations and goals'' (Perkins et al., 2012, p. 2).

Correspondence: Dr Sara Meddings, Sussex Partnership NHS Foundation Trust, Aldrington House, 35 New Church Road, Hove, BN3 4AG, UK. E-mail: Sara.meddings@sussexpartnership.nhs.uk

Recovery Colleges

Recovery Colleges deliver educational courses on mental health and recovery and have co-production at their core. Courses are co-designed and co-facilitated by mental health professionals and experts by lived experience. Personal and professional knowledge of mental health problems are combined to offer education to those with mental health challenges, their families, carers and staff. Recovery Colleges are strengths based and person-centred, recovery oriented and progressive, helping people reach their own goals (McGregor et al., 2014; Perkins et al., 2012). The first Recovery College was developed by Rachel Perkins which was opened in South West London in 2011. By 2015 there were an estimated 40 Recovery Colleges across the UK, Europe, Canada, Australia and Japan (Meddings et al., 2015b).

A series of audits and evaluations have begun to indicate the effectiveness of Recovery Colleges in supporting people in their recovery (Bourne, 2016). Recovery Colleges are popular and students are highly satisfied. Many colleges report over 95% of students rating their course as good or excellent and that they would recommend it to others (e.g. Meddings et al., 2014; Rennison et al., 2014).

Students report improvements on personal recovery goals after attending Recovery Colleges (Burhouse et al., 2015; Meddings et al., 2015a; Rinaldi & Wybourn, 2011). They feel ''more hopeful about their recovery and/or the recovery of someone they support'' (Burhouse et al., 2015; Skinner & Bailey, 2015, p. 30). They also show significant improvements on standardised measures of recovery (Meddings et al., 2015a; Nurser et al., 2017) and reduced self-stigma (Nurser et al., 2017). Quality of life and well-being has been shown to significantly improve as measured by the Warwick Edinburgh Wellbeing Scale (WEMWBS) and MANSA (Meddings et al., 2015a; Secker, 2014).

After attending Recovery College courses, some students reported starting work, volunteering or returning to mainstream education and to have increased contact with the arts, family and neighbourhood, although some studies have relatively small numbers making definitive conclusions hard to draw (Mid Essex Recovery College, 2014; Rennison et al., 2014; Rinaldi & Wybourn, 2011). Meddings et al. (2015a) however did not find significant differences for entering employment or returning to education after the Recovery College but did find an increase in social networks.

Nevertheless, the evidence to date is based on audits and evaluations which inevitably have weak experimental designs. There is a need for more robust research and controlled trials.

Recovery College service use outcomes

When looking at service use as an outcome, it is important to consider it in the context of other, more recovery oriented measures as described above. Recovery Colleges are one part of a comprehensive mental health service and it is hoped that, alongside progress in recovery, people who attend will need to use services less. Measuring changes in service use is also important for evaluating efficiency, cost-effectiveness and in securing funding. Mental health service users often report that the most important reduction in service use is involuntary admissions. This service provision is least consistent with recovery oriented approaches as it removes the person's control over their mental healthcare, separates people from their communities and restricts autonomy (Shepherd et al., 2008).

Rinaldi & Wybourn (2011) found that students who completed a Recovery College course (attended $\geq 70\%$) had significantly fewer occupied bed days and community contacts in the 12 months after attending the Recovery College compared with students who did not attend a course. The differences equated to an ''average efficiency of £804.30 per individual per annum'' (p. 9), for those who completed a course with the Recovery College. There were, however, also significant differences in occupied bed days in the pre time period. This indicates that those who attended Recovery College courses may have differed from those who did not. The authors did not complete any within-participant analyses making it difficult to ascertain the impact of the Recovery College on participants' use of services.

Mid Essex Recovery College (2014) evaluated secondary care activity and bed days one-year pre and one-year post Recovery College. Of those who enrolled with the college, 36% reduced their use of secondary care services, 12% were discharged, 13% remained the same and 21% increased. They found a decreasing trend for bed days and reported an average cost saving of £1240.88 per person.

