Queensland Government

Metro North Health

Metro South Health

Addiction and Mental Health Services

Evaluation of a community residential program in Brisbane

Bridging the research paradigm into clinical practice

A/Prof Stephen Parker [1,2,3,4,5]

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NSW Rehabilitation Psychiatry Network Meeting

29/03/2022

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I acknowledge the Cammeraygal people, their elders past, present and emerging who are the traditional custodians of the land on which we meet today.

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Disclosures

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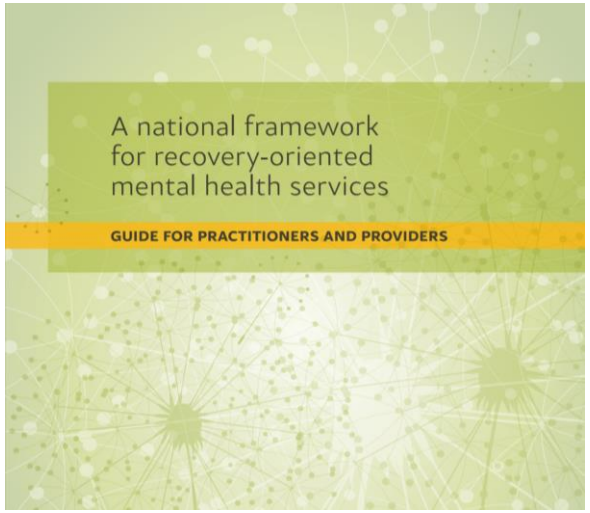
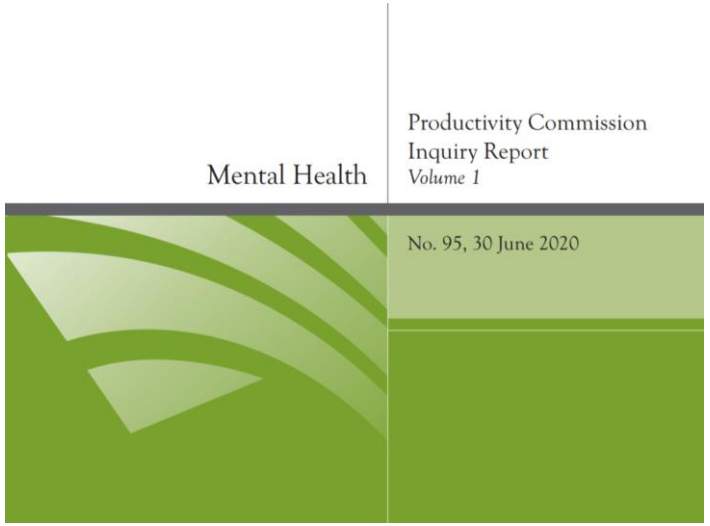
I also have a non-remunerated role on the board of Mantle Housing Ltd.

Why should we try to integrate research into clinical practice?





We live and work in a world where mental health policy is often informed by opinion rather than evidence…

We also live in a country where policy reform has failed to deliver over successive decades….

Check for updates

Review

ANZJP

Australian & New Zealand Journal of Psychiatry
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SAGE

Policy and service development implications of the second Australian National Survey of High Impact Psychosis (SHIP)

Vaughan J Carr[1,2], Harvey Whiteford[3,4], Aaron Groves[5], Patrick McGorry[6,7] and Alana M Shepherd[1,2]

Abstract

Objective: We consider insights from the second Australian National Survey of High Impact Psychosis (2010) in order to identify the key policy and service development implications.

Method: The Survey of High Impact Psychosis (SHIP) provides an updated description of the experiences of people living with psychosis in Australia. We discuss the SHIP survey participants' greatest challenges for the future in light of the strength of existing literature, highlighting prospective opportunities for policy and service planning.

Results: Targets for future policy development and service initiatives are informed by the survey participants' leading challenges: financial difficulties, social isolation, lack of employment, physical and mental ill health, accommodation, and access to services.

Conclusions: Many of the areas of need identified by survey participants are supported by quality research that may be more widely translated into effective services. For areas of need where the evidence is lacking, more clinical research is urgently needed. A targeted approach is vital to secure necessary investment in the wider dissemination of efficacious interventions and their systematic evaluation in ordinary clinical practice, enabled by both research investment and active integration of the research effort within ordinary clinical settings.

Keywords
Psychosis, national survey, policy, service planning

Introduction

Among the psychoses, schizophrenia and bipolar disorder have been ranked among the top five causes of disease burden due to disability in those aged 15–44 worldwide, and together account for almost 10% of total disease burden in this age group (World Health Organization, 2001). In Australia, it is generally considered that nearly all people with these severe disorders are in treatment or have been treated at some time (Andrews et al., 2003), although definitive evidence for this is lacking. In contrast, people with the more common but less severe mental disorders, such as anxiety, depression and substance misuse, as surveyed by the Australian Bureau of Statistics in 2007 (Slade et al., 2009), often do not seek or receive treatment. Treatment for mental disorders can be expensive. The costs of treating the psychoses are particularly high, largely due to frequency of hospitalisation, and the costs of lost productivity are twice as high again (Carr et al., 2003). But there has often been dissatisfaction with treatment delivery systems.

A string of reports since the early 1990s has documented the plight of people with severe mental disorders in Australia and the shortcomings of treatment systems and other support services (e.g. Commonwealth of Australia, 1993; Mental Health Council of Australia, 2005). Media reports have repeatedly highlighted failings in mental health care for these people. The first National Survey of Mental Health and Wellbeing in 1997 strongly influenced

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Key Review

ANZJP

Responding to challenges for people with psychotic illness: Updated evidence from the Survey of High Impact Psychosis

Vera A Morgan[1,2], Anna Waterreus[1], Vaughan Carr[2,3,4], David Castle[5,6], Martin Cohen[4,7], Carol Harvey[8], Cherrie Galletly[9,10,11], Andrew Mackinnon[12,13], Patrick McGorry[14], John J McGrath[15,16], Amanda Neil[14], Suzy Saw[17], Johanna C Badcock[1,18], Debra L Foley[19], Geoff Waghorn[17], Sarah Coker[20] and Assen Jablensky[1,21]

Abstract

Objective: The objective is to summarise recent findings from the 2010 Australian Survey of High Impact Psychosis (SHIP) and examine their implications for future policy and planning to improve mental health, physical health and other circumstances of people with a psychotic disorder.

Methods: Survey of High Impact Psychosis collected nationally representative data on 1825 people with psychotic illness. Over 60 papers have been published covering key challenges reported by participants: financial problems, loneliness

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HEALTH CARE

Australian mental health reform: time for real outcomes

Ian B Hickie, Grace L Groom, Patrick D McGorry, Tracey A Davenport and Georgina M Luscombe

ABSTRACT

- After 12 years of national mental health reform, major service gaps and poor experiences of care are common.
- The mental health community reports little progress in implementing its key priorities, such as expanded early intervention programs, comanagement of people with mental health problems and related alcohol or substance misuse, and widening of the spectrum of acute care settings.
- We propose new national targets for reducing the social and economic costs of poor mental health; these include increased access to effective care, reduced suicide rates and improved rates of return to full social and economic participation.
- We detail specific service reforms designed to maximise the chance of achieving these targets, and prioritise youth health and integrated primary care programs.
- New independent and national reporting systems on the progress of mental health reform are urgently required.

MJA 2005; 182: 451–454

Research

Social and occupational outcomes for young people who attend early intervention mental health services: a longitudinal study

Frank Iorfino[1], Joanne S Carpenter[1], Shane PM Cross[1], Jacob Crouse[1], Tracey A Davenport[1], Daniel F Hermens[2], Hannah Yee[1], Alissa Nichles[1], Natalia Zmicerevska[1], Adam Guastella[1], Elizabeth M Scott[1], Ian B Hickie[1]

The known: One priority for mental health care is to reduce the long term impact of emerging mental disorders. However, diverse trajectories of functioning restrict effective service planning.

The new: The functional levels of two in three young people who attended early intervention services remained poor or deteriorated and fluctuated across two years of care. Prior mental health care or self-harm and suicidality, physical comorbidity, substance misuse, and social disengagement were associated with poor outcomes.

The implications: Most young people with emerging mental disorders require dynamic, multidisciplinary, measurement-based approaches that take into account physical comorbidity, ambiguous or attenuated symptomatology, and social or occupational complexity.

Abstract

Objective: To identify trajectories of social and occupational functioning in young people during the two years after presenting for early intervention mental health care; to identify demographic and clinical factors that influence these trajectories.

Design: Longitudinal, observational study of young people presenting for mental health care.

Setting: Two primary care-based early intervention mental health services at the Brain and Mind Centre (University of Sydney), 1 June 2008 – 31 July 2018.

Participants: 1510 people aged 12–25 years who had presented with anxiety, mood, or psychotic disorders, for whom two years' follow-up data were available for analysis.

Main outcome measures: Latent class trajectories of social and occupational functioning based on growth mixture modelling of Social and Occupational Assessment Scale (SOFAS) scores.

Results: We identified four trajectories of functioning during the first two years of care: deteriorating and volatile (733 participants, 49%); persistent impairment (237, 16%); stable good functioning (291, 19%); and improving, but late recurrence (249, 16%). The less favourable trajectories (deteriorating and volatile; persistent impairment) were associated with physical comorbidity, not being in education, employment, or training, having substance-related disorders, having been hospitalised, and having a childhood onset mental disorder, psychosis-like experiences, or a history of self-harm or suicidality.

Conclusions: Two in three young people with emerging mental disorders did not experience meaningful improvement in social and occupational functioning during two years of early intervention care. Most functional trajectories were also quite volatile, indicating the need for dynamic service models that emphasise multidisciplinary interventions and measurement-based care.

One in four young people experience mental ill health by the age of 25.[1] As these disorders typically emerge during adolescence and early adulthood, they often have functional outcomes that extend into later life.[2] Consequently, responding early is the key to reducing their overall impact.

The value of early intervention is supported by evidence that the longer the period of untreated illness, the poorer the outcomes.[3] Early intervention clinics attract young people with subthreshold or early stage disorders,[4] many of whom are already subject to substantial functional impairment, comorbidity, and suicidality.[5,6] The heterogeneity of symptoms, risk, and functioning at their first presentation means that providing timely interventions that meet all of a young person's needs can be difficult.[7] Short term reductions in psychological distress and risk are typically reported for young people who attend early intervention clinics,[8] but most will later experience deterioration of symptoms or chronic functional impairment.[5]

Trajectory-based modelling takes into account the heterogeneity of young people who require mental health care by identifying subpopulations of young people, with the aim of guiding service planning and strategies for improving long term functional outcomes.[7,8] Our study evaluated trajectories of functioning during the first two years of early intervention care, and identified factors associated with these trajectories.

Methods

We identified our participants in a research registry of 6743 people aged 12–30 years who presented to the youth mental health clinics at the Brain and Mind Centre (University of Sydney) during 1 June 2008 – 31 July 2018. These clinics provide both primary care services (headspace) and more specialised services. The clinics are not diagnosis-specific, do not impose symptom-, severity-, or risk-based thresholds for care, and attract young people with a broad range of emerging anxiety, depressive, mania-like, psychosis-like, and comorbid syndromes. Case management was provided for all participants by clinicians, and clients received appropriate psychological, social, and medical interventions as standard care. Those whose needs exceeded the capacity of the primary care services were referred to more specialised mental health services or were hospitalised.

The inclusion criteria for participation were age 12–25 years at baseline, and at least three data points between one and 24 months after baseline.

Data collection

Data were extracted from clinical files to a standardised form, as previously described.[11] For each participant, their first

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• doi: 10.5694/mja2.51308 • See Editorial (McGorry)

VIEWPOINT

National mental health reform: less talk, more action

Sebastian Rosenberg, Ian B Hickie and John Mendoza

ABSTRACT

- The Council of Australian Governments revitalised national mental health reform in 2006. Unfortunately, evidence-based models of collaborative care have not yet been supported.
- Previous attempts at national reform have lacked a strategic vision. We continue to rely on arrangements that are fragmented between different levels of government, poorly resourced community services, and an embattled public hospital sector.
- Our persisting unwillingness to record or publicly report key measures of health, social or economic outcomes undermines community confidence in the mental health system.
- Six priority areas for urgent national action are proposed and linked to key measures of improved health system performance.
- In Australia, we recognise special groups (such as war veterans) and organise and fund services to meet their specific health needs. Such systems could be readily adapted to meet the needs of people with psychosis.

MJA 2008; 190: 193–195

HEALTH CARE

Ten years of mental health service reform in Australia: are we getting it right?

Harvey A Whiteford and William J Buckingham

ABSTRACT

- We summarise the most recent data available on changes to the public and private mental health sectors from the commencement of the National Mental Health Strategy in 1993 to 2002.
- There has been substantial service system change in the directions agreed by governments under the Strategy, supported by a 65% growth in government spending on mental health.
- Despite this there is growing public and professional concern about deficiencies in the mental health service system. We review the current call for change in light of increased community expectations and growth in demand for services.
- Given broad national and international support for Australia's policy directions, the problems lie with the pace and extent of change and ensuring better outcomes from the increased investment in mental health care.

