

Original Research

The clinical impact of a crisis resolution home treatment team

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Abstract

Objectives: To evaluate the impact of treatment provided by a Crisis Resolution Home Treatment Team (CRHTT) in terms of preventing hospital admission, impact on service user's symptoms and overall functioning, as well as service user's satisfaction with the service. Secondary objectives were to evaluate the patient characteristics of those attending the CRHTT.

Methods: All the service users treated by the CRHTT between 2016 and 2020 were included. Service users completed the Brief Psychiatric Rating Scale (BPRS), the Health of the Nation Outcome Scale (HoNOS), and the Client Satisfaction Questionnaire-version 8 (CSQ-8) before and after treatment by the CRHTT. Admission rates were compared between areas served by the CRHTT and control, before and after the introduction of the CRHTT, using two-way ANOVA.

Results: Between 2016 and 2020, 1041 service users were treated by the service. Inpatient admissions in the areas served by the CRHTT fell by 38.5% after its introduction. There was a statistically significant interaction between CRHTT availability and time on admission rate, $F(1,28) = 8.4, p = .007$. BPRS scores were reduced significantly ($p < .001$), from a mean score of 32.01 before treatment to 24.64 after treatment. Mean HoNOS scores were 13.6 before and 9.1 after treatment ($p < .001$). Of the 1041 service users receiving the CSQ-8, only 180 returned it (17.3%). Service users' median responses were "very positive" to all eight items on the CSQ-8.

Conclusions: Although our study design has limitations this paper provides some support that CRHTT might be effective for the prevention of inpatient admission. The study also supports that CRHTT might be an effective option for the treatment of acute mental illness and crisis, although further research is needed in this area.

Keywords: Crisis resolution; home treatment; prevent admission; mental health; symptoms

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Introduction

Background to Crisis Resolution Home Treatment (CRHT)

Crisis Resolution Home Treatment Teams (CRHTTs) offer short-term specialist psychiatric input to service users experiencing acute mental illness or crisis in the community. CRHTT facilitates rapid access to clinical assessment and intensive home treatment and can act as an alternative to costly and often unpopular inpatient admission. Additional functions of a CRHTT include its ability both to support early discharge from the inpatient setting and to 'gatekeep' access to inpatient care (Johnson 2013; Morant et al., 2017). The model of care in question has evolved over many, and various models emerging internationally from as early as the 1950s (Johnson 2013). These developments were part of the larger movement toward the deinstitutionalisation of psychiatric care.

The UK began to implement the CRHT model fully and by 2000, it formed part of national policy in the National Health Service plan (Johnson and Thornicroft, 2008; Glover et al., 2006; Onyett et al., 2008). Following this, the health authority of Norway

in 2005 moved to implement the CRHT model in all community mental health centres, and by 2010, a national survey reported that 51 of 76 centres had done so (Hasselberg et al., 2011a; Karlsson et al 2011). In Ireland, the need to disseminate CRHTTs was recommended in the 2020 National Irish Mental Health Policy document 'Sharing the Vision' (Government of Ireland, 2020). O'Keefe and Russell, in their all-Ireland survey of home treatment services for acute mental disorders, identified that of the 16 adult mental health clinical directorate areas in the Republic of Ireland that responded, 11 had established at least one CRHTT (2019).

It has become clear that wide variability across national and international jurisdictions in terms of service infrastructure, geography, and numerous population variables continues to confound our understanding of the overall effectiveness of CRHTTs and the specific characteristics of an effective service have not yet been fully specified (Wheeler et al., 2015; Hasselberg et al., 2011b; Monroe-DeVita et al., 2012).