An evaluation in South West Yorkshire ($n = 50$) found that 48% did not require any ongoing support after being part of the Recovery College, whilst 24% had an increase in service use following attendance (Barton, 2015). However, it appears that these figures are based on six months pre and post data which is a relatively short time frame for comparing differences in inpatient service use. It would be helpful to examine these differences over a longer time period and to test statistically the significance of changes.

Sussex Recovery College - service context

Sussex Recovery College is a partnership between Sussex Partnership NHS Foundation Trust (Sussex Partnership), Southdown Housing and other voluntary sector organisations. The Recovery College is for adults aged 16 and over who live in the area and have moderate or severe mental health challenges or are their relatives, friends, carers or the staff of partner organisations.

Rationale and aims

Using simple, pre-post follow-up designs, Sussex Recovery College has demonstrated improvements for its students in personal goals, quality of life, wellbeing and recovery as well as students reporting that they value the college (Meddings et al., 2014, 2015a). Peers, student representatives, local managers, clinical leads and commissioners requested that Sussex Recovery College be evaluated in terms of service use. The aim of the present study was to evaluate whether those who registered or completed a course with the Recovery College showed changes in service use.

Method

Design

A controlled-before-and-after design was used to compare data on service use for the 18-month period before and 18-month period after registering with the Recovery College. Participants acted as their own control. It used archival data collected by Sussex Recovery College and Sussex Partnership. Each stage of this project was discussed and developed at monthly Recovery College research, audit and evaluation meetings. These meetings were attended by clinical psychologists, peer trainers, student representatives, researchers and Recovery College managers.

The service use outcome variables were: occupied bed days, admissions, admissions under mental health act section, days on a community treatment order (CTO) and community contacts. Health of the Nation Outcome Scales (HoNOS) scores were also analysed. Demographic information at point of Recovery College registration was obtained.

As well as analysing all Recovery College students, outcomes were also compared based on Recovery College attendance. Using attendance registers, three groups were created: ''completed'' (attended $\geq 70\%$ of at least one Recovery College course), ''not-completed'' (did not attend $\geq 70\%$ of at least one course) and ''unknown''. Students were

classified in the not-completed group for reasons including not being offered a place on a course due to high demand, not starting (for both positive and negative reasons) and attending < 70% classes. The unknown group were people for whom attendance registers were not available due to administrative issues as they had not been returned to the college office. It was therefore not known how many classes this group had attended. The ''unknown'' group were not included in the further analysis comparing attendance groups but were included in analyses of the whole group of Recovery College registrants.

Participants

Participants were Sussex Partnership service users aged 18 and over who had registered for at least one course with the Recovery College in the selected time period (over two consecutive terms). People who identified themselves as Trust staff members at registration were excluded ($n = 48$). The final number of participants was $n = 463$. HoNOS score analyses were only conducted on participants who had valid scores at both registration and 18 months later ($n = 194$). One participant was removed from HoNOS analyses due to an invalid score over the maximum for the scale (72). Students either attended the East Sussex ($n = 274$) or Brighton/Hove ($n = 189$) campus. Data was analysed for two terms in 2014; Summer ($n = 190$) and Autumn ($n = 273$). There were 145 participants (31.3%) in the ''completed'' group, 177 participants (38.2%) in the ''not-completed'' group and 141 participants (30.5%) in the ''unknown'' group.

Analysis

Descriptive statistics were used to describe those who registered with the Recovery College. Wilcoxon signed-rank tests were performed to compare pre and post scores within each group. Mann Whitney U tests were used to look for significant differences between those who completed a course and those who did not.

Although median scores would often be reported in the case of non-parametric analyses, the median scores for almost all the performed analyses were zero due to the high number of participants who did not have any admissions. As this did not appear to be a meaningful way of describing the data, mean scores were reported. Effect sizes (r) were calculated using formulas presented by Fields (2013).

Non-cashable cost savings were calculated based on reductions in service use after accounting for the costs of running the Recovery College. Non-cashable cost savings may be defined as theoretical cost-savings based on reductions in service use which cannot be easily released or cashed in because to do so would necessitate closing a service or because the resources are used to support other service users. The Trust reference cost for an average inpatient bed-day is £213.31 and for a community contact is £99. All Recovery College costs were attributed to service user students- £355 per student.

