**Recovery College characteristics, fidelity, commissioning models and unit costs: a cross-sectional global survey of 28 countries**

Daniel Hayes, PhD1,2\*^

Holly Hunter-Brown, MSc\*2

Elizabeth Camacho, PhD3

Merly McPhilbin, MSc4

Prof Rachel A. Elliott, PhD3

Amy Ronaldson, PhD2

Ioannis Bakolis, PhD2

Julie Repper, PhD5

Sara Meddings, DClinPsych5

Prof Vicky Stergiopoulos, MD6

Prof Lisa Brophy, PhD7

Yuki Miyamoto, PhD8

Prof Stynke Castelein, PhD9

Trude Gøril Klevan, PhD10

Dan Elton, MA11

Jason Grant-Rowles, MRes11

Yasuhiro Kotera, PhD4

Prof Claire Henderson, PhD2\*\*

Prof Mike Slade, PhD4, 12\*\*

RECOLLECT International Research Consortium✢

1 Research Department of Behavioural Science and Health, Institute of Epidemiology & Health Care, University College London, Torrington Place, London WC1E 7HB, UK

2 Health Service and Population Research Department, King's College London Institute of Psychiatry, Psychology and Neuroscience, De Crespigny Park, London SE5 8AF, UK

3 Manchester Centre for Health Economics, School of Health Sciences, Faculty of Biology, Medicine & Health, The University of Manchester, Oxford Road, Manchester M13 9PL, UK

4 School of Health Sciences, Institute of Mental Health, University of Nottingham, Nottingham NG7 2TU, UK.

5 ImROC, Nottinghamshire Healthcare NHS Foundation Trust, Duncan Macmillan House, Porchester Road, Mapperley, Nottingham NG3 6AA, UK

6 Department of Psychiatry, University of Toronto, Toronto, Ontario M5T 1R8, Canada

7 School of Allied Health, Human Services and Sport, College of Science, Health and Engineering, La Trobe University, Melbourne, Victoria 110091, Australia

8 Department of Psychiatric Nursing, Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo 1130033, Japan

9 Lentis Psychiatric Institute, Lentis Research, Groningen, the Netherlands; University of Groningen, Faculty of Behavioural and Social Sciences, Department of Clinical Psychology and Experimental Psychopathology, Groningen, Netherlands

10 Department of Health, Social and Welfare Studies, University of South-Eastern Norway, Postboks 235, 3603 Kongsberg, Norway

11 RECOLLECT Lived Experience Advisory Panel (LEAP)

12 Nord University, Faculty of Nursing and Health Sciences, Health and Community Participation Division, Postbox 474, 7801 Namsos, Norway

\*joint first author  
\*\*joint last author

^ Corresponding author: [d.hayes@ucl.ac.uk](mailto:d.hayes@ucl.ac.uk)

**Summary**

**Background**

Recovery Colleges (RCs) support the recovery of individuals who have mental health issues. There has been little international research on RCs and none investigating costs, staffing, or fidelity. We aimed to characterise RCs internationally exploring organisational and student characteristics, fidelity and budget.

**Methods**

We conducted an observational study integrating two equivalent cross-sectional surveys. Services that supported personal recovery, were coproduced with students and staff, and where students collaboratively learnt with trainers, were included. Managers completed the survey. There was no primary outcome. RCs were grouped by country and continent and presented descriptively. We used regression models to explore continental differences in fidelity.

**Outcomes**

We identified 221 RCs operating across 28 countries, spanning five continents. Overall, 174 (79%) RCs participated. Most scored high on fidelity. Compared with England, RCs in Asia scored lower on overall fidelity, ‘coproduction’ and ‘tailored to the student’. Annual budgets in the 133 (60%) colleges providing economic data were €0-2,550,000, varying extensively within and between continents. From included data, annual budgets totalled €30m, providing 19,864 courses for 55,161 students.

**Interpretation**

RCs exist in many countries. There is an international consensus on key operating principles, especially equality and a commitment to recovery, and most RCs achieve moderate to high fidelity, irrespective of the income band of their country. Cultural differences need to be considered in assessing coproduction and approaches to individualising support.

**Funding**

This article is independent research funded by the NIHR (Programme Grants for Applied Research, Recovery Colleges Characterisation and Testing (RECOLLECT) 2, NIHR200605).

**Research in context**

**Evidence before this study**

We searched PsycInfo, Embase and Medline for publications published before 1st February 2022, with no language restriction, using the search terms under the concept of ‘Recovery College’ (“Recovery College\*” OR “Discovery Cent\*” OR “Empowerment College\*” OR Wellbeing College\*”) and ‘Mental illness’ (“Depress\*”, OR “Psycho\*” OR “Anxit\*” OR “Drug\*” OR “Alcohol” OR “Anorexi\*” OR “Mania” OR “Bipolar” OR “Self-harm” OR “Schizo\*” OR “Mental Health” OR “Mental Disoder” OR “Mental Illness”“Bulemi\*” OR “Addict\*” We also examined systematic and narrative reviews in the past two decades. Evidence suggests RCs have gained rapid and widespread momentum internationally since they first opened in England in 2009 and that a tool has been developed to test RC fidelity. Reviews suggest that RCs have benefits to students, but no international cross comparisons have been made on the make-up of RCs, including student and organizational characteristics, fidelity and running costs. A 2020 review exploring the impact of RCs concluded that future priorities should include a better understanding of the fidelity components of RCs, as well as what organisational factors influence fidelity and how. We aimed to test this, systematically exploring the characteristics, fidelity and funding of all RCs internationally. We updated the literature search up to 31st October 2022 using the same search terms. One scoping review was identified which explored whether co-creative approaches, central to RC practice, were also utilised in RC evaluations. Whilst most studies stated that coproduction was utilised, few described how meaningfully involved those with lived experience were in the evaluation process. No further empirical research investigating fidelity, costs of RCs, nor factors which could influence these, was identified.