Crisis resolution home treatment: evidence base to date

In the United States since 2001, the Evidence-Based Practice Project has been investigating mental health practices, including Assertive Community Treatment (ACT), to develop a fidelity measure and tool kit for the implementation of evidence-based

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practices (Torrey et al., 2001; Phillips et al., 2001). The project has informed the methodology of the UK-based CORE (Crisis resolution team Optimisation and RELapse prevention) study, a component of which was a cluster-randomized controlled trial to evaluate a one-year programme to improve CRHT model fidelity (Lloyd-Evans et al., 2020). Improvement in team fidelity scores and inpatient admission rates were noted in the CORE study; however, the primary outcome measure of patient satisfaction was not significantly better in the intervention group and only weakly correlated with positive changes in fidelity. Such results highlight the need for further research into the further development of CRHT service improvement initiatives.

Evaluations of CRHTT have typically involved reviewing the impact of CRHT on the severity of psychiatric symptoms, rates of admission to inpatient psychiatric care, and service user satisfaction. Findings across these domains have been mixed. Evidence suggests that CRHTTs can reduce inpatient admissions, but have little effect on clinical outcomes (Lloyd-Evans et al., 2020; Johnson et al., 2005a; Johnson et al., 2005b; Barker et al., 2011; Guo et al., 2001; Adesanya 2005; Keown et al., 2007; Glover et al., 2006).

There has been some consistency observed in the proportion of referrals to CRHTTs that require acute inpatient care. In Irish studies to date, which have all taken place in rural settings, this has been estimated to lie between 10 and 13% (McCauley et al., 2003: 20; McLoughlin et al., 2005; Nwachukwu et al., 2014). Only one Irish study to date has reported on changes in admission rates following the establishment of a CRHTT (Iqbal et al., 2012). Iqbal and colleagues identified a 50% reduction over the first three years of service implementation and observed a subsequent plateau suggesting a baseline admission rate (2012). Sjølie et al.'s review suggests that the lack of reported negative outcomes regarding hospitalisations may be due to CRHT researchers' general advocacy of CRHT (2010).

A recent randomised control trial found that Health of the Nation Outcomes Scale (HoNOS) scores and service user satisfaction were not significantly different between an intervention group given CRHT or treatment as usual, including inpatient care (Stulz et al., 2020). The Brief Psychiatric Rating Scale (BPRS) is also a commonly used measure in CRHT evaluation studies (Tomar et al., 2003; Johnson et al., 2005a; Barakat et al., 2021). It has been found in some studies that there is no difference in BPRS reduction between CRHT and inpatient care (Tomar et al., 2003; Johnson et al., 2005a). Service user satisfaction has shown more mixed results in the literature to date. The 2015 systematic review by Wheeler et al. identified three studies by Johnson and colleagues reporting superior outcomes for CRHTTs compared with other services (2005a; 2005b; 2008) and two studies reporting no significant difference (Dibben et al., 2008; Tyrer et al. 2010).

Aim and objectives

The South Lee Crisis Resolution Home Treatment Team (CRHTT) has been operating in Cork since 2015. This study aims to complete and present a service evaluation of the South Lee CRHTT from 2016 to 2020. To our knowledge, this is the first such service evaluation of a CRHTT in an urban Irish setting. Our primary objectives are to appraise service efficacy as measured by:

1. Reductions in inpatient admission rates
2. Changes in individual BPRS and HoNOS scores before and after treatment.
3. Service user satisfaction

Secondary objectives include evaluation of the service user profile and referral practices amongst healthcare practitioners, review of the average length of CRHT, and the team's ability to respond acutely and support early discharge from the hospital.

Methods

South Lee Crisis Resolution Home Treatment Team service description

The South Lee Crisis Resolution Home Treatment Team (CRHTT) has been operating in Cork since 2015. It currently provides a CRHT service to a population of 80,000. The areas served vary considerably in terms of socio-economic status, from very disadvantaged to very affluent, as measured by the 2016 Pobal HP Deprivation Index (Cork City Council 2020). The team is a consultant psychiatrist-led, multidisciplinary team. The team makeup comprises one consultant psychiatrist, one non-consultant doctor, four community mental health nurses, a social worker, a part-time psychologist, an occupational therapist, and an administrator. The entire team is dedicated exclusively to the CRHT role. The team operates from nine am to five pm Monday through Friday. Weekend cover is provided by a nursing-led weekend service- to which the CRHT can refer for weekend home visits.