Post-hoc analysis

Following the initial evaluation, we also carried out a *post-hoc* analysis to explore the possibility that decreases in service use could be due to reduced service use by ''all'' Trust service users. We therefore examined the service use of Sussex Partnership service users who had not used the Recovery College (non-Recovery College group) over the same time period ($n = 11\,543$). We analysed the same variables and completed Wilcoxon tests to compare pre and post scores as well as Mann Whitney U tests to compare the Recovery College and non-Recovery College groups.

Results

Demographics

The demographic characteristics of the Recovery College participants can be seen in Table 1 ($n = 463$). The majority were female, of white ethnicity, heterosexual orientation and Christian religion. The mean age was 44 years old and 16% identified as having a disability. Over 90% of participants were described under HoNOS clusters 4–8 (moderate to severe non-psychosis) or 10–17 (psychosis). 5% of participants were clustered 16–17 (psychosis-very severe engagement).

Table 1. Demographic information for students who registered with the Recovery College ($n = 463$).

Variable	Raw score (%)
Gender	
Male	162 (35.0)
Female	299 (64.6)
Other	2 (0.4)
Ethnicity	
White (British, Irish or Other)	400 (93.7)
Black or Black British (African, Caribbeanor Other)	8 (1.9)
Asian or Asian British (Bangladeshi, Pakistani or Other)	5 (1.2)
Mixed (White and Asian, Black African, Black Caribbean or Other)	9 (2.1)
Other Ethnic groups (Chinese or Other)	5 (1.2)
Not known	36
Sexual orientation	
Heterosexual	114 (93.4)
Lesbian, gay	5 (4.1)
Bi-sexual	3 (2.4)
Not known	341
Religion	
Christian	162 (68.6)
Jewish	3 (1.3)
Muslim	7 (3.0)
Buddhist	6 (2.5)
Agnostic	12 (5.1)
Atheist	11 (4.7)
Spiritualist	5 (2.1)
Any other[a]	30 (12.7)
Not known	227
Disability	
Yes	76 (16)
No	387 (84)
Age	
Mean (SD)	44 (12.72)
Range	17–81
HoNOS cluster	
Mild/moderate (1–3)	24 (8.2)
Severe and complex (4–8)	150 (51.6)
Psychosis (10–17)	114 (39.2)
Cognitive impairment (18–21)	3 (1)
No Cluster	172

[a]Categories with small numbers of participants were collapsed.

Table 2. Descriptive statistics and Wilcoxon-signed rank test scores for all Recovery College participants (18 months pre and post).

Variable	*n*	Mean pre (SD)	Mean post (SD)	*z*	*r*	Number increased (%)	Number decreased (%)
HoNOS score	194	15.98 (7.27)	14.81 (7.83)	−2.33*	0.12	74 (38.14)	94 (48.45)
Occupied bed days	463	21.10 (68.01)	9.47 (41.32)	−4.88***	0.16	37 (7.99)	94 (20.30)
Overall admissions	463	0.38 (0.94)	0.25 (0.96)	−3.61***	0.12	35 (7.56)	79 (17.06)
Admissions on section	463	0.10 (0.34)	0.05 (0.29)	−2.46*	0.08	14 (3.02)	32 (6.91)
Voluntary admissions	463	0.28 (0.79)	0.19 (0.88)	−3.15**	0.10	31 (6.7)	63 (13.61)
CTO days	463	4.63 (45.10)	4.08 (39.44)	−0.42	–	3 (0.65)	5 (1.08)
Community contacts	463	36.59 (53.45)	30.82 (49.96)	−3.67***	0.12	167 (36.07)	243 (52.48)

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

Table 3. Descriptive statistics and Wilcoxon-signed rank test scores for completed Recovery College participants (18 months pre and post).