**Added value of this study**

To our knowledge, this is the first study to comprehensively map and characterise RCs internationally. The findings enable us to understand their core components and to provide estimates on the spending of RCs per continent and globally. We identified that ratings for the fidelity characteristics ‘tailored to the student’ and ‘coproduction’ were influenced by culture, with these being scored lower in Asia when compared with RCs in England. Whilst running costs are highly variable, staffing is consistently a major cost driver.

**Implications of all the available evidence**

There is an emerging global consensus that RCs are one approach to delivering recovery-oriented support and developing recovery-orientated systems, so countries and regions with no or few RCs may consider developing such services. Specific knowledge gaps to address from this study include identifying relevant cultural influences in different countries on RC characteristics and fidelity assessment, and the development of coproduced approaches to outcome evaluation.

**Introduction**

Personal recovery has been defined as individuals (re)building a meaningful and empowered life alongside their mental health issues.1 Internationally, there is growing consensus that mental health services should move towards facilitating personal recovery2 and healthcare policy in many countries now prioritise recovery-oriented care.3-5

Recovery Colleges (RCs) were developed to support personal recovery and facilitate recovery-oriented care and differ from clinical and therapeutic approaches.6-7 They support people with mental health issues, their carers, and mental health staff, through co-produced adult education.7 In this context, adult learning refers to students taking responsibility for their learning via interactive and reflective exercises collaboratively with trainers, and coproduction refers to people with lived experience (peer trainers and students) and staff and professional/subject experts working together to design and deliver all aspects of RCs.6 Key RC principles are that they are collaborative, strengths-based, person-centred, inclusive and community-focused and are significantly different from clinician run psychoeducation courses and adult education courses.8 The growing interest in RCs has resulted in the development of an international community of practice.9

Most research on RCs has been conducted in England.8,10-13 This includes perspectives from health and social care staff and students on the role of RCs for personal recovery,10-11 the development of a RC fidelity measure8 and a national survey which identified a typology of RCs based on core characteristics.13 Health and social care professionals’ views on RCs, as well as students’ views, are broadly positive, seeing them as empowering and improving mental health and wellbeing.14-15

In 2021, we conducted a national survey of 88 RCs across England.13 Cluster analysis of responses from the 63 (72%) participating RC managers identified three groups of RCs: those that were strengths-oriented (i.e. focused explicitly on the strength of the student and shared buildings with statutory health and social care services); those that were community-oriented (i.e. did not share buildings with statutory health and social care services and focused on social connectedness); and those based in forensic services. Higher scores on the fidelity measure were associated with both strengths-oriented and community-oriented RCs. Running costs indicated that in 2021 the median annual budget for English RCs was £200,000 and the median cost per student was £518.

Other countries have conducted national surveys16 outlining RC features, yet there is little international research comparing RCs on organisational and student characteristics, fidelity, or funding. Only one study has explored commonalities across RCs in different countries.17 This 2018 survey of 25 colleges in 21 countries outside the UK identified that around half were affiliated with health organisations and state funding was the most frequent funding source. All showed similar features and principles to those in the UK. However, this was limited to respondents who were able to participate in English and complete the survey in a short period, and was conducted before publication of the RC fidelity measure.8

Whether coproduction-based principles extend beyond RC practice and into evaluations has recently been investigated in a scoping review.18 Findings suggested that whilst lived experience was often stated as being part of the research process, few studies described how much, or how meaningfully, people with lived experience were involved in research co-design and analysis. Thus, it remains unclear the degree to which issues important to those that use RCs were included in data collection or whether findings were interpreted and discussed from the perspectives of the main beneficiaries of RCs.

We aimed to characterise all RCs internationally whilst meaningfully involving individuals with lived experience in study design, interpretation and dissemination of study results. The objectives were to a) determine which countries have RCs and how many exist, b) explore organisational and student characteristics of RCs internationally, c) describe funding and staffing, and d) explore continental differences in fidelity characteristics.

**Methods**

**Study design**

As part of the RECOLLECT programme,19 we conducted an observational study integrating two equivalent cross-sectional surveys, one conducted across England in 2021 and previously published,13 and one conducted in all other countries in 2022 and reported here for the first time. The England survey found that not all relevant services call themselves a ‘Recovery College’. Therefore, in both surveys, we included any service that met the following criteria, derived from the key components of RCs8 defined by their manager when completing the survey: a focus on supporting personal recovery; an aspiration to use coproduction, defined as individuals with lived experience working with staff or subject experts to design and deliver all aspects of the RC; an aspiration to use adult learning approaches, in which students and trainers collaborate and learn from each other by sharing experiences, knowledge, and skills; currently open and running courses.