MJA 2005; 182: 396–400

Residential rehabilitation services for people living with severe and persisting mental illness are a good example of the gap between policy and the evidence

- They are intensive and expensive services (~$800 per person a day), supporting a small numbers of consumers over a long time period (6-24-months)
- Low throughputs create challenges to service evaluation
- Early evaluations raised concerns about the extent to which consumer's experience functional impairment and social impoverishment post discharge.
- Despite limited evidence, these services have proliferated and been adapted in response to a variety of policy trends.
- These services are at odds with the international shift away from transitional support in the community.

Parker et al. BMC Psychiatry (2019) 19:55
https://doi.org/10.1186/s12888-019-2019-5

BMC Psychiatry

RESEARCH ARTICLE Open Access

A systematic review of service models and evidence relating to the clinically operated community-based residential mental health rehabilitation for adults with severe and persisting mental illness in Australia

Stephen Parker[1,2*], Gordon Hopkins[1], Dan Siskind[1,3], Meredith Harris[2], Gemma McKeon[1], Frances Dark[1] and Harvey Whiteford[2]

Abstract

Background: Clinically operated community-based residential rehabilitation units (Community Rehabilitation Units) are resource intensive services supporting a small proportion of the people with severe and persisting mental illness who experience difficulties living in the community. Most consumers who engage with these services will be diagnosed with schizophrenia or a related disorder. This review seeks to: generate a typology of service models, describe the characteristics of the consumers accessing these services, and syntheise available evidence about consumers' service experiences and outcomes.

Method: A systematic review was undertaken to identify studies describing Community Rehabilitation Units in Australia, consumer characteristics, and evidence about consumer experiences and outcomes. Search strings were applied to multiple databases; additional records were identified through snowballing. Records presenting unique empirical research were subject to quality appraisal.

Results: The typology defined two service types, Community-Based Residential Care (C-BRC), which emerged in the context of de-institutionalisation, and the more recent Transitional Residential Rehabilitation (TRR) approach. Key differentiating features were the focus on transitional care and 'recovery' under TRR. Schizophrenia spectrum disorders were the most common primary diagnosis under both service types. TRR consumers were more likely to be male, referred from community settings, and less likely to be subject to involuntary treatment. Regarding outcomes, the limited quantitative evidence (4 records, 2 poor quality) indicated C-BRC was successful in supporting the majority of consumers transferred from long-term inpatient care to remain out of hospital. All qualitative research conducted in C-BRC settings was assessed to be of poor quality (3 records). No methodologically sound quantitative evidence on the outcomes of TRR was identified. Qualitative research undertaken in these settings was of mixed quality (9 records), and the four records exploring consumer perspectives identified them as valuing the service provided.

(Continued on next page)

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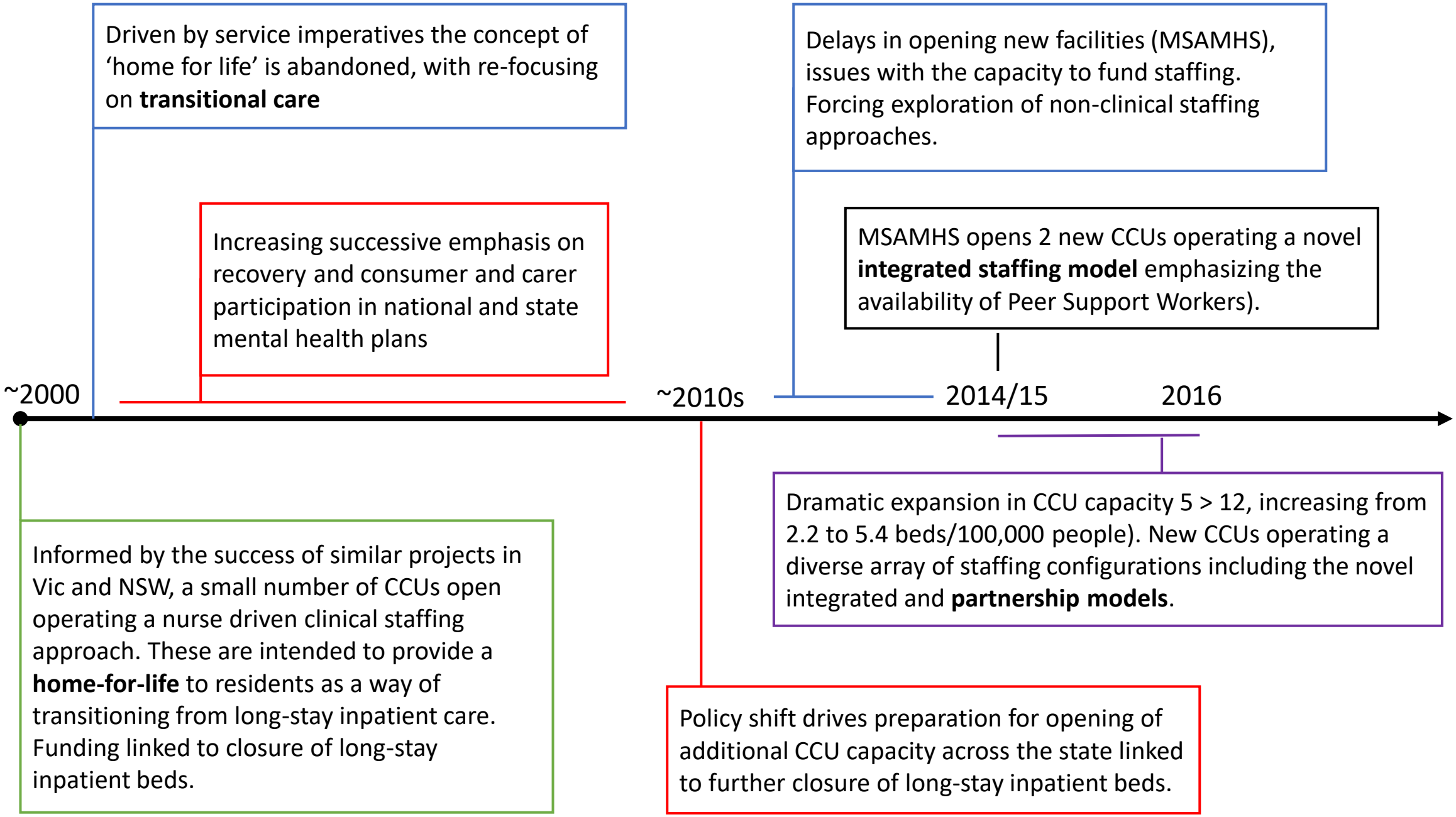
What me worry?

A brief overview of the Queensland context


Driven by service imperatives the concept of 'home for life' is abandoned, with re-focusing on **transitional care**
Increasing successive emphasis on recovery and consumer and carer participation in national and state mental health plans
Delays in opening new facilities (MSAMHS), issues with the capacity to fund staffing. Forcing exploration of non-clinical staffing approaches.
MSAMHS opens 2 new CCUs operating a novel **integrated staffing model** emphasizing the availability of Peer Support Workers).
~2000
~2010s
2014/15
2016
Informed by the success of similar projects in Vic and NSW, a small number of CCUs open operating a nurse driven clinical staffing approach. These are intended to provide a **home-for-life** to residents as a way of transitioning from long-stay inpatient care. Funding linked to closure of long-stay inpatient beds.
Policy shift drives preparation for opening of additional CCU capacity across the state linked to further closure of long-stay inpatient beds.
Dramatic expansion in CCU capacity 5 > 12, increasing from 2.2 to 5.4 beds/100,000 people). New CCUs operating a diverse array of staffing configurations including the novel integrated and **partnership models**.

Up until 2014 all CCUs in Queensland operated a 'clinical staffing model' where the majority staffing component were mental health nurses.

The Integrated Staffing model emerged in 2014. Under this approach Peer Support Workers (PSWs) replaced junior nursing staff as the majority component of the MDT.

The 'partnership' approach involves collaboration between the mental health service and NGO partner in the delivery of day-to-day care and support.

	Clinical	Integrated	Partnership	Total
Number of CCUs	7	3	3	13
Number of beds	159	56	62	277
Average beds/CCU	23	19	21	21
Total staff 1.0FTE	180.51	62.86	67.17	310.54
Average staff 1.0FTE per CCU [a]	25.79	20.95	22.39	23.89
Clinical	93%	49%	48%	74%
Medical	5%	6%	5%	5%
Nursing	74%	27%	32%	56%
Allied-health	14%	16%	11%	14%
Non-Clinical staff	7%	51%	7%	16%
Non-clinical rehabilitation support [b]	5%	-	3%	3%
Peer support worker	3%	51%	-	12%
Managerial	-	-	4%	1%
NGO partner [c]	-	-	45%	10%

[a] Funded positions, may not accurately reflect employed staffing at census date

[b] Includes rehabilitation support workers, recreational officers, indigenous liaison officers

[c] NGO partner roles include 3.75FTE of designated Peer Support Worker Roles, i.e. 6% of staff roles

Table adapted from QMHBU CCU Benchmarking Report 2019

Theoretically what are the potential challenges associated with the alternative staffing configurations?

Governance		Non-clinical		Clinical		
Service type		**Peer-operated/owned**	**Non-clinical rehab and support**	**Buy-in/partnership model**	**Traditional clinical staffing model**	**Integrated staffing approach**
Role of peer support		Primary focus	Dependent on the staffing model of the PDRS/NGO		Minimal representation within the MDT, often providing an advocacy role	Majority component of MDT, key focus
Challenges*	**Culture**	Limited opportunities for clinical input for consumers, and the impact of clinical perspectives on organisational culture		Working in parallel may limit opportunities to challenge the dominant paradigm held by the group with organisational governance. Additionally, conflicting paradigms may detrimentally impact organisational processes	Peer representation may be tokenistic, limiting opportunities for organisational learning from lived experience workers.	Value of lived experience may be degraded by professionalisation of peer support and/or assimilation within the dominant clinical culture.
	Access	Unavailability of 24/7 clinical support may limit ability to support consumers with a higher level of risk, acuity, and/or disability.		Availability of formal peer support dependent on NGO orientation and policies. Reduced availability of 24/7 clinical support may limit ability to support consumers with a higher level of risk, acuity, and/or disability.	Limited availability of formal peer support to consumers.	Reduced availability of 24/7 clinical support may limit ability to support consumers with a higher level of risk, acuity, and/or disability.

* The information presented in this table assumes that the input of both people with a lived experience of mental illness (in either a formal or informal role) and clinical staff have potential value to offer consumers of mental health rehabilitation services

Table adapted from: Parker S, Dark F, Vilic G, McCann K, O'Sullivan R, Doyle C, Lendich B. Integrated staffing model for residential mental health rehabilitation. Mental Health and Social Inclusion. 2016 May 9.

In late 2014 I started working at the two MSAMHS CCUs where most of the staff were employed based on their lived experience of mental illness rather than their clinical skills

They were wonderful places to work…

…but did they deliver?

The Metro South CCU Evaluation Project

...MC Psychiatry (2016) 16:179
...186/s12888-016-0882-x

BMC Psychiatry

STUDY PROTOCOL Open Access

Longitudinal comparative evaluation of the equivalence of an integrated peer-support and clinical staffing model for residential mental health rehabilitation: a mixed methods protocol incorporating multiple stakeholder perspectives

Stephen Parker[1,2*], Frances Dark[1], Ellie Newman[1], Nicole Korman[1], Carla Meurk[2], Dan Siskind[1,3] and Meredith Harris[2]

Abstract

Background: A novel staffing model integrating peer support workers and clinical staff within a unified team is being trialled at community based residential rehabilitation units in Australia. A mixed-methods protocol for the longitudinal evaluation of the outcomes, expectations and experiences of care by consumers and staff under this staffing model in two units will be compared to one unit operating a traditional clinical staffing. The study is unique with regards to the context, the longitudinal approach and consideration of multiple stakeholder perspectives.

Methods/design: The longitudinal mixed methods design integrates a quantitative evaluation of the outcomes of care for consumers at three residential rehabilitation units with an applied qualitative research methodology. The quantitative component utilizes a prospective cohort design to explore whether equivalent outcomes are achieved through engagement at residential rehabilitation units operating integrated and clinical staffing models. Comparative data will be available from the time of admission, discharge and 12-month period post-discharge from the units. Additionally, retrospective data for the 12-month period prior to admission will be utilized to consider changes in functioning pre and post engagement with residential rehabilitation care. The primary outcome will be change in psychosocial functioning, assessed using the total score on the Health of the Nation Outcome Scales (HoNOS). Planned secondary outcomes will include changes in symptomatology, disability, recovery orientation, carer quality of life, emergency department presentations, psychiatric inpatient bed days, and psychological distress and wellbeing. Planned analyses will include: cohort description; hierarchical linear regression modelling of the predictors of change in HoNOS following CCU care; and descriptive comparisons of the costs associated with the two staffing models. The qualitative component utilizes a pragmatic approach to grounded theory, with collection of data from consumers and staff at multiple time points exploring their expectations, experiences and reflections on the care provided by these services.

(Continued on next page)

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Mixed methods evaluation comparing the integrated staffing and clinical staffing model approaches for community-based residential rehabilitation across three sites over a 3-year period (2014-2017 admissions).