Variable	*n*	Mean pre (SD)	Mean post (SD)	*z*	*r*	Number increased (%)	Number decreased (%)
HoNOS score	59	15.73 (7.07)	15.36 (8.07)	−0.78	–	23 (38.98)	28 (47.46)
Occupied bed days	145	19.62 (61.37)	4.88 (20.43)	−3.56***	0.21	8 (5.52)	30 (20.69)
Overall Admissions	145	0.35 (0.95)	0.16 (0.52)	−3.06**	0.18	6 (4.14)	26 (17.93)
Admissions on section	145	0.11 (0.34)	0.01 (0.08)	−3.44**	0.20	1 (0.69)	15 (10.34)
Voluntary admissions	145	0.24 (0.79)	0.15 (0.51)	−1.51	–	8 (5.52)	18 (12.41)
Community contacts	145	38.38 (52.49)	30.83 (52.53)	−2.88**	0.17	45 (31.04)	78 (53.79)

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.01$.

When comparing the demographic information between completed and not-completed groups, the following variables were not significantly different: age, gender, ethnicity, sexual orientation, religion and HoNOS cluster. Disability status was significantly different across groups, 59% of those with a disability who had registered with the college completed a course compared with 43% of those without a disability ($p < 0.05$, Fisher's exact test).

The Recovery College group had more severe and complex mental health challenges than the Trust population who did not register with the college. The Recovery College group had fewer participants in HoNOS clusters 1–3 (mild/moderate) and 17–21 (cognitive impairment) and more in clusters 4–8 (severe and complex). Five per cent of Recovery College participants were clustered 16–17 (very severe engagement clusters) compared with three per cent in the Trust population.

Changes in service use over time

Wilcoxon signed-rank tests were conducted to look for significant differences between pre and post scores on each outcome variable.

All Recovery College participants

Service use decreased after registering with the Recovery College for all variables except CTO days (see Table 2). Occupied bed days significantly reduced from an average of 21.1 days in the 18 months pre (SD = 68.01) to 9.5 days in the 18 months post (SD = 41.32), ($p = 0.000$, $r = -0.16$), equating to a reduction from an average of 14 to 6 days per annum. There were significant reductions for overall admissions ($p = 0.000$, $r = -0.12$), admissions under a mental health act section ($p = 0.014$, $r = -0.08$) and voluntary admissions ($p = 0.002$, $r = -0.10$).

Community contacts significantly reduced from an average of 36.59 (SD = 53.45) to 30.82 (SD = 49.96; $p = 0.000$, $r = 0.12$) in the 18 months pre and post, which equates to a reduction from an average of 24.39 to 20.55 contacts per annum.

There were significant reductions in HoNOS scores from pre (M = 15.98, SD = 7.27) to post (M = 14.81, SD = 7.83; $p = 0.000$, $r = 0.12$).

CTO days were not significantly different in the post time period compared to pre. One possible reason for this is that only 8/463 (1.73%) participants had any days on a CTO in either time period. Due to small numbers CTO days have not been included in further tests.

Participants who completed a Recovery College course

Comparison of service use outcomes for participants who completed at least one course with the Recovery College can be seen in Table 3. Occupied bed days significantly reduced from an average of 19.62 (SD = 61.37) to 4.88 (SD = 20.43; $p = 0.000$, $r = -0.21$); a reduction per annum from 13.08 to 3.25 days. There were also significant reductions in overall admissions ($p = 0.002$, $r = -0.18$) and admissions on a mental health section ($p = 0.001$, $r = -0.20$). Community contacts significantly decreased from an average of 38.38 (SD = 52.49) to 30.83 (SD = 52.53; $p = 0.004$, $r = -0.17$); a reduction per annum from 25.59 to 20.55 contacts. There were no significant differences for HoNOS score or voluntary admissions over time.

Participants who did not complete a Recovery College course

For those who registered but did not complete a course with the Recovery College there was a significant reduction in

Table 4. Descriptive statistics and Wilcoxon-signed rank test scores for not completed Recovery College participants (18 months pre and post).

