Mind Australia Limited & Austin Health

Community Recovery Program

Evaluation Report

Community Recovery Program (CRP)

March 2020

Community Recovery Program (CRP) Evaluation

Prepared by

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Key messages from the evaluation

What are the key benefits for Community Recovery Program residents

Mental health improves

This place is godsend for me. It's given me a real show of hope, positivity for the future and moving away from the hospital…. …I'm at a stage of wellness and recovery like I've never known. My quality of life is the best it's ever been ever

Mental health improved by 20% in the first 9 months of residence. Residents learn the *"language of recovery for the first time"* and the *"service walks with someone along a recovery pathway"*

Self-esteem and confidence grows

Residents experienced improved self-efficacy and empowerment through completing tasks that made them feel valued. Residents were more confident to engage openly with the people around them.

there's no stigma, there's no judgement at all Yeah that's the beauty of this place.

Residents experience stable and safe accommodation

…for the first time, for many of our residents, it's a safe, secure, supported, but independent, place for them to live. And, often they've never had that opportunity before and I think that just makes a massive difference for people not to have to worry about where they're going to live or feeling like it's an unsafe environment to be living.

Residents valued support available 24/7 and security at night. Service quality data showed a very low level of incidents reported on the unit between 2015 and 2018.

Residents learn life skills to support transition to independent living

Difficulties in independence skills reduced by over 40% and there was improvement in daily living skills like budgeting, cooking, cleaning, structured routines and organising time for hobbies.

I felt like I'm standing on my own two feet and if it wasn't for this place, I'd still be with my parents, relying on all these people. I feel like it's worked wonders… it changed my life.

I think it's a great way to get your independence and maintain it

Residents build social relationships within the service

Clients enjoy positive time together - going out from dinner, playing bowls and doing photography. Even residents who had previously not been involved in community activities became involved. Difficulties around getting along with people outside of the family reduced by over 50%

The community is good in here. I don't think that there's really anybody that doesn't get along with anybody as far as I'm aware....I love being a part of the community

when the football was on and they all go down there and they have hotdogs and...they all watched the football together...

Social engagement beyond the service

There was increased social engagement, both formal and informal, and engagement with the broader community is a key focus of the program. Residents were able to work in a car wash job, which was paid. Subsequently, some residents were able to move on to independent employment in the sector. Employment can lead to better housing options for residents after living at the CRP, because their income is greater.

...the car wash job was a great initiative because it empowers people who may not have worked for a while or may want to earn a bit of extra money. And that's a paid position and they learn a lot of skills that can give...meaningful employment...[a resident has] got meaningful employment at a car rental agency...

Improvement in family and carer relationships

For some residents, the CRP is an opportunity to interact with their family as an independent adult. For others it was a time to link with children or other family members and rebuild connection.

...often people have been able to start improving relationships with their family members, as well, or to reconnect with people that, sometimes, they've either lost that connection with, or things have been in quite a conflictual or tumultuous situation, for various reasons.

What are the key factors that support great outcomes?

Provision of **STABLE ACCOMMODATION** while supporting **INDEPENDENT LIVING**

The **COMBINATION OF CLINICAL AND RECOVERY SUPPORTS** provided through the **COLLABORATION** of Austin and Mind

A **CULTURE OF RECOVERY** that supports **INDIVIDUAL CHOICE AND RESPONSIBILITY**

The special qualities of staff and peer interaction, with **NO JUDGEMENT OR STIGMA**

Contents

Figures

Tables

Glossary

Term	Meaning
Activities	The components of the service (i.e. individual counselling, group activities, goal setting).
Baseline	The first set of outcome data collected for a resident, not more than 3 months from Admission date. Baseline data is an assessment of behaviour and health states taken before interventions have started. Baseline data allows a comparison of behaviors and health states before and after the program to determine if the interventions are working.
Carers	Carers were family and carers of current residents of the CRP (aged between 18 and 80 years for the evaluation).
Cohen's d	Cohen's d is an effect size used to indicate the standardised difference between two means. This report used the following general guidelines for interpreting effects: small (0.2), medium (0.5) and large (0.8).
Effect size	The magnitude of the difference between two measures.
Forensic resident	'Forensic' means related to, or associated with, legal issues. Forensic mental health services provide assessment and treatment of people with a mental disorder and a history of criminal offending, or those who are at risk of offending (Better Health Channel, 2020). For this report, a 'forensic resident' is a CRP resident who was a former patient at Thomas Embling Hospital.
Mean	The statistical mean refers to the mean or average that is used to derive the central tendency of the data in question. It is determined by adding all the data points in a population and then dividing the total by the number of points. The resulting number is known as the mean or the average.
Member checking	Member checking, also known as participant or respondent validation, is a technique for exploring the credibility of results. Data or results are returned to participants to check for accuracy and resonance with their experiences (Birt et al., 2016).
Outcome	An outcome is a change in health status, wellbeing, behavior and circumstances over time, which is expected to change as a result of the service. Outcomes can be short-term, medium term or long-term.

Outcome measure	A tool to measure an outcome variable. Ideally an outcome measure is reliable (i.e. stable over time) and valid (i.e. measures what it intends to)
Outcome evaluation	Assesses how a service works and how effective a service is for a target population by examining changes in outcomes the service aims to achieve.
Program (or service) fidelity	The extent to which a program or service adheres to the protocol or model it is based upon. Poor fidelity can lead to reduced effectiveness of a program/service.
Qualitative, quantitative and mixed methodologies	Qualitative methods use verbal data collected via interviews, observation and documents to make a study of chosen phenomena. Quantitative study methods use numerical data to document the phenomenon under investigation and can use statistics to report findings. Mixed methods studies use a combination of qualitative and quantitative methodologies.
Repeated-measures t-test	The repeated-measures t-test (or Paired Samples t-test) compares paired scores from the same individual. The two scores scores are taken at two different times (e.g., pre-test and post-test with an intervention administered between the two time points). The purpose of the test is to determine whether there is statistical evidence that the average difference between paired observations on a particular outcome is significantly different from zero.
Resident	Residents (may also be known as consumer, customer or client) were defined as residents of the Community Recovery Program (CRP), aged between 18 and 64 years.
Severe Mental Illness	Definitions of 'severe' mental illness (or ill-health) or psychiatric disorders (in comparison with those categorised as 'moderate' or 'mild') tend to incorporate three fundamental principles: clinical diagnosis, the duration of the disorder and the level of impact upon the individual's functional ability. Conventionally, diagnoses of schizophrenia, bipolar disorder and major depression are considered 'severe'. However, the use of diagnosis alone as a proxy for severity is a contested notion.
Staff	Staff included current Mind and Austin Health staff who work within the CRP
Standard deviation	The standard deviation is a statistic that measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance. If the data points are further from the mean, there is a higher dispersion within the data set; therefore, the more spread out the data, the higher the standard deviation.

Abbreviations

Abbreviation	Meaning
Austin	Austin Health
BASIS-32	Behavior and Symptom Identification Scale – 32 item
CRP	(Austin) Community Recovery Program: a service and residence
HoNOS	Health of the Nation Outcome Scale
IRP	Individual Recovery Plan
Mind	Mind Australia Ltd.
Mind PRC	Mind Peer Recovery Communities
Mindlink MRD	Mindlink (Mind’s electronic data management system) Minimum Required Data
PARC	Prevention and Recovery Care
OOH	Office of Housing
SIL	Supported Independent Living
SMI	Severe Mental Illness
SRS	Supported Residential Services
TEH	Thomas Embling Hospital

Executive summary

The purpose of this evaluation was to assess the Community Recovery Program (CRP)'s outcomes and delivery practices to inform service improvement. This report covers the full detail of the evaluation, including a description of methodology, results and discussion of implications.

The aims of the evaluation were to:

- To examine the effectiveness of the CRP by analysing:
    - resident outcome measures
    - perspectives of residents, carers and staff from qualitative data collection methods;
- Examine how the service has been implemented (activities, group work etc.) and what strategies and supports are used at the CRP;
- To learn about the experiences and levels of satisfaction of residents, carers and staff at CRP;
- Examine the usefulness and effectiveness of the partnership between Mind Australia and Austin;
- To develop and test the logic model for the CRP and determine whether the overall findings validate the current program logic; and
- Examine how to improve the service by assessing:
    - consultations with residents, carers and staff about what is working well and what could be improved

Background

The CRP is a 2-year residential service that is delivered via partnership between Austin Health and Mind Australia. A combination of clinical and recovery-focussed mental health supports are provided to residents living with severe and long-term mental ill-health. Seven of the twenty-two places in the service are allocated to forensic clients to support their community re-integration post-exit from Thomas Embling Hospital.

The CRP logic model (Figure 1) was developed by Mind Australia (informed by work conducted by Social Ventures Australia), linking service strategies to outcomes, identifying short-term, medium-term and long-term impacts. The model's short-term outcomes, which describe the immediate changes that might be expected for residents at CRP, were tested. These include; access to safe and stable accommodation, better understanding of mental and physical health, improved social skills, awareness of current skills, increased connection to broader community, identification of vocational goals and initial identification of family members and carers.

The service aims to enhance peoples' ability to successfully live in the community and help people recover from the disability and social disadvantage resulting from psychiatric ill-health.

Method

To examine outcomes and implementation of the service, global measures of mental health and functioning (HoNOS and Basis-32) were analysed for changes before and after joining the CRP. Data from 47 people who were residents at the service during the evaluation period (June 2015 to July 2018) and 7 further residents who consented in October 2019, were analysed using repeated measures *t*-tests. Service quality and implementation was assessed using incident report, discharge, individual recovery plan, case review and group activity data. In addition, qualitative data was collected from residents, their carers and staff via focus group and individual interviews in October 2019 and January 2020.

Results

Average scores for mental ill-health symptoms (measured by HoNOS) decreased between baseline and three months, and baseline and nine months[1].

Residents had less difficulty in getting along with people outside of the family after three or more months living at the unit[2]. They also had less difficulty in developing independence and autonomy[3].

Although there was an overall increase in residents' satisfaction[4] with their life by 12 months (trend), there was a significant low point at nine months[5].

There were no significant changes for the remaining BASIS-32 items: Managing day-to-day life, Household responsibilities, Relationships with family members, Isolation or feelings of loneliness,

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[1] Statistically significant decrease from baseline (Mean (*M)*=10.3, Standard deviation (*SD*)=5.5) to 3 months (*M*=8.7, *SD*=4.7) and again from baseline (*M*=9.9, *SD*=5.2) to 9 months later (*M*=8.3, *SD*=4.4).

[2] There was a statistically significant decrease in difficulty for residents in getting along with people outside of the family (BASIS-32 item) from baseline (*M*=1.30, *SD*=1.12) to 3 months later (*M*=.60, *SD*=.72) and again at six months (*M*=.83, *SD*=0.92).

[3] There was a significant decrease in difficulties for residents in developing independence and autonomy (BASIS-32 item) from baseline (*M*=1.50, *SD*=1.22) to six months later (*M*=0.88, *SD*=0.74), at 9 months (*M*=0.86, *SD*=0.96) and again at 12 months (*M*=0.79, *SD*=0.98.

[4] Technically, an increase in "difficulties in feelings of satisfaction" (BASIS-32 item).

[5] There was a statistically significant peak in dissatisfaction between baseline (*M*=0.08, *SD*=1.06) to 9 months later (*M*=1.45, *SD*=1.32).

Being able to feel close to others, Goals or direction in life, Lack of self-confidence, and Feeling bad about yourself.

Service quality data showed a very low level of incidents reported on the unit between 2015 and 2018. There were good levels of compliance with completing Individual Recovery Plans (IRP) (82% of expected IRPs) and moderate levels of compliance carrying out case reviews (63% of expected case reviews). A program to support physical fitness was well attended. There were low rates of admission to acute care settings for CRP residents.

In focus groups, staff, residents and carers all reported similar outcomes achieved for residents. They were:

- Improved mental health and recovery. Some carers remarked it was the first stable phase in mental health for their family member in years
- Improved independence and daily living skills
- Improved social connections and social engagement
- Improved self-confidence and self-efficacy

It appears that there are particular features of the CRP service that support positive changes for residents:

- Provision of stable accommodation while supporting independent living
- The combination of clinical and recovery supports provided through the collaboration of Austin and Mind
- The voluntary/open nature of the service that supported individual choice and responsibility
- The non-judgemental and non-stigmatising approach of staff
- Supportive peer to peer interactions

Discussion

Improved outcomes

The outcome measures show modest but consistent improvements in overall mental health, measured by the HoNOS, as the logic model (Figure 1) predicts. This is a very positive result. Given the aim of the service is to support recovery and rehabilitation in the context of stabilised mental health, we would not expect large changes to mental health symptoms. Many CRP residents would be expected to have lived with mental illness for a number of years and dramatic changes in symptoms would not be predicted. Therefore, improvement in mental health given the persevering and severe nature of the mental health concerns in this resident group are significant in this context.

The focus groups and interviews with staff, residents and carers of the CRP indicate the service is extremely successful in achieving positive outcomes for residents. Furthermore, there was a high level of congruence between the three groups of informants, which strengthens these results.

There were interesting correspondences between some of the focus group results and the quantitative findings. “Improved mental health and recovery,” mentioned in the focus group matched the improved HoNOS results. Although many clients are expected to have relatively stable mental health on admission, interestingly, some carers said that stability had been attained for the first time at the CRP.

The “improved social connections and social engagement” outcomes suggested in the focus group matched the reduction in “difficulty in getting along with people outside of the family” (BASIS-32 item).

However, the overall impression from qualitative findings was that residents felt much better about themselves and their lives, but there was only a small decrease in dissatisfaction with their life from quantitative analyses (BASIS-32 item). Similarly, there was no change in the BASIS-32 items “Lack of self-confidence”, and “Feeling bad about yourself” even though the focus group data suggested that there were improved self-confidence and self-efficacy. There was no change in the BASIS-32 items “Managing day-to-day life” and “Household responsibilities”, even though the focus group data strongly suggested that there were improved independence and daily living skills.

Program fidelity and implementation

Fidelity in this instance refers to the service components being implemented according to policy and the service design and documentation.

It would appear that the service is being implemented with fidelity to the service design and initial documentation. The group program is being run as expected and there is an increasing level of sophistication in-group design with growing use of co-design elements over time. The data for a physical health program showed that most residents joined the program at the time it was running at CRP. This is a great achievement for a cohort who may not have undertaken sport or physical activity for a long time.

The Individual Recovery Plan (IRP) data shows that goal setting and planning, a cornerstone of recovery-orientated practice, was occurring consistently. Case reviews were regularly conducted, but a greater rate of six-monthly adherence would improve compliance with policy.

The incident report analysis shows very low levels of incident reports. Importantly, instances of resident aggression were extremely rare and self-harm was not reported *at all*. This suggests that the model of care is working very well. This is especially note-worthy since the service design was initially seen as "risky", because there was low surveillance with "high risk" residents. In this instance, the opportunity for self-responsibility and choice making in a pro-social, respectful community has significantly reduced risks of aggression, conflict and harm.

Experiences of residents, carers and staff

The focus group data indicate that generally the experience of residents, carers and staff at the CRP is overwhelmingly positive. Residents generally felt stable, safe, and accepted by staff and peers. Carers expressed feeling welcomed by staff with open lines of communication. Staff generally enjoyed the work and appreciated the opportunity to walk alongside residents in their recovery journey.

The only negatives were related to the feelings of stress around service exit, especially if housing had not been secured. Both residents and carers were concerned about discharge occurring when a resident did not feel ready or was not able to arrange suitable accommodation. They felt concerned that service exit could be dependent on "KPI's" and not true readiness. Transitions were seen as a stressful time that risked recovery gains made throughout the service. Given the history of trauma and developmental challenges for some residents, it is possible that attachment and developmental issues may be precipitating unhelpful reactions in some residents.

Partnership between Mind and Austin Health

The focus groups and individual staff interviews indicate that the partnership is highly effective. Residents and carers were not aware of which organisation a staff member came from and felt equally comfortable with all staff. This indicates the overall experience is that the partnership is seamless.

Following discussion with staff, it appears that this has been achieved with some very hard work by staff, especially managers. Achieving effective partnerships is not necessarily set out in policy or management guidelines. To date, it has been "trial and error" and based on the good will of staff and the ability to build personal working relationships.

Validation of the logic model for the CRP

The program logic identified a number of outcome sequences (i.e. a sequence of short term, medium term and long term outcomes that result from a specific program activity). They were: safe and secure housing, improved mental health, improved physical health, better relationships within the service, independent living skills, improved self-esteem and confidence, social engagement beyond the service, connection with education /employment, improved relationship between resident and family/carer, and transition to independent living. These are illustrated in Figure 1 showing short, medium and long term outcomes and program components.

Some results clearly validated the program logic while some were ambiguous in their implications for the program logic.

Stable accommodation outcome: There was qualitative support for this outcome and a clear implication that a sense of security and stability was essential for recovery. This suggests this is an important part of the program logic. The sequence of outcomes (short term to long term) could be streamlined, such as removing “reduced transience” since it is essentially a negative restatement of “access safe and stable accommodation”.

Better mental health: There was strong support for this long term outcome and weaker support for the intermediate outcomes in this area. This suggests this is an important part of the program logic, but the sequence of outcomes (short term to long term) could be streamlined.

Better physical health: There was good evidence that health supports are in place, but the data collected was not analysable due to low numbers. Given the importance of this outcome and the efforts to support physical health, some health outcomes could be monitored even though it is not a demonstrated outcome at this stage

Social relationships within the service: There was qualitative validation of this outcome, and quantitative support from one BASIS-32 item (but not others). There are clearly a range of strategies to support improved social skills which justify this sequence in the program logic. Overall the evaluation shows good support for this outcome.

Independent living skills outcome: There was strong validation of this in the focus groups but surprisingly there was change documented in only some of the relevant BASIS-32 items. This could mean that only the people who were vocal in the focus groups had made improvements so that on average there was little change, or that the BASIS-32 item was an inadequate measure. As will be noted in the section later on Strengths and Limitations, there could be reduced sensitivity to change in single items, as the tool has been validated as a whole instrument, not question by question. Given independent living skills are a core purpose of the CRP program, then further exploration of appropriate measures in this domain are recommended as an initial step.

Self-esteem and confidence: Outcomes in this area were strongly validated in the focus groups, but the related BASIS-32 items showed no change. As with the results for independent living, this could be non-representative qualitative data or inadequate operationalisation in the measures chosen or insensitive measures, leading to measurement failure. Further exploration of appropriate measures in this domain are recommended as an initial step.

Social engagement beyond the service: There was both qualitative and quantitative evidence that social engagement was improved. This is seen as a central purpose of the CRP, and is a clearly validated part of the program logic.

Vocational engagement: The focus groups offered a preliminary validation of this outcome and documented many activities that occurred in this area. Although requiring further evidence, this should be retained in program logic.

Improvement in family and carer relationships: There was some preliminary validation of this outcome, but there was no change to the relevant BASIS-32 item. This may be due to the issues around appropriate measures, similar to above. Staff reported a lot of variation in family relations, from total estrangement to over-involvement which may not be captured in the way this outcome is currently described. Therefore, there could be consideration of refining/reviewing this outcome sequence.

Service separation and transition to independent living: This outcome was validated by the evaluation results.

Considering all the results mapped to the program logic, the evaluation has validated the program logic overall. Some further refinement of outcome sequences (from immediate and medium term to long term outcome) for the major domains could be undertaken (see Table 5).

Possible areas for improvement suggested by residents, carers and staff

Carers and residents both wondered if the stress of discharge could be reduced and the timing of service exit could be re-negotiated if necessary. Carers also wondered if a “step-down” service could be available, providing stable accommodation and ready access to supports but less intensive than CRP. These suggestions indicate there is a great deal of anxiety about discharge in both residents and families.

Staff and carers felt that the completely volunteer nature of activities could lead to poor attendance and missed opportunities for residents. However, resident choice and responsibility is an important part of recovery. Previous attempts to mandate some level of group attendance were not successful in changing attendance rates. It may be preferable to invite residents to be more involved in-group design and provide an engaging service for residents rather than mandate attendance.

There was some staff concern about accepting high-risk residents or people who were primarily seeking housing support. However, the service is designed to meet the needs of wide range of consumers who all have a right to treatment and support. This staff concern highlights the sometimes demanding nature of the work and concerns over safety for both residents and staff.

There were also concerns about staffing levels with some shifts regularly understaffed. Accessing clinical staff with the appropriate skills in recovery-oriented work has been challenging at times. While there have been standard staff allocations to overnight shifts, it is always possible to reconsider staffing arrangements.

Strengths and limitations

Major strengths of the evaluation is the mixed methods approach and the use of wide range out outcomes and service indicators. Using mixed methods meant that evaluators could use qualitative information to help interpret the quantitative results. The use of a wide range of outcomes meant we could consider a diverse range of domains in assessing impacts. In addition, there was a mix of clinician rated data (HoNOS) and resident rated data (BASIS-32). This avoids mono-operation bias.