This evaluation planned to consider:

- ❑ Consumer expectations, experiences and reflections [Qualitative]
- ❑ Staff expectations and experiences [Qualitative]
- ❑ Profiling consumers entering the service [Quantitative]
- ❑ Symptom stability between admission and discharge [Quantitative]
- ❑ The impact on post-discharge outcomes [Quantitative]

Ambitiously (or foolishly) the plan was developed in the absence of dedicated funding support.

The **qualitative component** of the evaluation was expected to be critical to understanding the outcomes achieved (or not achieved).

This provided information about '**why**' and '**how**' of services operation and consumer outcomes.

frontiers in Psychiatry

Staff Expe
Integrate
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Pragmati

Carla Meurk[1,2]*, Steph

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OPEN ACCESS

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Keywords: community care

INTRODUCTION

Community care units (
residential mental health
illness (1, 2). Literature e
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support roles into their

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International Journal of Mental Health Nursing

International Journal of Mental Health Nursing (2017) 26, 355–365

ORIGINAL ARTICLE

Reality of working in a comm
recovery-oriented mental he
unit: A pragmatic grounded t

Stephen Parker,[1] Frances Dark,[1] Ellie Newman,[1] Nico
Carla Meurk[2]
[1]Rehabilitation Academic Clinical Unit, Metro South Addiction and
University of Queensland, Brisbane, Queensland, Australia

ABSTRACT: In the present study, we explored the experi
community-based residential mental health rehabilitation u
care unit' (CCU). A pragmatic approach to grounded theory
semistructured interviews with eight staff. Convenience sam
of junior and senior staff across nursing, allied health, and
emerged from the analysis: (i) rehabilitation is different to tr
space; (iii) they (consumers) have to be ready to engage;
practice. Staff understandings of recovery in rehabil
consideration of both personal and clinical recovery conce
important to the ability to deliver recovery-oriented care; h
engagement was acknowledged. Threats to recovery-ori
burnout and external pressure to accept consumers who
community-based recovery-oriented rehabilitation unit is c
a focus on recovery and rehabilitation. Leadership needs t
these services to emergent needs.

KEY WORDS: Mental health rehabilitation, staff pe
rehabilitation, treatment.

INTRODUCTION

Recovery-oriented residential mental health rehabilitation services target people with severe and persisting mental illness (Killaspy et al., 2011). The interventions provided

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ORIGINAL ARTICLE

Understanding consumers' ini
community-based residential
itation in the context of past
mixed-methods pragmatic gro

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Swinson[1] and Frances Dark[1,2]
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ABSTRACT: This study explores how consumers
health rehabilitation to compare with previous exper
hope to receive from mental health services, and list
has not worked in previous care settings, may illumi
and outcomes. A mixed-methods research design tak
guided the analysis of 24 semi-structured interview
Community Care Units (CCUs) in Australia. Two
integrating peer support work with clinical care. All
interviewer within the first 6 weeks of the consume
offer an improvement on previous experiences of
subacute inpatient settings, supported accommodati
differences in the people (staff and co-residents), the
regulations. Participants from the integrated staffing
less clinical approach to care. Overall, consume
articulated in policy frameworks for recovery-orient
care suggest that these services continue to face sig
practice. Paying attention to the kind of working rel
health services, such as the provision of choice
supportive focus, could improve their engagement an

KEY WORDS: qualitative research, rehabilitation,
perspectives.

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Consumers' understanding an
community-based recovery-or
rehabilitation unit: a pragmat
theory analysis

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Carla Meurk[2,3]

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Aims. Incorporating consumer perspectives into mental health
recovery-oriented care. One of the challenges faced in mental hea
ment with the available support. Listening to consumers' expecta
achieve, provides an opportunity to examine the alignment betwe
of the people who use them. We explored consumer understa
community based residential mental health rehabilitation units
were trialling a staffing model integrating peer support with cli

Methods. Twenty-four consumers completed semi-structured in
first 6 weeks of their stay at the rehabilitation unit. Most partici
related psychotic disorder (67%). A pragmatic approach to groun
tion of content and themes, and the development of an overarch

Results. The rehabilitation units were considered to provide a tru
common reason given for engagement was housing insecurity or
tation engagement. Differences in expectations did not emerge be
staffing model sites.

Conclusions. Consumers understand the function of the rehabi
rehabilitation support may not be the key driver of their attendan
sumer engagement with rehabilitation services. The absence of d
models may reflect the novelty of the rehabilitation context. The s
increase consumer awareness of the potential relevance of evidence-

Received 22 June 2017; Accepted 20 October 2017; First published on

Key words: Qualitative research, rehabilitation, residential servic

Introduction

Consumer voices are often overlooked or ignored in
mental health services development and delivery
(Beck & Alexander, 2006; Gee et al. 2016).
Understanding consumer expectations is relevant to
recovery-oriented rehabilitation given the emphasis
on working with consumers' goals and priorities
(Australian Health Ministers Advisory Council, 2013;
Moran et al. 2016), and challenges associated with

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ORIGINAL ARTICLE

Consumer experiences of community-based residential mental health rehabilitation for severe and persistent mental illness: A pragmatic grounded theory analysis

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ABSTRACT: Semi-structured interviews were used to explore the consumer experience of community-based residential mental health rehabilitation support at Community Care Units in Australia. These clinical services provide recovery-oriented residential rehabilitation to people affected by severe and persistent mental illness. Typically, nurses occupy the majority of staff roles. However, two of the three sites in the study were trialling a novel integrated staffing model where the majority of staff were people with a lived experience of mental illness employed as peer support workers (PSWs). The interviews explored consumers' experiences of care 12–18 months after admission. Fifteen interviews were completed with an independent interviewer. Most participants were diagnosed with schizophrenia or a related psychotic disorder. The analysis followed a pragmatic approach to grounded theory. Consumers viewed the CCU favourably, emphasizing the value of the relationships formed with staff and co-residents. No major differences in consumers' experience under the traditional versus integrated staffing models were identified; however, those from the integrated staffing model sites valued the contributions of the peer support workers. The understanding of the consumer experience emerging through this study aligned with their expectations of the service at the time of commencement.

KEY WORDS: mental health recovery, nursing staff, peer support, psychiatric rehabilitation, residential treatment, schizophrenia.

INTRODUCTION

Community-based residential mental health rehabilitation services have become increasingly available in Australia (Parker et al. 2019a). There are a range of service types, including the Community Care Unit (CCU) model. These public mental health services provide time-limited, intensive recovery-oriented rehabilitation programmes to people with severe and persistent mental illness (SPMI) who are experiencing psychosocial disability. Most people referred to these services will be diagnosed with schizophrenia and have complex healthcare needs (Meehan et al. 2017). Despite the proliferation of these services, there is limited evidence

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Data gathering

- Semi-structured consumer interviews completed by an independent interviewer across three time points:
  - Expectations (on admission/commencement)
  - Experience (12-18/12 post-admission/commence.)
  - Reflections (12-18/12 post discharge)

- Similar interviews were completed with staff commencing at the ISM sites, and with staff under both models with >12 months experience

- Sampling continued at each timepoint until the qualitative analysis was deemed to approach thematic saturation (n=25, n=15, n=17 for consumer interviews; n=15, n=8 (clinical) n=15 (integrated)for staff interviews)

- Participants were drawn from a convenience sample without exclusion criteria.

Analytic approach

- Pragmatic approach to grounded theory was adopted in the analysis of semi-structured interviews

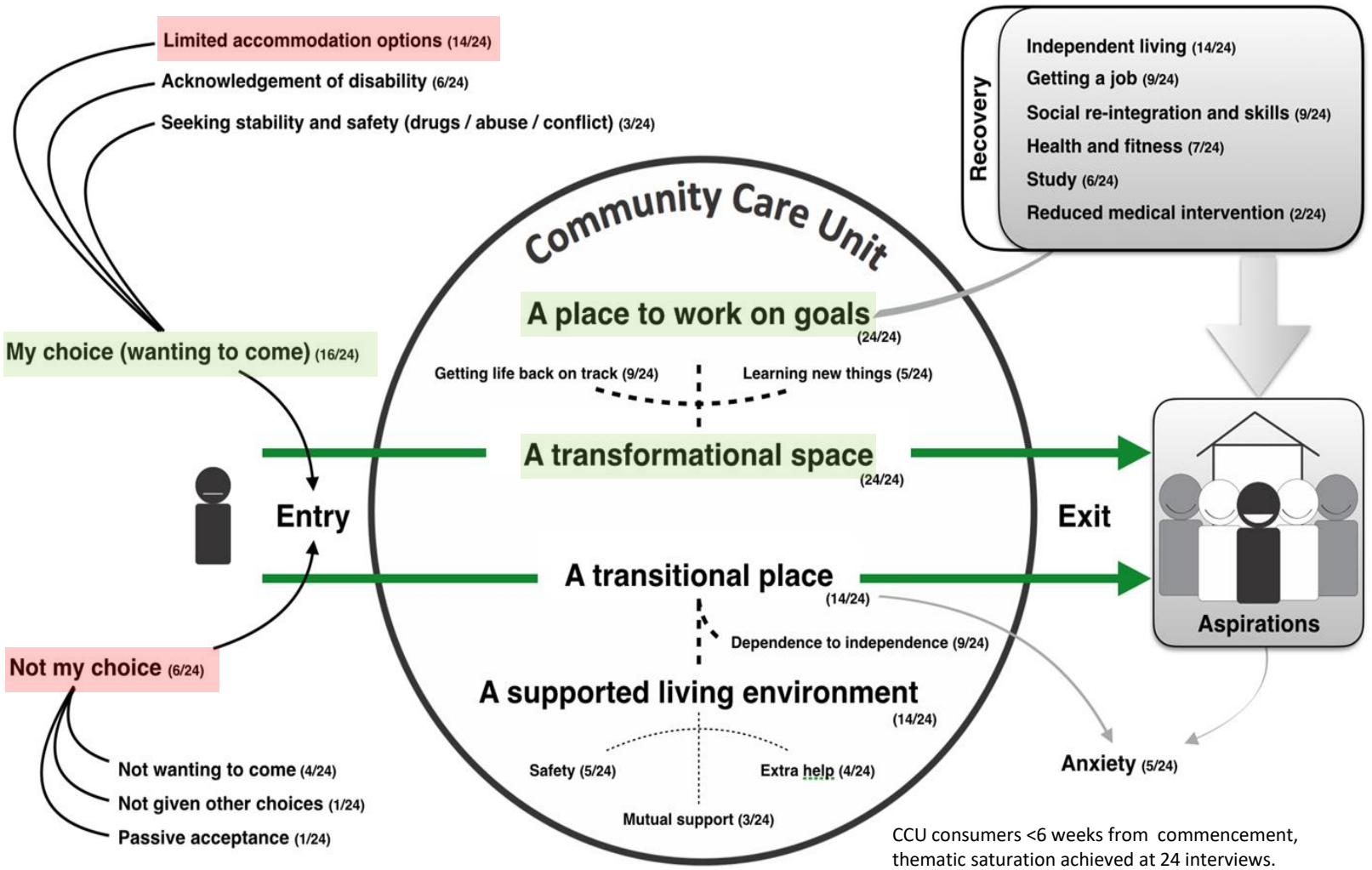
- Hypothesis generating, not a hypothesis testing approach.

Limitations

- Transferability (i.e. context dependence)

- Reflexivity, analysis led by a person previously immersed within the context from a clinical perspective

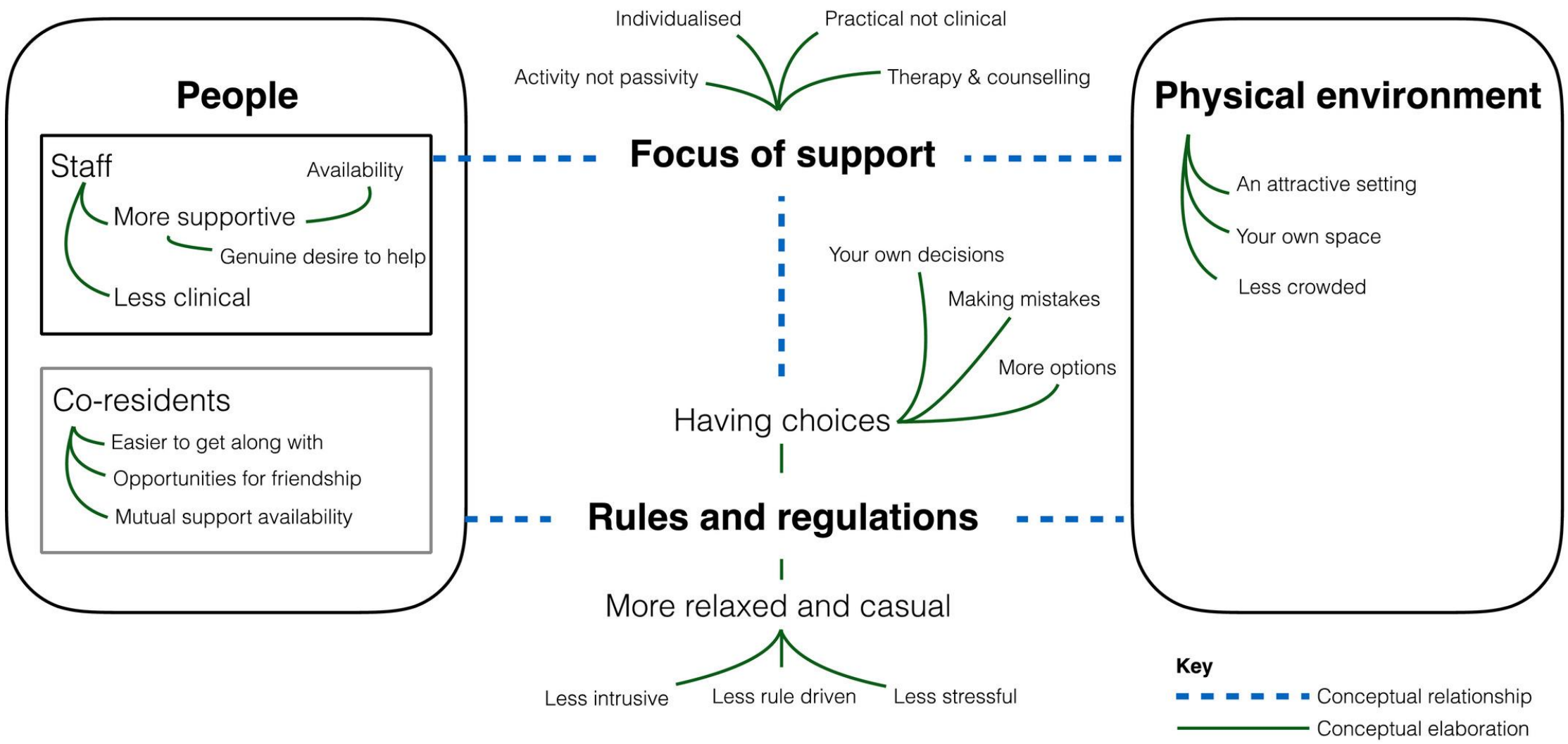
- Variation in sample across each time point (i.e. cannot be sure that is the same journey)



CCU consumers <6 weeks from commencement, thematic saturation achieved at 24 interviews.