We obtained approval from Kings College London Psychiatry Nursing and Midwifery Research Ethics Subcommittee on 09/02/22 (reference: MRA-21/22-28685).

**Procedures**

To identify all countries where RCs may exist, we used the following sources: A previous international survey examining RCs;17 existing recovery networks including ImROC, the RC Network, the Recovery Research Network, and the Mental Health Innovation Network; expert consultation with international leaders in the field of recovery (n=23); liaising with collaborators in countries with similar interventions available in services, such as peer support workers.

To refine this longlist, we identified individuals in each country or region to work with us. Individuals were approached based on their expertise in recovery, such as academics and those pioneering recovery-oriented approaches and services, including those with lived experience. We asked country leads to report whether there were RCs or equivalent services/organisations in their country and, if so, how many. Country leads were asked to use local and national networks and where applicable, to search literature in their local language using key terms such as ‘Recovery College’ or ‘Discovery Centre’ along with their country or region. We then asked country leads to ascertain whether each identified service met the study inclusion criteria through discussion with the service manager. Snowball sampling of RCs completing the survey was also employed, by asking each respondent to identify other RCs in their region or country.

The international survey was adapted from the 2021 England survey.13 The RECOLLECT Lived Experience Advisory Panel (LEAP), comprising of ten individuals with lived experience of mental health issues or their carers, RCs (as students and/or lived experience staff), or mental health services, were involved in the design and refinement of both surveys. This included developing questions based on the RECOLLECT change model10 and additional questions they felt were important to those considering using RCs (e.g., whether lived experience was represented at a senior level). For the international survey, LEAP representation included members who currently, or previously, lived in Asia, Europe outside the UK, and Oceania.

We first modified the international survey by removing phrases specific to England (e.g., ‘Local Authority’) and shortening the economics section by removing salary band information and breakdown of core and non-core roles. To identify cultural assumptions, we piloted the international survey with three experts involved in RCs in Australia, Canada, and Japan. This resulted in the removal of an item on ethnicity of RC students.

The finalised international survey was implemented online using Qualtrics (www.qualtrics.com). A Microsoft Word version was also made available in electronic format to address access issues, such as organisational firewalls and intermittent internet. We permitted minor refinements by the country lead, to retain conceptual equivalence and to maximise cross-cultural validity of the international survey and hence allow comparability. For countries where English was not widely spoken and multiple RCs were present, we asked country leads to translate the survey into their local language using the Microsoft Word version. Country leads were given the option of facilitating survey completion using oral translation via a video call or face-to-face meeting with the RC Manager, or translating the survey into their local language using the Microsoft Word version. Each translation was checked by a second individual fluent in the local language to ensure consistency in translation. This resulted in eight language versions: Chinese, Danish, Dutch, French, German, Japanese, Spanish and Norwegian. The translations are available at https://www.researchintorecovery.com/measures/recollectfidelitymeasure.

The international survey opened on 15th February 2022 and closed on 29th October 2022. We created a unique ID for each RC. Informed consent was obtained prior to survey completion. Where RC managers completed the survey online in English, a Qualtrics hyperlink was created and sent to the country leads who forwarded this to the manager. Where RC managers completed the survey in Microsoft Word, country leads either forwarded the survey to the manager to complete or set up a meeting to go through the survey, as required. Leads followed up by phone or email a minimum of three times with each RC to maximise survey completion rates. Where the survey was completed using the Qualtrics hyperlink, the research team had direct access to the data. Where completed in Microsoft Word, the file was encrypted and emailed to the research team for data entry by the RC or the country lead. The findings from the England and international surveys were then integrated and presented to the LEAP, as well as co-researchers (consisting of academics and RC Managers, 25% (14/55) of whom identified as having lived experience of mental illness) to identify and interpret key findings (e.g. differences in staffing costs, as well as cultural differences in fidelity). Individuals with lived experience of mental health difficulties were represented from each continent, with at least two co-researchers and/or LEAP members currently or previously living in each continent. Context specific results were discussed with individuals and co-authors representing each continent, and were presented by LEAP members and researchers at two international conferences. Additionally, two LEAP members are co-authors of this manuscript.

**Measures**

The full survey is shown in supplementary material (S1). Questions first established eligibility, before asking about organisational, student and funding characteristics, as well as fidelity.

We measured fidelity using the 12-item RC manager-rated RECOLLECT Fidelity Measure, assessing seven ordinal and five categorical components of a RC,8 which is based on a published change model10 and was coproduced with people with mental health lived experience.20 The seven ordinal components are each scored from 0 (low fidelity) to 2 (high fidelity) and comprise: Valuing equality; Learning; Tailored to the student; Coproduction; Social connectedness; Community focus; and Commitment to recovery. The fidelity score is the sum of these seven items, ranging from 0 (low fidelity) to 14.

The five categorical components are rated as either Type 1 or Type 2: The categorical components are outlined in supplementary material (S2).