The major limitation of the study is the lack of comparison group. This means we cannot logically eliminate the possibility that the changes observed are due to non-treatment causes such as natural improvement occurring over time. However, given the testimony of carers and residents who had observed little improvement in their mental health over the years before living at the CRP, it is reasonable to consider the changes observed are due to CRP supports.

Another limitation was the measure of clinical outcomes rather than recovery outcomes. The use of "deficit focussed" outcome measures such as the HoNOS and BASIS-32 could have meant that some important recovery outcomes were not tapped. The BASIS-32 analysis may be problematic since we analysed specific items, which may not be as sensitive to change, compared to the overall tool that has been validated as a whole instrument. This means there may have been some concerns in measurement validity.

Conclusion

In conclusion, this evaluation of the CRP, operational since 2014, shows that it is highly successful in delivering recovery based care to consumers living with long term and challenging mental ill- health concerns.

There remains the question of the applicability of these results to other service settings, other jurisdictions or other consumer groups. This is about external validity, which concerns the generalisability of a study to other populations, settings and times, given the internal or causal validity was acceptable. This is always a difficult question in service evaluations, given the specifics of intake criteria and service delivery. How can the learnings from this evaluation be applied to other settings? What seems important to residents is that stable accommodation is an excellent basis for the recovery process that takes place on this unit, but is not sufficient in itself. There needs to be adequate recovery based supports in place and staff need to have the ability to facilitate residents in making the positive changes they choose. There also needs to be a capacity to encourage independence, responsibility and positive risk taking. These appear to be the key ingredients that could be applied in other settings in order to achieve the very positive outcomes that the CRP is achieving.

Recommendations for further discussion

1. Discharge planning could be further developed with some more specific supports and insights about the emotional experience of discharge offered to residents and carers

2. Traditional clinical training does not incorporate skills in supporting recovery, so staff could be given enhanced access to skill development in areas of recovery and supporting residents' motivation and planning (motivational interviewing for instance).
3. Outcomes measurement at the CRP could incorporate more recovery-focussed measures. For instance, social engagement and vocational engagement could be measured with a validated instrument such as the Living in the Community Questionnaire. Changes to independent living skills might also be assessed in more detail.
4. Carer supports could be enhanced through increased carer networking and ensuring carers are linked to ongoing carer resources.
5. Staffing arrangements can always be improved in terms of allocation of responsibilities and communications.
6. Co-management practices could be clarified and set out in clear policy and management guidelines in the future, as currently they are reliant on informal arrangements between the two service partners.
7. Although not a change to the CRP in itself, further advocacy around housing options after discharge from the CRP is warranted, as access to stable housing will maintain the progress that is made on the CRP.
8. If other evaluations were to take place, the approach used in this service evaluation (i.e. mixed methods drawing on a range of outcomes, service measures and resident, carer and staff interviews) would be widely applicable throughout the Mind service network

Conclusion

In conclusion, this evaluation of the CRP, operational since 2014, shows that it is highly successful in delivering recovery based care to consumers living with long term and challenging mental ill-health concerns.

What seems important to residents is that stable accommodation is an excellent basis for the recovery process that takes place on this unit, but is not sufficient in itself. There needs to be adequate recovery based supports in place and staff need to have the ability to facilitate residents in making positive changes. There also needs to be a capacity to encourage independence, responsibility and positive risk taking. These appear to be the key ingredients that could be applied in other settings in order to achieve the very positive outcomes that the CRP is achieving.

Background

The purpose of this evaluation was to assess the Community Recovery Program (CRP)'s outcomes and delivery practices to inform service improvement. This report covers the full detail of the evaluation, including a description of methodology, results and discussion of implications.

Data from outcome measures, activities, group work and review plans were collected and analysed from people who were CRP residents between June 2015 to July 2018 and October 2019. Interviews and focus groups captured qualitative data on the perspectives of residents, carers and staff. The evaluation of the CRP will add to the evidence base for the service model and help refine a program logic on which to base future evaluations. The results can inform service improvement and may form a pilot study of a more formal study at a later date.

The Community Recovery Program (CRP)

The Austin Community Recovery Program (CRP) has been in operation for over four years based on a new model of collaborative care that integrates clinical supports with a recovery-focussed service. The CRP is a unique service model in Victoria, drawing on fundamental elements of a Community Care Unit (CCU) model, and incorporating a partnership between clinical and community-managed mental health services. As a service innovation, it is appropriate to carry out an evaluation of the CRP to understand the outcomes that are being achieved by the service, learn about the experience of residents, their carers and staff and contribute to quality improvement.

The CRP provides accommodation and psychosocial rehabilitation for up to 22 people with a long-term psychiatric disability. Generally, residents stay for up to two years. Seven places in the service are allocated to forensic clients to support their community re-integration post-exit from Thomas Embling Hospital (TEH) and they may stay as long four years to fully support their transition.

The service aims to support people recover from the disability and disadvantage associated with long-term mental health ill-health in five main ways; through the provision of long term care and support; individual recovery-focused rehabilitation; a focus on social inclusion and community participation; the development of collaborative partnerships to build links with the community; and advocacy (Austin Health, 2020a).

The supports to enhance people's ability to live successfully in the community are planned in consultation with residents and include (Austin Health, 2020b):

- Individual 1-1 sessions on self-care, budgeting, cooking, meal planning and household chores;
- Education about illness, medication and symptom management and recognition of signs of relapse;
- Recreational and fitness activities, community networking and access to job opportunities in the community;
- Self-selected goal centred activities; and
- Involvement in the CRP community meetings and activity planning.

The partnership of clinical and community mental health services to provide long term support within the community is still a relatively unique service design and its evaluation has implications for future service delivery and innovation.

Evidence for residential recovery services

Although the CRP is a new and unique model of support, there may be a range of evidence areas that are relevant. The literature around housing supports and supported group housing in particular may provide relevant evidence in this context.

People with SMI have high levels of unstable housing (Siskind *et al.*, 2013) and the combination of unstable housing and SMI is associated with functional disability, victimisation, physical illness, mortality, increased number of emergency department presentations, and decreased engagement with community and mental health services (Siskind *et al.*, 2013). The provision of housing, personalised support and clinical services can assist with dual SMI and instability in housing (Siskind *et al.*, 2013). The outcomes of quality independent housing include an increased sense of independence, valuing of privacy, choice of house mates, increased physical and mental health and increased social participation (Wiesel *et al.*, 2015).

There are three main issues regarding housing for people with SMI and psychosocial disability – firstly, a need for interventions for those at risk of homelessness, secondly, providing preferred housing/higher quality housing to those who are dissatisfied with their current situation, and thirdly, supporting people with psychosocial disability to live independently.

Since the provision of housing can be costly in terms of development, capital requirements and on-going care requirements (Chilvers *et al.*, 2006), it is important to ensure that housing services are effective and provide the best possible value.

A contrasting approach is supported housing where independent tenancies in the community with access to outreach supports to ensure the tenancy is maintained. Supported housing enables a process of adaptation so participants learn how to deal with the problems and challenges of independent living such as stigma, discrimination and poverty. Supported housing can be a basis for recovery through independent living, less depression, increased dignity, self-worth and motivation to join the community (Killackey *et al.*, 2015). Conversely, there is also a risk of isolation that can threaten housing stability, since often consumers live alone in these schemes (Chopra *et al.*, 2011).

A Cochrane review of all types of housing programs for people with SMI was conducted in 2006. None of the 139 trials that were identified in the literature search undertaken for the Cochrane review met with criteria for the meta-analysis (Chilvers *et al.*, 2006). This was because trials seldom used a randomised methodology (i.e. assigned participants to alternative types of treatment randomly), did not compare types of housing program (instead compared hospital inpatient treatment with residential treatment for instance), or did not collect relevant or appropriate outcome measures.

Another systematic review of all types of housing support by Leff (Leff *et al.*, 2009) had less stringent criteria for including studies and forty four studies were included (*n*=13,436) but only a handful of randomised controlled trials (RCTs). The authors concluded that all interventions support housing stability and all interventions achieved distal or non-housing outcomes such as symptoms, hospitalisation, and satisfaction. There was substantial variation between interventions so more information is needed on which interventions are best for whom and when.

Specific reviews of supported housing showed it reduced homelessness, increased housing tenure and decreased emergency department visits and hospitalisations for people with SMI and co-occurring substance abuse (Rog, 2004).

Independent housing was associated with greater satisfaction with housing and neighbourhood, and inadequate housing was associated with decreased functioning, however, no causality can be assumed. Housing tenure was also related to decreased service use and costs (Rog, 2004).

All types of residential support would have a role to play in supporting participants and their wide range of needs. The CRP program is unique, in that it brings together a number of housing program features including independently maintained tenancies in a shared community setting. This simultaneously provides a stable base for recovery, develops both independent living skills and a supportive social milieu.

Program Logic

The program logic for the CRP is presented in Figure 1. Program logic provides a succinct way to summarise essential aspects of a service by summarising short term, medium (intermediate) term and long term outcomes that result from the service strategies. The current program logic was developed by Mind Australia and informed by work conducted by Social Ventures Australia.

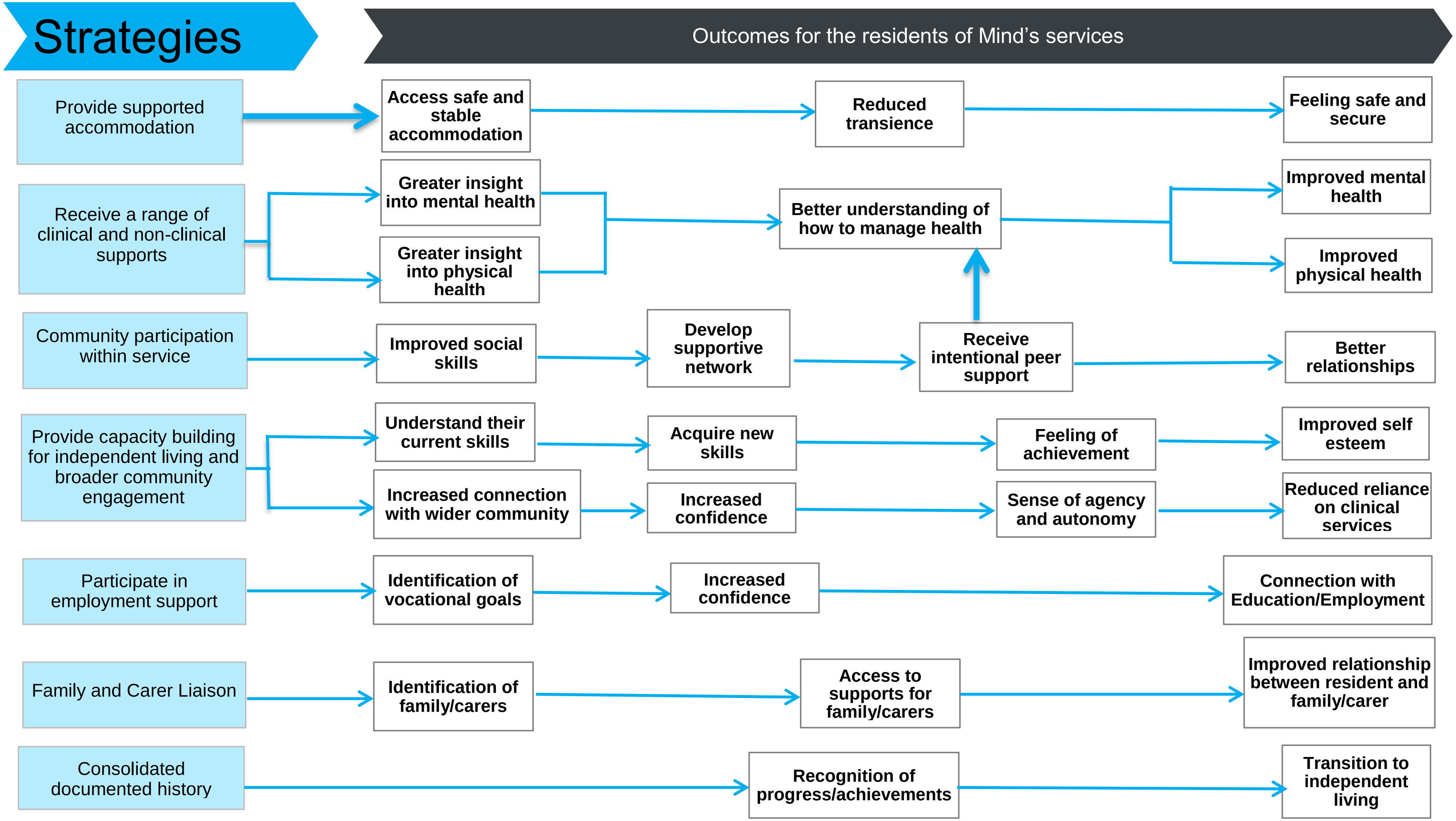
The list of strategies (the left hand column in Figure 1) clarify the crucial aspects of the service if it is being delivered with fidelity. At the CRP, the program strategies are the supports related to the recovery needs of CRP residents. The supports offered at CRP include supported accommodation, clinical and non-clinical staff supports, participation within the CRP community, capacity building of independent living skills along with community engagement, employment supports, and family and carer liaison.

Program logic looks at the outcomes of these activities or the impacts of the service. They follow from the strategies and read across to the right from the strategies in Figure 1. They are often considered as short-term, medium-term and long-term impacts. The short-term outcomes describe the immediate changes that might be expected for residents at the CRP. At the CRP, the short term outcomes include: access to safe and stable accommodation, better understanding of mental and physical health, improved social skills, awareness of current skills, increased connection to broader community, identification of vocational goals and initial identification of family members and carers.

Intermediate and long term outcomes are the ensuing changes from short term outcomes as improvements become embedded in everyday life. Distal or long-term outcomes are realised as the result of success at the intermediate and proximal level (Rossi *et al.*, 2004). At CRP the intermediate outcomes include: reduction in unstable accommodation and better understanding of how to manage health, receipt of peer support, feeling of achievement, improved sense of agency and autonomy, carers/families accessing more supports. The long term outcomes for the CRP are: feeling safe and secure, improved mental health, improved physical health, better relationships, improved self-esteem, reduced reliance on clinical services, connection with education /employment, improved relationship between resident and family/carer, and transition to independent living. These are listed on the right hand column in Figure 1.

One of the purposes of this evaluation will be to validate the program logic where possible. The actual service strategies will be explored in the evaluation through analysis of focus group questions. The impacts will be assessed by analysing outcomes measures that assess the domains identified above as well as analysis of focus group data. Validating the program logic will demonstrate the service is being implemented as expected and is achieving intended outcomes.

Figure 1: Program Logic for the CRP



Context for the evaluation

The partnership of clinical and community mental health services to provide long-term support within the community is still a relatively unique and innovative service design.

To date there has been no significant evaluation completed of the CRP and the partnership model. This evaluation will be the first formal study of its kind for the service, and will provide valuable information about the service model. Positive findings from the evaluation will support current re-tendering and provide insights into for improved service delivery.

Aims of the evaluation

- The aims of the evaluation were to:
- Examine the effectiveness of the CRP by analysing:
    - resident outcome measures
    - perspectives of residents, carers and staff from qualitative data collection methods;
- Examine how the service has been implemented (activities, group work etc.) and what strategies and supports are used at the CRP;
- To learn about the experiences and levels of satisfaction of residents, carers and staff at CRP;
- Examine the usefulness and effectiveness of the partnership between Mind Australia and Austin;
- To develop and test the logic model for the CRP for current and future evaluations and determine whether the overall findings validate the newly developed program logic; and
- Examine how to improve the service by assessing:
    - consultations with residents, carers and staff about what is working well and what could be improved

Methodology

The CRP evaluation was a mixed methods study which provided a review of participant data from residents during June 2015 to July 2018 and October 2019, as well as qualitative data from residents, family and carers, and staff in October 2019.

In order to address the research aims, a range of qualitative and qualitative data was collected and analysed.

Table 1 summarises the data that was collected in order to address each research aim.

To examine changes in outcomes for residents, outcomes data of CRP residents was extracted from resident records for analysis. The global mental health outcomes that were extracted were the HoNOS and BASIS-32 (see Outcomes and Measures section below). Data for the Camberwell Assessment of Need Short Appraisal Schedule (Phelan *et al.*, 1995) and the Warwick-Edinburgh Mental Well-being Scale (Tennent *et al.*, 2007) was also collected but not sufficient for analysis. Physical health data from an exercise program was also collected but not sufficient for analysis.

To understand more about service implementation, service data covering incident reports for the years 2015 to 2018 were also extracted.

In order to understand more about service outcomes, implementation and participant experience, partnership experience and possible service improvements, three focus groups with residents, carers and staff were conducted at CRP in October 2019.

- Residents were defined as current residents of the CRP, aged between 18 and 64 years.
- Carers were defined as family and carers of current residents of the CRP, aged between 18 to 80 years. A small number of carers were also interviewed individually.
- Staff included current Mind and Austin Health staff who work within the CRP. In addition, a number of individual staff interviews were conducted.

Focus groups occurred on site at CRP for approximately 90 minutes. The focus group was audio recorded and the recording transcribed by a professional external transcription service. Individual staff interviews were also transcribed.

All data was considered together in order to test the program logic.

Ethics approval for the project was obtained from Austin Health Human Research Ethics Committee (HREC/50583/Austin-2019, Austin Health Project Number: LNR 50583/2019, Project Title: Austin Health Community Recovery Program (CRP) Evaluation).

Table 1: Summary of data collected for the CRP evaluation mapped to the evaluation aims

Research question	Data source	Data type	Data collected
Effectiveness of the CRP	Resident Data	Quantitative	• Outcome measures (Basis 32, HONOS) • Readmission rates
	Focus groups and individual interviews with residents, carers and staff	Qualitative	Data regarding observed improvements
To collate data on how the service has been implemented	Service Data	Quantitative	No. and type of incident reports
	Focus groups and individual interviews with residents, carers and staff		Data regarding service strategies
To examine experience of the service	Focus groups and individual interviews with residents, carers and staff	Qualitative	Data regarding what residents, carers and staff think of the CRP
Perceived effectiveness of the partnership	Focus groups and individual interviews with residents, carers and staff	Qualitative	Data regarding perceptions of the partnership model.
Test the program logic	All data	Quantitative and qualitative	All data that relates to outcomes and service strategies
Opportunities for further improvements from the perspectives of residents and staff	Focus groups and individual interviews with residents, carers and staff	Qualitative	Data regarding what works well and what could be improved?

Participants

There were four sources of participant information from three participant groups in this evaluation, see

Table 2.

Table 2: Four sources of participant information

Evaluation strategy	Number of Participants
Outcome data	54 CRP residents*
Resident focus group	9 current CRP residents
Family and carer focus group and carer individual interview	6 family carers of current CRP residents in focus group 2 individual interviews
Staff focus group and staff individual interview	7 current CRP staff (from both Mind Australia and Austin Health) in focus group 4 individual interviews.

Note: * 47 residents between June 2015 to July 2018 and 7 residents in October 30th 2019 (from the Resident focus group)

Resident participants

Resident participants include past or current residents of the Community Recovery Program (CRP). Quantitative data was collected from two groups of resident participants. The majority of data (*n*=47) was from people who were residents any time between June 2015 to July 2018. As this data was provided in de-identified extracts and concerned mostly residents who had exited the service, there was no requirement for resident consent.

The second group of resident data was from residents who participated in the focus group. Of the 20 residents at CRP as at October 30th 2019 (date of the focus group), nine attended the focus group (eight males and one female) and seven of these gave explicit informed consent for outcome data to be extracted and analysed (*n*=7). This data was provided in de-identified extracts for analysis. Residents' ages ranged from 20 to 63 years at the time of admission into the CRP.

Carer participants

Carers involved in the evaluation were family and carers of residents of the CRP in October 2019, potentially within the ages of 18 to 80 years. Six carers (two male and four female) attended the focus group and another two carers (both female) were interviewed via phone individually. All carers were parents to their respective CRP resident.

Staff participants

Staff included Mind and Austin Health staff who worked within the CRP in October 2019 when the focus group was held. Seven staff, two male and five female, from both Mind and Austin Health attended the staff focus group. Managers did not attend the focus group.

The CRP Family and Carer worker, the Consultant Psychiatrist and the two co-managers were also consulted individually.

The responses of the co-managers and Consultant Psychiatrist were utilised as a type of "member checking[6]" of the analysis and incorporated in the discussion and recommendations.