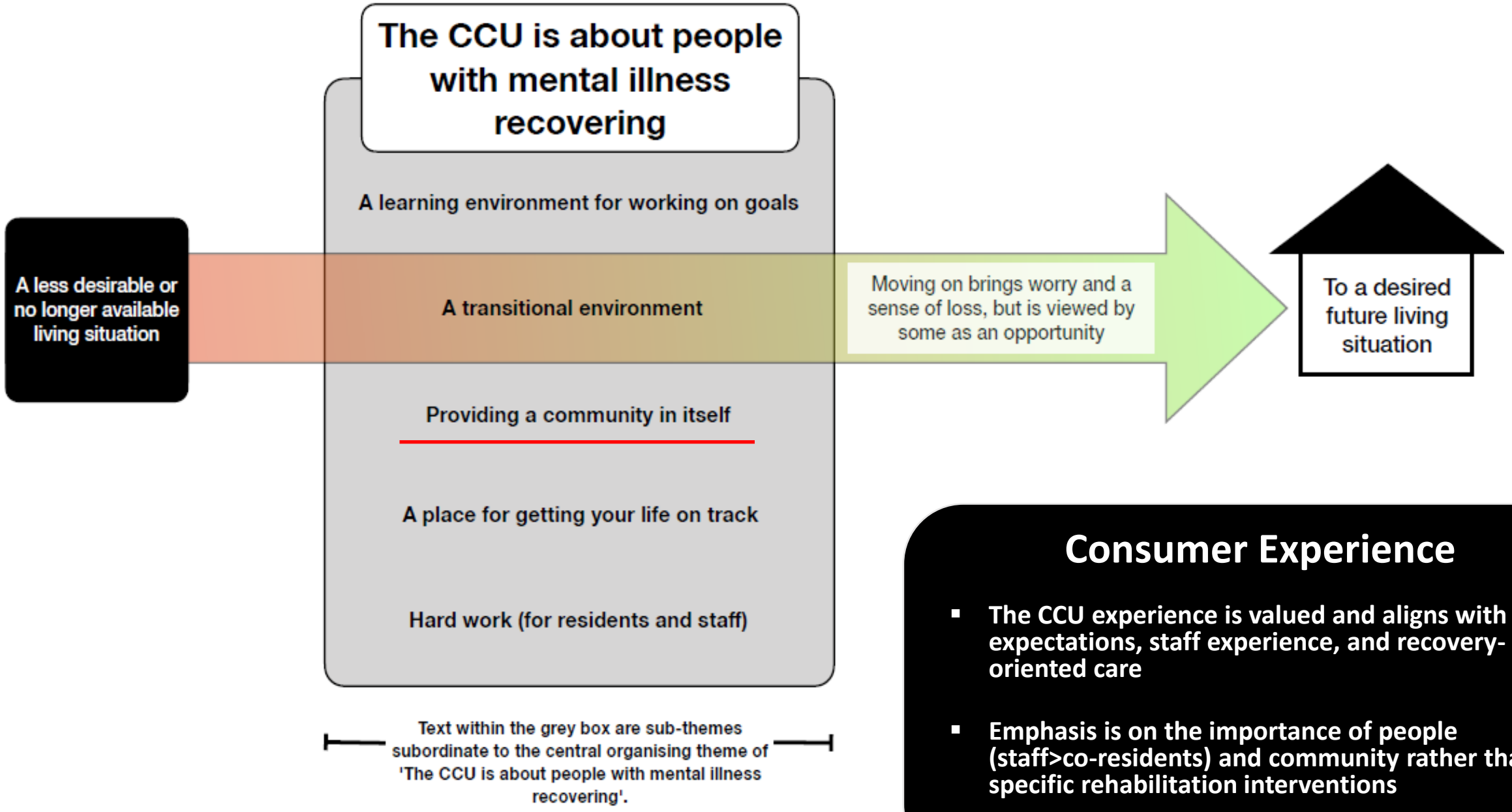
Consumer Expectations

- Expectations and goals are consistent with the nature of the rehabilitation support available
- Most actively choose to come to the service
- **BUT** lack of accommodation is often the driver



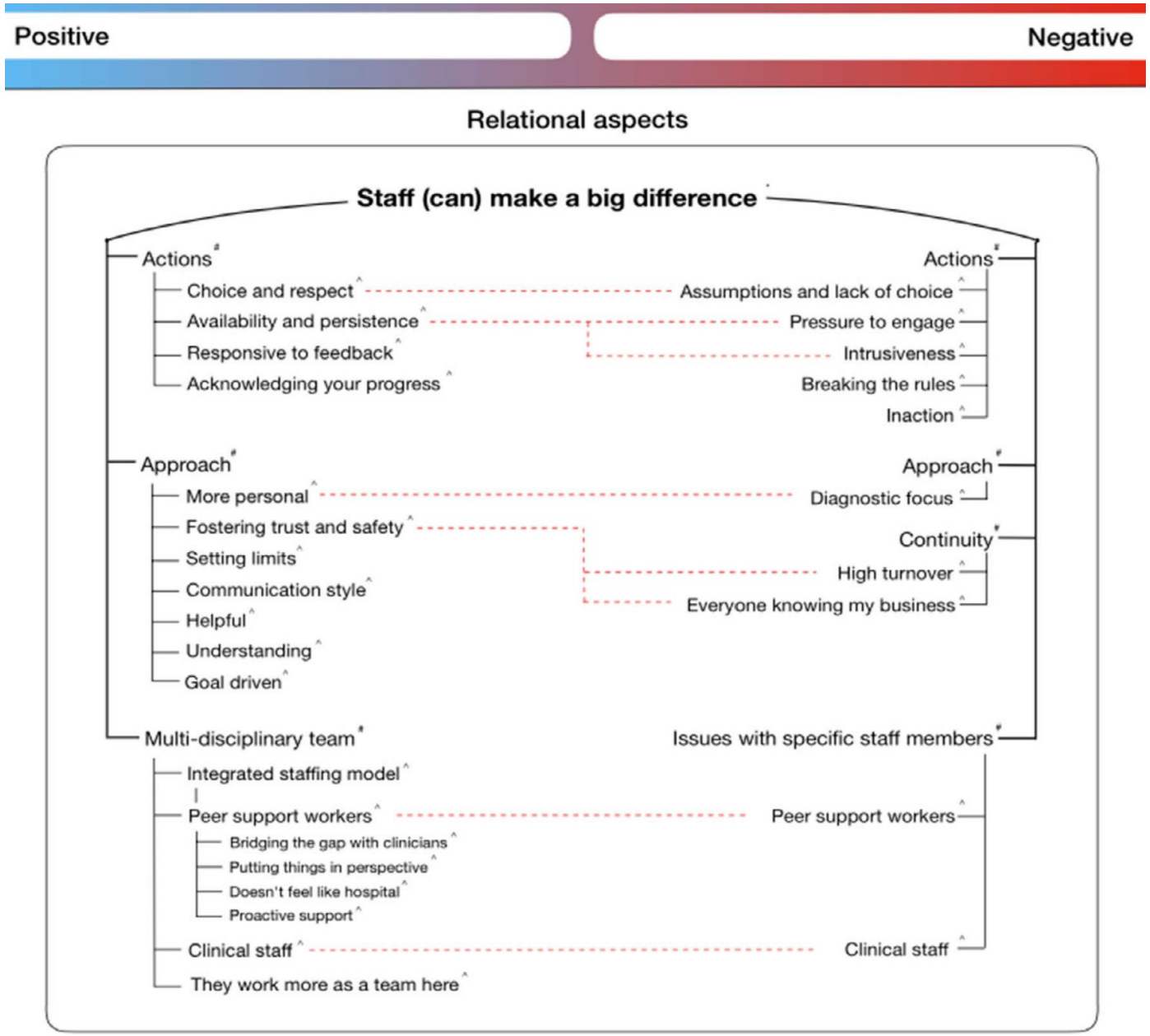
Consumer Expectations

- Consumers hope the CCU will be very different to previous experiences of care
- These hopes align with principles of recovery-oriented practice



Consumer Experience

- The CCU experience is valued and aligns with their expectations, staff experience, and recovery-oriented care
- Emphasis is on the importance of people (staff>co-residents) and community rather than specific rehabilitation interventions