Variable	*n*	Mean pre (SD)	Mean post (SD)	*z*	*r*	Number increased (%)	Number decreased (%)
HoNOS Score	67	15.10 (6.38)	14.81 (8.48)	−0.77	–	23 (34.33)	32 (47.76)
Occupied bed days	177	14.54 (49.18)	8.07 (29.19)	−1.40	–	18 (10.17)	30 (16.95)
Admissions on section	177	0.05 (0.21)	0.05 (0.23)	0	–	6 (3.39)	6 (3.39)
Voluntary admissions	177	0.21 (0.55)	0.19 (0.99)	−1.49	–	14 (7.91)	23 (12.99)
Overall Admissions	177	0.26 (0.62)	0.24 (1.03)	−1.20	–	17 (9.60)	26 (14.69)
Community contacts	177	34.34 (55.09)	26.32 (39.66)	−2.51*	0.13	60 (33.9)	93 (52.54)

*$p < 0.05$.

community contacts from an average of 34.34 (SD = 55.09) to 26.32 (SD = 39.66; $p = 0.12$, $r = 0.13$).

All other pre-post comparison analyses with this group were non-significant (p > 0.05) (see Table 4).

Comparing changes in service use between groups by attendance

The change scores (post minus pre score) of completed and not completed groups were compared using Mann Whitney *U* tests.

Students who completed a Recovery College course had a significantly greater reduction in the number of admissions on a section than those who did not complete ($p = 0.003$, $r = 0.16$), with an average reduction of −0.1 compared with 0.

The Mann Whitney U tests for all other change scores were non-significant ($p > 0.05$). Despite this, there was a trend for a larger reduction in service use for those who completed Recovery College courses on all variables except community contacts. For example, those who completed had an average reduction of 14.74 occupied bed days compared with 6.47 for those who did not complete ($p = 0.119$; see Figure 1).

Prior to Recovery College registration, those who registered but did not complete a course had a higher number of admissions under section than those who completed and there was a decreasing trend in all groups (see Figure 2).

Post hoc analysis of service use for people who did not register with Recovery College

For the non-Recovery College group, occupied bed days significantly reduced from the 18 months pre (M = 13.05, SD = 60.57) to 18 months post (M = 10.79, SD = 57.89; $p \leq 0.001$, $r = .04$; Figure 1). Overall admissions significantly reduced (from M = 0.16 to 0.14 and SD = 0.67 to 0.64; $p \leq 0.001$, $r = .03$). Community contacts also significantly reduced (from M = 16.94 to14.55 and SD = 35.29 to 30.56; $p \leq 0.001$, $r = .10$). The effect size for each of these was very small. The group had a trend for an increased number of days on CTO, no change in admissions under section and a significantly increased HoNOS score from pre (M = 13.66, SD = 9.96) to post (M = 13.92, SD = 9.86; $p < 0.001$, $r = .03$).

The Recovery College group had significantly greater change ($p < 0.01$) on all variables except CTO days when compared to the non-Recovery College group. Those who registered with the Recovery College showed reduced occupied bed days from an average of 21.1 to 9.5 days. Those who completed a course reduced from 19.6 to 4.9 days whereas those who did not use the Recovery College reduced from 13.1 to 10.8 days.

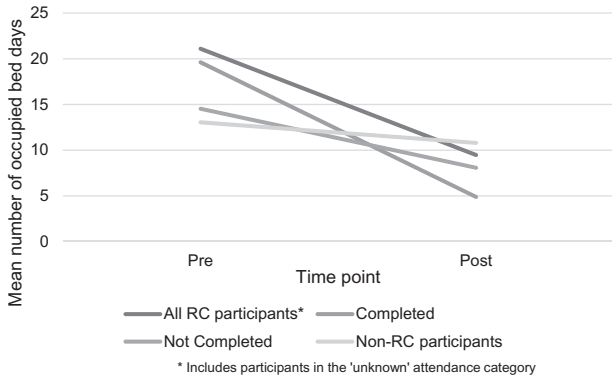

Figure 1. Number of occupied bed days across all groups.