Participant recruitment strategies

Methods of recruitment for focus groups and interviews were as follows:

- Residents - verbal information about the focus group was provided by staff at the CRP fortnightly community meeting. Information about the focus group including the time, date and how participants were to be reimbursed for their time was provided. Mind Australia provided participants of the focus group gift vouchers at the value of $70 ($35/hour for two hour focus group).
- Family and Carers - an e-mail about the planned family and carer focus group was sent from the CRP family and carer liaison worker. Follow up phone calls were also made by the family and carer liaison worker to provide any extra details that carers required. Mind Australia provided participants of the focus group gift vouchers at the value of $70 ($35/hour for two hour focus group).
- Staff - information about focus group and purpose of research was provided at the team meeting by the service manager. A focus group occurred at CRP during the overlap between morning and evening shifts so as many staff could conveniently attend.

Consent

At the commencement of focus groups and interviews, the researchers explained the purpose of the research, the conduct of the focus groups, reporting of the research and information regarding

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[6] Member checking is a technique for exploring the credibility of results. Data or results are returned to participants to check for accuracy and resonance with their experiences (Birt *et al.*, 2016).

participation and withdrawal from the research. All participants were considered capable of providing informed consent at the time of the focus group. Participants signed the consent forms at the beginning of focus groups.

Measures

A list of the measures used in the evaluation can be found in Table 3.

Table 3: Details of measures for the CRP evaluation

Outcome	Measure	Frequency	Comments
Mental health (behaviour, impairment, symptoms & social functioning)	HoNOS (clinician rated)	Admission (baseline) then every 3 months	52 completed more than once
Mental health (behaviour & symptoms)	BASIS-32 (resident rated)	Admission (baseline) then every 3 months	31 completed more than once
Transition to independent living	Discharge Address	Once at exit	Completed for 36
Duration of stay	Length of stay in days	Calculation	Completed for 50
Reliance on clinical services	Readmission rates	Ongoing	Completed for 50
Safety and risk	Incident Reports	Ongoing	Completed

There were two clinical outcomes measures analysed in this evaluation. They were the Health of the Nation Outcome Scales (HoNOS) and the Behavior and Symptom Identification Scale – 32 (BASIS-32, 10 items).

HoNOS

The Health of the Nation Outcome Scales (HoNOS) is a clinician-rated instrument used to assess the severity of mental ill-health symptoms (Wing *et al.*, 1998). The HoNOS is made up of 12 items relating to common problems experienced by people with a mental ill-health in the areas of behaviour, impairment, symptoms, and social problems (see Appendix A for individual items and domains). Items are rated on a five-point scale (0 = no problem; 1 = minor problem; 2 = mild problem; 3 = moderately severe problem; 4 = very severe problem). Higher HoNOS scores indicate more severe mental health symptoms and poorer functioning.

BASIS 32

The Behaviour and Symptoms Identification Scale (BASIS-32) is a self-assessment measure which aims to measure difficulties related to mental and physical health symptoms and functioning that could lead to a need for mental health services (Eisen *et al.*, 1994). The scale includes 32 items relating to self and others, depression/anxiety, everyday life and role functioning, impulsive and addictive behaviour and psychosis symptoms were measured on a five-point Likert scale (where 0 indicates no difficulties and 4 indicates severe difficulties). The BASIS-32 has a focus on problems and difficulties, so the most recovery focussed items were selected for analysis (see Appendix A for the questions selected for the evaluation).

Focus groups and interview questions

The focus group questions for residents asked about: their expectations before joining the CRP, how the CRP supports recovery, has the CRP helped them, what works and what doesn’t work for them at CRP, how does the partnership between the Austin and Mind work and what might be improved at CRP.

The focus group for carers asked about: why they wanted to attend the focus group, their expectations before their family member joined the CRP, how the CRP supported recovery for their family member, what works and what doesn’t work for their family member at CRP, have they been able to be involved with the CRP as they would like, how does the partnership between the Austin and Mind work and what might be improved at CRP. The individual interviews with carers used the same questions.

The focus group questions for staff asked about: the resident experience of the CRP, what is the staff experience working at CRP, what outcomes they observe for CRP residents, how is outcome measurement used at CRP, how does the partnership between the Austin and Mind work, what is the connection between carers and the CRP and what might be improved at CRP. The individual interview with the CRP Family and Carer worker used the same questions as the focus group.

The Consultant Psychiatrist and the two co-managers were also consulted individually and presented with the results (both qualitative and quantitative). They were invited to respond and offer context or interpretation of the results as a form of “member checking” and their responses were incorporated in the discussion and recommendations.

Data collection

Resident data for residents of CRP during June 2015 to July 2018 was de-identified by Austin Health staff before being provided to Mind Australia's Research and Advocacy team in June 2019 by Austin Health. Resident record data for residents involved in the 2019 focus groups was provided in November 2019.

The Resident and Carer focus groups were conducted by the Senior Researcher and a Peer Researcher from Mind. The staff focus group was conducted by the Senior Researcher and Research and Evaluation Manager from Mind. Focus groups and interviews were audio recorded and transcribed. Paper consent forms were collected from participants on the day.

Individual staff interviews were conducted by the Senior Researcher, the Research Coordinator and the Researcher at Mind Australia.

Data Management

Mind has a secure IT system that is restricted by individual logins. The folders where the data is stored was only accessible to research staff. Audio recordings and resident records were stored on the Research and Advocacy secure drive. Paper consent forms were collated and stored securely in a locked cabinet in the Research Department at Mind, separate from any data. Data is securely stored by Mind for five years. Data was not available to CRP staff.

Data analysis

The quantitative data analysis involved descriptive statistics and parametric statistics (*t*-tests) for normal data.

Preparation: Using the resident UR number to link information, multiple Excel data files from Austin were transformed and merged onto a single SPSS data file. Data without a resident UR number was excluded (to reduce to possibility of duplication and/or incorrect assumption of additional participants). The final SPSS file was screened for normality, missing data and outliers. As the data appeared normal, missing data was low and random and the data was absent of outliers, transformation was not required and management of missing data was not required.

To create a more rigorous assessment of outcomes relating to exposure to the service BASIS-32 data was restricted to only include people with base-line BASIS-32 data collected within three months of admission date, reducing valid cases from 47 to 36. From the 36 cases, 31 had at least one other time point of data that could be used for analyses.

There were 53 cases with HoNOS data, 52 with a minimum of two time points which could be used for analyses. As no data collection dates were provided, researchers could not verify that base-line HoNOS data was collected within three months of admission date and accepted all 52 cases for analysis.

Analysis: Missing data was managed during analyses by excluding cases pairwise (a case, or person, would only be excluded for particular analyses where data for a specific analysis was missing rather than excluding them altogether). Percentages were rounded up to integers, means and standard deviations were reported to one decimal place and statistical tests to two decimal places.

Repeated measures *t*-tests between baseline (admission) and following time points were conducted to identify changes in mean responses over time for HoNOS and BASIS-32 items.

Effect sizes were calculated with Cohen's *d*. Cohen's classification of effect size is as follows: scores of d=0.20 – 0.49 indicates a small effect, d=0.50 – 0.79 a moderate effect and d ≥0.80 a large effect (Cohen, 1988).

Qualitative data analyses were conducted using thematic analysis identifying key themes related to the research aims. The CRP Family and Carer worker responses were analysed along with the staff focus group data. The responses of the co-managers and Consultant Psychiatrist were used to check the validity of the analysis and incorporated in the discussion and recommendations.

Results

Participant demographics

General demographic information for the residents involved in the evaluation was collected routinely during the service. There were 54 residents of the CRP during the evaluation period (47 residents in June 2015 to July 2018 and 7 focus group residents in October 2019) with HoNOS or BASIS-32 data, whose demographic data was analysed. However, for 4 residents, most demographic data was absent.

At admission to the CRP, the majority of residents in the evaluation were aged between 35 and 44 years (33.3%), followed by 25-34 years (29.6%) and 45-52 (18.5%), with a total age range from 20 to 63 years of age. Two-thirds of residents were male (33, 66%), this proportion is representative of people with long-term psychiatric disability generally[7]. Most residents were born in Australia or New Zealand (47), with two born in Asia and one born in the Americas. English was the main language spoken at home residents, with three other main languages reported. No residents identified as first nations of Australia (Aboriginal and/or Torres Strait Islander) and one identified as first nations New Zealand (Maori).

Using available data for admission date and date of discharge (50 records), length of stay within the CRP was calculated. The average length of stay for participants was 18 months. Eleven residents stayed less than six months, two stayed 6-11 months, the majority stayed in the service for 12-17 months (15 residents), nine stayed 18 to 23 months, and 13 stayed two years and longer).

Twelve (24%) residents were formerly forensic residents at Thomas Embling Hospital (from 47 residents with data available).

Of the 50 resident records with a date of discharge from the CRP, 36 indicated an intended residence type for their exit, with most residents intending to reside in a home or private rental (11 each). Supported Independent Living (SIL) accommodation was the next highest intended residence with four residents, followed by Office of Housing (OOH) by three residents. Two residents each planned to live in a purchased property or Thomas Embling Hospital, one resident intended to live in Aged Care/Supported Residential Services (SRS), one in a Mind Peer Recovery Communities (Mind PRC), and one in an SRS.

HoNOS

To assess the impact of the CRP on resident's scores for the severity of mental ill-health symptoms, a repeated-measures *t*-test was performed on Health of the Nation Outcome Scales (HoNOS) data (see Appendix B for detailed statistical results).

Improved health and social functioning

Analyses found a statistically significant decrease in the average or Mean (*M*) total scores for HoNOS from baseline (*M*=10.3, *SD*=5.5), to three months later (*M*=8.7, *SD*=4.7). As higher scores indicate more severe mental health symptoms and poorer functioning, the lowering of scores indicates improved health and social functioning. A significant decrease in mean scores was again found from baseline

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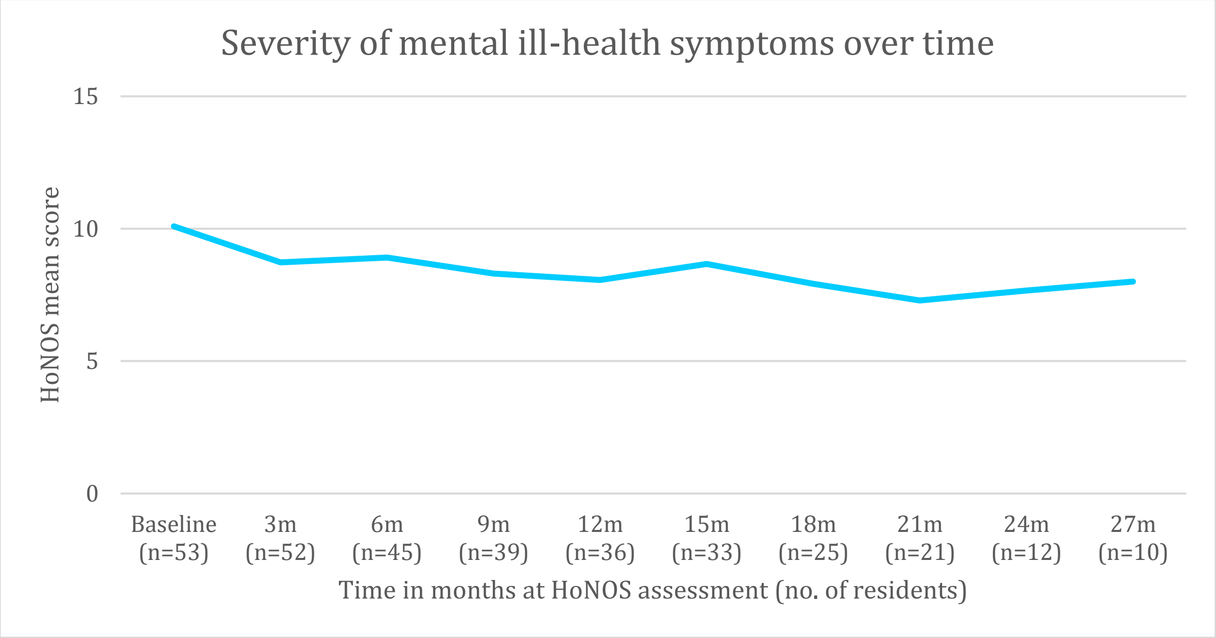
[7] The proportion of people aged 18-85 years, reporting a lifetime mental disorder in the ABS National Survey of Mental Health and Wellbeing (2007) is: Males 48.1% and Females 43.0%. Source: https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4125.0main+features3150Jan%202013

(*M*=9.9, *SD*=5.2) to nine months later (*M*=8.3, *SD*=4.4). Cohen d was calculated to understand the strength of the association between the length of time being involved in the service and the change of scores. For both significant findings, a small effect size was found (0.12) indicating a small relationship between the variables. Analyses between baseline and all other 3-monthly time points did not produce any significant differences.



Note: Higher scores indicate more severe mental health symptoms and poorer functioning

Figure 2: Mean HoNOS scores at baseline and approximately every 3 months for CRP residents showing consistent reduction in symptoms

The decrease in mental ill-health symptoms scores for CRP residents indicates an improvement of the combined total scores for the following concerns:

- overactive, aggressive, disruptive or agitated behaviour
- non-accidental self-injury
- problem drinking or drug-taking
- cognitive problems
- physical illness or disability problems
- problems with hallucinations and delusions
- problems with depressed mood
- other mental and behavioural problems
- problems with relationships

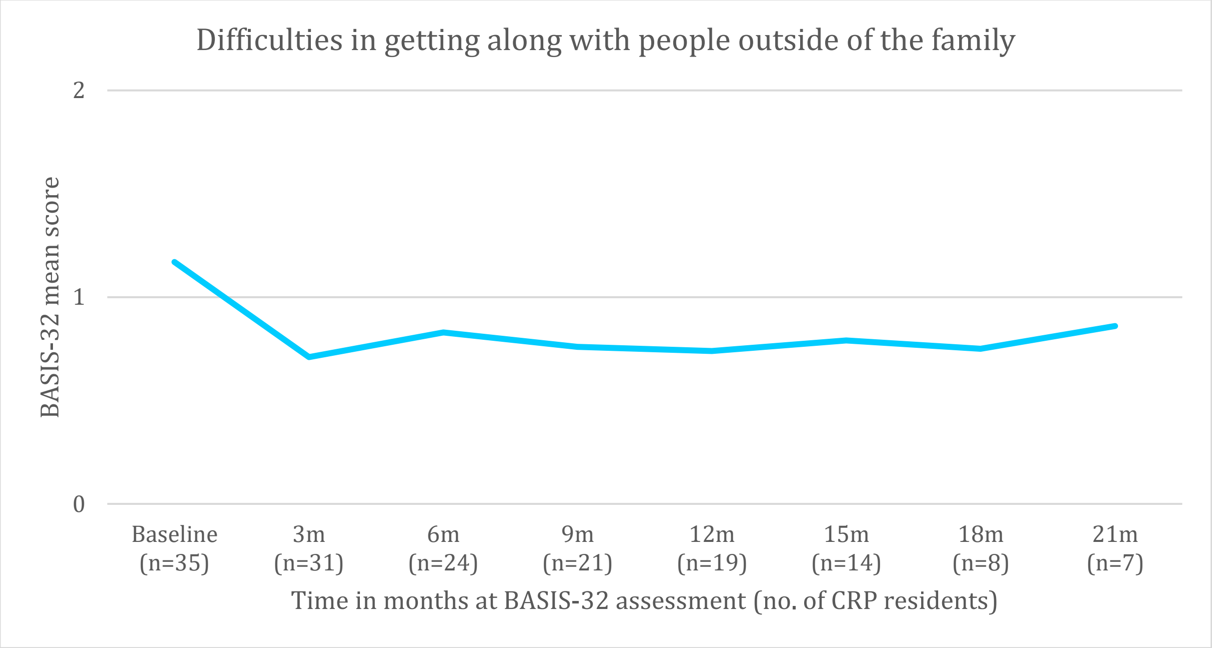
- problems with activities of daily living
- problems with living conditions, and
- problems with occupation and activities.

BASIS-32

To evaluate difficulties relating to mental and physical health symptoms and functioning over time, repeated-measures *t*-tests were conducted on selected BASIS-32 items, indicating the difficulties for CRP residents generally decreased over time (see Appendix B for detailed statistical results).

Less difficulty in getting along with people outside of the family

Difficulties around getting along with people outside of the family significantly reduced for residents from baseline (*M*=1.30, *SD*=1.12) to three months later (*M*=.60, *SD*=.72) and again between baseline (*M*=1.30, *SD*=1.12) to six months (*M*=.83, *SD*=0.92). The strength of the association between the length of time being involved in the service and the change of scores for this area of difficulty was small (.42 and .16 effect size, respectfully).

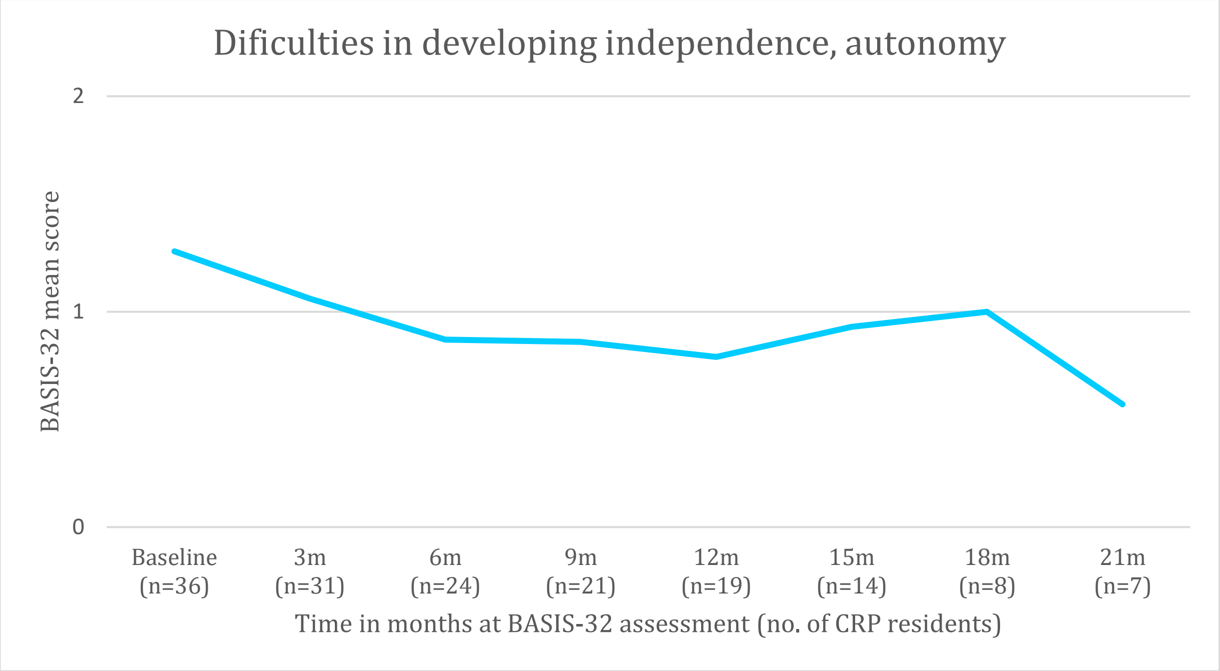


Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 3: Mean BASIS-32 score at baseline and every 3 months for CRP residents showing lowered difficulty for 'Getting along with people outside of the family'

Less difficulty in developing independence and autonomy

CRP residents experienced a significant reduction of difficulty over time in the area of developing independence and autonomy. A significant decrease was found from baseline (*M*=1.50, *SD*=1.22) to six months later (*M*=0.88, *SD*=0.74), between baseline (*M*=1.50, *SD*=1.22) to nine months (*M*=0.86, *SD*=0.96) and again between baseline (*M*=1.50, *SD*=1.22) to 12 months (*M*=0.79, *SD*=0.98). Cohen's d indicated a small effect size, or relationship between time and the change in difficulty (.25). The significant reduction in difficulty at six, nine and 12 months suggests sustained changes in independence and autonomy throughout residents' involvement with the service.