It receives referrals directly from General Practitioners, Community Mental Health Teams (CMHTs), and the liaison psychiatry service. The referrer indicates the reason for referral and the expected response time, which may vary from the same day to three days. Reasons for referral are most commonly to prevent hospital admission or to facilitate early discharge from the inpatient unit, but can also be to manage acute relapse or crisis management. Two CRHTT members carry out each initial assessment (typical duration 1–1.5 hours), and if accepted for CRHT the team can see the service user up to twice daily. Service users are allocated to a dedicated CRHT keyworker, and are reviewed medically regularly. Daily review is typical early on in the admission and this clinical contact is tapered down over the course of the admission as the crisis resolves and discharge planning is progressed. Referrals can be made within the team for dedicated MDT input e.g. psychology, occupational therapy, or social work input. The team administers and supervises medication where appropriate. Admission to the CRHTT is time-limited- typically four weeks. All potential admissions and discharges, as well as ongoing management of service users, are discussed at twice-a-week team meetings. Service users' diagnoses are reviewed at discharge by a senior clinician.

Standardised measures

Since the team's inception in 2015, clinician-rated outcome measures have been collected routinely at acceptance and again at discharge through several standardised and internationally validated tools. These tools include the Client Satisfaction Questionnaire Version 8 (CSQ-8), the BPRS, and the HoNOS. The BPRS is a widely used semi-structured interview that rates 24 psychiatric symptom constructs in severity from 1 to 7 (Ventura et al., 1993; Zanello et al., 2013). The HoNOS is a 12-item clinician-administered instrument that asks service users to rate from 0 to 4 in severity of problems they experience in 12 domains and has been well-validated in the community psychiatric population (Wing et al., 1998). The CSQ-8 is one of several standardised instruments used to measure satisfaction, which is arguably a significant predictor of positive outcomes

not least because it is an indicator of quality service provision (Skarfröding et al., 2021; Larsen et al., 1979).

Data collection

At team inception, a clinical database was developed to support the evaluation of this CRHTT. Data collection was completed as part of routine clinical care. This study includes routinely collected data from January 2016 to December 2020 inclusive. The data collected included service user sociodemographic information, the source of referral to the service, whether an individual was assessed and/or accepted to the service for treatment, the dates of acceptance and discharge from the service, the diagnosis, and the outcome of discharge from the CRHTT.

The CSQ-8 and a stamped addressed envelope were posted out to all those whom the CRHTT treated after they were discharged from the service.

Comprehensive training in the data collection and the use of the BPRS and the HoNOS were delivered as part of team induction. The BPRS and HoNOS questionnaires are completed on acceptance to the CRHT and discharge from the service.

Single measures intraclass correlation coefficient (ICC), using a two-way mixed model with absolute agreement, was used to ascertain inter-rater reliability between raters. ICC can be interpreted as good above 0.75 (Koo and Li 2016). Median ICCs were 0.77 for the BPRS and 0.79 for the HoNOS.

Data from 2012 to 2014 was used to determine the baseline admission rate before the introduction of the CRHTT. Data from 2016 to 2020 was used to evaluate the admission rate after the introduction of the CRHTT. Data from 2015 was not analysed, as the CRHTT was introduced partway through this year. For this outcome, two sectors served by the CRHTT were examined: City South-West (CSW) and City South East (CSE). The Douglas/Carrigaline sector was not analysed, as only part of the sector is served by the CRHTT. The same procedure was carried out for two other urban/suburban sectors in South Lee (Bishopstown and Ballincollig) where no CRHTT was available. These sectors acted as a control.