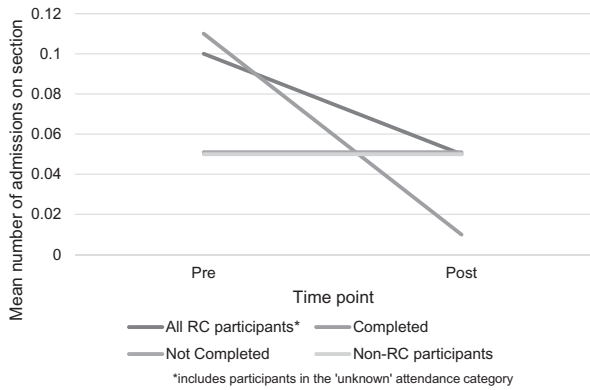

Figure 2. Number of admissions on section across all groups.

Non-cashable cost savings

As there was a reduction in inpatient bed usage and community contacts for those who registered and attended Recovery College courses, non-cashable cost savings were calculated. For people who registered with the Recovery College, the total mean cost of service use per student reduced from £8123 in the 18 months before registering to £5071 in the 18 months after, a reduction of £3052 (£2035 per annum). For people who completed one or more Recovery College courses, the total mean cost of service use per student reduced

from £7984 to £4093, a reduction of £3891 (£2594 per annum). For those who registered but did not complete a course, the total mean cost of service use per student reduced from £6502 to £4327, a reduction of £2175 (£1450 per annum).

The mean non-cashable reduction in service use cost after taking account of reductions in service use for the whole population of Trust service users and the costs of running the Recovery College was £1200 per year per registered student who uses mental health services (net saving of 22%). The mean reduction was £1760 per student for those who completed at least one course and £616 for those who registered but did not complete a course.

Discussion

The findings of this evaluation suggest that registering with the Recovery College is associated with significantly reduced service use over an 18 month period and those who complete a course have a greater reduction in service use than those who register but attend less than 70% of sessions. Students who registered with the Recovery College had significantly reduced service use for all variables except CTO days after registering with the Recovery College than they did beforehand. Students spent fewer days in hospital, had fewer admissions and fewer admissions under the mental health act, community contacts reduced and HoNOS scores reduced. These findings support those from Mid Essex Recovery College (2014) and South West Yorkshire (Barton, 2015) who found reductions in service use after enrolling with the Recovery College. Those who completed a course with the Recovery College had significantly reduced service use after completing a course than they did before – fewer hospital bed days, fewer admissions and fewer admissions under section and reduced community contacts. These results support those of Rinaldi & Wybourn (2011) who reported that participants who completed a course had reduced service use after attending compared with those who did not complete a course. Of those who did not complete a course, only community contacts were significantly lower after registering with the Recovery College. Recovery College students who completed had a bigger reduction in admissions under section than those who did not complete. This is important as involuntary admissions can be particularly distressing for people. Although causality cannot be inferred, this difference may indicate one of the positive effects of Recovery College courses. There was a trend for more change on all variables for the completed group. As this evaluation did not control for other variables affecting service use it was not possible to infer causality nor conclude that the Recovery College directly impacted the reductions in service use that were seen in this article.

The reductions in service use were used to calculate non-cashable cost savings. Non-cashable cost-savings associated with attending the Recovery College were estimated to be £1200 per year per registered student who uses secondary mental health services (net saving of 22%). This is higher than the £804 estimated by Rinaldi & Wybourn (2011) and similar to £1240.88 estimated by Mid Essex Recovery College (2014). Those who completed a course had non-cashable cost-savings of £1760 per student compared with £616 for those who did not complete a course. This suggests that although there are some non-cashable cost-savings in service use after registering, regardless of whether students attended a course, this is considerably higher for those who completed.