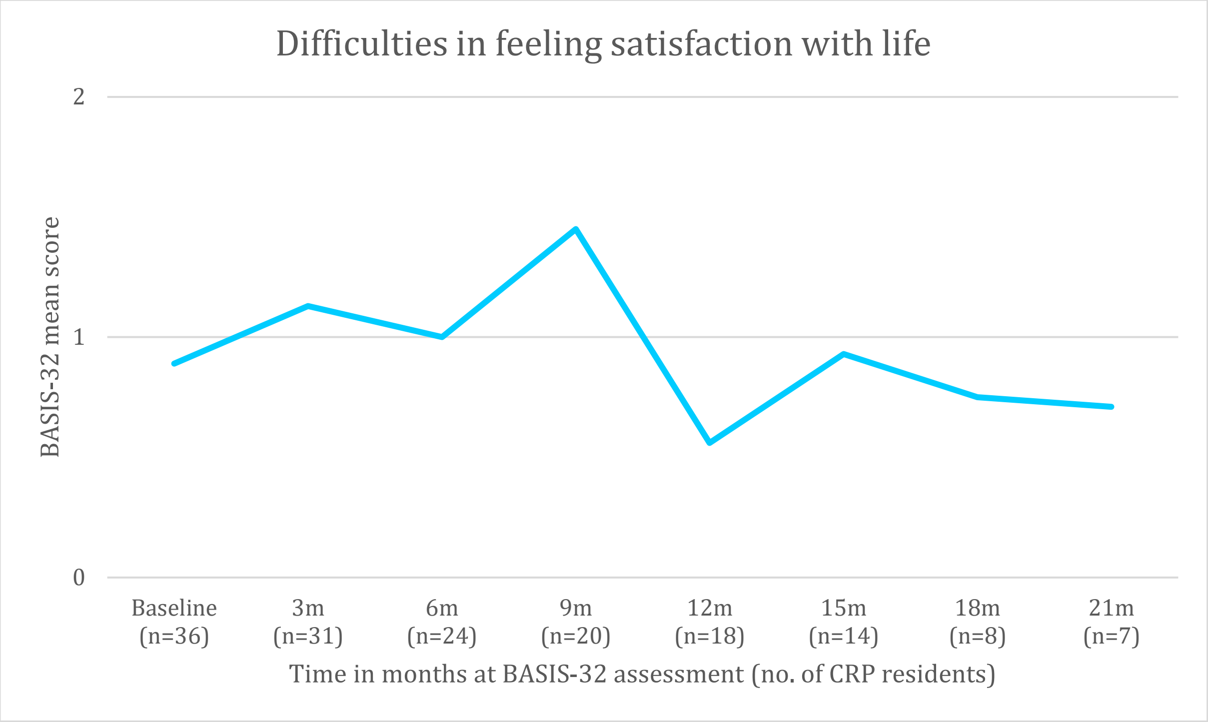


Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 4: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Developing independence, autonomy'

Increased satisfaction with life

Residents' reports of difficulties in feelings of satisfaction with their life significantly increased from admission (*M*=0.08, *SD*=1.06) to 9 months later (*M*=1.45, *SD*=1.32). Cohen's d indicated a small effect size (.19). However, this difficulty then appears to decrease at 12 months, as seen by the trend line in Figure 5.



Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 5: Mean BASIS-32 score at baseline and every 3 months for CRP residents showing increased difficulty for 'Feeling satisfaction with your life'

Other BASIS-32 questions

There were no statistically significant differences between baseline and other time points for the remaining items (see Appendix B for trend-line figures): Managing day-to-day life, Household responsibilities, Relationships with family members, Isolation or feelings of loneliness, Being able to feel close to others, Goals or direction in life, Lack of self-confidence, and Feeling bad about yourself.

Service Quality

Service quality, or fidelity data were collected to assess if the service was being delivered as intended. Incident reports, rates of recovery planning and case reviews, group participation data and inpatient admission data was considered in this section.

Incident report analysis

A summary of incidents involving residents between 2015 and 2018 are presented in Table 4.

Table 4: Summary of incident reports 2015 - 2018

	2015	2016	2017	2018	TOTAL
Medication error	2	0	2	10	**14**
Property Issue Maintenance	0	2	5	0	**7**
Resident Aggression (toward property or staff)	0	1	1	1	**3**
Staff Injury	0	0	1	2	**3**
Resident with illicit drugs on site/tobacco	0	0	0	1	**1**
Resident smoking in site				1	**1**
Fire (minor)	1	0	0	0	**1**
Fire Brigade Attendance (False Alarm)	0	0	1	0	**1**
Resident Allegation	0	1	0	0	**1**
Resident Injury (fall)	0	0	0	1	**1**
	3	**4**	**10**	**16**	**33**

Analysis of all incident reports across four years of the service operation (2015-8) (see Table 4) showed extremely low rates of incident with 33 incidents in total and an average of 8.25 (33/4) incidents per year. Removing incidents of a "routine" nature such as property maintenance (*n*=7) and false alarms with the Fire Brigade (*n*=1), lowered the number of incidents to 25, or 6.25 per year, approximately one every 2 months. Nearly half of the incidents were medication errors and nearly all of these occurred in 2018 when an external pharmacy service was found to be problematic.

There was one incident of resident alleging concerns with staff behaviour (withdrawn) and one incident where a resident had a fall in their unit. There was one minor fire incident. Finally there were three staff injuries where staff sustained minor injuries carrying out their job (for instance minor cut to hand while in cooking group). Over the four years analysed, there was only one incident where illicit drugs were discovered on site, and one incident were a resident was smoking in an inappropriate area of the unit.

Serious incidents were extremely rare: Incidents of aggression (*n*=3) were less than one per year. No incidents of self-harm were recorded.

Individual recovery plans

Residents participate in developing an Individual Recovery Plan (IRP) within three months of admission. IRPs include such things as goal setting and planning, which is then reviewed every three months.

Figure 6 presents the data comparing the actual number of IRPs to the number expected per resident according to the length of their stay at CRP. Where data was available, 48 of 50 residents completed IRPs. Two residents did not complete as they exited the service in under three months. On average, IRPs were conducted at rate of 82% as planned.

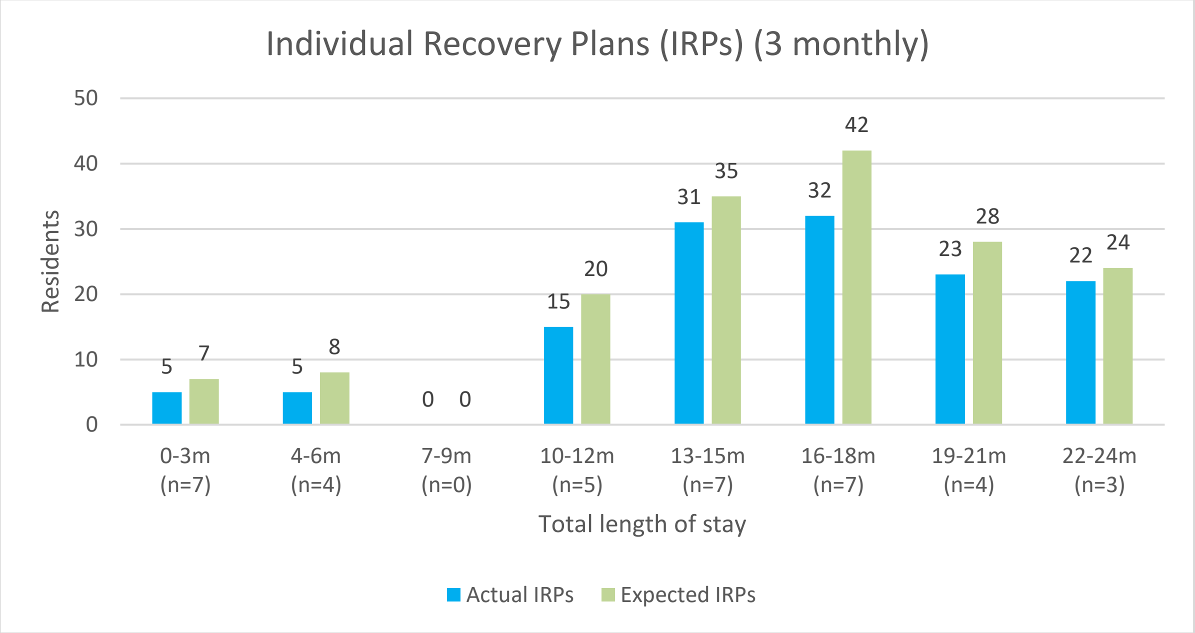


Figure 6: Number of actual IRPs compared to the number of expected IRPs (1 every 3 months) grouped by resident length of stay at CRP.

Note: Expected IRP was calculated from how many IRPs a resident would have expected to complete at each 3-monthly time group, multiplied by the number of residents for that time group (e.g. for the 4-6m time group, we would expect a resident to have completed 2 IRPs in that time, as there were 4 residents the expected number of IRPs would be 2x4=8). Data was not presented past 24 months due to low numbers. m= months, n= number of residents.

Case reviews

The first case review should occur six months from admission with review every six months of stay afterwards. Of the twelve residents who stayed in the CRP under six months, 10 exited the service before a case review was completed. On average (and taking into account the early exits of the first time group), case reviews were conducted at rate of 63% as planned. Figure 7 compares the actual number of case reviews by the expected number per resident for the length of stay at CRP.

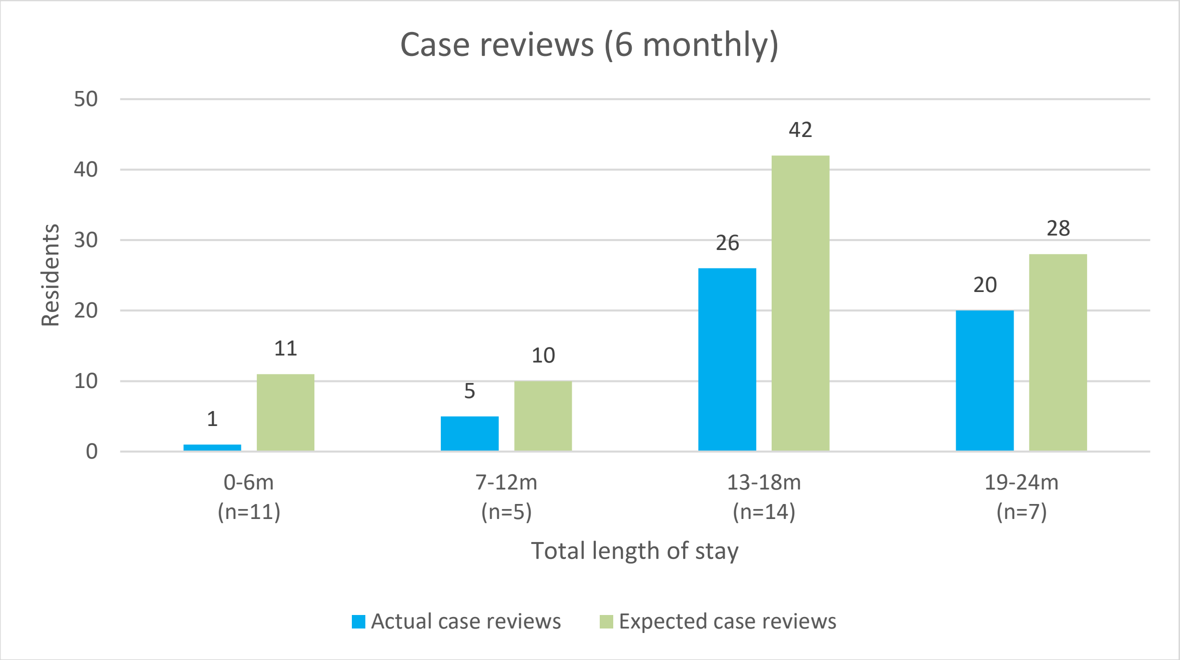


Figure 7: Number of actual case reviews compared to the number of expected case reviews (1 every 6 months) grouped by resident length of stay at CRP.

Note: Expected case reviews was calculated from the number of residents per 'Total length of stay' group, multiplied by how many case reviews would be expected in that time per person (one every six months).

Expected case reviews were calculated from how many case reviews a resident would have expected to complete at each 6-monthly time group, multiplied by the number of residents for that time group (e.g. for the 7-12m time group, we would expect a resident to have completed 2 case reviews in that time, as there were 5 residents the expected number of IRPs would be 2x5=10). Data was not presented past 24 months due to low numbers. m= months, n= number of residents.

Rates of group participation in the Physical Health Project

A part-time employee with a physiotherapy background was employed to work on the one-year Physical Health Project. The participation of 22 of 50 residents (44%) is considered a high participation rate as the program was only available for one year of the two year evaluation period. All group activities were voluntary.

Inpatient admissions after CRP

Inpatient admissions to an acute public mental health ward in Victoria in the first 12 months after discharge from CRP were assessed. Admissions to Prevention and Recovery Care (PARC, seven people), private admissions, or admissions outside of the state were excluded from analysis. From 38 people who exited CRP, there were zero admissions in the 28 days after discharge, two admissions between one to six months, and two admissions between six and 12 months after discharge. One person had both an inpatient admission between one to six months and again between six to 12 months after exit. For six people who had an unsuccessful admission (did not stay for the full 6 week trial period) or an unplanned discharge from CRP (decided to leave CRP unexpectedly or disengaged) 50% were admitted into an acute public mental health ward within 28 days on leaving.

Resident focus group

Nine current CRP residents attended the focus group, eight of whom were males and one female. No other demographic details were recorded. Residents were extremely positive about the experiences at CRP saying:

> *…these thing work and I think if there's more funding and more proof that it does work then we'll be able to help a lot more people*

Early expectations of the CRP

Most residents knew nothing about the CRP before being referred to the service. Their early impression was that was a service like PARC, but longer term and a place to deal with relationship issues and "*engage with society*".

One resident felt negative about the CRP, related to having a short stay at the CRP compared to other residents.

Outcomes for residents

Residents described a number of important positive changes in their lives after being part of the CRP. They included improved independence, greater social engagement and increased self-efficacy.

A number of residents reported they had improved independence:

> *I think it's a great way to get your independence and maintain it*
>
> *I felt like I'm standing on my own two feet and if it wasn't for this place, I'd still be with my parents, relying on all these people. I feel like it's worked wonders… it changed my life.*

Residents also reported increased social engagement such as connections to community or employment:

> *look how many people we've gotten back into the community,*

> *the car wash job was a great initiative because it empowers people who may not have worked for a while or may want to earn a bit of extra money. And that's a paid position and they learn a lot of skills that can give…meaningful employment…[a resident has] got meaningful employment at a car rental agency…*

Residents also reported improved self-efficacy and empowerment:

> *[Finishing off the fish pond] gave us a chance to do some stuff, to have that experience and to feel valued as we can make influences on that*

They also conjectured that services such as the CRP reduced readmission rates because vulnerable people were given long term supports

> *'…But I'd like to see … if being through a program like this would actually reduce the readmissions, so it's not a cycle…*

CRP and recovery

Residents were extremely positive about the opportunities available to them at CRP:

> *This place is godsend for me. It's given me a real show of hope, positivity for the future and moving away from the hospital. The hospital – like I think with mental illness and the trouble with it is it takes time to recover. But when you're unwell, time just goes so slow…I'm at a stage of wellness and recovery like I've never known. My quality of life is the best it's ever been ever*

> *like for me I was – I went from overdosing, nearly dead to PARC to here, and the support I was given was amazing, and the environment I was given was amazing.*

Residents also discussed the opportunity to learn about healthy risk taking:

> *It's a good balance of independence and autonomy which – at first I had to find a balance with staff and they needed to know how much was too much and all that sort of stuff.*

What do residents believe are the enablers of change at CRP?

Residents valued living in a safe stable environment where they had the time, the security and support to engage in recovery:

> *Yeah, well this place definitely is working. You get good support 24/7, security at night and things like that. So yeah, it's a good place to be.*

> *But I find this place very helpful to get on top of your life, situations and stuff.*

> *Yeah, it's given me a place to stay. Start working on things, getting things back sorted again.*

One resident succinctly compared “then and now”:

> *…like Jeff Kennett shut down all those places but … he didn’t build anything else in its place ….My nan was in the old asylums where they had like 30 beds in a row, you know what I mean? So compared to that … we have come a long way…*

Residents valued the contribution of staff and their friendliness:

> *There’s one thing I’d like to say about the place is they’re friendly, they’re inclusive. .. I think the staff have done a great job of … just making that place feel equal and friendly and welcome. Like all the groups are good, the participation levels are good. In terms of finding a fault, I don’t think I’ve really got one*

They valued being seen as individuals and not treated in an authoritarian manner:

> *I was in [a regional country town] at [a service], like they used to come knock and walk straight into your bedroom and wake you up and that, and I got my back up and then they didn’t like me and everyone didn’t like me and then I was pushed out, you know what I mean? Whereas here everyone can see who I am as a person and my personality and how I’m a decent person, I think.*

Residents noticed a lack of stigma at CRP that was really helpful to them. However, one resident observed that some diagnoses were still stigmatised:

> *but I’m talking about … in the public, like you know there’s psychopath, sociopath, there’s still mental health issues at hand there, but the way that the society views it…that is a lot different to schizophrenia or bipolar or this or that, and that’s where it can be a bit unfair I feel. I didn’t experience that here myself. … but I’m saying I have experienced it in the general public where there is still a large stigma attached to certain diagnoses.*

The general sense of community and support was a positive too:

> *The community’s good in here. I don’t think that there’s really anybody that doesn’t get along with anybody as far as I’m aware….My main influence that I love the most is being a part of the community*

While the discussion was not extensive, there were some positive comments about completing questionnaires and forms and giving feedback…

> *They’ve helped. …. And they ask our feedback every three or four months ….. And I find they implement them if enough people [agree]…*

Partnership

The partnership between Mind and Austin Health was viewed positively, with residents not noticing much difference between the different staff.

> *I don't even know who's Mind and who's not. I just get along well with people.*

What they especially appreciated was the access to a wide range of supports because of the partnership – ranging from medical supports to peer workers.

> *It's like a dream having a psychiatrist where you live. It's so good…*
>
> *I find [staff on the] Mind side of things… are attracted to this work out of passion that generally they've experienced in their life. So they've got a family member or a friend or other people who have experience.*

Challenges and possible improvements

Residents were very positive about the opportunities at CRP and so their suggestions were generally around extending the service and making it available to more people and more flexible in length, rather than basing length of stay on rigid criteria:

> *I think that that could be pressure coming from the outside externally saying, "Look, you need to pump out three people in three months, six months" … I think they're making it as a desktop assessment, not as a human interaction assessment. … the problem is you've always got higher up telling you what to do, and if you don't meet those KPIs*

However, the pressure to discharge was seen as anomalous when there were spare beds in the unit.

> *I don't understand how … time is a factor when there's spare beds here.*

Although peer support was valued, they saw some limitations to give support to different diagnoses:

> *the peer support needs to be specific to different people's diagnosis, because one person can't give peer support and lived experience advice on all of them.*

There was also a comment about staff changes – particularly psychiatric trainees.

> *Like I've had 7 different registrars over the time I've been here, and that – I know there's training and that. Maybe they can stay a bit longer*

Transitions from the unit

Some residents saw the time limits as an opportunity.

> *I think from my point of view, this place is kind of like a springboard, so this place is that little bit of help you need to set yourself up. That's something I really cherish about the place … I mean there's silver lining to your problems*

Others found leaving more difficult:

> *I might be leaving soon … and that concerns me quite a bit.*
>
> *I think putting time on it gives you pressure. So when I first moved in I was like, "Oh, it's already been three months. It's already like one-eighth of the way there. Then it was six months, "Oh that's already a quarter of the way there" and … then …I had less than a year, then it was four months left, and I was just always that time pressure,*

One resident was very vocal about time limits on their stay and the perceived expectations:

> *I had to plead to get into here, to be honest….I feel the mental illness that I have is highly stigmatised. It's not seen to be one where an environment like this would be helpful…. …I've learnt lots of great things here, lots of strategies … but I'm not going to say it's been a bed of roses. There seems to be a hell of a lot of expectations on me to go this, this, this, this. Go. I can't even sit for one day off, you know what I mean, and just breathe. I did hope I was just get a little bit of that.*

Residents were concerned that housing was hard to secure on leaving the unit. One resident stated that forensic residents were given priority for housing. Housing was not allocated until within 2 weeks of housing (if available) so that sensible forward planning was not available. Also, DSP recipients with limited incomes were not able to access affordable housing.

Carer Focus group

Six carers attended the focus group and another two were interviewed via phone individually. All carers were parents to their respective CRP resident.

Sharing the experience of being a parent of a child with mental illness

All the carers attending the focus group and agreeing to be interviewed stated they were strongly motivated to attend the focus group to express their gratitude for the support their family member was receiving through the CRP and contribute their feedback.

> *I came to find out more, provide feedback whatever I can contribute. Because I think this is a wonderful facility*
>
> *I just interested in finding out more and just give some feedback as well. I'm pretty much the same I'm really stoked with the facility here and my son's very happy here. So just wanted to get involved*

> *I came along just to be able to put some input and … hear what everyone else thinks actually. And any positive feedback or whatever that I can give.*

Another strong theme in the focus group was that they were "*interested in other people's opinions and [what] their child or friend is going through and to see what everyone else thinks*". The focus group was very emotional as carers shared their hopes and worries about their children in the future, and shared the burden and trauma they experienced in the past.

Researchers also observed that carers strongly concurred with each other's statements, recognising their shared experiences. They often completed each other's sentences and observed they had similar opinions saying for instance, "*You know what I'm saying*" ," *I'm hearing exactly what's going on in our minds*" and "*I'm pretty confident it probably goes in your guys mind".*

They discussed their fears about the future when they were no longer around to care for their child living with mental illness, concerned that other family members who had been alienated would not step in.