No summary score is calculated for categorical items since their relationship with outcomes has not been investigated. Psychometric evaluation showed that the RECOLLECT Fidelity Measure meets scaling assumptions and demonstrates adequate internal consistency (0.72), test-retest reliability (0.60) and content validity, and good discriminant validity when compared to both clinician-delivered psychoeducational groups and adult education colleges.8

**Statistical analysis**

Organisational and student characteristics and fidelity scores were summarised as medians and interquartile ranges (IQR) and frequencies for the overall sample and for each continent. We generated summary statistics for the total annual budget, overall and by continent. Both median and mean values were reported, as budget data are typically highly skewed. RCs could choose in which currency to report their budget and so to aid comparison, we converted all budgets into Euros based on the exchange rate on 12th December 2022 obtained from [www.oanda.com](http://www.oanda.com), (see supplementary material S3). The annual budget reported by each RC was divided by the number of students and number of courses to estimate unit costs in terms of cost per student and cost per course. The annual budget for staff was divided by the total annual budget for each RC to estimate the proportion of total budget attributed to staff costs. The proportion of RCs reporting employing staff in specific job roles was also summarised. Additional summary statistics were produced to describe the proportion of RCs receiving income from different funding sources and the number of different funding sources contributing to RCs.

Unadjusted linear, ordinal, and logistic regressions were used to examine continental differences in overall and per item fidelity scores. We used linear regression to assess regional differences in overall fidelity scores, ordinal regression to assess regional differences in non-modifiable fidelity items, and logistic regression to assess regional differences in modifiable fidelity items. In all models, England (the country with the largest number of RCs and where RCs originated) acted as the reference group. To account for multiple testing a Bonferroni correction was applied resulting in a corrected significance level of *p≤*0.001.

Unadjusted mixed effects linear, ordinal, and logistic regressions with a country-level random intercept were used to examine associations between length of time in operation (years) and RC size (number of students) and fidelity scores as above. Bonferroni correction for multiple testing resulted in a corrected significance level of p≤0.002.

All analyses were conducted in STATA 17.0.21

To interpret findings, we presented results to a range of audiences between November 2022 and March 2023. This included the RECOLLECT LEAP, lived experience co-researchers, and academics focusing on global mental health at two international conferences.

**Role of the funding source**

This article is independent research funded by the NIHR (Programme Grants for Applied Research, Recovery Colleges Characterisation and Testing (RECOLLECT) 2, NIHR200605). The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care. The funder of the study had no role in study design, data collection, data analysis, data interpretation, or writing of the report

**Results**

The initial mapping exercise identified a long–list of 50 countries, including England, where RCs could be present. Discussion with international experts and searching by country leads reduced this to a finalised list of 31 countries including England, with 299 potential RCs identified.

Leads in each country contacted all potentially eligible RCs. This resulted in the removal of two countries and 78 potential RCs which did not meet inclusion criteria. The most common reason for exclusion was RCs were non-contactable, with local experts believing they were no longer in operation (n=22; 29%), followed by the RC not meeting inclusion criteria (n=20; 26%). A full list of reasons for exclusion are listed in supplementary material (S4).

This gave a total sample of 221 RCs in 28 countries, including England. Overall, 174 (79%) of the 221 identified RCs participated. Participating RCs were in Oceania (10 participated /11 identified in 2 countries; Australia 8/9; New Zealand 2/2), North America (19/23 in 1 country Canada), Europe (130/170 in 21 countries: Belgium 10/14; Bulgaria 1/1; Czechia 1/1; Denmark 9/9; England 63/88; Estonia 2/2; Finland 2/2; France 1/1; Germany 3/3; Hungary 2/3; Iceland 1/1; Ireland 7/11; Italy 4/4; Jersey 1/1; Netherlands 2/2; Northern Ireland 3/4; Norway 5/5; Scotland 3/3; Spain 3/6, Sweden 3/3; Switzerland 3/4; Wales 1/2), Asia (13 /15 in 3 counties Hong Kong 2/2; Japan 9/11; Thailand 2/2) and Africa (2/2 in 1 country Uganda).

The organisational characteristics of participating RCs are shown in Table 1. We identified that RCs located in North America had operated for the shortest duration (2.5 years). African RCs offered the greatest median number of courses per year and number of different courses (378 and 91.5, respectively), whilst RCs in Asia offered the lowest median numbers (12 and 5, respectively). RCs in Oceania tended to be based in community/mixed venues (n=8, 73%), whilst other continents had a more even split between RCs having their own base and using community/mixed venues. Only in Africa and Asia did most RCs use goal-oriented personal plans.

Across the different continents, the majority of RCs had: main organisational affiliations to statutory health services or NGOs; individuals with lived experience in their leadership team; most commonly coproduced courses between those with lived experience and a healthcare professional; and rated both available options: the reduction of stigma and positive impact on mental health services as being equally important as their main goal.

Student characteristics are shown in Table 2. We identified that RCs in Africa reported the highest median number of students per year, and that those in Asia reported the lowest (305 and 50, respectively), and that RCs in Africa had students with the lowest median age (29.7) whilst those in Europe, Asia and England had students with the oldest median age (40). For gender, a higher proportion of females attended RCs in Oceania, Europe, North America and England.

Fidelity scores are shown in Table 3 and fidelity across continents in shown in the supplementary material (S5). Most RCs scored high overall, with the majority rating themselves high on equality, commitment to recovery, being available to all, and being progressive.