Data analysis

For the analysis of the primary outcomes of symptom reduction and functional improvement, only service users who were accepted to the CRHTT outcomes were analysed. Where data was missing, the last datum carried forward method was used, i.e. no change was assumed. Paired t-tests were used to analyse the before and after questionnaires, and a two-tailed significance value of $p < 0.05$ was assumed to be significant.

A two-way analysis of variance (ANOVA) was performed to analyse the effect of CRHTT availability and time (pre- and post-CRHTT introduction) on admission rate. CRHTT availability and time were considered independent variables and admission rate was considered the dependent variable. Our primary outcome was to evaluate whether there was a statistically significant interaction between CRHT availability and time (pre-and post-CRHT introduction) on admission rates.

An evaluation of the service users' profiles was carried out, as a secondary outcome. A profile was created for all referrals. Referrals that were accepted for treatment were compared to those that were not. The likelihood that a referral would be accepted to the CRHTT with certain key characteristics was analysed using chi-squared analysis, with post hoc subgroup analysis using the Bonferroni correction.

Results

Referrals to the service

Over the five-year study period, from 2016 to 2020 inclusive, there were 1645 referrals to the South Lee CRHTT. Sociodemographic information (gender, age) of service users referred, the sector from which they were referred, their diagnosis, the source of their referral, and the reason for referral are shown in the online supplemental material which accompanies this paper (Appendix A).

Service users accepted for CRHT

Of those service users referred to the service ($n = 1650$), 1041 were accepted for CRHT after assessment. Sociodemographic information (gender, age) of service users accepted for CRHT, as well as the sector from which they were referred, their diagnosis, the source of their referral, and the reason for referral, are shown in Table 1.

Table 1 also shows the percentage rate of referrals accepted for CRHT by category. For each category, a chi-square analysis was carried out to compare counts of those accepted to those not accepted. This showed whether the variable was associated with a deviation from the mean acceptance rate. The acceptance rate for CRHT following referral overall was 63%.

Schizophrenia (84%) and bipolar affective disorder (82%) were associated with significantly higher acceptance rates. Those with diagnoses in the "other" category were less likely to be accepted (40%). Those referred by their community mental health team (CMHT) had higher acceptance rates (73%), while those referred by their GP had lower acceptance rates (49%). Those referred to prevent admission (69%) or to facilitate early discharge from an approved centre (89%) showed higher rates of acceptance for CRHT, compared to those referred for crisis management (43%) or acute relapse (55%). The result of this analysis for all subgroups is shown in Table 1.

The median length of treatment by the CRHTT was 28 days. The mean was 31.4 days, and the mode was 14 days.

Outcomes of referrals to CRHTT

A breakdown of the outcomes of referrals to the CRHTT is shown in Fig. 1. Fig. 1 includes a summary of why some service users referred to the CRHTT were not assessed. The most common reason was that a service user lived outside the area covered by the CRHTT (37.5%). Of note, only 6.5% of those accepted for CRHT go on to be admitted for inpatient care. Also, only 3% of those assessed but not accepted for CRHT are redirected for admission to inpatient care.

Of those accepted for CRHT, to prevent admission to inpatient care ($n = 462$) 30 (6.5%) were later admitted. Of those accepted for CRHT to facilitate early discharge from inpatient care ($n = 201$), 17 (8.5%) were later readmitted.

Impact on symptoms and functioning

The BPRS and HoNOS questionnaires were administered to 1041 service users on acceptance for treatment and discharge from the CRHTT.

There was a significant drop in BPRS scores from before (mean = 32.01, SD = 8.63) to after CRHT (mean = 24.64, SD = 8.52) ($p < 0.0001$). Similarly, there was a significant drop in HoNOS scores from before (mean = 13.61, SD = 6.16) to after (mean = 9.68, SD = 8.52) ($p < 0.0001$).