> *We worry about what happens when we're gone. We can't put the pressure on our other… children to look after our son, because they've got their own lives. And they've struggled enough just to be there for him, because they've seen so much go on.*
>
> *No one really keeps in touch with him. So we worry about when we pass away.*

They also discussed how challenging their own emotional journey had been. Carers shared stories of the roller-coaster ride of their family member, with multiple admissions but little stability in mental health or daily living:

> *it's been thirteen years now in and out of hospitals.*
>
> *I didn't realise it would be such a horrendous journey…. I used to cry all the time because it's …[so] stressful*

One carer spoke about the supports she had had from Mind, after searching extensively for services:

> *I just kept ringing and ringing so many people…. I was in the dark and I … had to keep ringing or texting or googling on the internet because as carers we need help as well. …that's why I'm part of MIND… … And joining these services and now I speak to other carers and now I'm coping a bit better in life.*
>
> *We go to some of these carer groups, people have just walked in for the first time and you see their eighteen year old child or fourteen year old child and you think there's such a long road*

> *here for you guys. And you just see the desperation in them. You try to help them as much as you can as well. I think carers can help carers*

Early expectations of the CRP

Carers had clearly formed expectations about the opportunities that the CRP could offer their family member. They were keen for their family member to learn more independence skills. They were hoping their family member might gain "insight" into their mental health condition, and learn early warning signs. They also hoped staff could prevent relapses if "*they would be able to identify when [my family member] was becoming unwell*".

Some carers first heard about the CRP through the Austin PARC, and "*we thought yeah it would be worthwhile because the PARC experience has been very good*".

Outcomes for residents

They reported a huge sense of relief that their family member was now in stable accommodation and engaged with supports.

> *So the last two years and I've been able to sleep every night. I'm so happy that she's been here, the staff have been so wonderful.*

Some important changes they identified were:

- Improved skills in daily living

> *he has been cooking some meals himself and buying some food himself*
>
> *one of the good things with our being here is that they've taught [my relative] to make a budget with his money, because he used to just spend money any old where*

- Increased social interaction

> *[My relative] actually doesn't want to get involved terribly much in the community activities. He's not that sort of outgoing sort of person. But he has been involved…*
>
> *when the football was on and they all go down there and they have hotdogs and…they all watched the football together…*
>
> *going out and socialising…with people in here they go out for dinner and they go and play bowls and there's been photography groups.*

What do carers think are the barriers and enablers of change for residents?

One aspect of the service they thought was helpful was the lack of stigma regarding mental illness:

> *there's no stigma, there's no judgement at all Yeah that's the beauty of this place.*

Carers noticed the easy access to peers, within a supportive environment led to new friendships:

> *I think the thing with probably all of them is they're so lonely, because … their friends have gone … You know apart from here they've really got nobody…. [My son has] really embraced them [other residents] and he loves being involved in doing things and all the things Because like everyone else he's lost his friends and his [siblings]…don't contact him*
>
> *And they're quite supportive of each other. If somebody's not feeling great or whatever… there was that compassion as well.*
>
> *And I like the idea that their friends are all close by. So if he wants to see somebody he can. If he's in the mood to go over and talk to somebody there's always somebody to talk to.*

Carers appreciated that the voluntary nature of the service encouraged personal responsibility in their family member.

> *I think also the choice is good for them because of their mental illness they probably feel a lot of choices have been taken away from them in life. So I think that probably makes him feel a bit more normal because other people in life choose to do things.*
>
> *And I want to get back to this voluntary aspect of it. ….[my son] can walk out any time he likes. I think that helps him face up to the reality of where he's at*

Carers felt there were some drawbacks in a completely volunteer service when motivation decreased:

> *I think there's plenty of things available. But at the end of the day it's up to them if they participate. ..So… with [the] personal trainer… they had ….that goes well for a while but then all of a sudden it drops off….not with [the personal trainer] of course but with [the resident]. … if they don't want to, you can't make them. You can't force. Can't force them…..*

Carer engagement

Carers expressed a great deal of satisfaction with the level of engagement with the CRP. They felt the "*the communication lines [were] always open*" and "*Everybody's very welcoming*".

Partnership

Carers were not even aware that the unit was a partnership arrangement. Their awareness of Mind's role was minimal.

> *I didn't realise there was a partnership. I'd always thought that this was just part of the Austin and that was it*

Transitions from the unit

The only concerns that parents expressed was about the service length (wishing it was longer), and maintaining hard won stability on exit from the service. This was similar to the concerns of the residents themselves.

Carers felt the service was so good, they could only wish for it to be extended and made longer:

> *Yes my own negative is – It's not long enough.*

They were worried about access to stable accommodation for their relative after leaving the service. One carer was very emotional as their family member was on the cusp of leaving and the transition was proving difficult.

> *I'm very emotional because [my relative] has to leave next week, [they have] been here two years and I don't know where [they are] going to go. So I'm sorry I'm so emotional but I'm so grateful… I think by the time they get to nearly two years, it's a lovely safe environment. And it's so scary, then they've got to – because they know how they coped before, they haven't coped. … [They] can't get - ….a flat or something… because [they have] been blacklisted … the only other thing that's bothering me is [my relative has] had three suicide attempts, so I just think as soon as [they are] out of here god knows what will happen…*
>
> *But our main concern now is where to after here. So we're hoping that there's going to be a whole lot of other opportunities and door to open for [our son]. That keeps going through my mind.*

Interestingly, carers pointed out the differences in "functional level" (meaning ability to carry out ADLs, or activities of daily living) compared to overall decision making capacity, with the implication that residents might meet functional criteria for exit from the CRP, but maybe not ready to manage their life independently:

> *So…[my family member] was going so well and .. she's got a bit of casual employment which is really good and she's been able to sustain that. But the problem is she's classified as high functioning….So to me she's virtually back to where she was….as for CRP they've been just so*

> *wonderful and so supportive… as I said, for two years I've been able to sleep because [my family member has been here]*
>
> *Because my son …. he can cook for himself and he can drive and things like that, but he cannot function on his own. ….*

Concerns and possible improvements

Given the concerns over length of stay, loss of gains made on the CRP and housing challenges on exit, carers had some suggestions. Firstly, a suggestion from carers was for a "step-down" service from the CRP, which would provide stable accommodation but still with some built in support:

> *It's a shame there's not something after. - It probably needs to be another step past CRP, if you know what I mean*
>
> *Yeah something like this setup somewhere else with half the amount of staff, half the support, so you sort of start slowly integrating. And we build it next door.*

Secondly, there could be renegotiation of exit timing to re-stablilise residents and secure stable accommodation. Discharge to stable accommodation would be a priority:

> *Hearing what [another carer is] going through right now. I'm just wondering, I mean it probably doesn't help [the other carer] but maybe …, if you're in a desperate stage … why can't people…apply for an extension, say six months and you guys get proactive and help… find alternative accommodation. Maybe for all the rest of us when we get to the eighteen month mark that becomes a top priority where does this person go in six months time?*

Thirdly, carers felt that some information on carer supports could be useful.

> *I think maybe they could offer us a service explaining what is available for us and other things that we need.*

Apart from wanting the service to be offered for longer than two years or with another "step-down" tier, there was no other concerns aired as "*I don't know anything that doesn't work well*".

Staff focus group

Seven staff from both Mind and Austin Health attended the staff focus group.

The CRP Family and Carer worker was also consulted individually. The CRP Family and Carer worker has a role in encouraging all staff to work with families and encourage family engagement at CRP.

Who are CRP residents and where do they come from and how long do they stay?

Staff described the resident cohort as predominately male and under 40 years old with limited independent living skills, but acknowledged this can vary depending on referrals. Residents were referred from acute hospital settings, short term sub-acute services, primary health settings and the Thomas Embling Hospital.

> *it could be from the hospital, so usually from the secure mental health unit, also from the PARC [Prevention and Recovery Care] service, also from community GPs or …case managers*

While many stay for the standard two year service, some stay longer, typically the forensic residents from Thomas Embling, who:

> *sometimes stay up to four years because they might transition slowly and then once they're here full-time, they might stay for a couple of years before they move out*

Are there any differences in the recovery/experiences between formerly forensic residents and non-formally forensic residents?

There appears to be a difference in experience of CRP for formerly forensic clients, who have been in Thomas Embling Hospital, and non-forensic residents. There is a trend for formerly forensic residents to need longer to engage with staff and the service, and more time to adjust to a collaborative relationship working on their recovery. These residents may communicate differently to other residents and require different communication styles from staff to develop trust and openness. Staff meetings have been useful in understanding needs and determining best engagement and communication methods for each person, and are communicated between treating teams.

Formerly forensic residents who have been in a hospital environment for years may take more time to develop daily living skills and behaviours to help them integrate into the community past CRP, particularly in areas of autonomy and independence compared to other residents. For example adjusting to cooking meals for themselves at a time of their own choosing after having all meals provided at regular times. Additionally, formerly forensic residents' trajectories may also be more complicated and prolonged compared to someone else from the community, because of the requirements from the forensic system. However, other than a few additional complications for formerly forensic residents, on a day-to-day level, the treatment, care, and work clinicians are doing is quite similar.

What do they do each day?

Staff confirmed that key components of the service were: stable accommodation, support with medication adherence, group programming (formal and informal) and one-to-one supports (including goal setting). The purpose of these service components was to develop social skills and social engagement, regularise routines, increase skills in daily living and encourage a process of recovery.

> *…generally, people come here with limited independent living skills, so part of their day would be to wake up in a reasonable time … do their normal things in the morning, have a shower, have breakfast and either engaging in key working sessions … or go and do an activity in the community. Basically, they can spend their time as they like ….We've got quite an extensive group program….. some people come in here and they really need a lot of support taking their medication.*

The mix of activities for a resident depended on the resident's goals. Daily routines are considered very individual and related to personal goals (developed in the Individual Recovery Plan (IRP)). Goals can vary greatly, depending on a resident's individual recovery trajectory.

> *we're looking at people that had skills that lost them that are rebuilding them and then people that have never had the skills and they're building them for the first time. It's a very different recovery path actually*

CRP provides access to a range of supports including an employment support worker, a family worker and a psychiatrist, and has a high focus on physical health and exercise.

> *I think just the broadness of the skills that the [staff] are able to bring in, and also the flexibility … as a team, [to] identify that there are particular…. deficits of things that we need, or could benefit from. We've got that flexibility to be able to hire someone with that skillset, or more creatively try and fill that gap…*

> *…there's more opportunity for [clinical staff] to do one on one work with people around their day to day functioning ….when you're working alongside someone who's unit is just across a courtyard, the clinician can easily go and do some cooking …[they're] able to build that much more into the resident's day to day life rather than it being just a one off, an occasional visit into the their home environment.*

CRP also offers a space that residents and clinical staff feel open and comfortable to work in.

The group program incorporates some structured psychosocial skill development groups, but just as often, they are:

> *social groups in general like, "Come and have a barbecue. Come and play a game of sport." So, they're also learning skills in that……just talking to other people in a group environment, initiating conversation, dressing appropriately, those kinds of things that we all take for granted. For example, in the middle of the group, not talking on your phone or coming and going whenever you want, those kinds of things*

The group program is designed in consultation with residents and also includes resident-run groups.

> *We try to design groups now around what they've said they would like from the group and…once we implemented that, the group attendance did improve.*

Ensuring group attendance can be challenging:

> *However, it sporadic and goes up and down. At the moment, it's a little bit low. That's probably maybe the cohort of people who are living here at the moment…The staff spend a lot of time preparing groups and trying to put on the best groups that we can.*

Confidence, daily living and recovery are important outcomes

The major outcomes that staff identified were: increased social confidence and social engagement, improved daily living skills, increased motivation and engagement with the process of recovery (described more fully in the next section). The main change that the Family and Carer worker observed in residents was to become more independent. Changes in family relationships could be quite variable for residents: "Nothing is consistent".

Staff described an increase in social confidence:

> *confidence, the way they are able to engage more openly and more willingly with people around them*
>
> *they go out and meet other people in the community*

A safe, secure, supported, and independent place to live enabled residents to focus on improving family relationships:

> *…often people have been able to start improving relationships with their family members, as well, or to reconnect with people that, sometimes, they've either lost that connection with, or things have been in quite a conflictual or tumultuous situation, for various reasons.*
>
> *…we've had quite a number of residents being able to reconnect with children that they've not had contact with, or other family members, as well. So, that's been a really nice thing.*

Improvement in daily living skills was also an important outcome:

> *skill development in terms of cooking, cleaning, even some of the groups like people being able to competently take photographs*
>
> *real structured routine is really important*

Improving confidence and reducing stigma allowed residents re-connect with their motivation and engage in recovery:

> *I think they all have a motivation. It's just that sometimes, the mental illness either masks it or decreases their level of motivation*
>
> *positive feedback and recognising people's strengths and encouraging them also I think supports motivation*
>
> *to increase people's - embrace positive risk taking*

Improved employment skills has led to increased confidence:

> *….seeing some of our residents who have gained employment [outside of CRP], it's just been amazing and what a difference that has made to their confidence and how that's had flow on effects. Because, then that brings up other opportunities for accommodation because they… have better income and can then afford… a better-quality rental property after they leave.*

Recovery at CRP

Staff saw supporting recovery as an important aspect of the CRP. In fact, staff felt they "*introduce the terminology of recovery to most people*" and are "*well-placed as workers and as a service to walk with someone along a recovery pathway*".

Sometimes the term "recovery" was not used directly with residents, but the conversation might be around *"How's your life looking at the moment? How would you like it to look?".* The process of recovery could be a great discovery for residents:

> *a lot of people come here thinking, 'I'm just going to be taking meds and having to do these groups,' not realising that they can actually achieve a meaningful life that they may never have thought they could do*

What do staff think are the barriers and enablers of change for residents at CRP?

Staff identified some important enablers of change for CRP residents: stable independent accommodation, meaningful goals, positive peer engagement and increased self-efficacy. It followed that the absence of these could be barriers to change. Improvements in these domains could enable a resident to re-connect to their motivation for positive change and recovery. For some residents, residing at CRP could be a welcome alternative to homelessness, but this did not always lead to an interest in engaging with recovery.

CRP was seen to address people's practical needs, allowing them the 'headspace' to be able to start to think more about what they'd like and how they'd like their lives to look, going forward.

> *I think … that, often for the first time, for many of our residents, it's a safe, secure, supported, but independent, place for them to live. And, often they've never had that opportunity before and I think that just makes a massive difference for people not to have to worry about where they're going to live or feeling like it's an unsafe environment to be living.*
>
> *Or, alternatively, many of our residents have always lived with family, and while that is a safe and secure place, often they've never had that opportunity to feel like they can, completely, live as an independent adult.*

Staff thought that being able to develop goals that were personally meaningful was really helpful for residents. Where residents were not interested in a goal, then it might be more difficult (for instance it was a goal coming from others such as a family member or a case manager) then goal setting was not so successful

> *I think the opportunity [of stable accommodation] gets people to start thinking about what they want in the rest of their life, because, I think, for many different reasons, they haven't really had that opportunity … to think about- do they want to work or study, or volunteer, and what types of activities that they'd like to do outside of those things. And, start thinking about whether they'd like a relationship. So, all the things, often, people have missed out on because they've just had their acute worries of their mental illness, or not having safety and security of a place to live.*

Genuine engagement with the peer community was also an important engine for change according to staff. Joining community run groups could improve self-esteem and improve motivation. This was through increased self-efficacy in learning and practicing a new skill. Joining a peer community was seen as an important part of recovery and in reducing self-stigma.

> *a good part of the community … is that they can …share stories or experiences with each other…whether … that's in a group situation or just them socialising on their own*

It was important that residents shared their lived experience to help others undergoing similar experiences:

> *I think we had a resident supported by other residents who had [ECT treatment] before so they can actually provide that lived experience rather than one of us*

Self-efficacy was improved through embracing positive risk taking, where staff encouraged residents to try new skills (for instance, developing new cooking abilities through trying hands on food preparation techniques).

The reduced stigma, increased self-esteem and increased self-efficacy led to improved motivation or the reconnection to motivation.

Respecting the process of recovery was important:

> *I think it's also important to realise that just because some person doesn't seem motivated now doesn't mean that sometime in that two years, that they're not going to be able to achieve their goals.*

Some barriers that were identified: medication side-effects, a history of substance abuse, lack of trust in services and experience of trauma.

Working with carers and families

The family worker observed that generally families feel positive about the CRP which corroborated the findings from the carer focus group reported above. It remains difficult for families since "we don't have any rabbits to pull out of a hat in regards to housing and discharge". In terms of housing needs and housing access, for some residents, there is "that kind of in-between where you are not well enough to work but you are not ill enough to need SILS [Supported Independent Living Services] so that kind of in-between part can be really tricky".

The family worker also noted that families are able to be take up new opportunities due to the reduction in carer activities and less dependence from their family member. For instance, some families were able to take a trip overseas as their family member was safe and stable at CRP.

Staff were not rigid in their definition of family; it was "*whatever their [the residents] definition is of a family*".

Staff were highly engaged with families and observed some challenges in family dynamics for their residents. Sometimes the challenge was the "*lack of family*", other times it was "*too much family involvement….".* The Family and Carer worker also ran parenting groups for residents with children or young relatives. Discharge planning groups for families have also been run.

Key workers had "*regular contact with families, keep up regular working meetings and family meetings*" Right from the start, staff and families can "*just sat down and really had a good talk about what their expectations were and …what the CRP would do… right …[at] the very beginning…"* Staff can have *"quite intensive casework that …[they're] doing [so] it's appropriate that the key workers are involved with the families too because they know the person, they have the time over years to get to* *know people and develop relationships and that sort of stuff. I think there's a lot of scope [to]… engage really well with families".*

The comprehensive and long term nature of support at CRP enabled families to recalibrate their caring role.

> *I think CRP offers …[families] the opportunity to withdraw from care and then re-enter the care when they feel it's appropriate….. we're looking at a lot of carer burden, especially people that are in their 40s and 50s and lived at home with their parents who are now 70 to 80.*

What do staff think about working at CRP?

Staff appreciated the opportunity to work with residents long term and see the long term improvements:

> *that's the rewarding part …very often, you'll be lucky enough to see someone from the beginning to the end*
>
> *You do have the opportunity to work with them long term …[and] you do often see results …it's journey-focused but that's a really rare opportunity to get to work with someone that intensively and side by side for such a long period of time and I like that"*

While there can be changes to case managers (due to practical staffing issues), "*the advantage of this team is that most of the residents know the whole team anyway*" so continuity will be preserved to some extent. Staff are allocated to a wide range of residents across the range of shifts, so staff/residents all know each other, enhancing continuity of staffing.

Like other staff, the family worker enjoyed her job at CRP "*Best part is it is a nice team to be a part of, it is a positive service*." The family worker enjoyed the mentoring role too.

Managing referrals – "appropriate residents" for CRP

There was some frustration about accepting high risk residents (for instance with risks of violence or alcohol and other drug use concerns), with staff feeling they didn't have choice about accepting certain residents in order to manage "bed pressure". Staff were concerned that some high-risk residents would not be optimally contained in the CRP environment. Staff felt that assessment was important to ensure appropriate residents joined the service.

> *… we're very much trying to keep the level of acuity at a certain rate to prevent it becoming a dumping ground for people*

Staff felt the CRP was a valuable resource, that shouldn't be used just as a housing service. However, they acknowledged the challenges in the supply of affordable housing, and that SRS (supported residential service) alternatives were not attractive options for residents.

Partnership between Mind and Austin

Staff reported that the partnership was generally effective. This has evolved and "*has developed over time as staff come here choosing to work in a recovery environment and not a traditional clinical environment*". In the past, there were tensions around the different roles and who could or couldn't give medication for instance.

Now, "*the residents don't seem to be able to tell the difference*" between clinical and Mind staff with staff "*being comfortable stepping outside of their comfort zones than just doing nursing work or just doing community mental health practitioner work so everyone's pretty flexible in trying different things*".

Staff were comfortable that the teams work together to make decisions. There was also a great benefit in having a psychiatrist as part of the team – this meant direct and easy access to a clinical perspective and a chance to share multiple points of view.

> *Everyone feels comfortable talking, discussing, making decisions together. We have our care review meetings, things are raised and discussed and explained. Sometimes we don't understand some of the decisions but I think everyone feels they can discuss concerns in most environments.*

Staff felt that the partnership was very positive and that Mind contributed in-depth knowledge and practical skills in the understanding of recovery and resident self-determination. Mind staff were also experts on taking a strengths based focus.