We examined continental differences in fidelity using linear (for total fidelity score), ordinal (for ordinal items) and binary logistic (for categorical items) regression models using England as the reference category. Results are shown in Table 4. Africa was excluded from analysis due to an insufficient sample size.

Regarding total fidelity score, compared to RCs in England, those in Asia (β=-2.88, 95% confidence interval (CI)=-4.44 to -1.32, p<0.01) had lower fidelity scores calculated using the seven ordinal items. Two of the seven ordinal items also showed significant differences. RCs in Asia were more likely to score lower on the items ‘Tailored to the student’ (odds ratio (OR)=0.10, 95% CI=0.02 to 0.39, p<0.01) and ‘Coproduction’ (OR=0.10, 95% CI=0.03 to 0.33, p<0.01) than RCs in England. No other significant differences emerged between RCs in England and RCs in other continents.

There was no relationship between total and item-level fidelity scores and either RC size or time in operation after accounting for clustering by country see supplementary material (S6).

Overall, 133 (60%) of RCs provided economic data. Table 5 summarises the annual budgets and provides additional summary statistics for the number of students and courses. The overall median budget was €152,346, although there was great variability in median budgets across RCs and across the continents. The lowest median budget was (€20,590) for the two RCs in Africa and the highest was in England (€232,708). The mean annual budget was somewhat higher than the median (€223,667), reflecting a skewed distribution. Some RCs reported that they did not receive any money towards running costs. The highest budget was €2,550,000 for one RC in Europe. Staffing was an important driver of costs, comprising a mean of 72% of a RC’s total budget. Staff costs were a lower proportion of total budget in RCs in Asia (56%) and North America (63%) than elsewhere.

Overall, 125 (57%) RCs provided data to allow derivation of costs per student. The median cost per student was €698 overall, ranging from €80 in Africa to €943 in Europe (a scatterplot of the relationship between budget and number of students is presented in supplementary material: S7). The overall median cost per course run was €2,161, ranging from €45 in Africa to €3,718 in Europe. The overall median cost per distinct course offered was €6,397, ranging from €287 in Africa to €7,654 in Europe.

RC funding sources, staff roles and median budgets are shown in supplementary material 8-10. The majority (n=116; 70%) of RCs were funded by a single source and 81 (70%) of these RCs received their budget from a government-funded health service. The most common staff roles were occupational therapists, nurses, and psychologists, with around 30% (n=46-54 RCs) reporting having staff in these roles. Approximately two-thirds of RCs reported having 'peer', 'lived experience', or 'lay' staff. This rose to 71% (n=12) and 80% (n=47) respectively in Canada and England. Median annual budgets per country were between €2,780 in Japan and €225,729 in Australia. The combined annual budgets reported by the 133 (60%) RCs who provided economic data was €29,747,657, providing 19,864 courses per year to 55,161 students.

**Discussion**

We identified 221 RCs currently operating across 28 countries spanning five continents. Students attending RCs had a mean age of 40 and most RCs scored high on fidelity. Asian RCs scored lower on overall fidelity, ‘coproduction’; where peer trainers/students and staff working together to design and deliver all aspects of the RC and ‘tailored to the student’ where individual needs are actively enquired about and accommodated during courses. Budgets varied extensively within and between continents, ranging from €0-2,550,000.

Mapping out RCs identified a further six countries where RCs operate compared with the 2018 international survey.17 This demonstrates that countries are increasingly adopting the concept of RCs as a component of mental health service provision. Whilst the evidence base for RCs is promising14,22 it has not advanced proportionally with the global expansion of RCs. Instead, it appears that catalysts may be due to: policy shifts to ‘recovery-oriented’ care;2 that stakeholders including those with lived experience, healthcare staff and policy makers like the concept of RCs22; and the championing and support around implementing recovery-oriented practice from organisations such as ImROC.

Fidelity in most RCs was high, especially outside Asia. Items such as ‘equality’ and ‘commitment to recovery’ were consistently rated as high in the majority of RCs across continents, indicating these components may be the central features of RCs globally, even when adapted for cultural context. Differences between Asian and English RCs on fidelity arose from lower ratings in Asia for ‘coproduction’ and ‘tailored to the student’.Such findings are in line with previous research, where services implementing recovery-oriented practices in Asia, scored lower than those in England.23 It may be that these differences are due to self-enhancement effects24 which have shown to produce different results between individuals in Western and non-Western countries,25 and may result in English RC managers reporting higher fidelity than those in Asia, even if fidelity is the same. Alternatively, these differences may be a result of more fundamental socio-cultural differences related to the cultural dimension of individualism versus collectivist.26 Individualistic countries tend to favour autonomy, independence, and distinction of self from the group, whereas collectivist countries tend to favour conformity, interdependence, and identity with the group.26 Courses being tailored to the individual student therefore fit less well with the values of collectivist cultures. Similarly, lower scores for coproduction may be explained by the strong emphasis on social hierarchies that exist in Asia27 thus, it may be that even though individuals with lived experience are involved at a senior leadership level and coproducing materials, people in Asia may not feel comfortable with disagreeing or challenging healthcare staff due to their cultural values.