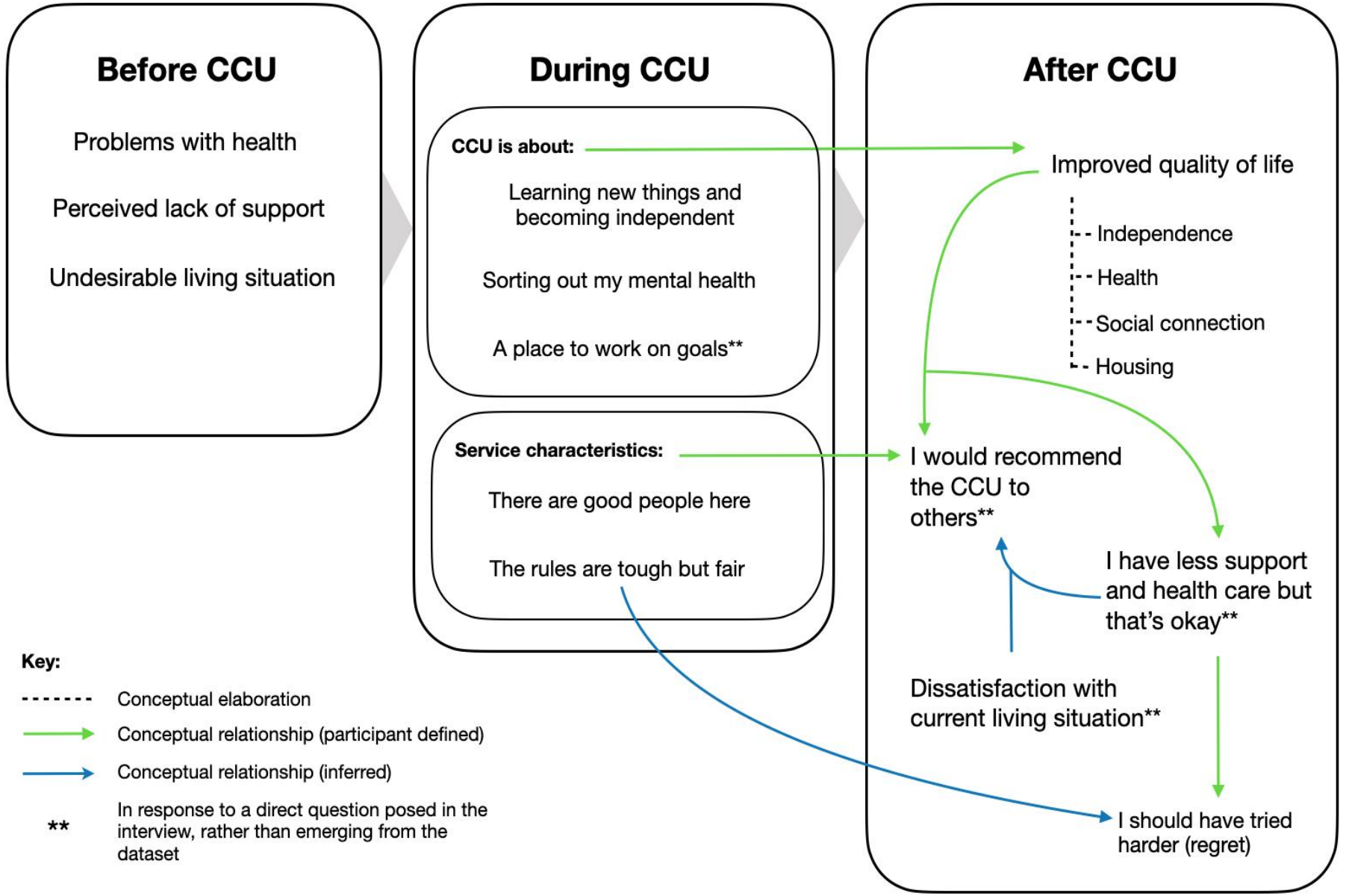


Consumer Experience

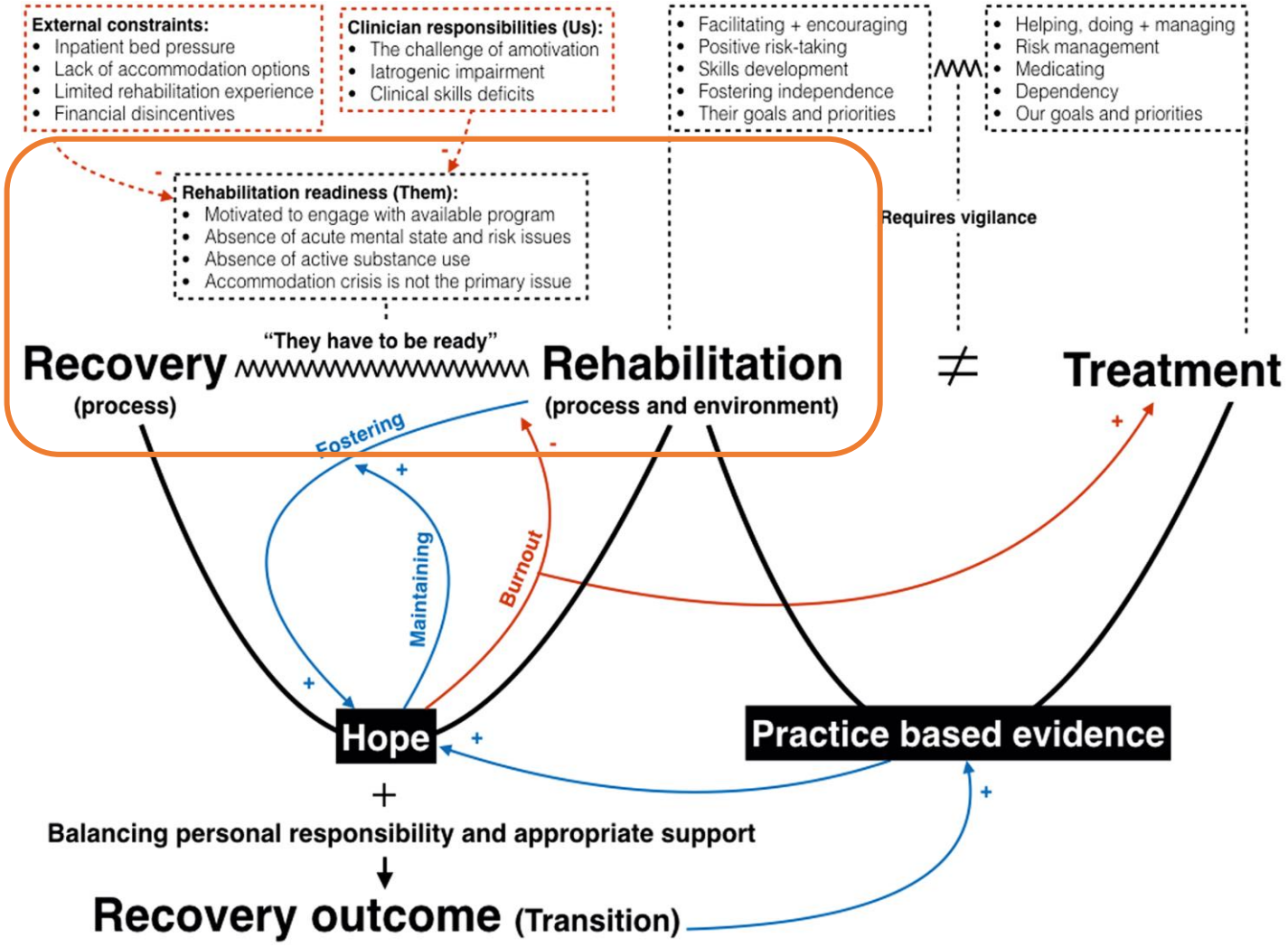
- Similar experiences reported by consumers under the clinical and integrated staffing models
- Those under the ISM tended to explicitly value this model and the availability of peer support workers.
- However, those under the clinical model described valuing clinicians' professional knowledge and skills

Consumer Reflections

- Consumers report positive impacts on quality of life in the 12-18 months post-discharge*
- Unplanned exit (i.e. being asked to leave) was not followed by negative reflections
- The description suggests that expectations were met, and that the rehabilitation function of the service translated into meaningful change in people lives



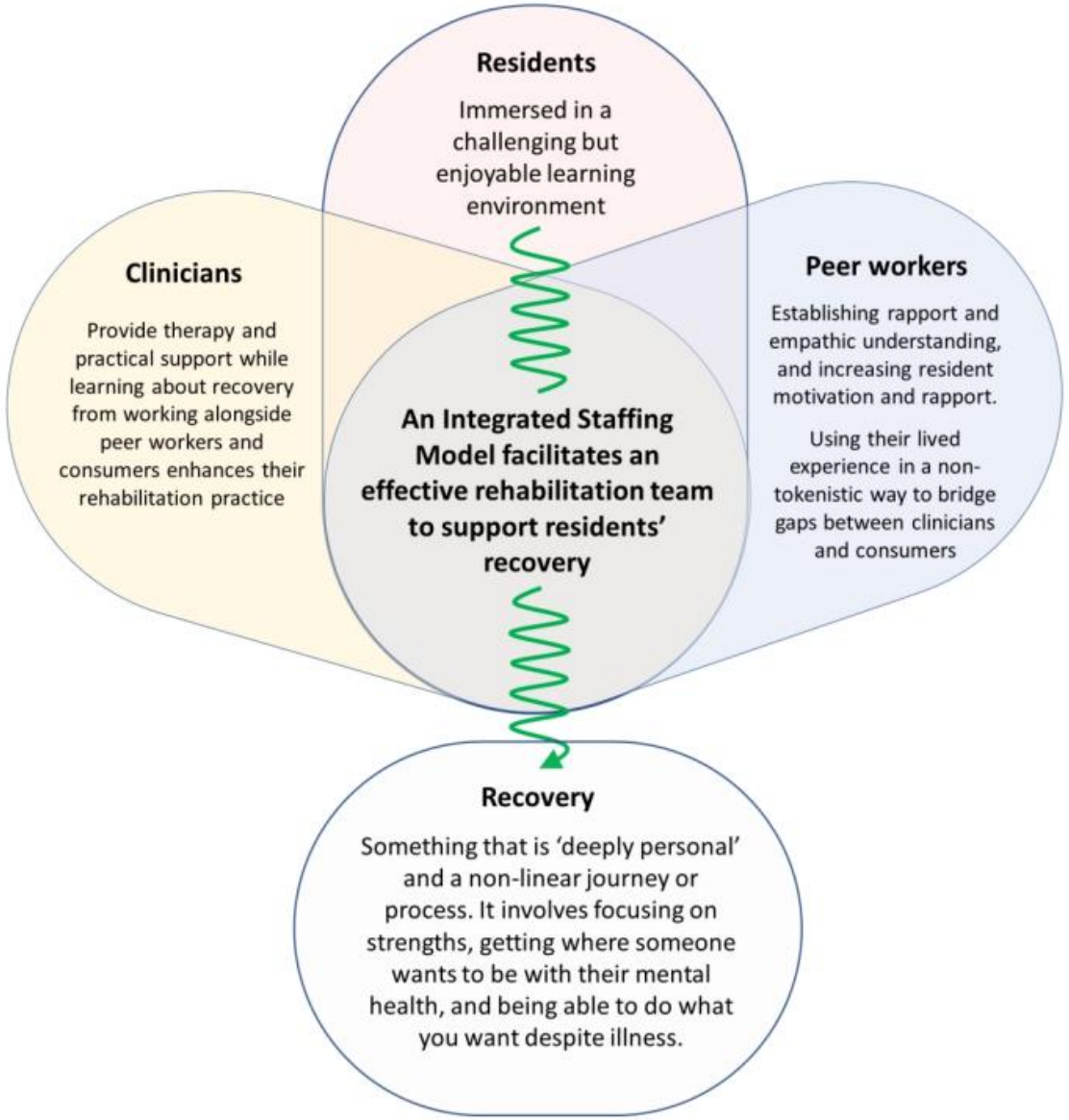
* A much more hopeful finding to the earlier Victorian experience



Staff experience of a CCU operating the integrated staffing model

Staff expectations and experience

- Similar understandings of the function of the CCU emerged across the staffing models
- Staff from the clinically staffed unit emphasised tensions between rehabilitation and recovery, and barriers to rehabilitation engagement.



Staff understanding and experience of working at a community-based residential mental health rehabilitation unit under the integrated staffing model. Note that the solid green line reflects the journey of resident towards recovery, and does not imply that there is a singular path to achieve this.

Staff expectations and experience

- Similar understandings of the function of the CCU emerged across the staffing models
- Staff from the clinically staffed unit emphasised tensions between rehabilitation and recovery, and barriers to rehabilitation engagement.
- ISM staff showed great focus of personal recovery and the opportunities for learning from each other
- ISM acknowledged initial difficulties bringing clinical and lived experience together, but at 12-18 months reflected positively on integration being achieved.

Consumers (and staff) reflect positively on the CCU experience, it's ability to deliver recovery-oriented care, and to positively impact post-discharge quality of life. Additionally, both consumers and staff valued the integrated model and the availability of lived experience workers.

BUT… what does the 'hard' data tell us about these services and their effectiveness…

Table 2 Routine clinical assessment battery and administrative data collection over the baseline, admission, discharge and follow-up collection points

Domain		Measure	Baseline (−12–0 months)	Admission (0–6 weeks post)	Discharge (0–6 weeks prior)	Follow-up (0–12 months)
Administrative data		Health of the Nation Outcome Scale (HoNOS) [26][A]	X	X	X	X[1]
		Life Skills Profile (LSP-16) [48][B]	X*	X	X	X[2]
		Mental Health Inventory (MHI-38) [51][B]	X	X	X	X[2]
		Mental health related Emergency Department presentations	X	X	X	X[2]
		Psychiatric inpatient bed days	X*	X	X	X[2]
Clinical assessment battery	Symptom measures	Alcohol Use Disorders Identification Test (AUDIT) [60]		X*	X	
		Brief Psychiatric Rating Scale (BPRS) [46]		X	X[2]	
		Scale for the Assessment of Negative Symptoms (SANS) [87]		X	X[2]	
	Functional Cognition	Allen's Cognitive Levels (ACL) [59]		X*	X	
	Social-function	Social Functioning Scale (SFS) [88]		X*	X[2]	
	Functional	Perceive Recall Plan & Perform System of Task Analysis (PRPP) [89]		X	X	
	Recovery	Stages of Recovery Instrument (STORI-30) [49]		X*	X[2]	
	Carer burden	Burden Assessment Scale (BAS) [90]		X	X	
		Adult Carer Quality of Life (AC-QoL) [50]		X	X[2]	