Transitions from the unit

Staff were aware of the challenges of finding accommodation post CRP and that the transition can be a significant stressor for residents and their families. Compounding the potential challenge is how difficult and expensive the rental market is:

> *…especially in our catchment area, in the north east area it is quite expensive. And, perhaps, the residents just have to live away and even the quality of what they might be able to afford is not that great.*

Additional concerns

Some concerns and suggestions that staff offered:

- Key worker allocations could be on a pro-rata basis (i.e. proportional to EFT), whereas currently "*we do have a bit of an agreement about, "Okay, you're a full-time worker, you're a part-time worker. This is how many allocations you get." It just never works that way. The part-timers always end up with more key working than the full-timers*"
- Allocations and changes to allocations could be communicated more effectively
- Staff sometimes felt patronised by not being given responsibility or it being assumed they did not know how to do certain things (for instance being sent long emails that included very basic instructions for procedures).
- Similar to carers, staff felt that having groups completely optional leads to wasting of resources as groups/materials are prepared, and then no-one attends the group.

> *There could be stronger expectations set around group attendance. Some people go to groups, some people don't go to groups and then they're, "So, I don't have to go, he doesn't have to go,"…I feel like there needs to be more explanation and discussion around responsibilities of being involved in the program and with us following through with that… and saying, "Okay, you're not coming to this one. Can you write on your plan of what three you are coming to next week?" and I don't think it should necessarily be, "You have to go to three." That's not going to work either.*

Staff perceived that there is a shortage of staff with some shifts not being fully staffed. Staff feel unsupported in these instances and report doing overtime to cover all required tasks for a shift. This always brings the risk of an emergency with "*not enough hands*" to manage effectively. Staff were concerned that there was not an adequate bank of casual staff.

Some staff reported concerns that "*head office*" doesn't understand what happens on the ground at CRP.

Other observations regarding CRP:

- One staff member suggested that possibly the value of the night shift worker was unclear.

> *the [night shift worker] is basically available to 11 o'clock and then after 7am. I don't know what they do between 11 and 7 that adds the kind of value that matches the actual cost*

- Goal setting with residents could be conducted in a more sophisticated manner by helping residents understand and manage their motivation and not just see goal setting as a "to do" list.
- There may be some inequity in remuneration arrangements.

> *I think it's sort of a bit difficult…that Mind workers and the nurses both do good work but the Mind workers get paid so much less than the nurses do.*

Challenges in Family and Carer work

The Family and Carer worker perceived some challenges in engaging with families.

- Many parents don't seem to want much support directly from the family worker, as many parents take the opportunity to "back off a bit" with their adult child being in CRP.
- Staff may have a lot of direct contact with families through their role as key worker so the role of the Family and Carer worker is superfluous in these instances.
- Another number of families are in contact with the family member who is resident at CRP, but the connection is tenuous. Up to half of families don't actually live in Melbourne.

The upshot of this is that sometimes the role of the Family and Carer worker is indeterminate and expected output or outcomes of the work is unclear.

What the qualitative findings tell us

Overall, the focus groups and interviews with staff, residents and carers at CRP indicate the service is extremely successful in achieving positive outcomes for residents. Furthermore, there was a high level of congruence between the three groups of informants which suggests these results are reliable and valid.

Staff, residents and carers all agreed on the important outcomes achieved for residents. They were:

- Improved mental health and recovery. Some carers remarked it was the first stable phase in mental health for their family member in years.
- Improved independence and daily living skills
- Improved social connections and social engagement
- Improved self-confidence and self-efficacy

It appears that there are particular features of the CRP that support positive changes for residents:

- Provision of stable accommodation while supporting independent living.
- The combination of clinical and recovery supports provided through the collaboration of Austin and Mind
- The voluntary/open nature of the service that supported individual choice and responsibility
- The special qualities of staff and peer interaction, without judgement or stigma

The activities and programming described by staff and residents suggested that the CRP was being implemented with fidelity.

The service was not without challenges. Both residents and carers were concerned about discharge occurring when a resident didn't feel ready or was not able to arrange suitable accommodation. They felt concerned that service exit could be dependent on KPI's not true readiness. Transitions were seen as a stressful time that risked recovery gains made throughout the service.

Staff and carers felt that the completely volunteer nature of activities could lead to poor attendance and missed opportunities for residents.

There was some staff concern about accepting high-risk residents or residents who were primarily seeking housing support. There were also concerns about staffing levels with some shifts regularly understaffed. There was also some perceived inequality between staff such as:

- Mind staff paid less for work that is as complex and clinical staff and
- Unequable distribution of case-loads.

Both carer and resident groups were very positive about the CRP and grateful for its existence. Staff, overall, were extremely positive about working at CRP and the opportunity to participate in the recovery journey for residents.

Discussion

Has the CRP led to improved outcomes for CRP residents?

The outcome measures show modest but consistent improvements in overall mental health, measured by the HoNOS, as the logic model (Figure 1) predicts. This is a very positive result. Given the aim of the service is to support recovery and rehabilitation in the context of stabilised mental health, we would not expect large changes to mental health symptoms. Many CRP residents would be expected to have lived with mental illness for a number of years and dramatic changes in symptoms would not be predicted. Therefore, improvement in mental health given the persevering and severe nature of the mental health concerns in this resident group are significant in this context.

The focus groups and interviews with staff, residents and carers of the CRP indicate the service is extremely successful in achieving positive outcomes for residents. Furthermore, there was a high level of congruence between the three groups of informants, which strengthens these results.

There were interesting correspondences between some of the focus group results and the quantitative findings. “Improved mental health and recovery,” mentioned in the focus group matched the improved HoNOS results. Although many clients are expected to have relatively stable mental health on admission, interestingly, some carers said that stability had been attained for the first time at the CRP.

The “improved social connections and social engagement” outcomes suggested in the focus group matched the reduction in “difficulty in getting along with people outside of the family” (BASIS-32 item).

However, the overall impression from qualitative findings was that residents felt much better about themselves and their lives, but there was only a small decrease in dissatisfaction with their life from quantitative analyses (BASIS-32 item). Similarly, there was no change in the BASIS-32 items “Lack of self-confidence”, and “Feeling bad about yourself” even though the focus group data suggested that there were improved self-confidence and self-efficacy. There was no change in the BASIS-32 items “Managing day-to-day life” and “Household responsibilities”, even though the focus group data strongly suggested that there were improved independence and daily living skills.

Specific concerns or difficulties in areas such as getting along with people outside of the family, and developing independence and autonomy significantly improved over time (BASIS-32). Difficulties in feeling satisfaction with life peaked nine months after admission, then reduced. All other difficulties (such as Managing day-to-day life, Household responsibilities, Relationships with family members, Isolation or feelings of loneliness, Being able to feel close to others, Goals or direction in life, Lack of self-confidence, and Feeling bad about yourself measured with the BASIS-32) showed no significant improvements.

The families who participated in the evaluation reported improved family relationships, but some staff suggested that changes to family relationship were variable.

Both the HoNOS and the BASIS-32 focus on negative aspects of functioning and may have missed out on the positive recovery focussed changes that residents experience at CRP.

Overall, the focus groups and interviews with staff, residents and carers at CRP indicate the service is extremely successful in achieving positive outcomes for residents. The HoNOS and BASIS-32 statistical analyses had small effect sizes Cohen's *d* (ranging between 0.12 and 0.42) which, although indicating a small magnitude of effect, approximate the range of effect sizes typically found in psychological research (0.15 to 0.60; Klein *et al.*, 2018). Furthermore, there was a high level of congruence between the three groups of informants, which suggests these results are reliable and valid. Comparing the results of the outcome data with the focus group results, strongly suggests that positive gains are being made, but that measures such as the BASIS-32, the HoNOS do not accurately measure the domains where the changes are occurring.

Is the CRP implemented with fidelity?

Fidelity in this instance refers to the service components being implemented following the service design and documentation. This is an interesting question, as the model was new type of service design and it is possible that intended services and service components could be found to be impractical or ineffective in action. In this instance, we have relied on descriptions of the service by staff, residents and carers as one method to understand fidelity. Other measures of service quality provide objective data on implementation.

It would appear that the service is being implemented with fidelity to the service design and initial documentation. The group program is being run as expected and there is an increasing level of sophistication in group design with growing use of co-design elements. The data for the physical health program shows that most residents joined the program for the time it was running at CRP. This is a great achievement for a cohort who may not have undertaken sport or physical activity for a long time.

The Individual Recovery Plan (IRP) data shows that goal setting and planning, a cornerstone of recovery-orientated practice, was occurring consistently. Case reviews were regularly conducted, but a greater rate of six-monthly adherence would improve compliance with policy.

The incident report analysis shows very low levels of incident reports. A large number of medication errors in 2018 were due to dispensing errors by an external pharmaceutical service and the service was discontinued soon as the errors were discovered. It is possible that there is under-reporting of incidents, as residences are private and separate from staff, the presence of illicit drugs or smoking on site may be undetected. What is important to note, is that instances of resident aggression were extremely rare and self-harm was not reported *at all*. This suggests that the model of care is working very well. This is especially note-worthy since the service design was initially seen as “risky”, because there was low surveillance with “high risk” residents. In this instance, the opportunity for self-responsibility and choice making in a pro-social, respectful community has significantly reduced risks of aggression, conflict and harm.

What are the experience of residents, carers and staff at the CRP?

The focus group data indicate that generally the experience of residents, carers and staff at the CRP is overwhelmingly positive. Residents generally felt stable, safe, and accepted by staff and peers. Carers expressed feeling welcomed by staff with open lines of communication. Staff generally enjoyed the work and appreciated the opportunity to walk alongside residents in their recovery journey.

Another marker of positive experience at the CRP is the incident analysis (see above) which shows that the level of serious incidents is remarkably low. A contributing factor to the low rates of aggression may be the respectful relations between staff and residents. One resident, speaking of experiences in other services, made a direct link between being treated in an authoritarian manner and acting aggressively - “they used to come knock and walk straight into your bedroom and wake you up and that, and I got my back up”. In contrast, at the CRP, he felt treated as an individual and that helped his self-esteem “everyone can see who I am as a person and …how I’m a decent person”. This suggests that the recovery approach used at the CRP is essential to the positive experiences of residents.

The only negatives were related to the feelings of stress around service exit, especially if housing had not been secured. Both residents and carers were concerned about discharge occurring when a resident did not feel ready or was not able to arrange suitable accommodation. They felt concerned that service exit could be dependent on KPI’s not true readiness. Transitions were seen as a stressful time that risked recovery gains made throughout the service. Given the history of trauma and developmental challenges for some residents, it is possible that attachment issues may be precipitating unhelpful reactions in some residents.

Stress around discharge may also be related to challenges in social housing provision across Australia. This is a factor outside of the control of the CRP. Rental housing is expensive in the CRP catchment area and some residents need to move out of the Austin catchment area to secure housing after discharge. Public housing is sometimes allocated very close to discharge so that a resident must live with uncertainty until the last minute.

How effective is the partnership between Mind and Austin Health?

The focus groups and individual staff interviews indicate that the partnership is highly effective. Residents and carers were not aware of which organisation a staff member came from and felt equally comfortable with all staff. While MIND may wish for greater “brand awareness” with residents and carers, the overall experience is that the partnership is seamless.

Staff did not feel demarcations between what they could or could not do, based on the organisation the belonged to, the only exception being medication supervision. The researcher at the staff focus group did not notice any particular differences between staff based on organisational allegiance.

Following discussion with staff, it appears that this has been achieved with some very hard work by staff, and especially managers. Achieving effective partnerships is not necessarily set out in policy or management guidelines. To date, it has been “trial and error” and based on the good will of staff and the ability to build personal working relationships.

Validation of the logic model for the CRP

The program logic identified relevant long term outcomes for the CRP as: feeling safe and secure, improved mental health, improved physical health, better relationships, improved self-esteem, reduced reliance on clinical services, connection with education /employment, improved relationship between resident and family/carer, and transition to independent living. These are illustrated in Figure 1 along with short and medium term outcomes.

Table 5 sets out all the outcomes from the program logic, mapped to the evaluation results. Some results clearly validated the program logic while some were ambiguous in their implications for the program logic. Some outcomes were not clearly measured in the evaluation.

Stable accommodation outcome: As Table 5 shows, there was qualitative support for this outcome and a clear implication that a sense of security and stability was essential for recovery, This suggests this is an important part of the program logic, but the sequence of outcomes (short term to long term) could be streamlined, such as removing "reduced transience" since it is essentially a negative restatement of "access safe and stable accommodation".

Better mental health: As Table 5 shows, there was strong support for this long term outcome and weaker support for the intermediate outcomes in this area. This suggests this is an important part of the program logic, but the sequence of outcomes (short term to long term) could be streamlined.

Better physical health: As Table 5 shows, there was good evidence that health supports are in place, but the data collected was not analysable due to low numbers. Given the importance of this outcome and the efforts to support physical health, some health outcomes could be monitored even though it is not a demonstrated outcome at this stage

Social relationship within the service: As Table 5 shows, there was qualitative validation of this outcome, and quantitative support from one BASIS-32 item but not another.. There are clearly a range of strategies to support improved social skills which justify this sequence in the program logic. Overall the evaluation shows good support for this outcome.

Independent living skills outcome: There was strong validation of this in the focus groups but surprisingly there was change documented in only some of the relevant BASIS-32 items. This could mean that only the people who were vocal in the focus groups had made improvements so that on average there was little change, or that the BASIS-32 item was an inadequate measure. As will be noted in the section later on Strengths and Limitations, there could be reduced sensitivity to change in single items, as the tool has been validated as a whole instrument, not question by question. Given independent living skills are a core purpose of the CRP program, then further exploration of appropriate measures in this domain are recommended as an initial step.

Self-esteem and confidence: As Table 5 shows, outcomes in this area were strongly validated in the focus groups, but the relevant BASIS-32 items showed no change. As with the results for independent living, this could be non-representative qualitative data or inadequate operationalisation in the measures chosen, leading to measurement failure. Further exploration of appropriate measures in this domain is possible.

Social engagement beyond the service: As reported in Table 5 there was both qualitative and quantitative evidence that social engagement was improved. This is seen as a central purpose of the CRP, and is a clearly validated part of the program logic.

Vocational engagement: The focus groups offered a preliminary validation of this outcome and documented many activities that occurred in this area (see Table 5). Although requiring further evidence, this should be retained in program logic. Measures such as the Living in the Community questionnaire may be relevant and more sensitive to change in this domain.

Improvement in family and carer relationships: There was some preliminary validation of this outcome, but there was no change to the relevant BASIS-32 item. This may be due to the issues around appropriate measures, similar to above. Staff reported a lot of variation in family relations, from total estrangement to over-involvement which may not be captured in the current outcomes. Therefore, there could be consideration of refining/reviewing this outcome sequence.

Service separation and transition to independent living: This outcome was validated by the evaluation results.

Considering all the results mapped to the program logic, the evaluation has validated the program logic overall. Some further refinement of the outcome sequence (from immediate and medium term to long term outcome) for the major domains could be undertaken (see Table 5 on the following page).

Table 5: Mapping evaluation results to the program logic

Outcome in program logic	How was it measured in this evaluation?	Findings	Implications for program logic
Strategy - Provide supported accommodation			
Access safe and stable accommodation	Focus groups and individual interviews	Staff, resident and carer focus groups all reported that the CRP provided safe and stable accommodation	Preliminary validation (i.e. qualitative evidence not tested by quantitative evidence) and congruence between the three informant groups.
Reduced transience	Focus groups and individual interviews	No findings	This outcome could be combined with "access safe and stable accommodation" to simplify the program logic
Feeling safe and secure	Focus groups and individual interviews	Consumers reported they felt safe and secure with 24 hour staffing	Preliminary validation (i.e. qualitative evidence not tested by quantitative evidence) and congruence between the three informant groups. Focus group reports suggest this is an important basis for recovery so specific measures for this outcome would be appropriate.
Strategy - Receive a range of clinical and non-clinical supports			
Greater insight into mental health	Focus groups and individual interviews	Residents reported sharing insights about their mental health and learning from each other Carers reported that they hoped that their family member would gain increased insight from joining the CRP.	Some evidence for this outcome, but it is a difficult domain to measure.
Greater insight into physical health	Focus groups and individual interviews	Staff reported they consistently supported residents' health through encouraging engagement with health care and self-care skills	Some evidence that health supports are in place, but no information about level of health insight.
Better understanding of how to manage health	Focus groups and individual interviews	Residents reported learning lots of strategies	Self-report suggests improvement in this domain.

Outcome in program logic	How was it measured in this evaluation?	Findings	Implications for program logic
Improved mental health	HoNOS	Significant improvement in overall HONOS	Strongly validated with congruence between qualitative and quantitative findings and between the three informant groups.
	Focus groups and individual interviews	Residents, carers and staff reported improvements and stabilisation in mental health	
Improved physical health	Physical health metrics collected, but not analysable due to low numbers	No outcome findings, but high levels of adherence for health program	Good evidence that health supports are in place, but no information about health outcomes. Given the importance of this outcome and the efforts to support physical health, some health outcomes could be monitored.
Strategy - Community participation within service			
Improved social skills	Focus groups and individual interviews	Residents, carers and staff reported social skill development.	Preliminary validation (i.e. qualitative evidence not tested by quantitative evidence) and congruence between the three informant groups.
Develop supportive network	Focus groups and individual interviews	Residents reported good support from peers	Conflict between qualitative and quantitative findings.
	BASIS – 32 item: Isolation or feelings of loneliness	No significant change	
Receive peer support	Focus groups and individual interviews	Staff reported conducting groups to encourage peer support and residents stated that there was support from others that was non-judgemental and informed by lived experience.	Preliminary validation (i.e. qualitative evidence not tested by quantitative evidence) and congruence between two informant groups.

Outcome in program logic	How was it measured in this evaluation?	Findings	Implications for program logic
Better relationships	Focus groups and individual interviews	Residents, carers and staff reported a range of improved relationships	Conflict between findings.
	BASIS – 32 item: Being able to feel close to others	No significant change	
	Q8: Getting along with people outside of the family	Significant improvement	
Strategy - Provide capacity building for independent living and broader community engagement			
Understand their current skills	Not assessed		This is more a strategy or output as it is worded.
Acquire new skills	BASIS-32 item - Q1. Managing day-to-day life (e.g. getting places on time, handling money, making everyday decisions) Q2. Household responsibilities (For example, shopping, cooking, laundry, cleaning, other chores)	No significant change No significant change	Conflict between qualitative and quantitative findings. Qualitative findings strongly suggest there is substantial changes in this outcome
	Focus groups and individual interviews	Numerous instances of skill acquisition were reported such as budgeting, job skills, cooking skills and home management	
Feeling of achievement	BASIS-32 item: Feeling satisfaction with your life	No significant change	BASIS-32 question not a direct match with this domain, unclear implications
Improved self esteem	Focus groups and individual interviews	Residents, carers and staff reported greatly increased self esteem	Preliminary validation (i.e qualitative evidence not tested by quantitative evidence) and congruence between the three informant groups.

Outcome in program logic	How was it measured in this evaluation?	Findings	Implications for program logic
Increased connection with wider community	Q8: Getting along with people outside of the family	Significant improvement	Strongly validated with congruence between qualitative and quantitative findings and between the three informant groups.
	Focus group and individual interviews	Staff, residents and carers all reported increased engagement with the wider community through formal and informal daily activities	
Increased confidence (and from participation in employment support below)	Q15. Lack of self-confidence, feeling bad about yourself	No significant change	Conflict between qualitative and quantitative findings. Qualitative findings strongly suggest there is substantial changes in this outcome
	Focus groups and individual interviews	Staff, residents and carers all reported an increase in self-confidence for residents, related to having an independent living space and encouragement from staff and peers.	
Sense of agency and autonomy	Q13: Developing independence, autonomy	Significant improvement	Strongly validated with congruence between qualitative and quantitative findings and between the three informant groups.
	Focus groups and individual interviews	Qualitative findings strongly suggest there is substantial changes in autonomy	
Reduced reliance on clinical services	Service use data	Low use of other in-patient services, but no comparison pre- and post-	Preliminary support that there is less need for acute supports because mental health is stabilised. However, this could be re-worded so that constructive engagement with health supports is not perceived as a negative outcome
Strategy - Participate in employment support			
Identification of vocational goals	Q14. Goals or direction in life	No significant change	BASIS-32 question not a direct match with this domain, unclear implications
Connection with Education/Employment	Focus groups and individual interviews	Staff, residents and carers all reported that residents had connected with vocational opportunities and learnt useful job skills.	Preliminary validation (i.e qualitative evidence not tested by quantitative evidence) and congruence between the three informant groups. Recommended to track employment and related activities (training, employment supports etc)

Outcome in program logic	How was it measured in this evaluation?	Findings	Implications for program logic
Strategy - Family and Carer Liaison			
Identification of family/carers	Individual interview with family and carer liaison worker and staff and carer focus groups	Family members were all identified and contact was maintained if the family member showed interest. Open communication with CRP reported by carers. Staff observed that families were able to engage as much as they wanted with the CRP and their family member	This is more a strategy or output as it is worded.
Access to supports for family/carers	Individual interview with family and carer liaison worker and staff and carer focus groups	Carers did not report they had been given any particular guidance regarding supports. Family support was more directed to improving relations within the family.	Unclear – this may be considered more relevant to implementation or fidelity than an outcome in itself.
Improved relationship between resident and family/carer	Individual interview with family and carer liaison worker and staff and carer focus groups	Carers mentioned much improved relationships with their family member and staff also observed improved interactions between clients and family	Conflict between qualitative and quantitative findings. Qualitative findings strongly suggest there is substantial changes in this outcome
	BASIS-32 item - Relationships with family members	No significant change	
Strategy - Consolidated documented history			
Recognition of progress/achievements	Focus groups and individual interviews	IRP completion rates	Number of reports completed is an output, rather than an outcome, but the high rates of completion suggest that it is possible that there is consistent recognition of progress.
Transition to independent living	Focus groups and individual interviews	Post program housing data indicate that CRP residents achieve a good level of independence	Preliminary validation.