The total spending was €29.7 million per year in the 60% of participating RCs. However, there is a high degree of heterogeneity in annual budgets reported by RCs both within and between continents. Staffing was an important driver of costs, with nearly three quarters of RCs’ total budget being spent on staffing. Asian and North American RCs spent a lower proportion of their annual budget on staff compared to other continents. Interestingly, both these continents tended to have RCs not affiliated with statutory health services. This may mean that a greater proportion of their budgets go towards the use of rent and overheads of community buildings where such RCs tend to be located. The national survey of RCs in England found that RCs not linked to non-statutory services spent a large proportion of budgets on rent was identified in, whilst those tied to statutory services paid lower or no rent.13 Related to some staffing costs, courses were also a considerable cost for RCs, ranging from €287 to create each course in Africa to €7,654 in Europe. Whilst courses need to be tailored to the needs of the population, it is likely that there are common courses, or elements of courses, that span countries or continents, which could be shared and used as a starting point and locally tailored, saving time and resource for increasing quality control and pedagogical innovation.

Limitations exist. First, data from the English survey were collected at the end of 2021, whilst international survey data was collected in 2022, meaning the two survey datasets may not be fully compatible for merging. Second, best practice procedures when collecting data on fidelity is to triangulate multiple stakeholder perspectives.28 Fidelity assessments were only undertaken by the RC Manager and may not reflect how others, such as students, view RC characteristics included in the fidelity measure. Third, how RC fidelity relates to student outcomes is only now under current investigation.19 Thus, a high-fidelity score does not mean that students outcomes are likely to be better. Fourth, whilst translation was undertaken, it may not capture the complexities of some cultural values. Fifth, the RECOLLECT Fidelity Measure8 is based on the original conceptual design of RCs in England and may not measure aspects important to recovery in different cultures or may not be directly comparable due to cultural differences. However, the change model10 on which the RECOLLECT Fidelity Measure is based is compatible with an independently-developed change model in Canada.29 Sixth, RCs in Africa were only reported descriptively and not included in inferential analysis due to the small sample size (i.e. two colleges). We advise caution in the interpretation of the results of this paper due to imbalances in sample size between the other continents. However, we believe this imbalance reflects the global distribution of RCs. Seventh, grouping RCs by continent does not capture variation in countries such as geography or culture. Eight, we did not collect data on who RCs are being used by, or developed for, such as staff, family or carers, meaning we do not know RCs target audiences and if this differs across continents. However, discussions with RCs suggest some do not collect these data, meaning it would have only been available for a subset. Lastly, whilst currencies were converted into euros to enable the production of summary statistics, this approach does not account for disparities in purchasing power.

Future research should seek to further understand RC characteristics. This should include rating by RC peer leads and students, rather than just managers, as well as investigating how aspects of fidelity in different countries impact student, staff and societal outcomes. Moreover, future implementation research might investigate how organisational and student characteristics, as well as funding sources, change over time. Greater clarity on cultural influences is needed, such as investigating manager versus independent observer rating of fidelity to identify whether any differences are due to cultural, funding, or other, yet unexplained, differences of implementation.

In conclusion, RCs are expanding internationally both within and between different continents. This includes further expansion into new countries within Asia and Africa. A new RC is currently being developed in Brazil30 which will result in RCs being present in six continents. As our survey found a majority of RCs within Europe and other high-income setting, the development of Recovery Colleges more widely in other settings will involve careful consideration of cultural influences on implementation and practice if they are to benefit students, staff and society.11