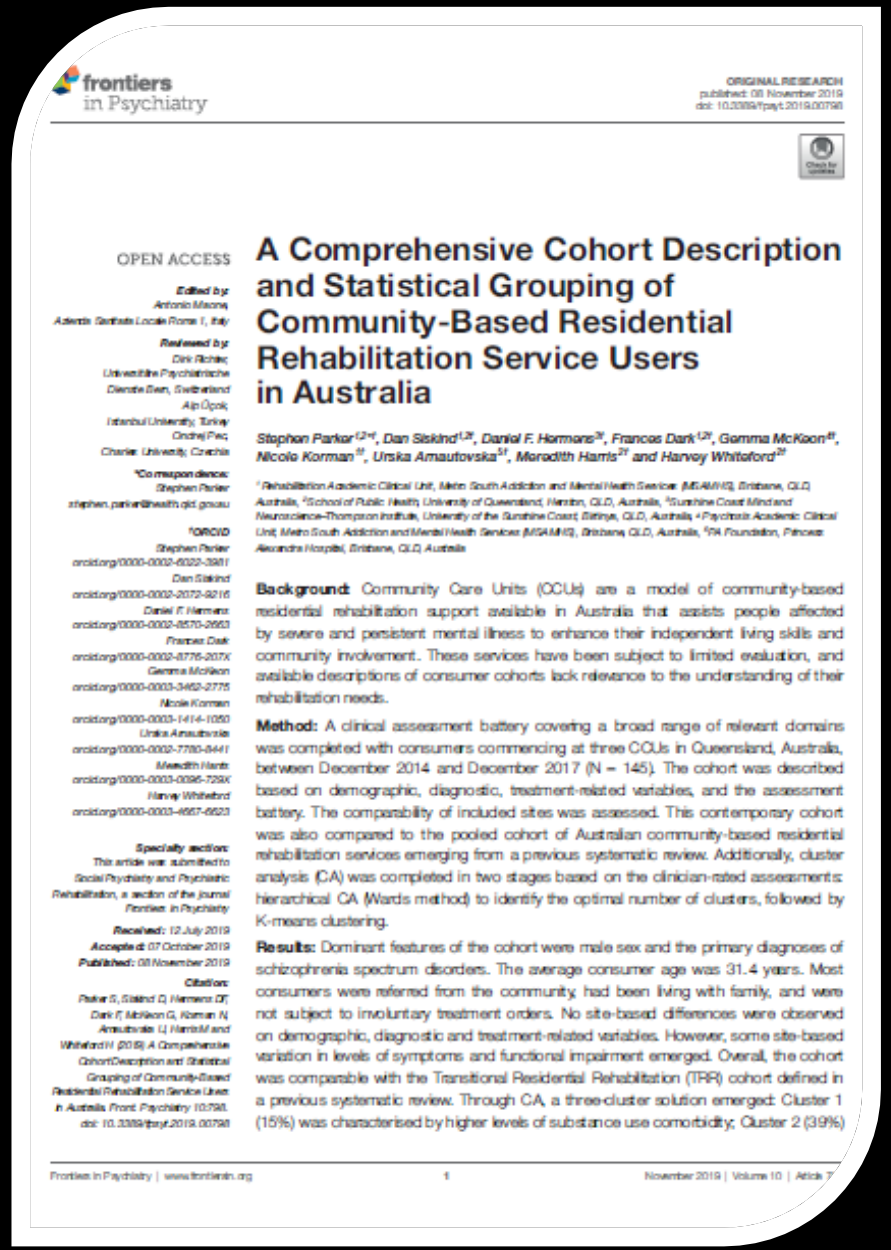
[A] HoNOS is routinely collected on admission and discharge from inpatient, community residential and ambulatory services, and 3-monthly review periods in the non-inpatient settings
[B] LSP-16 and MHI are routinely collected on admission, discharge and 3-monthly review in community residential and ambulatory services
[1] Primary outcome measure, examining change in total score between the Baseline and Follow-up periods
[2] Planned secondary outcome, examining change between Admission and Discharge for Clinical assessment battery items, and Baseline and Follow-up for Administrative data items
* Planned predictor in hierarchical linear regression modelling, note that for STORI-30 change between Admission and Discharge stage will be used (reduced, stable, increased)
X Collection occasion

A comprehensive **quantitative** data-set was generated through the use of a routine **assessment battery** on admission and discharge, and **routine administrative data-sets**.

The availability of such data enables creative exploration of questions relating to the services and the outcomes that are achieved. All you need is the time and the relevant skills (or supervisory support).

We analysed the cohort admission data to establish the comparability of consumers admitted across the three sites. Consumers were generally comparable between the two staffing models.

An exploratory quantitative analysis was undertaken to consider sub-groups within the cohort…



frontiers in Psychiatry

ORIGINAL RESEARCH
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OPEN ACCESS

A Comprehensive Cohort Description and Statistical Grouping of Community-Based Residential Rehabilitation Service Users in Australia

Background: Community Care Units (CCUs) are a model of community-based residential rehabilitation support available in Australia that assists people affected by severe and persistent mental illness to enhance their independent living skills and community involvement. These services have been subject to limited evaluation, and available descriptions of consumer cohorts lack relevance to the understanding of their rehabilitation needs.

Method: A clinical assessment battery covering a broad range of relevant domains was completed with consumers commencing at three CCUs in Queensland, Australia, between December 2014 and December 2017 (N = 145). The cohort was described based on demographic, diagnostic, treatment-related variables, and the assessment battery. The comparability of included sites was assessed. This contemporary cohort was also compared to the pooled cohort of Australian community-based residential rehabilitation services emerging from a previous systematic review. Additionally, cluster analysis (CA) was completed in two stages based on the clinician-rated assessments: hierarchical CA (Wards method) to identify the optimal number of clusters, followed by K-means clustering.

Results: Dominant features of the cohort were male sex and the primary diagnoses of schizophrenia spectrum disorders. The average consumer age was 31.4 years. Most consumers were referred from the community, had been living with family, and were not subject to involuntary treatment orders. No site-based differences were observed on demographic, diagnostic and treatment-related variables. However, some site-based variation in levels of symptoms and functional impairment emerged. Overall, the cohort was comparable with the Transitional Residential Rehabilitation (TRR) cohort defined in a previous systematic review. Through CA, a three-cluster solution emerged: Cluster 1 (15%) was characterised by higher levels of substance use comorbidity; Cluster 2 (39%)

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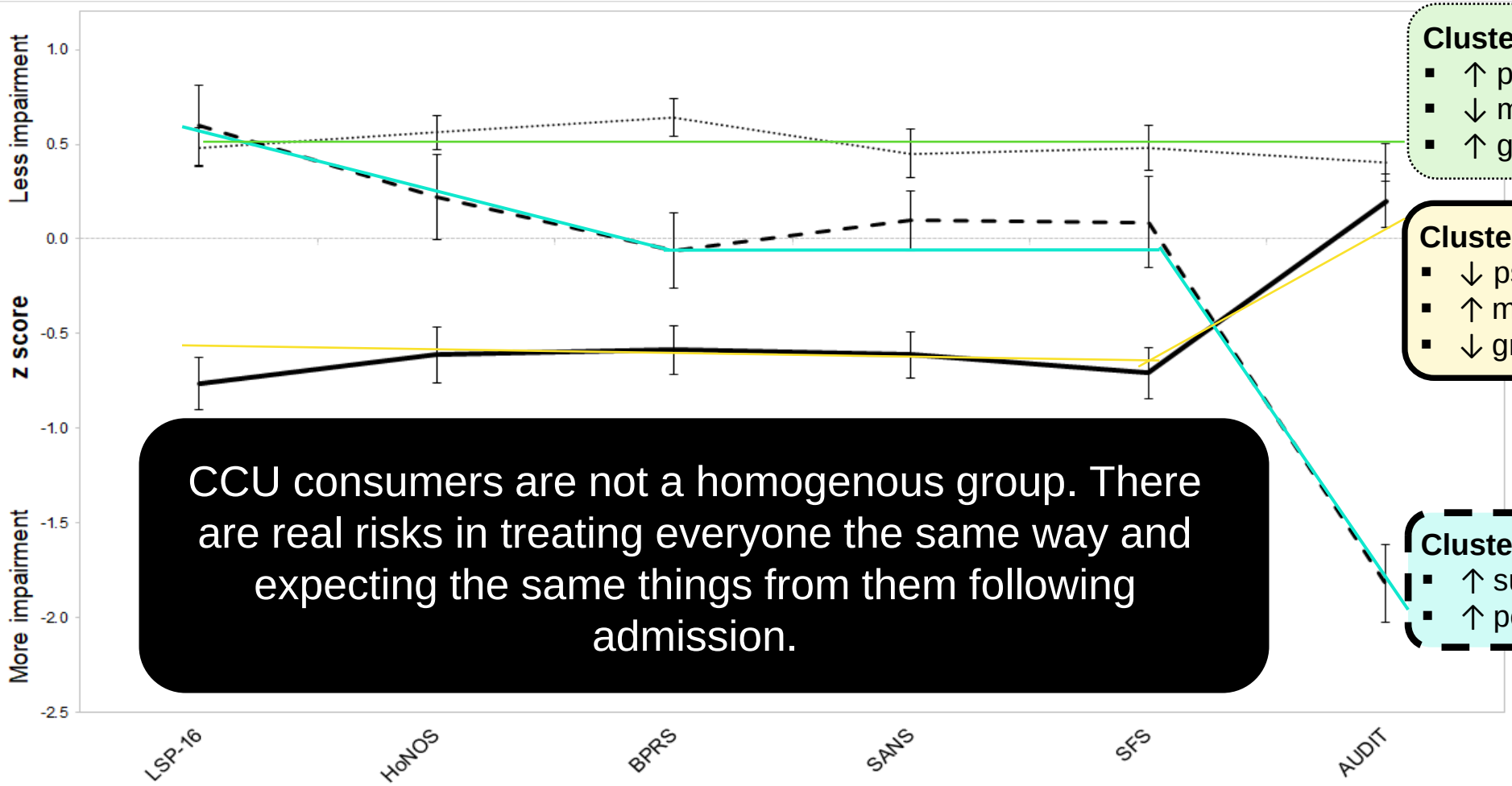
Final cluster solution* with z-score means and standard error by cluster for variables making a significant contribution to the underlying factors



Cluster 3:
- ↑ psychological wellbeing
- ↓ moratorium recovery stage
- ↑ growth recovery stage

Cluster 2:
- ↓ psychological wellbeing
- ↑ moratorium recovery stage
- ↓ growth recovery stage

Cluster 1:
- ↑ substance use
- ↑ personality disorder

CCU consumers are not a homogenous group. There are real risks in treating everyone the same way and expecting the same things from them following admission.

* Cluster solution based on clinician rated measures, without assessment of inter-rater reliability

	Cluster 1 (n = 17)	Cluster 2 (n = 43)	Cluster 3 (n = 51)	TOTAL (N = 111)	Test[b]	p
Primary diagnosis[a]						
F20-29.x Schizophrenia spectrum	82.4%	88.4%	72.5%	80.2%	Fisher's Exact Test[c]	.156
Specific disorders[a]:						
- F20.x Schizophrenia	64.7%	60.5%	64.7%	63.1%	–	–
- F25.x Schizoaffective disorder	17.6%	20.9%	3.9%	12.6%	–	–
- F29.x Unspecified psychosis	–	7.0%	3.9%	4.5%	–	–
- F31.x Bipolar disorder	11.8%	2.3%	13.8%	9.0%	–	–
- F32-34.x Depressive disorders	5.9%	7.0%	5.9%	6.3%	–	–
- Other disorders	–	2.3%	3.9%	2.7%	–	–
Secondary diagnoses/issues						
Current tobacco use	70.6%	65.1%	47.1%	57.7%	$X^2_{(2)} = 4.491$	.106
Substance use	94.1%	32.6%	35.3%	43.2%	$X^2_{(2)} = 21.240$	.000[d]
Physical health issue	11.8%	27.9%	17.6%	20.7%	Fisher's Exact Test[c]	.353
Trauma history	5.9%	2.3%	11.8%	7.2%	Fisher's Exact Test[c]	.207
Anxiety disorder	5.9%	4.7%	15.7%	9.9%	Fisher's Exact Test[c]	.191
Developmental disorder	5.9%	4.7%	13.3%	8.1%	Fisher's Exact Test[c]	.456
Personality disorder	23.5%	4.7%	3.9%	7.2%	Fisher's Exact Test[c]	.042[e]
Obsessive-Compulsive Disorder	–	9.3%	3.9%	5.4%	Fisher's Exact Test[c]	.447

[a] *Test statistic calculated only for the presence/absence of F20-29.x diagnoses (see above) given the number of diagnostic categories*

[b] *For categorical variables, the Chi Square test was applied unless the expected count for any cell was <5, in this case, Fisher's Exact test was calculated*

[c] *Unadjusted odds ratio: F20-29.x Schizophrenia spectrum = 3.628, Substance use = 22.60, Physical health issue = 2.239; Trauma history = 2.943; Trauma history = 3.099; Developmental disorder = 1.513; Personality disorder = 6.082; Obsessive-Compulsive Disorder = 1.787*

[d] *Cells with adjusted standardised residuals ≥+2 = Cluster 1 (Substance use issue – Yes)*

[e] *Cells with adjusted standardised residuals ≥+2 = Cluster 1 (Personality Disorder – Yes)*

	Cluster 1		Cluster 2		Cluster 3		N[a]	$\bar{x}$(SD)	Test	p
	n	$\bar{x}$(SD)	n	$\bar{x}$(SD)	n	$\bar{x}$(SD)				
MHI-38 (Total)	17	49.88(22.209)	43	51.84(19.848)	51	63.00(17.034)	111	56.67(19.720)	$K_{(2)} = 10.445$	.005[a]
Psychological wellbeing		38.53(23.492)		40.00(22.018)		53.31(21.575)		45.89(22.901)	$K_{(2)} = 11.118$	.004[a]
Psychological distress		43.41(24.308)		39.26(22.065)		27.12(22.230)		34.32(23.298)	$K_{(2)} = 7.836$	.020[b]
STORI-30	16	–	42	–	47	–	105	–	Fisher's Exact Test[b]	.015[c]
Moratorium	3	18.8%	9	21.4%	2	4.3%	14	13.3%		
Awareness	7	43.8%	15	35.7%	10	21.3%	32	30.5%		
Preparation	1	6.3%	2	4.8%	6	12.8%	9	8.6%		
Rebuilding	2	12.5%	9	21.4%	7	14.9%	18	17.1%		
Growth	3	18.8%	7	16.7%	22	46.8%	32	30.5%		

[a] *Post-hoc tests with Bonferroni correction for multiple tests identified statistically significant pairwise comparison between Cluster 3 and 1&2*

[b] *Post-hoc tests with Bonferroni correction for multiple tests identified no statistically significant pairwise comparisons*

[c] *Unadjusted odds ratio: STORI-30 = 17.810; cells with adjusted standardised residuals ≥+2 = Cluster 2 (Moratorium) and Cluster 3 (Growth), cells with adjusted standardised residuals ≤-2 = Cluster 2 (Growth) and Cluster 3 (Moratorium).*

This grouping has resonance with staff and facilitated a shift away from a focus on ‘rehab readiness’ and revision of local processes

Expectation that some consumers will be suitable for earlier discharge leading to increased focus on transition plan from commencement

Addressing substance use from entry will be critical to avoiding unplanned discharge, leading to trials of groups in partnership with AODS and increased assertiveness of pharmacological support (e.g. naltrexone)

Those likely most in need of rehabilitation support may be least ready at the outset to engage in formal psychosocial treatment, increasing emphasis on building hope and motivation for those appearing least engaged

As the data collection progressed we became aware that our service far exceeded the rest of the state in rates of unplanned discharge…

So we used information the admission data-set to model predictors of this outcome locally.