Suggestions from residents, carers and staff

Carers and residents both wondered if the stress of discharge could be reduced and the timing of service exit could be re-negotiated if necessary. Carers also wondered if a "step-down" service could be available, providing stable accommodation and ready access to supports but less intensive than CRP. These suggestions indicate there is a great deal of anxiety about discharge in both residents and families.

Staff and carers felt that the completely volunteer nature of activities could lead to poor attendance and missed opportunities for residents. However, resident choice and responsibility is an important part of recovery. Previous attempts to mandate some level of group attendance did not change attendance rates overall. The opportunity is to invite residents to be more involved in-group design and provide an engaging service for residents rather than mandate attendance.

There was some staff concern about accepting high-risk residents or people who were primarily seeking housing support. However, the service is designed to meet the needs of wide range of consumers who all have a right to treatment and support. This staff concern highlights the sometimes demanding nature of the work.

There were also concerns about staffing levels with some shifts regularly understaffed. Accessing clinical staff with the appropriate skills in recovery-oriented work has also been challenging at times. While there have been standard staff allocations to overnight shifts, it is always possible to reconsider staffing arrangements.

Strengths and limitations of the evaluation

Major strengths of the evaluation is the mixed methods approach and the use of wide range out outcomes and service indicators. Using mixed methods meant that we could use qualitative information to help interpret the quantitative results. The use of a wide range of outcomes meant we could consider a wide range of domains in assessing impacts. In addition, there was a mix of clinician rated data (HoNOS) and resident rated data (BASIS-32). This avoids mono-operation bias.

Another strength was in assessing both implementation and outcome measures. As a new model of care, it is important to learn about the viability of the model (i.e. was it possible to implement the planned care components), as well assess the likelihood of implementation failure (i.e. Type III error) impacting outcomes. This allows for better interpretation of outcomes as well.

The major limitation of the study is the lack of comparison group. This means we cannot logically eliminate the possibility that the changes observed are due to non-treatment causes such as natural improvement occurring over time. However, given the testimony of carers and residents who had observed little improvement in their mental health over the years before living at the CRP, it is reasonable to consider the changes observed are due to CRP supports.

Another limitation was the measure of clinical outcomes rather than recovery outcomes. The use of "deficit focussed" outcome measures such as the HoNOS and BASIS-32 could have meant that some important recovery outcomes were not tapped. The BASIS-32 analysis may be problematic since we analysed specific items, which may not be as sensitive to change, compared to the overall tool that has been validated as a whole instrument. This means there may have been some concerns in measurement validity.

HoNOS data was provided as total scores for analyses so individual items of HoNOS could not be analysed, which had implications for identifying areas of improvement. Without dates of data collection, the researchers could not check if data was collected in the correct time phase. There is a general caveat with HoNOS assessments due to the varying ability of staff to use the tool accurately (such as: varying levels in training, scoring scales on a continuum rather than on the ordinal scale as specified) (personal communication, CRP service manager), however it is likely these errors occurred randomly over the evaluation period, reducing outcome bias. There have also been some concerns for HoNOS around total and sub score consistency across treatment settings (Luo *et al.*, 2016).

The statistical procedures were somewhat limited by small numbers and by the natural attrition in numbers due to discharge. Cases were also withheld from analysis when the BASIS-32 did not have a base-line measure recorded. This meant no sub-group analyses were conducted. Data from across a longer time period would be needed to increase numbers. However, the data covering all admissions in the 2015-2018 time period was representative of the residents; less so from the current residents, only covering seven out of 20. In the case of an effectiveness study such as this, generalisability to all CRP residents may be quite high, since the study is based on data obtained from daily operations on the unit and no special study conditions.

There may be limitations with the focus group data, with only residents, carers and staff attending who felt positive about the service. However, it is possible that people with negative experiences would also be motivated to attend too. The staff discussion was clearly a forum for both positive and negative experiences. The observation at the resident focus group was that participants spoke, not only from their own experience, but from their observations of peer experiences too. This would suggest that the focus group data was relatively balanced. For the carers, it is harder to gauge the extent of bias and it was clear that carers could only speak from their own experience, and had no knowledge of the wider situation for other carers. However, as reported in the results section, the researchers observed a high degree of agreement between carers regarding their experiences, which suggests it is possible to generalise from the focus group data.

Conclusion

In conclusion, this evaluation of the CRP, operational since 2014, shows that it is highly successful in delivering recovery based care to consumers living with long term and challenging mental ill- health concerns.

There remains the question of the applicability of these results to other service settings, other jurisdictions or other consumer groups. This is about external validity, which concerns the generalisability of a study to other populations, settings and times, given the internal or causal validity was acceptable. This is always a difficult question in service evaluations, given the specifics of intake criteria and service delivery. How can the learnings from this evaluation be applied to other settings? What seems important to residents is that stable accommodation is an excellent basis for the recovery process that takes place on this unit, but is not sufficient in itself. There needs to be adequate recovery based supports in place and staff need to have the ability to facilitate residents in making the positive changes they choose. There also needs to be a capacity to encourage independence, responsibility and positive risk taking. These appear to be the key ingredients that could be applied in other settings in order to achieve the very positive outcomes that the CRP is achieving.

Recommendations

The evaluation has demonstrated that there is a strong and effective team at the CRP that provide good service. The following recommendations may enhance current practices.

1. Develop discharge planning: enhance transition to community living after CRP

    - Consider further supports and interventions to help consumers with the experience of closure. While the staff are clearly cognisant of the challenges in leaving for some residents, there could be some more specific supports and insights offered to residents. Some longer-term psychotherapies often have an explicit phase at the end of treatment where the resident and therapist work through the emotional reactions to the end of therapy. They often use the (rather unattractive) term “termination phase”. Given the history of trauma and developmental challenges for some residents, it is also possible that attachment/separation/individuation issues may be precipitating unhelpful reactions in some residents. These types of notions could be used in therapeutically informed supports or therapeutic interventions to help residents use the transition more productively. One example of a manualised short intervention based on attachment is “circle of security” used for mothers with babies and delivered by maternal and child health nurses. Some similarly accessible adaptation of the attachment paradigm is possible for the CRP situation.

- Consider further information and supports to help carers support the person they care for transition out of the CRP, and resources and supports for carers themselves who may also experience challenges with this transition.
- Considering how to gather some stories with/from people after they have left CRP to provide a bank of positive experiences re transition and life after CRP. This could be a project undertaken with a co-design process.

2. Staff development:

   - Clinical training typically does not include skills in supporting recovery, so providing access to recovery skills relevant to the service may be beneficial.
   - Consider providing staff with information and training on how to support residents’ motivation and planning (e.g. motivational interviewing) and engagement with group activities (e.g. co-design of group activities) in consultation with Mind’s Learning and Development team to ensure implementation fidelity.

3. Review measures:

   - Consider analysing complete BASIS-32 subscales in the future for improved sensitivity to change.
   - Introduce recovery focussed (outcome) measures. For instance, social engagement and vocational engagement could be measured with a validated instrument such as the Living in the Community Questionnaire. Changes to independent living skills might also be assessed in more detail.
   - Introduce a physical wellbeing or health care measure: complex physiological measures that involve medical testing would be onerous to implement, but weight, waist measurements or blood pressure could be collected by clinical staff quarterly or bi-annually. Additionally, all staff

could support residents to have a Comprehensive Health Assessment Program (CHAP) appointment with a GP at periodic points.

- Review current data collection procedures to simplify and streamline activities, consolidating data and ensuring all data is linked to a Mind ID. Include comprehensive data collection training (specifically for HoNOS and BASIS-32 measures) with on-going support and refresher training, explaining how the rigorous collection of data from these activities will benefit residents and the service. The current digitisation of outcomes measurement project at Mind Australia may be helpful in this regard.
- Review the CANSAS and the Warwick Edinburgh Wellbeing Scale - consider reducing resident and staff burden by eliminating these measures if not useful (data was not sufficient to be analysed in this evaluation)

4. Increase support for carers:

- Clearly carers feel there is excellent communication with the CRP, but some might benefit from additional peer support and being linked to the carer community more broadly. Consideration of additional resources for carers (e.g., self-care, relevant community services, provide a welcome pack), CRP carer groups and “meet ups” may be useful.
- Perhaps it would be worth considering how to gather some stories with/from people and carers after they have left CRP to provide a bank of hopefully positive experiences regarding transition and life after CRP. This could be a project undertaken with a co-design process.

5. Review of staff management:

- Consider increasing the ‘bank’ of casual staff to prevent shortage of staff, feeling unsupported in those instances and working overtime to cover all required tasks for a shift.
- To prevent unequal key worker allocations, ensure allocations are based on worker’s EFT hours. Allocations will also need to consider other factors such as client complexity.
- Consider more effective communication of allocations and allocation changes, more succinct procedural communications and provide clarification about the roles of different staff (e.g. night workers).

6. Co-management practices could be clarified

- Expand governance agreement or operational guideline or develop policy and procedures to ensure the effective partnership between the community and clinical partners is maintained.

The current working relationship is strong, but based on the personal efforts of the staff involved who have worked extremely hard to build a harmonious team.

7. Advocacy for "step down" housing:

- Although not a change to the CRP in itself, further advocacy around housing options after discharge from the CRP is warranted, as access to stable housing will maintain the progress that is made on the CRP. Independent housing (which can supported through NDIS packages) could be used as "step down" accommodation on exit from CRP.

8. Use this approach to evaluation at other Mind services:

- If other evaluations were to take place, the approach used in this service evaluation (i.e. mixed methods drawing on a range of outcomes, service measures and resident, carer and staff focus groups) would be widely applicable throughout the Mind service network. The current approach minimised burden as it drew on measures that had been collected in the course of practice. The additional focus groups provided constructive forums for staff, residents and carers to share their experiences.

Appendix A: Technical Report on Methodology

Health of the Nation Outcome Scales (HoNOS) items and domains

HoNOS rating guidelines

- Rate items in order from 1 to 12.
- Use all available information in making your rating.
- Do not include information already rated in an earlier item.
- Consider both the degree of distress the problem causes and the effect it has on behaviour
- Rate the most severe problem that occurred in the period rated.
- The rating period is generally the preceding two weeks, except at discharge from inpatient care, when it is the previous three days.
- Each item is rated on a five-point item of severity (0 to 4) as follows:
    - 0 No problem.
    - 1 Minor problem requiring no formal action.
    - 2 Mild problem.
    - 3 Problem of moderate severity.
    - 4 Severe to very severe problem.
    - 9 Not known or not applicable.
- As far as possible, the use of rating point 9 should be avoided, because missing data make scores less comparable over time or between settings.
- Specific information on how to rate each point on each item is provided in the Glossary.

HoNOS glossary

1 Overactive, aggressive, disruptive or agitated behaviour

Include such behaviour due to any cause, e.g., drugs, alcohol, dementia, psychosis, depression, etc.

Do not include bizarre behaviour, rated at Scale 6.

0 No problems of this kind during the period rated.

1 Irritability, quarrels, restlessness etc. Not requiring action.

2 Includes aggressive gestures, pushing or pestering others; threats or verbal aggression; lesser damage to property (e.g., broken cup or window); marked over-activity or agitation.

3 Physically aggressive to others or animals (short of rating 4); threatening manner; more serious over-activity or destruction of property.

4 At least one serious physical attack on others or on animals; destruction of property (e.g., fire-setting); serious intimidation or obscene behaviour.

2 Non-accidental self-injury

*Do not include accidental self-injury (due e.g., to dementia or severe learning disability); the cognitive problem is rated at Scale 4 and the injury at Scale 5.*2

Do not include illness or injury as a direct consequence of drug or alcohol use rated at Scale 3, (e.g., cirrhosis of the liver or injury resulting from drunk driving are rated at Scale 5).

0 No problem of this kind during the period rated.

1 Fleeting thoughts about ending it all, but little risk during the period rated; no self-harm.

2 Mild risk during period; includes non-hazardous self-harm e.g., wrist–scratching.

3 Moderate to serious risk of deliberate self-harm during the period rated; includes preparatory acts e.g., collecting tablets.

4 Serious suicidal attempt or serious deliberate self-injury during the period rated.

3 Problem drinking or drug-taking

Do not include aggressive or destructive behaviour due to alcohol or drug use, rated at Scale 1.

Do not include physical illness or disability due to alcohol or drug use, rated at Scale 5.

0 No problem of this kind during the period rated.

1 Some over-indulgence, but within social norm.

2 Loss of control of drinking or drug-taking; but not seriously addicted.

3 Marked craving or dependence on alcohol or drugs with frequent loss of control, risk taking under the influence, etc.

4 Incapacitated by alcohol or drug problems.

4 Cognitive problems

Include problems of memory, orientation and understanding associated with any disorder: learning disability, dementia, schizophrenia, etc.

Do not include temporary problems (e.g., hangovers) resulting from drug or alcohol use, rated at Scale 3.

0 No problem of this kind during the period rated.

1 Minor problems with memory or understanding e.g., forgets names occasionally.

2 Mild but definite problems, e.g., has lost way in a familiar place or failed to recognise a familiar person; sometimes mixed up about simple decisions.

3 Marked disorientation in time, place or person, bewildered by everyday events; speech is sometimes incoherent, mental slowing.

4 Severe disorientation, e.g., unable to recognise relatives, at risk of accidents, speech incomprehensible, clouding or stupor.

5 Physical illness or disability problems

Include illness or disability from any cause that limits or prevents movement, or impairs sight or hearing, or otherwise interferes with personal functioning.

Include side-effects from medication; effects of drug/alcohol use; physical disabilities resulting from accidents or self-harm associated with cognitive problems, drunk driving etc.

*Do not include mental or behavioural problems rated at Scale 4.*3

0 No physical health problem during the period rated.

1 Minor health problem during the period (e.g., cold, non-serious fall, etc.).

2 Physical health problem imposes mild restriction on mobility and activity.

3 Moderate degree of restriction on activity due to physical health problem.

4 Severe or complete incapacity due to physical health problem.

6 Problems associated with hallucinations and delusions

Include hallucinations and delusions irrespective of diagnosis.

Include odd and bizarre behaviour associated with hallucinations or delusions.

Do not include aggressive, destructive or overactive behaviours attributed to hallucinations or delusions, rated at Scale 1.

0 No evidence of hallucinations or delusions during the period rated.

1 Somewhat odd or eccentric beliefs not in keeping with cultural norms.

2 Delusions or hallucinations (e.g., voices, visions) are present, but there is little distress to patient or manifestation in bizarre behaviour, that is, moderately severe clinical problem.

3 Marked preoccupation with delusions or hallucinations, causing much distress and/or manifested in obviously bizarre behaviour, that is, moderately severe clinical problem.

4 Mental state and behaviour is seriously and adversely affected by delusions or hallucinations, with severe impact on patient.

7 Problems with depressed mood

Do not include over-activity or agitation, rated at Scale 1.

Do not include suicidal ideation or attempts, rated at Scale 2.

Do not include delusions or hallucinations, rated at Scale 6.

0 No problems associated with depressed mood during the period rated.

1 Gloomy; or minor changes in mood.

2 Mild but definite depression and distress: e.g., feelings of guilt; loss of self-esteem.

3 Depression with inappropriate self-blame, preoccupied with feelings of guilt.

4 Severe or very severe depression, with guilt or self-accusation.

8 Other mental and behavioural problems

Rate only the most severe clinical problem not considered at items 6 and 7 as follows: specify the type of problem by entering the appropriate letter: ***A*** *phobic:* ***B*** *anxiety;* ***C*** *obsessive-compulsive;* ***D*** *stress;* ***E*** *dissociative;* ***F*** *somatoform;* ***G*** *eating;* ***H*** *sleep;* ***I*** *sexual;* ***J*** *other, specify.*

0 No evidence of any of these problems during period rated.

1 Minor non-clinical problems.

2 A problem is clinically present at a mild level, e.g., patient/client has a degree of control.4

3 Occasional severe attack or distress, with loss of control e.g., has to avoid anxiety provoking situations altogether, call in a neighbour to help, etc., that is, a moderately severe level of problem.

4 Severe problem dominates most activities.

9 Problems with relationships

Rate the patient's most severe problem associated with active or passive withdrawal from social relationships, and/or non-supportive, destructive or self-damaging relationships.

0 No significant problems during the period.

1 Minor non-clinical problems.

2 Definite problems in making or sustaining supportive relationships: patient complains and/or problems are evident to others.

3 Persisting major problems due to active or passive withdrawal from social relationships, and/or to relationships that provide little or no comfort or support.

4 Severe and distressing social isolation due to inability to communicate socially and/or withdrawal from social relationships.

10 Problems with activities of daily living

Rate the overall level of functioning in activities of daily living (ADL): e.g., problems with basic activities of self-care such as eating, washing, dressing, toilet; also complex skills such as budgeting, organising where to live, occupation and recreation, mobility and use of transport, shopping, self-development, etc.

Include any lack of motivation for using self-help opportunities, since this contributes to a lower overall level of functioning.

Do not include lack of opportunities for exercising intact abilities and skills, rated at Scale 11 and Scale 12.

0 No problems during period rated; good ability to function in all areas.

1 Minor problems only e.g., untidy, disorganised.

2 Self-care adequate, but major lack of performance of one or more complex skills (see above).

3 Major problems in one or more areas of self-care (eating, washing, dressing, toilet) as well as major inability to perform several complex skills.

4 Severe disability or incapacity in all or nearly all areas of self-care and complex skills.

11 Problems with living conditions

Rate the overall severity of problems with the quality of living conditions and daily domestic routine.

Are the basic necessities met (heat, light, hygiene)? If so, is there help to cope with disabilities and a choice of opportunities to use skills and develop new ones?

Do not rate the level of functional disability itself, rated at Scale 10.

***NB:** Rate patient’s usual accommodation. If in acute ward, rate the home accommodation. If information not obtainable, rate 9.*

0 Accommodation and living conditions are acceptable; helpful in keeping any disability rated at Scale 10 to the lowest level possible, and supportive of self-help.5

1 Accommodation is reasonably acceptable although there are minor or transient problems (e.g., not ideal location, not preferred option, doesn’t like food, etc.).

2 Significant problems with one or more aspects of the accommodation and/or regime (e.g., restricted choice; staff or household have little understanding of how to limit disability, or how to help develop new or intact skills).

3 Distressing multiple problems with accommodation (e.g., some basic necessities absent); housing environment has minimal or no facilities to improve patient's independence.

4 Accommodation is unacceptable (e.g., lack of basic necessities, patient is at risk of eviction, or 'roofless', or living conditions are otherwise intolerable making patient's problems worse).

12 Problems with occupation and activities

Rate the overall level of problems with quality of day–time environment. Is there help to cope with disabilities, and opportunities for maintaining or improving occupational and recreational skills and activities? Consider factors such as stigma, lack of qualified staff, access to supportive facilities, e.g., staffing and equipment of day centres, workshops, social clubs, etc.

Do not rate the level of functional disability itself, rated at Scale 10.

***NB:** Rate the patient's usual situation. If in acute ward, rate activities during period before admission. If information not available, rate 9.*

0 Patient's day–time environment is acceptable; helpful in keeping any disability rated at Scale 10 to the lowest level possible, and supportive of self-help.

1 Minor or temporary problems, e.g., late pension cheques, reasonable facilities available but not always at desired times etc.

2 Limited choice of activities, e.g., there is a lack of reasonable tolerance (e.g., unfairly refused entry to public library or baths etc.); or handicapped by lack of a permanent address; or insufficient carer or professional support; or helpful day setting available but for very limited hours.

3 Marked deficiency in skilled services available to help minimise level of existing disability; no opportunities to use intact skills or add new ones; unskilled care difficult to access.