✢ RECOLLECT International Research Consortium

Clara De Ruysscher (Department of Special Needs Education, Ghent University, Ghent, Belgium), Michail Okoliyski (WHO Country Office in Bulgaria, World Health Organization, Bulgaria), Petra Kubinová (Centre for Mental Health Care Development, Prague, Czech Republic), Lene Eplov (CORE: Copenhagen Research Center for Mental Health, Mental Health Centre Copenhagen, Kobenhavn, Denmark), Charlotte Toernes (CORE: Copenhagen Research Center for Mental Health, Mental Health Centre Copenhagen, Kobenhavn, Denmark), Dagmar Narusson (University of Tartu, Institute of Social Studies, Tartu, Estonia), Aurélie Tinland (Department of Psychiatry, Marseille Public Hospital, Marseille, France), Bernd Puschner (Department of Psychiatry, Ulm University, Gunzburg, Germany), Ramona Hiltensperger (Department of Psychiatry, Ulm University, Gunzburg, Germany), Fabio Lucchi (Department of Mental Health and Addiction Services, Ausl Bologna, Italy), Marit Borg (Department of Health, Social and Welfare Studies, University of South-Eastern Norway, Norway), Roger Tan Boon Meng (Medical Social Work Department, Institute of Mental Health, Singapore), Chatdanai Sornchai (Excellence Center Srithanya Hospital, Department of Mental Health, Nonthaburi, Thailand), Kim Tiengtom (Living Disability Service Center, Living Association, Thailand), Marianne Farkas (Center for Psychiatric Rehabilitation, Boston University, Boston, USA), Hannah Moreland Jones (Cardiff and Vale Recovery & Wellbeing College, Cardiff, Wales), Ann Butler (Public Health Agency, Towerhill, Armagh, Northern Ireland), Richard Mpango (School of Health Sciences, Soroti University, Soroti, Uganda), Samson Tse (Department of Social Work and Social Administration, The University of Hong Kong, Hong Kong), Zsuzsa Kondor (Special Education Faculty, ELTE University, Budapest, Hungary), Michael Ryan (Community Health Organisation Health Service Executive, Ireland), Gianfranco Zuaboni (Recovery College Berne, University Hospital of Psychiatry and Psychotherapy, University Berne Psychiatric Services, Berne, Switzerland), Charlotte Hanlon (WHO Collaborating Centre for Mental Health Research and Training, Institute of Psychiatry, Psychology and Neuroscience, London, England), Claire Harcla (Discovery College, Headspace Early Psychosis, Alfred Mental and Addiction Health, South East Melbourne, Australia), Wouter Vanderplasschen (Recovery & Addiction Cluster, Ghent University, Department of Special Needs Education, Gent, Belgium), Simone Arbour (Ontario Shores Centre for Mental Health Sciences, Ontario, Canada), Denise Silverstone (Canadian Mental Health Association, Toronto, Ontario, Canada), Ulrika Bejerholm (Department of Health Sciences, Lund University, Lund, Sweden; Department of Research and Development, Division of Psychiatry, Region Skåne, Lund, Sweden), Candice Lym Powell (Clinical Psychological Services, New Life Psychiatric Rehabilitation Association, Hong Kong), Susana Ochoa (Parc Sanitari Sant Joan de Déu, Sant Boi de Llobregat, Barcelona, Spain; MERITT Group, Institut de Recerca Sant Joan de Déu, Barcelona, Spain), Mar Garcia-Franco (Parc Sanitari Sant Joan de Déu, Sant Boi de Llobregat, Barcelona, Spain; MERITT Group, Institut de Recerca Sant Joan de Déu, Barcelona, Spain), Jonna Tolonen (Unit of Population Health, University of Oulu, Finland), Danielle Dunnett (Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, London, England), Caroline Yeo (Department of Architecture and Built Environment, Faculty of Engineering, University of Nottingham, Nottingham, England), Katy Stepanian (Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, London, England), Tesnime Jebara (Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, London, England).

**Acknowledgements**

This article is independent research funded by the NIHR (Programme Grants for Applied Research, Recovery Colleges Characterisation and Testing (RECOLLECT) 2, NIHR200605). We would like to thank Nigel Henderson who helped facilitate the completion of RC surveys in Scotland. We thank the RECOLLECT Lived Experience Advisory Panel (LEAP) who provided input into the design of the survey and interpretation of results. MS acknowledges the support of NIHR Nottingham Biomedical Research Centre.

**Data availability**

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to it containing identifiable information about RCs.

**Contributors**

DH, RAE, CHe and MS conceptualised the study. DH conducted the literature search. DH and HHB were responsible for project administration. DH, HHB, AR, RAE, EC, CHe and MS were responsible for the study design. DH, HHB, VS, LB, CDR, MO, PK, LE, CT, DN, AT, BP, RH, FL, YM, SC, MB, TG, RTBM, CS, KT, MF, HMJ, AB, RM, ST, ZK, MR, GZ, CHar, WV, SA, DS, UB, CL, SOG, MGF and JT were responsible for data collection and interpretation. DH, AR, RAE, EC, CHe and MS were responsible for data analysis. DH, HHB, RAE, EC, AR, CHe, MS, JR, SM, CHan, DE, JGR, MM, DD, CY, KS, TJ, YK and IB were involved in data interpretation. DH, AR, RAE, EC, CHe and MS were involved in the writing the original draft. All authors were involved in reviewing and editing the manuscript and approved the final version. DH, AR, EC, CHen and MS are responsible for the decision to submit the manuscript. DH, AR, and EC have accessed and verified the data.

**Declarations of interest**

RAE has received travel costs from the University of Brussels as part of ‘Crosstalks’ for providing a lecture on mental health interventions. VS is a volunteer member of the Board of Inner City Health Associates, a non for profit health care organization providing care to people experiencing homelessness in Toronto. LB has received funding from Mind Australia to evaluate Mind Australia’s Haven Homes and from the Australian Capital Territory (ACT) Recovery College Pilot project. YM has received grants from Grants-in-Aid for Scientific Research and the Health (Japan) and from the Labour Sciences Research Grants (Japan). YM has also received honoraria for talks from the: Japan College of Social Work, Tokyo University of Technology, Japan Academy of Psychiatric and Mental Health Nursing, and Japanese Society of Psychiatry and Neurology, and is an unpaid Steering Committee member of Recovery College Ota in Japan.

**References**

1. Slade M, Amering M, Farkas M, et al. Uses and abuses of recovery: implementing recovery-oriented practices in mental health systems. World Psychiatry. 2014 Feb;13(1):12–20.

2. World Health Organisation. Mental Health Action Plan 2013-2020. Geneva; 2013.

3. Mental Health Commission of Canada. Changing directions, changing lives: The mental health strategy for Canada. Calgary; 2012.