JOURNAL OF MENTAL HEALTH
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ORIGINAL ARTICLE

Predictors of unplanned discharge from community-based residential mental health rehabilitation for people affected by severe and persistent mental illness

Urska Arnautovska[a], Gemma McKeon[b], Frances Dark[b,c], Dan Siskind[b,c,d], Meredith Harris[c,e] and Stephen Parker[b,d,e]

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ABSTRACT

Background: Little is known about what predicts disengagement from rehabilitation treatment for people affected by severe and persistent mental illness (SPMI).
Aims: To identify predictors of unplanned discharge among consumers admitted to community-based residential rehabilitation units in Australia.
Method: Secondary analysis of data from a prospective cohort study of consumers admitted to three Community Care Units (CCUs) between 2014 and 2017 ($n = 139$). CCUs provide transitional residential rehabilitation support to people affected by SPMI. Demographic, treatment-related and clinical predictors of unplanned discharge were identified using binomial regression models controlling for site-level variability. Factors associated with self- vs staff-initiated unplanned discharge were also examined.
Results: 38.8% of consumers experienced unplanned discharge. Significant predictors of unplanned discharge were younger age, higher alcohol consumption and disability associated with mental illness, as well as recovery stage indicating a sense of growth and higher competence in daily task performance. 63.0% of unplanned discharges were initiated by staff, mostly for substance-related reasons (55.9%). History of trauma was more likely among consumers with self-initiated discharge than those with staff-initiated unplanned and planned discharge.
Conclusions: Assertive intervention to address alcohol-use, and ensuring care is trauma-informed, may assist in reducing rates of unplanned discharge from rehabilitation care.

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Patient discharge; psychiatric rehabilitation; residential treatment; schizophrenia; severe and persistent mental illness

Introduction

Community Care Units (CCUs) are a publicly-funded Australian model of residential psychiatric rehabilitation providing transitional (6–24 months) care focused on improving the community functioning and independence of people affected by severe and persistent mental illness (SPMI) (Parker et al., 2019a). Not all consumers admitted to a CCU will receive the full planned episode of care. Unplanned discharges may be staff initiated in the case of acute deterioration in mental state necessitating a higher level of support, or breach of unit protocols intended to maintain safety and the therapeutic milieu. Additionally, some consumers elect to leave the service prior to the completion of planned care. People who experience unplanned discharge may not have had sufficient opportunity to receive optimal care, this may contribute to negative outcomes and increased use of services post-discharge (Pekarik, 1985). Little is known about the frequency of unplanned discharge from CCUs and the factors increasing the likelihood of it occurring.

Data from a single CCU found that 42% of consumers were discharged before the completion of planned rehabilitation due to breaches of the drug and alcohol policy (Stopa et al., 2019). This is concerning given that most consumers admitted to contemporary CCUs are current tobacco users, and almost half have other comorbid substance use issues (Parker et al., 2019b). Premature discharge would be expected to reduce the likelihood of favourable rehabilitation outcomes (Tsoutsoulis et al., 2018). The limited available evidence suggests that active substance use is a crucial driver for premature discharge (Meehan et al., 2017; Stopa et al., 2019). Additionally, a qualitative study found that staff view the appropriateness of consumers admitted for rehabilitation is detrimentally impacted by substance use, high levels of acute symptoms, poor motivation and accommodation crisis being a primary driver for engagement (Parker et al., 2017a).

There is no research available specifically examining predictors of unplanned discharge at CCUs and other models of community-based residential mental health rehabilitation. However, a small number of studies have examined

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Data set and Methods

- All consumers from the previous study discharged at the date of data extraction (n=139/145)
- Demographic, diagnostic, symptomatic and functional measures were included as potential predictors
- Hierarchical logistic regression was used to identify predictors of unplanned discharge
- Between groups comparisons were made to compare consumers with self- and staff-initiated unplanned discharge

Key findings

- Unplanned discharge is common (54/139 = 39%). Most often this is staff-initiated (34/54 = 63%), most-commonly due to substance use (15/34 = 44%)
- Unplanned discharge was more likely for people on government benefits, with alcohol use problems, and higher self-rated recovery
- The only statistically significant difference between people with self- and staff-initiated unplanned discharge was a history of trauma (30% v 6% (and 7.1% for planned)

Higher levels of alcohol use > ?wanting to leave or asked to go

Younger consumers are more likely to leave… ?extant family support, more intact social networks

Table 4. Binary logistic regression with statistically significant predictors ($p < 0.05$) of unplanned discharge (N = 139), with site/staffing model as a control variable.

Predictor variables	*p* Value	B	SE of B	Exp(β)	95% CI
Age	0.027*	−0.062	0.028	0.940	0.890–0.993
Alcohol use (AUDIT Consumption subscale score)	0.021*	0.180	0.078	1.197	1.027–1.395
Social functioning (SFS Independence-Competence subscale)	0.004*	0.223	0.077	1.250	1.076–1.452
Stage of recovery (STORI-30 Growth stage score)	0.002*	0.116	0.038	1.123	1.043–1.210

Independent variables: site/staffing model (the reference category = integrated staffing model); AUDIT: Alcohol Use Disorders Identification Test; SFS: Social Functioning Scale; STORI-30: Stages of Recovery Instrument.
Dependent variable: 0 = planned discharge and 1 = unplanned discharge.
B: unstandardized regression coefficients; β: standardised regression coefficients; SE: Standard Error; CI: Confidence Interval. The full model correctly classified 74.4% of consumers (81.4% as having planned discharge and 58.3% as having unplanned discharge). *$p < 0.05$.

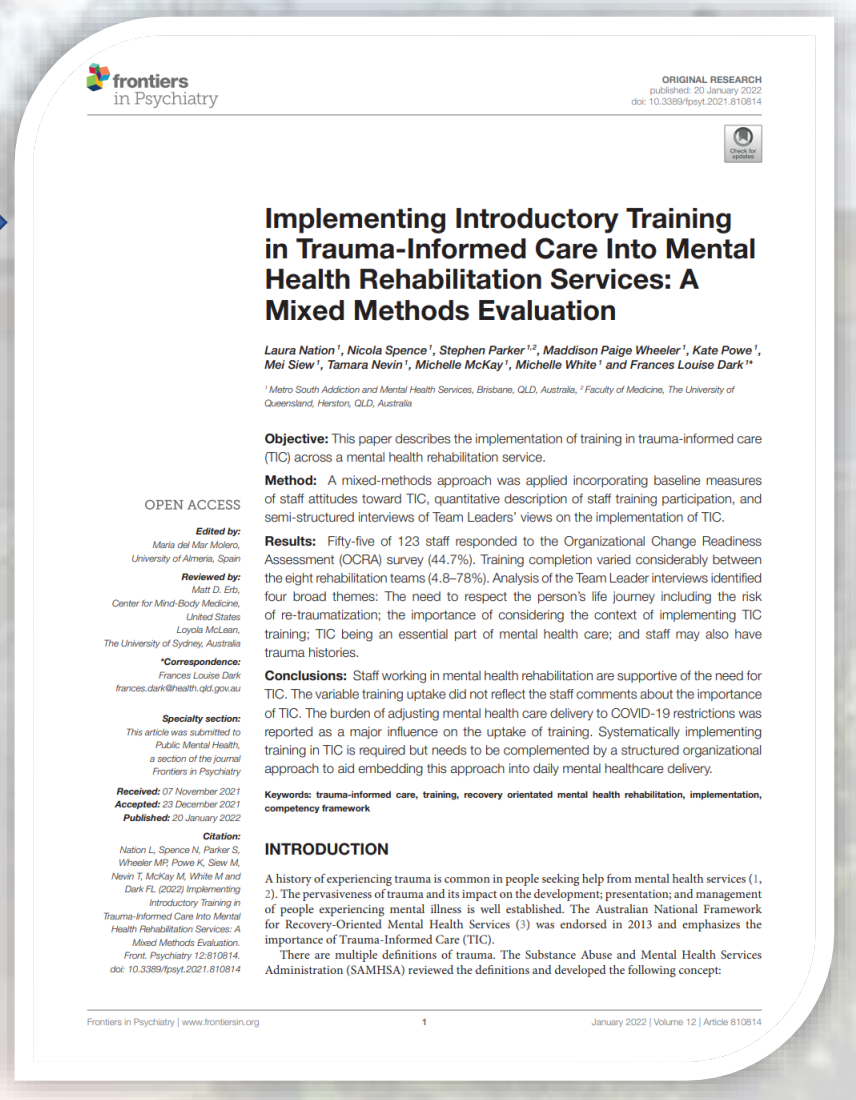
Higher self-rated recovery > ?residential rehabilitation perceived as less relevant

Better social functioning > ?more accommodation options, residential care less relevant

These findings suggest

- The importance of trauma informed care, and the possibility that aspects of the residential rehabilitation environment may be less tolerable for people with a history of trauma (who are more likely to choose to leave)

- The importance of identifying substance use issues on admission and actively supporting consumers (who are more likely to be asked to leave)



frontiers in Psychiatry

ORIGINAL RESEARCH
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Implementing Introductory Training in Trauma-Informed Care Into Mental Health Rehabilitation Services: A Mixed Methods Evaluation

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Objective: This paper describes the implementation of training in trauma-informed care (TIC) across a mental health rehabilitation service.

Method: A mixed-methods approach was applied incorporating baseline measures of staff attitudes toward TIC, quantitative description of staff training participation, and semi-structured interviews of Team Leaders' views on the implementation of TIC.

Results: Fifty-five of 123 staff responded to the Organizational Change Readiness Assessment (OCRA) survey (44.7%). Training completion varied considerably between the eight rehabilitation teams (4.8–78%). Analysis of the Team Leader interviews identified four broad themes: The need to respect the person's life journey including the risk of re-traumatization; the importance of considering the context of implementing TIC training; TIC being an essential part of mental health care; and staff may also have trauma histories.

Conclusions: Staff working in mental health rehabilitation are supportive of the need for TIC. The variable training uptake did not reflect the staff comments about the importance of TIC. The burden of adjusting mental health care delivery to COVID-19 restrictions was reported as a major influence on the uptake of training. Systematically implementing training in TIC is required but needs to be complemented by a structured organizational approach to aid embedding this approach into daily mental healthcare delivery.

Keywords: trauma-informed care, training, recovery orientated mental health rehabilitation, implementation, competency framework

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INTRODUCTION

A history of experiencing trauma is common in people seeking help from mental health services (1, 2). The pervasiveness of trauma and its impact on the development; presentation; and management of people experiencing mental illness is well established. The Australian National Framework for Recovery-Oriented Mental Health Services (3) was endorsed in 2013 and emphasizes the importance of Trauma-Informed Care (TIC).

There are multiple definitions of trauma. The Substance Abuse and Mental Health Services Administration (SAMHSA) reviewed the definitions and developed the following concept:

By the early 2020 all consenting consumers admitted between 2014-17 had been discharged (n=145). This permitted the admission-discharge outcome comparisons based of the assessment battery data.

A key concern that had been expressed with the introduction of the integrated staffing model was the risk of it limiting outcomes due to the reduced proportionate availability of clinical staff.

Table 3. Comparison of reliable improvement in outcome variables from admission to discharge between clinical and integrated staffing models, based on Reliable Change Index (RCI)[a].

	Cut-off	Clinical n(%)	Integrated n(%)	Total n(%)	Test	Cramer's V [c]	p
Reliable improvement based on the Reliable Change Index (RCI)							
Functioning & disability							
HoNOS Total (n=142)	-1	21(40.4)	50(56.2)	71(50.4)	$\lambda^2_{(1)}$=3.276	.152	.070
LSP-16 Total (n=142)	-1	24(45.3)	50(56.2)	74(52.1)	$\lambda^2_{(1)}$=1.581	.106	.209
SFS Total (n=81)	+7	13(43.3)	32(62.7)	45(55.6)	$\lambda^2_{(1)}$=2.883	.189	.090
Symptoms							
BPRS-18 Total (n=91)	-8	12(30.8)	32(60.4)	44(47.8)	$\lambda^2_{(1)}$=7.893	.293	.005
SANS Total (n=91)	-8	24(70.6)	42(73.7)	66(72.5)	$\lambda^2_{(1)}$=0.102	.034	.749
Substance use							
AUDIT Total (n=78)	-2	9(33.3)	18(35.3)	27(34.6)	$\lambda^2_{(1)}$=0.030	.020	.863
Psychological well-being							
MHI Index (n=135)	+7	32(65.3)	55(63.2)	87(64.0)	$\lambda^2_{(1)}$=0.025	.014	.875

M: Mean; SD: Standard deviation; RCI: Reliable Change Index; RCS: Reliable and Clinically Significant; HoNOS: Health of the Nation Outcome Scales; SFS: Social Functioning Scale; LSP-16: Life Skills Profile; BPRS-18: Brief Psychiatric Rating Scale; SANS: Scale for the Assessment of Negative Symptoms; AUDIT: Alcohol Use Disorders Identification Test; MHI: Mental Health Index.