4 Lack of any opportunity for daytime activities makes patient's problem worse.

HoNOS Domains
1. Overactive, aggressive, disruptive or agitated
2. Non-accidental self-injury
3. Problem drinking or drug-taking
4. Cognitive problems
5. Physical illness or disability problems
6. Problems with hallucinations and delusions
7. Problems with depressed mood
8. Other mental and behavioural problems

9. Problems with relationships
10. Problems with activities of daily living
11. Problems with living conditions
12. Problems with occupation and activities

Behavior and Symptom Identification Scale – 32 (BASIS-32)

Items (IN THE PAST WEEK, how much difficulty have you been having in the area of:)
Managing day-to-day life (For example, getting places on time, handling money, making everyday decisions)
Household responsibilities (For example, shopping, cooking, laundry, cleaning, other chores)
Relationships with family members
Getting along with people outside of the family
Isolation or feelings of loneliness
Being able to feel close to others
Developing independence, autonomy
Goals or direction in life
Lack of self-confidence, feeling bad about yourself
Feeling satisfaction with your life

Focus group procedures and interview schedule

Focus group questions CARERS

- Name and why you wanted to be here today
- Before the person you care for came to CRP, what were your expectations of the service?
- How did you think the service would support the recovery of the person you care for?
- How do you feel that the CRP has influenced the recovery of the person you care for? Has it influenced their life positively and/or negatively?
- What works well and what doesn't work so well?
- How do you feel CRP staff have acknowledged your family and carer experience? How are involved in the CRP?
- The CRP is run as a partnership between Mind and Austin Health – how do Mind staff and Austin staff support you? How do you feel they work together?

- What would like to see in the future at CRP? What would make things better for the person that you care for?

Focus group Questions Residents

- Name and why you wanted to be here today
- Before coming to CRP, what were your expectations?
- How did you think the service would support your recovery?
- Now you are here, what are your experiences of how the CRP influences your recovery?
- Has it influenced your life positively and/or negatively? What works well and what doesn't work so well?
- Have you filled out questionnaires about yourself while here at CRP? Can you talk about your experience with these? How useful are they for you?
- The CRP is run as a partnership between Mind and Austin Health – how do Mind staff and Austin staff support you? How do you feel they work together?
- What would like to see in the future at the CRP? What would make things better for you?

Focus group questions Staff

Introductions

- Name, role, how long you have worked at CRP

CRP for residents

- What is an average pathway that a resident takes at CRP?
- What does an average day look like at CRP?
- Which parts of the CRP work well?

CRP for staff

- What are the best parts of the job for you?
- What are the most challenging parts of the job?

Resident Outcomes

- What are the changes you see in residents whilst they are at CRP?
- How does the CRP help residents with their recovery?
- What do you think are the main things that get in the way of residents' recovery?

Outcome Measures

- Why are outcome measures needed in the CRP?
- What outcome measures does the CRP use? How often?
- Why might prevent you from collecting outcome measure data?
- Aside from collecting the data, do you use outcome measures with residents? Why/why not?
- How do residents feel about completing outcome measure data?

Partnership between Austin/Mind

- How do Mind staff and Austin staff work together?
- How do you think the partnership is perceived by -
    - Residents
    - Family and carers
    - Other services
- What are the benefits of the partnership?
- What are some of the challenges associated with the partnership?

Family and Carers

- What connection do you have with family and carers day to day?
- How do you think family and carers perceive the CRP?

Future thinking

- How could the CRP be improved? What changes would you like to see?

Appendix B: Technical Report on Results

HoNOS

A repeated-measures *t*-test was performed to assess the impact of the CRP on resident's scores for the severity of mental ill-health symptoms.

There was a statistically significant decrease in the mean total scores for HoNOS from Time 1 (*M*=10.3, *SD*=5.5) to Time 2 (*M*=8.7, *SD*=4.7), *t*(51)= 2.60, p=.01 (two-tailed), and from Time 1 (*M*=9.9, *SD*=5.2) to Time 4 (*M*=8.3, *SD*=4.4), *t*(38)= 2.23, p=.03 (two-tailed). For Time 1 and Time 2, the mean decrease in the difficulty score was 1.52 with a 95% confidence interval ranging from 0.35 to 2.69. For Time 1 and Time 4, the mean decrease in the difficulty score was 1.62 with a 95% confidence interval ranging from 0.15 to 3.09. A small effect size was found (0.12 for both) indicating a small relationship between the variables.

BASIS-32

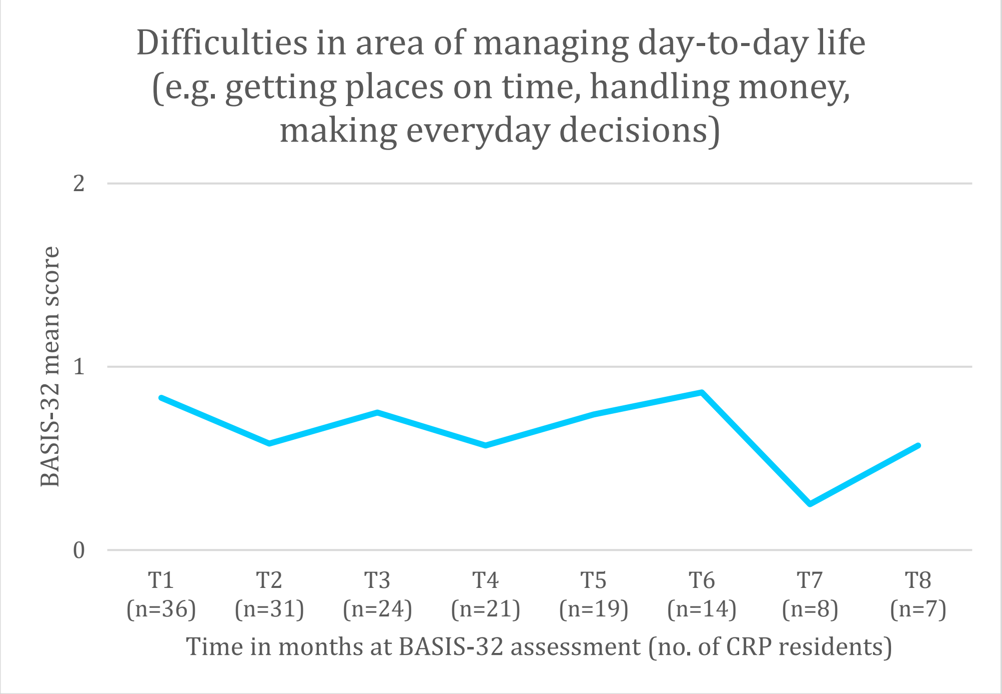
Repeated-measures *t*-tests were conducted to evaluate the impact of the CRP on residents' scores for difficulties relating to mental and physical health symptoms and functioning.

There was a significant decrease in the difficulty score for 'Getting along with people outside of the family' from Time 1 (*M*=1.30, *SD*=1.12) to Time 2 (*M*=.60, *SD*=.72), *t*(29)= 4.58, p<.001 (two-tailed). The mean decrease in the difficulty score for 'Getting along with people outside of the family' was 0.70 with a 95% confidence interval ranging from 0.39 to 1.01. Cohen's d indicated a small effect size (.42). A statistically significant decrease in the mean total scores for this item was also observed from Time 1 (*M*=1.25, *SD*=1.152) to Time 3 (*M*=.83, *SD*=0.92), *t*(23)= 2.1, p=.047 (two-tailed). The mean decrease in the difficulty score was 0.42 with a 95% confidence interval ranging from 0.01 to 0.83. Cohen's d indicated a small effect size (.16).

There was a significant decrease in the difficulty score for 'Developing independence, autonomy' from Time 1 (*M*=1.50, *SD*=1.22) to Time 3 (*M*=0.88, *SD*=0.74), *t*(23)= 3.32, p.003 (two-tailed). The mean decrease in the difficulty score for 'Developing independence, autonomy' was 0.63 with a 95% confidence interval ranging from 0.24 to 1.02. Cohen's d indicated a small effect size (.32). A statistically significant decrease in the mean total scores for this item was also observed from Time 1 (*M*=1.33, *SD*=1.11) to Time 4 (*M*=0.86, *SD*=0.96), *t*(20)= 2.4, p=.029 (two-tailed). The mean decrease in the difficulty score was 0.48 with a 95% confidence interval ranging from 0.05 to 0.90. Cohen's d indicated a small effect size (.22). Additionally, a statistically significant decrease in the mean total scores for this item was also observed from Time 1 (*M*=1.37, *SD*=1.12) to Time 5 (*M*=0.79, *SD*=0.98), *t*(18)= 2.48, p=.023 (two-tailed). The mean decrease in the difficulty score was 0.58 with a 95% confidence interval ranging from 0.09 to 1.07. Cohen's d indicated a small effect size (.25).

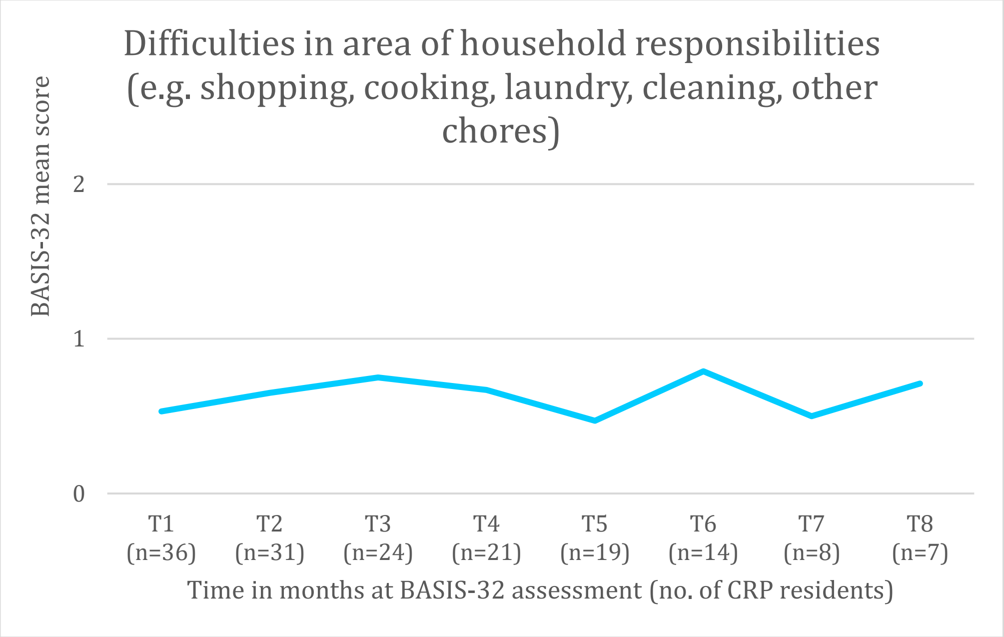
There was a significant increase in difficulties in 'Feeling satisfaction with your life' from Time 1 (*M*=0.08, *SD*=1.06) to Time 4 (*M*=1.45, *SD*=1.32), *t*(19)= -2.10, p. .050 (two-tailed). The mean decrease in the difficulty score for 'Feeling satisfaction with your life' was -0.65 with a 95% confidence interval ranging from -1.30 to -0.001. Cohen's d indicated a small effect size (.19).

There were no statistically significant differences between T1 and other time points for the remaining items: Managing day-to-day life, Household responsibilities, Relationships with family members, Isolation or feelings of loneliness, Being able to feel close to others, Goals or direction in life, Lack of self-confidence, and Feeling bad about yourself. Mean changes for these items over time (3 month periods) are presented in the following figures.



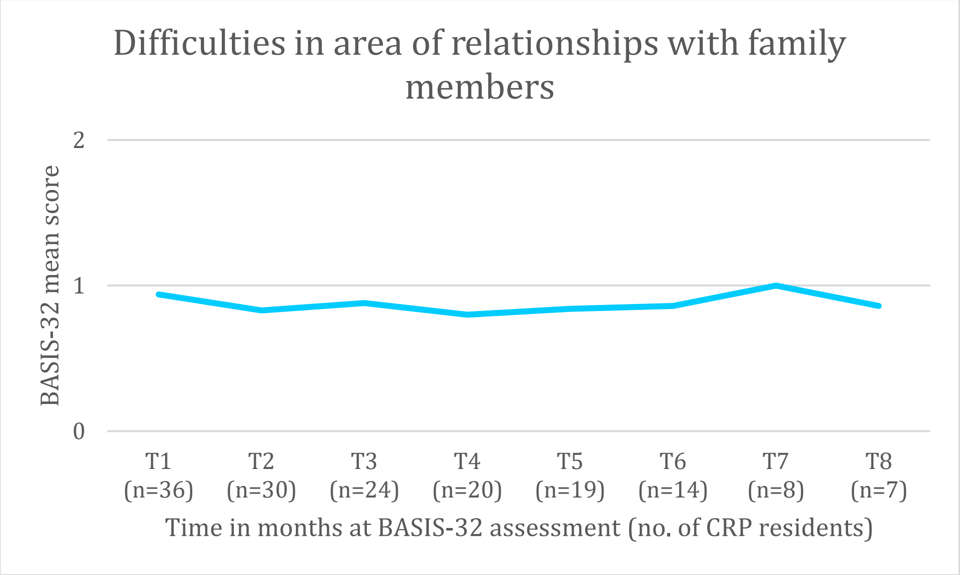
Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 8: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Managing day-to-day life'.



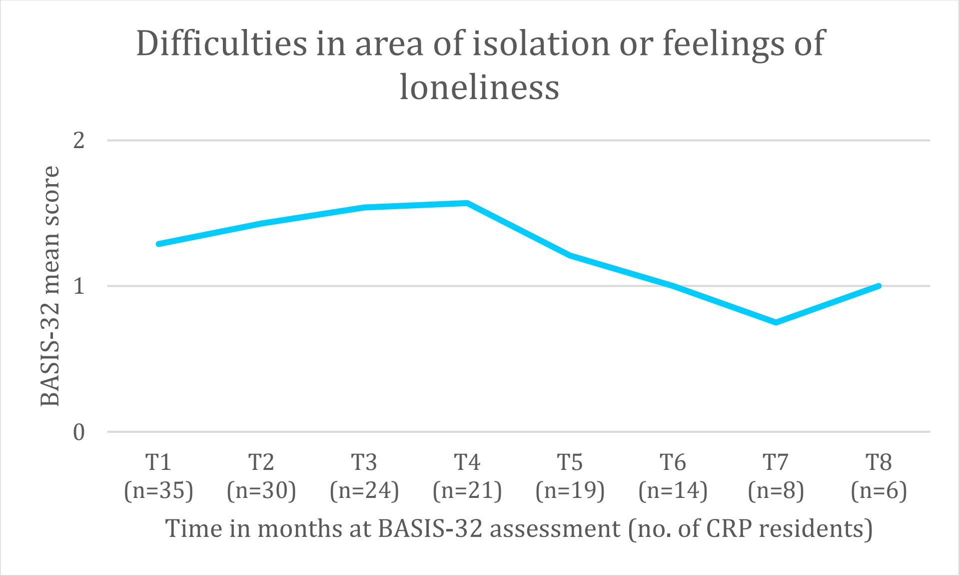
Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 9: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Household responsibilities'.



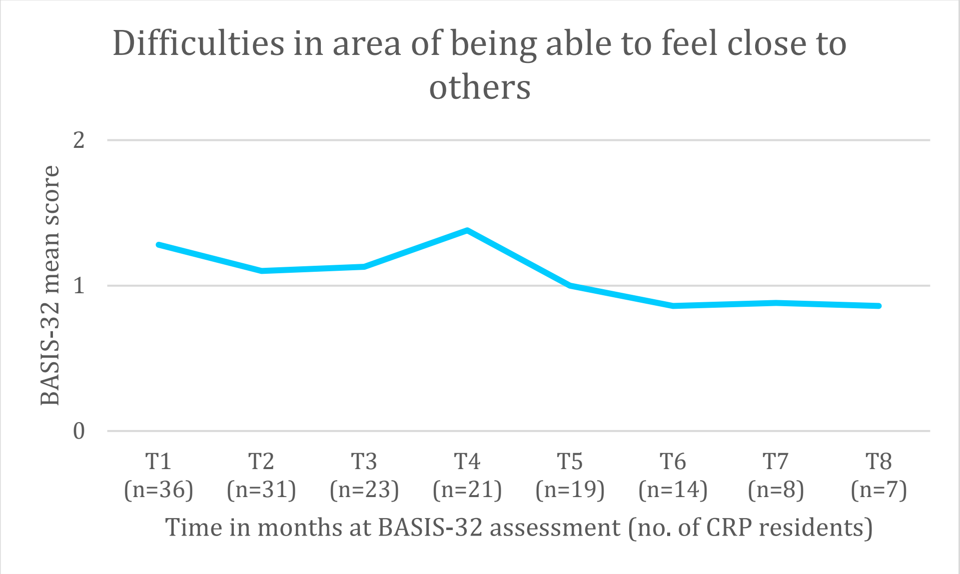
Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 10: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Relationships with family members'.



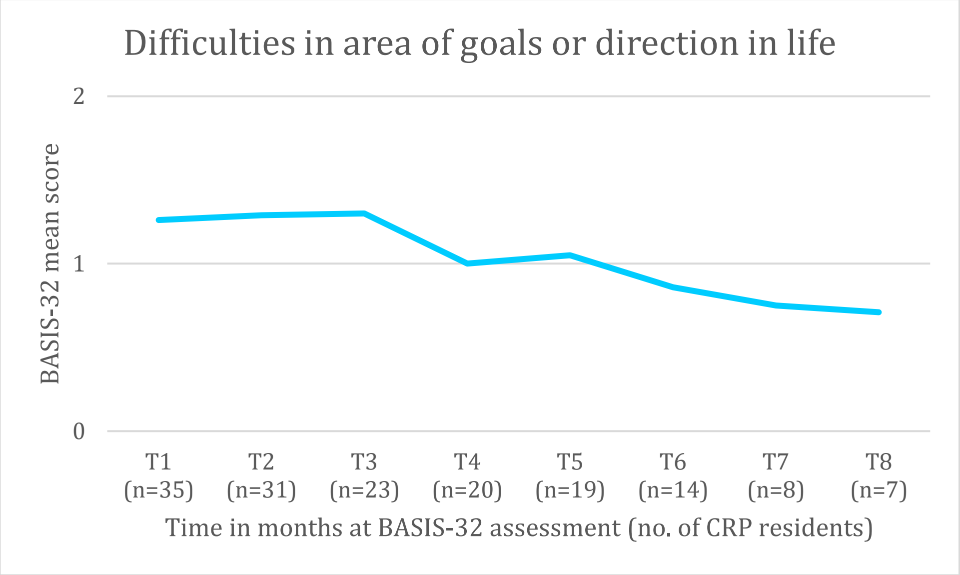
Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 11: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Isolation or feelings of loneliness'.



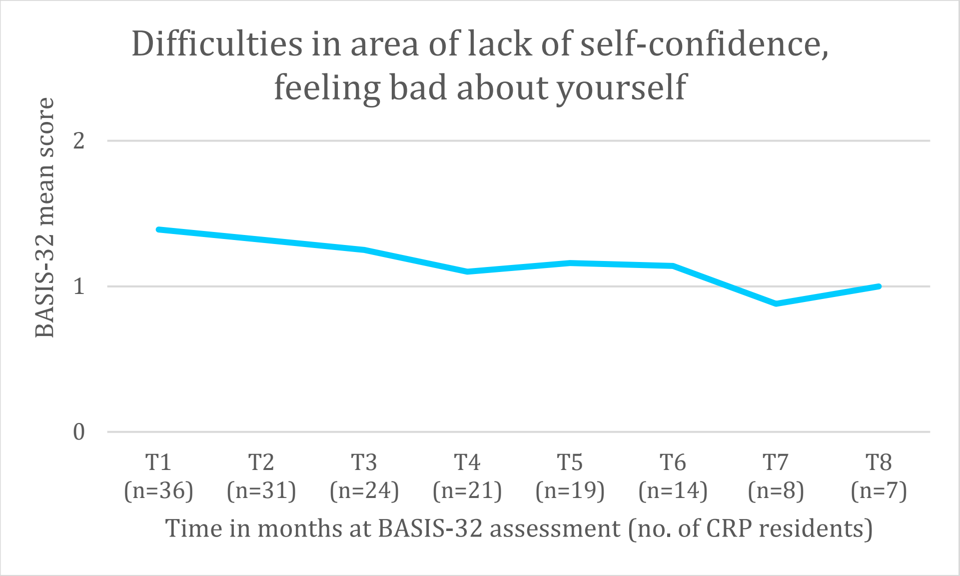
Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 12: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Being able to feel close to others'.



Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 13: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Goals or direction in life'.



Note: Responses are from 0 'No difficulty' to 4 'Extreme difficulty'

Figure 14: Mean BASIS-32 score at baseline and approximately every 3 months for CRP residents showing lowered difficulty for 'Lack of self-confidence, feeling bad about yourself'.

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