4. Mental Health Commission. President’s New Freedom Commission on Mental Health. Washington DC; 2003.

5. Department of Health. The Fifth National Mental Health and Suicide Prevention Plan. Canberra; 2017.

6. Whitley R, Shepherd G, Slade M. Recovery colleges as a mental health innovation. World Psychiatry. 2019 Jun 6;18(2).

7. Perkins R, Repper J, Rinaldi M, Brown H. Recovery Colleges. ImROC briefing paper 1. London; 2012.

8. Toney R, Knight J, Hamill K, et al. Development and Evaluation of a Recovery College Fidelity Measure. The Canadian Journal of Psychiatry. 2019 Jun 30;64(6).

9. McGregor J, Brophy L, Hardy D, et al. Proceedings of June 2015 Meeting. In Recovery Colleges International Community of Practice (RCICoP); 2016.

10. Toney R, Elton D, Munday E, et al. Mechanisms of Action and Outcomes for Students in Recovery Colleges. Psychiatric Services. 2018 Dec;69(12).

11. Crowther A, Taylor A, Toney R, et al. The impact of Recovery Colleges on mental health staff, services and society. Epidemiol Psychiatr Sci. 2019 Oct 23;28(5).

12. Bowness B, Hayes D, Stepanian K, et al. Who uses Recovery Colleges? Casemix analysis of sociodemographic and clinical characteristics and representativeness of Recovery College students. Psychiatr Rehabil J. 2022;

13. Hayes D, Camacho EM, Ronaldson A, et al. Evidence-based Recovery Colleges: developing a typology based on organisational characteristics, fidelity and funding. Soc Psychiatry Psychiatr Epidemiol. 2022;

14. Thériault J, Lord MM, Briand C, Piat M, Meddings S. Recovery Colleges After a Decade of Research: A Literature Review. Psychiatric Services. 2020 Sep 1;71(9).

15. Collins R, Shakespeare T, Firth L. Psychiatrists’ views on recovery colleges. The Journal of Mental Health Training, Education and Practice. 2018 Mar 12;13(2):90–9.

16. Whitley R, Strickler D, Drake RE. Recovery Centers for People with Severe Mental Illness: A Survey of Programs. Community Ment Health J. 2012 Oct 18;48(5):547–56.

17. King T, Meddings S. Survey identifying commonality across international Recovery Colleges. Mental Health and Social Inclusion. 2019 Jul 19;23(3):121–8.

18. Lin E, Harris H, Black G, et al. Evaluating recovery colleges: a co-created scoping review. Journal of Mental Health. 2022 Nov 8;1–22.

19. Hayes D, Henderson C, Bakolis I, et al. Recovery Colleges Characterisation and Testing in England (RECOLLECT): rationale and protocol. BMC Psychiatry. 2022 Sep 24;22(1):627.

20. Jennings H, Slade M, Bates P, Munday, E. &, Toney R. Best practice framework for Patient and Public Involvement (PPI) in collaborative data analysis of qualitative mental health research: methodology development and refinement. BMC Psychiatry. 2018;18(1):1–11.

21. StataCorp. Stata Statistical Software: Release 17. College Station, Texas: StataCorp LP; 2021.

22. Whish R, Huckle C, Mason O. What is the impact of recovery colleges on students? A thematic synthesis of qualitative evidence. The Journal of Mental Health Training, Education and Practice. 2022 Jul 22;17(5):443–54.

23. Chung‐Lung K, Chi‐Chiu L, Lai‐Ping C, Ching‐Kwok L, Chi‐Kwong S. Instrumental measurements of recovery‐oriented practice in psychiatric services. Asia-Pacific Psychiatry. 2021 Jun 30;13(2).

24. Chang EC. Self-enhancement and self-criticism: Theory, research, and clinical implications. . New York, NY: American Psychological Association; 2007.

25. Falk CF, Heine SJ, Yuki M, Takemura K. Why do Westerners self‐enhance more than East Asians? Eur J Pers. 2009 May 2;23(3):183–203.

26. Hofstede G, Hofstede GJ, Minkov M. Cultures and Organizations: Software of the Mind [Internet]. 3rd ed. New York: McGraw Hill; 2010 [cited 2023 Jan 27]. Available from: https://www.hofstede-insights.com/models/national-culture/

27. Claramita M, Nugraheni MDF, van Dalen J, van der Vleuten C. Doctor–patient communication in Southeast Asia: a different culture? Advances in Health Sciences Education. 2013 Mar 8;18(1):15–31.

28. Bond GR, Drake RE. Assessing the Fidelity of Evidence-Based Practices: History and Current Status of a Standardized Measurement Methodology. Administration and Policy in Mental Health and Mental Health Services Research. 2020 Nov 5;47(6):874–84.

29. Reid N, Khan B, Soklaridis S, Kozloff N, Brown R, Stergiopoulos V. Mechanisms of change and participant outcomes in a Recovery Education Centre for individuals transitioning from homelessness: a qualitative evaluation. BMC Public Health. 2020 Dec 15;20(1):497.

30. Gadelha de Alencar Araripe Neto A, Alberto Orsi J. Development and pilot assessment of a Recovery College for people with severe mental disorder in Sao Paulo [Internet]. 2020 [cited 2023 Jan 27]. Available from: https://bv.fapesp.br/en/bolsas/205176/development-and-pilot-assessment-of-a-recovery-college-for-people-with-severe-mental-disorder-in-sao/