Table 1. Characteristics of service users accepted for crisis resolution home treatment (CRHT)

Category	<i>n</i>	% of Service User's Accepted for CRHT	Referral Acceptance rate (%)	Pearson's Chi-Square (X ²)	<i>P</i> -value
All	1041	100	63	N/A	
Gender	<i>n</i>				
Male	425	41	61	2.35	0.13
Female	616	59	65		
Age (yrs)					
18–24	160	15	53*	19.80	<0.001
25–34	245	24	63		
35–44	212	20	65		
45–54	167	16	68		
55–65	176	17	69		
65+	81	8	62		
Sector					
CSE	502	48	72**	189.64	<0.001
CSW	425	41	66		
Douglas	108	10	53*		
Other	6	1	6*		
Diagnosis					
Depressive Disorder	216	21	58	174.32	<0.001
Personality Disorder	216	21	61		
Schizophrenia	219	21	84**		
Bipolar Affective Disorder	185	18	82**		
Anxiety Disorder	101	10	55		
Acute psychotic episode	18	2	38*		
Psychotic Depression	16	2	84		
Other	70	7	40*		
Referral Source					
CMHT	716	69	73**	102.32	<0.001
GP	325	31	49*		
Referral Reason					
Prevent hospital admission	462	44	69**	137.54	<0.001
Acute relapse	257	25	55*		
Crisis management	121	12	43*		
Early discharge	201	19	89**		

* = referred subgroup significantly less likely to be accepted than the mean acceptance rate. ** = referred subgroup significantly more likely to be accepted than the mean acceptance rate. i.e. * or ** = Result is significant ($p < 0.005$), on post hoc subgroup analysis, using Bonferroni correction. CSW = City South-West, CSE = City South East, CMHT = Community Mental Health Team.

A figure showing the changes in mean BPRS and HoNOS scores from before and after questionnaires is shown in the online supplemental material accompanying this paper (Appendix B).

Impact on admissions

Mean admissions to the South Lee inpatient unit per sector per year for City South-East (CSE) and City South-West (CSW) sectors are shown in Fig. 2a. Both sectors where CRHT was available showed a significant reduction in admissions per year after the introduction of the South Lee CRHTT. Admissions per year in CSE fell from a mean of 140.33 (SD = 1.53) before the opening of the CRHTT to 98

(SD = 19.76) after ($p = .008$). Similarly, admissions per year in CSW fell from a mean of 124.67 (SD = 11.37) to 65 (SD = 16.26) after ($p < .001$). Mean admissions per year in the CSE and CSW sectors combined fell by 38.5%, from 265 before the introduction of CRHT to 163 after.

Admissions also fell in the sectors used as controls (where CRHT was not available) over this period, however, these changes were not statistically significant (Ballincollig $p = 0.37$, Bishopstown $p = 0.08$). Changes in the sectors used as controls are also shown in Fig. 2a.

Two-way ANOVA was conducted to examine the effects of CRHT availability and time (pre-and post-CRHTT introduction)