Since 2010/11 there have been notable cuts to funding for mental health services including a decrease in number of inpatient beds available (Gilbert, 2015). From 2012/13 to 2013/14 nearly 10% more people accessed secondary mental health services (The Commission on Acute Adult Psychiatric Care, 2015). As a pragmatic solution, we examined the service use of Trust service users who had not used the Recovery College (non-Recovery College group) over the same time period as the Recovery College group. Whilst the non-Recovery College group showed reduced service use for occupied bed days, overall admissions, admissions on section and community contacts, these were very small in effect size and may be Type 1 errors, which are more likely in this group owing to the much larger population size (almost twenty-five times that of the Recovery College population). The non-Recovery College group had a trend for an increased number of days on CTO and a significantly increased HoNOS score. The Recovery College group had significantly greater change on all variables except CTO days when compared with the non-Recovery College group. As those who registered with and especially those who completed a course with the Recovery College had a greater reduction in service use than the Trust population as a whole, decreases in service use for the Recovery College group may not be explained simply by a reduction in available beds.

Other variables remained uncontrolled, such as attitude towards recovery and mental health. It is possible that people who register for Recovery College courses are more motivated and committed to recovery and ready to move forward at that time than those who are not accessing Recovery Colleges. People were not randomly allocated to registering or not with the Recovery College. Therefore, the study design used cannot determine whether the positive findings are because those who attend Recovery College courses are already improving or whether the Recovery College helps them to improve. However, Recovery College participants were categorised in more severe HoNOS clusters, had more admissions prior to registering than the Trust population and had fewer admissions after attending Recovery College courses. This may indicate that these people were not simply further along in their recovery. Reductions in service use for those attending the Recovery College are unlikely to be explained in full by regression to the mean. For both bed days and admissions, students who completed a Recovery College course started off with greater service use than other Trust service users and they did not simply match them after Recovery College, but used services ''less'' than other Trust service users.

Much of the reduction in service use and costs was attributable to a minority of approximately 20% students. These differed as they were students who had had admissions and spent time in hospital in the 18 months prior to registering with the Recovery College. 80% of students had no admissions in the 18 months before or after registering. In addition, 75% of participants showed no change in the number of

admissions between pre and post. It would have been useful to have explored these groups further. However, more than half of students reduced their use of community services. Reductions in admissions and days in hospital is valued by people who use mental health services.

There were limitations in the group categorisation used in this evaluation. Attendance information was not available for 30.5% of participants due to missing course attendance registers. Whilst this ''unknown'' group was included in analyses of all Recovery College registrants, they were not included in any analyses comparing those who completed or did not complete a course as they could not be categorised into attendance groups due to missing registers. This may limit the generalisability of findings comparing these two groups as not all students were included in the analysis. Possible differences between the ''unknown group'' and other participants would be worthy of further investigation. It is also possible that some people in the non-completed group attended a second course with a missing register. As the non-completed group may have included people who did complete, the difference in change between the two groups is a conservative estimate. Also, allocating participants to binary attendance categories of ''completed'' and ''not completed'' may have masked other more subtle impacts of attendance rates. There may have been differences for someone attending some sessions compared with those not attending at all. Nevertheless, it is known that those categorised as having completed a course were correctly categorised and the findings for this group are robust. Due to the length of time the Recovery College has been running it was only possible to compare data for 18 months pre and post registration. If a longer time period had been available, it may have been better to analyse service use over two or three years.

Future research should include more robust research and evaluation such as randomised control trials (RCTs) to investigate causal links between Recovery Colleges and reduced service use. Qualitative research with students on whether they feel their relationship with services changes after attending Recovery College courses would be helpful, alongside what they thought had led to any reductions or improvements. Future research should also explore factors affecting attendance and differences between those who do and do not complete Recovery College courses as completion appears relevant to impact. It should investigate who Recovery Colleges work best with or which people might benefit more from a Recovery College and why.

Conclusion

Alongside other evaluations which show that attending Recovery College courses is associated with improved recovery and quality of life, this paper suggests that Recovery Colleges have positive benefits for service users through using mental health services less, spending fewer days in hospital, having fewer admissions and fewer of these admissions being compulsory. This is equated to a non-cashable cost saving of £1200 per registered student. Further investigations of the causal links between Recovery Colleges and service use are recommended.