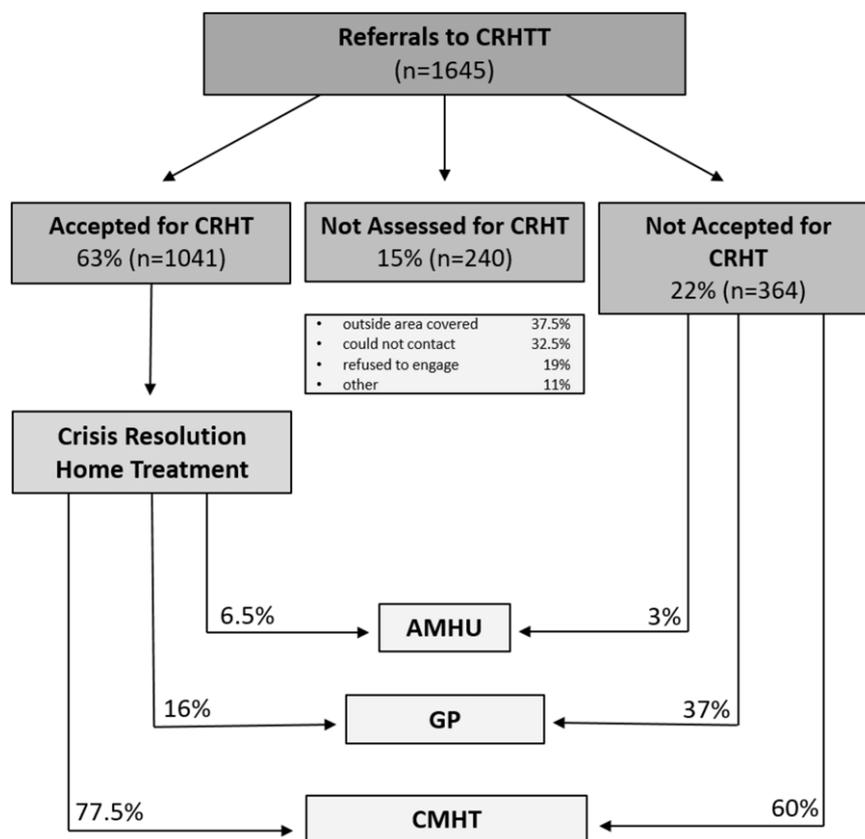


Fig. 1. Outcomes of referrals to the Crisis Resolution Home Treatment Team (CRHTT). Flow chart shows process of referral and acceptance to CRHTT. The arrows on the left show the outcomes of those accepted for treatment. The arrows on the right show the outcomes of those assessed by the CRHTT, but not accepted for treatment. CRHTT = Crisis Resolution Home-based treatment. AMHU = Approved Mental Health Unit, i.e. inpatient care, GP = General Practitioner, CMHT = Community Mental Health Team.

on admission rates. There was a statistically significant interaction between CRHT availability and time on admission rate, $F(1,28) = 8.4, p = 0.007$. Simple effects analysis showed that CRHT availability had a statistically significant effect on admission rate ($p < 0.001$). Similarly, time (pre-and post-CRHT introduction) was also shown to affect admission rates. The change in admission rates in areas where CRHTT was available compared to where it was not, is shown in Fig. 2b.

Client satisfaction

Of the 1041 service user who were posted the CSQ-8, only 180 (17%) returned their questionnaires. The median answer to each question asked was “very positive” on each Likert scale. Between 58% and 80.5% of patients chose “very positive” for each quantitative question asked. The results of this data are summarised in full in the online supplemental material (Appendix C).

Discussion

Key findings

Regarding our primary outcomes, this study suggests that CRHT availability can reduce inpatient admission rates. In this study, inpatient admission rates fell by 38.5% in the area served by the CRHTT. Inpatient admissions also fell in the areas used as a control, but to a lesser extent.

This study showed that service users’ BPRS and HoNOS scores fell after CRHT.

Among those who returned the client satisfaction questionnaire (CSQ-8), satisfaction with the service was high. However, only 17% of service users completed this, making results difficult to generalise to the sample as a whole.

Integration with existing literature

This study was conducted in an urban as opposed to a rural setting. Interestingly, while internationally, most of the research into CRHT takes place in urban settings (Johnson 2013; Wheeler et al., 2015), most Irish research thus far has taken place in rural settings (McCauley et al., 2003; McLoughlin, 2005; Nwachukwu et al., 2014).

This study aims to show the impact of a CRHTT in an urban/suburban Irish setting. In this study, inpatient admission rates from CRHT are 6.5% which is lower than in previous studies carried out in rural settings (McCauley et al., 2003; McLoughlin, 2005; Nwachukwu et al., 2014).

This is also lower than most re-admission rates reported internationally (Lloyd-Evans et al., 2020). One possible explanation is that relatively more patients were treated by CRHT who would not otherwise have been candidates for inpatient admission at the time of referral. Unlike many international CRHTTs particularly those in the UK, this CRHTT does not have a gatekeeping role, i.e. does not get to assess all service users prior to inpatient admission. This may mean that some suitable candidates for at least a trial of the CRHTT approach bypass the service particularly out of hours. Another explanation is that over time referrers and the CRHTT and come to better recognise service

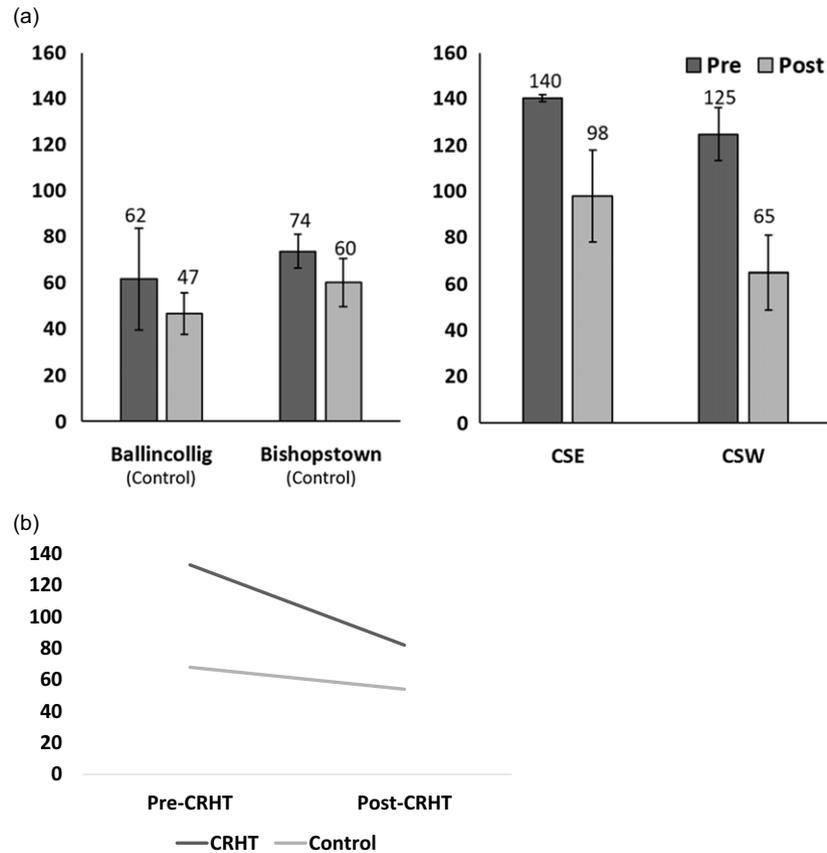


Fig. 2. (a) Crisis resolution home treatment team availability reduces inpatient admission rate significantly. The Figure shows mean number of service users admitted to the local approved mental health unit for inpatient care in the year's pre (2012–2014) and post (2016–2020) introduction of CRHT. CRHT was no introduction to the Ballincollig or Bishopstown sectors and these areas are shown as controls. CRHT was introduced to the CSE and CSW sectors in 2015. Error bars show standard deviation. P-values were calculated by independent samples T-tests. CSE = City South-East, CSW = City South-West, CRHTT = Crisis Resolution Home Treatment Team. (b) Reduced admission rate greater in areas where CRHT is available post-CRHTT introduction. Y-axis shows mean admissions per sector per year. The slope of the dark grey line (sectors where CRHT was available) is steeper than that of the light grey line (control), indicating how the change in admission rate was greater in areas where CRHT was available over time. This is the graphical representation of the two-way ANOVA discussed in the results section.

users who do particularly well with the CRHTT approach, and also those who do not, and who instead need hospital admission.