Acknowledgements

We would like to thank Rob Cooper, Lynne Thomas, Lucy Locks, Louise Patmore, Karen Swain, Lissa Haycock, Jessica Chow, Amanda Woodham, Claire Marr, Anna-Marie Jones and all the student reps, peer trainers, clinicians and researchers who form the Recovery College research audit and evaluation group. A big thanks to Andy Heaton from the finance team. Particular thanks to Rachel Mizzi from the Clinical Care Intelligence Team at Sussex Partnership. Special thanks and remembrance to Ruth Chandler for all her contributions to this project and dedication to the Recovery College.

Declaration of interest

No potential conflict of interest was reported by the authors.

References

Barton S. (2015). Recovery Colleges. Paper presented at Hertfordshire Partnership University NHS Foundation Trust mental health recovery conference, Stevenage.

Bourne P. (2016). An evaluation of service use outcomes in a recovery college (D.Clin.Psych Quality improvement project). Kent: Canterbury Christchurch University.

Burhouse A, Rowland M, Niman HM, et al. (2015). Coaching for recovery: A quality improvement project in mental healthcare. BMJ Qual Improv Report, 4. Available from: http://dx.doi.org/10.1136/bmjquality.u206576.w2641.

Department of Health. (2011). No health without mental health: A cross governmental mental health outcomes strategy for people of all ages. London: Department of Health. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213761/dh_124058.pdf.

Fields A. (2013). Discovering statistics using IBM spss statistics (4th ed.). London: Sage.

Gilbert H. (2015). Mental health under pressure. London: The Kings Fund. Available from: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/mental-health-under-pressure-nov15_0.pdf.

McGregor J, Repper J, Brown H. (2014). ''The college is so different from anything I have done''. A study of the characteristics of Nottingham Recovery College. J Mh Training, Ed and PracticeM, 9, 3–15.

Meddings S, Campbell E, Guglietti S, et al. (2015a). From service user to student- The benefits of recovery college. Clin Psychol Forum, 268, 32–7.

Meddings S, Guglietti S, Lambe H, Byrne D. (2014). Student perspectives: Recovery college experience. Mental Health Social Inclusion, 18, 142–50.

Meddings S, McGregor J, Roeg W, Shepherd G. (2015b). Recovery colleges: Quality and outcomes. Mental Health Social Inclusion, 19, 212–21.

Mid Essex Recovery College. (2014). Hope, health, opportunity & purpose for everyone, evaluation report. Essex: North Essex Partnership University NHS Foundation Trust.

Nurser K, Hunt D, Bartlett T. (2017). Do recovery college courses help to improve recovery outcomes and reduce self-stigma for individuals who attend? Clin Psychol Forum, 300, 32–7.

Perkins R, Repper J, Rinaldi M, Brown H. (2012). Recovery colleges. London: Centre for Mental Health. Available from: http://imroc.org/resources/1-recovery-colleges.

Rennison J, Skinner S, Bailey A. (2014). CNWL Recovery College Annual Report. London: Central and North West London NHS Foundation.

Rinaldi M, Wybourn S. (2011). The recovery college pilot in Merton and Sutton: Longer term individual and service level outcomes. London: South West London and St George's Mental Health NHS Trust.

Secker J. (2014). Evaluation of the mid Essex recovery college January-April 2014. Available from: http://arro.anglia.ac.uk/550182/1/Recovery%20College%20report%20-%20November%202014.pdf.

Shepherd G, Boardman J, Slade M. (2008). Making Recovery a Reality. London: Sainsbury Centre for Mental Health. Available from: http://imroc.org/resources/making-recovery-reality/.

Skinner S, Bailey A. (2015). CNWL recovery and wellbeing college, annual report, April 2014-July 2015. London: Central and North West London NHS Foundation Trust. Available from: http://www.cnwl.nhs.uk/wp-content/uploads/CNWL-RW-College-Annual-Report-2014-15.pdf.

The Commission on Acute Adult Psychiatric Care. (2015). Improving acute inpatient psychiatric care for adults in England. Interim report. London: The Commission on Acute Adult Psychiatric Care. Available from: http://www.caapc.info/publications.

World Health Organization (WHO). (2013). Mental health action plan 2013-2020. Available from: http://www.who.int/mental_health/publications/action_plan/en/.