Of those referred to the CRHTT 85.5% were assessed, and 63% of service users were accepted for CRHT. This suggests that, more often than not, the service is being used appropriately. However, there may still be a lack of awareness about the role of CRHT among some referrers. This is perhaps supported by the discrepancy in acceptance rates between referrals from primary care (49%) and secondary mental health services (73%), which we believe is likely due to an understandably greater awareness of the role of the CRHTT among local mental health professionals. Also, the motivation for GPs to refer may be different than that of the CMHTs- they may be looking for rapid access to an expert opinion outside of an emergency department setting. Diverting away from the emergency department may be in and of itself a useful role for a CRHT, but only if the team continues to have the capacity to care for their 'core business' ie treating acutely unwell people in their homes. A once off initial assessment by expert mental health staff can be of significant value to the individual, their family and also the GP, even if it does not result in acceptance for CRHT.

The length of admission to the CRHT is broadly comparable to previous studies (McLoughlin, 2005; Nwachukwu, et al., 2014).

This study focuses on admission rates as one of its primary outcomes. While designing the study, we noted that in some

previous studies, admission rates declined before the introduction of the CRHTT (Iqbal et al., 2012). This study also used a control area, where no CRHTT was introduced. While admission rates were reduced across all sectors this is only statistically significant in the areas where the CRHTT was available, and an interaction between CRHT availability and inpatient admission rate was seen over time.

While a reduction in BPRS and HoNOS scores was demonstrated, this was an expected result given that service users were presenting in mental health crises. This must also be interpreted in the context of this study's naturalistic design. Randomized control trials have been carried out comparing CRHT or treatment as usual, including inpatient care as discussed above (Stulz et al., 2020).

Strengths

We believe this study had several strengths, notably its large sample size ($n = 1650$). This study also tried to consider not only those service users who were accepted for CRHT, but also those who were referred and/or assessed, but not accepted for CRHT. The use of a control area, where CRHT was not available, helped us evaluate the impact of CRHT availability on inpatient admission rates. However, the study's naturalistic design is still a limitation of these findings.

Limitations

This study has several key limitations. This is not a comparative study or a randomised control trial. While BPRS and HoNOS scores improved after treatment by the CRHTT, the before and after design of the study limits our attribution of this improvement to CRHT. Furthermore, we cannot say how that impact would compare with inpatient treatment, or treatment by a CMHT as usual, based on this study. Only 17% of service users' returned the CSQ-8, making it difficult to generalise this data to the sample as a whole. This study only evaluates outcomes on acceptance for treatment and discharge from the CRHTT, and it does not tell us anything about long-term outcomes.

In terms of preventing admission, there may have been other factors: such as changes in CMHT admission thresholds, changes in other community supports available, and environmental changes unrelated to mental health services, which may have affected admission rates over the period examined. This study controlled for these as much as possible by using a control, but some areas may have been more affected by such changes than others.

Future research

Further research is needed to look at which service users are best suited to CRHT. While certain service users are not appropriate for CRHT – for example, those who are legally detained, those who pose too great a risk to themselves or others – there is a group of service users who likely could be treated with either CRHT or inpatient treatment. What characterises this group of patients could be a direction for future research. Furthermore, more research is needed into what elements of a CRHT, are most helpful for service users. This could help inform and develop future models of CRHT.

Further research might explore GPs' understanding of the role of CRHT and their motivations to refer service users for CRHT could be explored further, in line with our discussion above.

Conclusions

Although our study design has limitations this paper provides some support that CRHTT might be effective for the prevention of inpatient admission. The study also supports that CRHTT might be an effective option for the treatment of acute mental illness and crisis, although further research is needed in this area.

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/ipm.2023.45>.

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Competing interests. Authors have no competing interest to disclose.

Ethical standard. Ethical approval was attained prior to study commencement from the Cork Research ethics committee on the 2nd June 2021. CREC Review Reference Number: ECM 4 (p) 01/06/2021.

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008.

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