Most consumers experienced reliable improvement across a broad range of functional measures and in psychological wellbeing

Improvement in negative symptoms occurred more frequently than for psychiatric symptoms generally

Improvement in problematic alcohol use did not occur frequently*

Overall, there were minimal differences between frequency of reliable improvement between the clinical and integrated staffing model consumers, the exception being the BPRS-18 (general psychiatric symptoms). Where most consumers under the ISM showed improvement.

* Note that this was accounted for largely by low base rates and increases in consumption within the non-problematic range

Table 3. Comparison of reliable improvement in outcome variables from admission to discharge between clinical and integrated staffing models, based on Reliable Change Index (RCI)[a].

	Cut-off	Clinical n(%)	Integrated n(%)	Total n(%)	Test	Cramer's V [c]	p
Reliable and Clinically Significant (RCS) improvement							
Functioning & disability							
HoNOS Total (n=142) [a]	13	10(19.2)	25(28.1)	35(24.8)	$\lambda^2_{(1)}$=1.380	.099	.240
LSP-16 Total (n=142) [a]	26	-(-)	3(3.4)	3(2.1)	Fisher's Exact	-	.293
SFS Total (n=81)	120	5(16.7)	2(3.9)	7(8.6)	Fisher's Exact	-	.095
Symptoms							
BPRS Total (n=91) [a]	31	10(25.6)	15(28.3)	25(27.2)	$\lambda^2_{(1)}$=.080	.030	.777
SANS Total (n=91) [a]	49	10(30.3)	24(41.4)	34(37.4)	$\lambda^2_{(1)}$=1.103	.110	.293
Psychological well-being							
MHI Index (n=135) [b]	94.1%	0(0.0)	3(3.4)	3(2.2)	Fisher's Exact	-	.552

M: Mean; SD: Standard deviation; RCI: Reliable Change Index; RCS: Reliable and Clinically Significant; HoNOS: Health of the Nation Outcome Scales; SFS: Social Functioning Scale; LSP-16: Life Skills Profile; BPRS-18: Brief Psychiatric Rating Scale; SANS: Scale for the Assessment of Negative Symptoms; AUDIT: Alcohol Use Disorders Identification Test; MHI: Mental Health Index.

Post-hoc regression analyses considering known confounders in the data set identified admission under the integrated staffing model as a predictor of reliable improvement in both social functioning (SFS) and general psychiatric symptoms (BPRS-18)

When the harder criteria of RCS change was applied improvement occurred less frequently, and there were no differences in the frequency of clinically significant improvement between the staffing model groups.

The ISM was associated with at least equivalent pre-post outcomes as the clinical staffing model

* Note limitations with the RCS approach given that many consumers were below the defined clinical significant thresholds on admission

2014>2022 8-years and counting…

A lot has been achieved….

Academic output (to date)

Publications
11x peer reviewed publications
2x papers under review
3x papers in preparation

RHD and progression
1x PhD (complete)
1x PhD commenced by CCU staff
3x Scholarly project

The service

Building research capacity and culture
29 co-authors
21 co-authors from MSAMHS
18 employees w/ 1st publication

Driving research & quality improvement
Trauma-informed care education pilot
Early recovery group pilot
New research projects in the CCU context
Staff education and process revision

Service development and change
On the basis of organizational experience and emerging evidence the staffing approach across the 3 CCUs of the service are being revised

Externally

Queensland
Funding for statewide evaluation
Collaborations with Benchmarking Unit
Informing MH Branch re future policy

National
Consultation by state health departments
Influence on guidance to Vic Royal Comm.

Facilitators….

Motivation

Motivated staff (small number)
Willing to dedicate thousands of hours of their own time

Leadership buy-in
Commitment to the project serviced as a driver for data collection compliance by less motivated staff

University partnership
Availability of methodological expertise motivated by PhD enrolment rather than a financial commitment which would have been unfeasible

Money

Organizational in kind support
Without an established track record grant funding was unrealistic. This covered costs associated with staff time, transcription etc.

Minor grant funding
RANZCP grants assisting to build motivation and limit service burden.

Major funding MH Branch
Emerging track record assisted to secure funding to cover senior RA support to progress the project.

Challenges….

Missing data

Varying staff buy-in
- Lack of a sense of ownership
- Fear about underlying motivations (clinical site)

Paper-based assessment battery
- Too ambitious
- Duplication of data entry

Meeting organizational needs

Time to data availability
- Lack of dedicated support meant delays of years between data collection and finalization

Publication

Observational research
- Harder to publish

Sounds like a lot of work… why do it:

- By working smarter (not harder) we can find ways to do things better and easier
- We already collect a lot of data through our administrative data-sets and clinical assessments
- Often the data we collect isn't being used to drive improved outcomes at the level of the individual consumer and service.
- We complain about the routine outcomes, so why not routinely measuring outcomes that really matter in a standardized way (e.g., work, housing, social networks)
- Identifying quality improvement and research as a core function of the services will make it easier to use the valuable data we collect, and to generate longitudinal data sets that will be readily available for research.

What's the risk:

Therefore….

- Unless there is a whole of team commitment to quality improvement we will end up with data of poor quality that will not be fit for purpose.

- Ensure that the collection includes information valued by each discipline
- Holding each other to account

- If we are too ambitious we will end up with unacceptably high levels of missing data, and the process will become a burden on the team.

- Focus on the data we already collect
- Measures should be brief (i.e. <5 min)
- Limit and rationalize collection instances
- Use technology and include self-report

- We would need to get the core data set right at the outset, while adding on new variables is easy (but burdensome) any change in the core collection will limit the workable numbers for research and the ability to make comparisons over time.

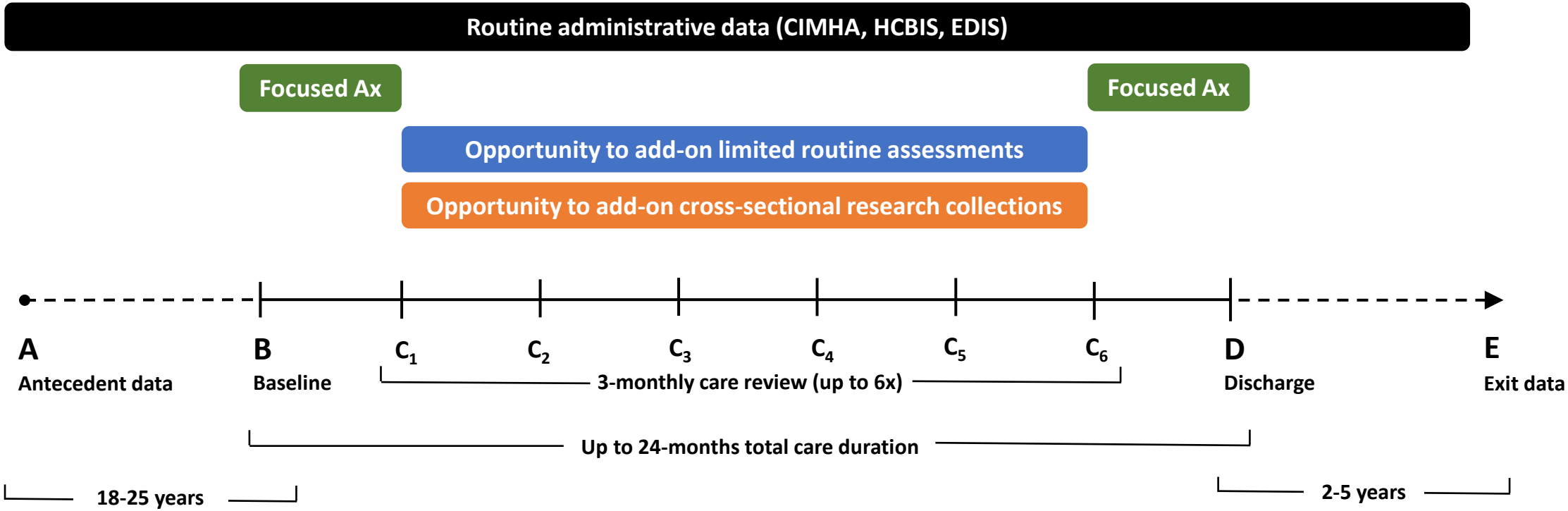
- Don't rush the planning
- Don't duplicate what's in the admin system*
- Work smart and use the resources available to us (e.g. MHIM, grants, students)

- Unblinded naturalistic assessments will limit the enthusiasm of high impact journals to publish findings based on this work.

- Never forget that the goal is improved outcomes for our consumers and their families not high impact publications
- Research based on this data is publishable, this is most likely if we are aware and transparent in considering the limitaitons

* Unless there is a known problem with the variable in the administrative system

Sources of routine data collection



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Emergent learning about becoming a data driven service:

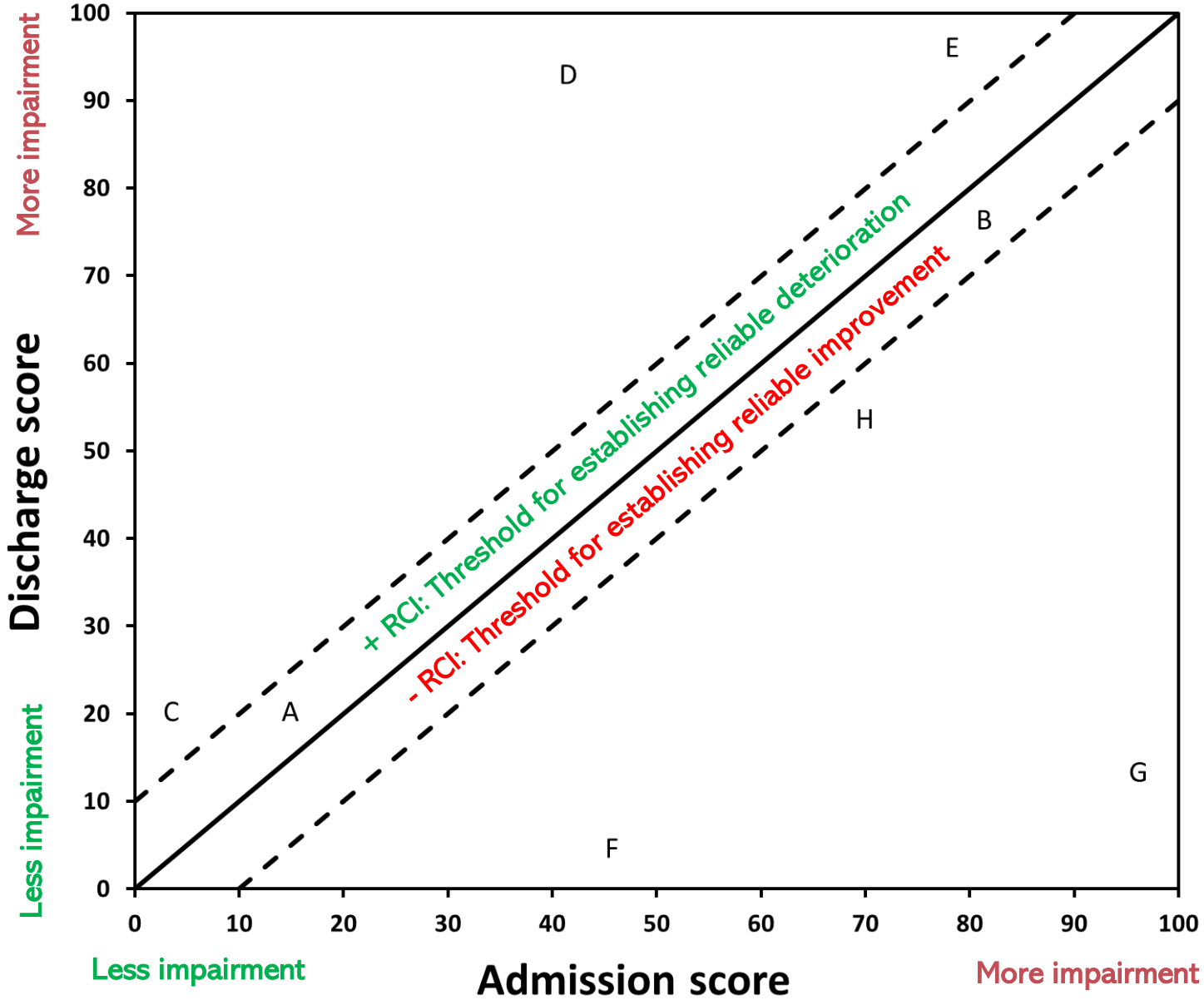
Shifting from a quality assurance to a quality improvement focus will facilitate a better understanding of individual consumers and the service. This will also direct adapting service processes to enhance outcomes.

- Who we are working with
- What we actually do
- What outcomes are being achieved

The primary goal should be achieving better outcomes and experiences for consumers and their families (i.e. quality improvement) not publications or gathering data for future use.

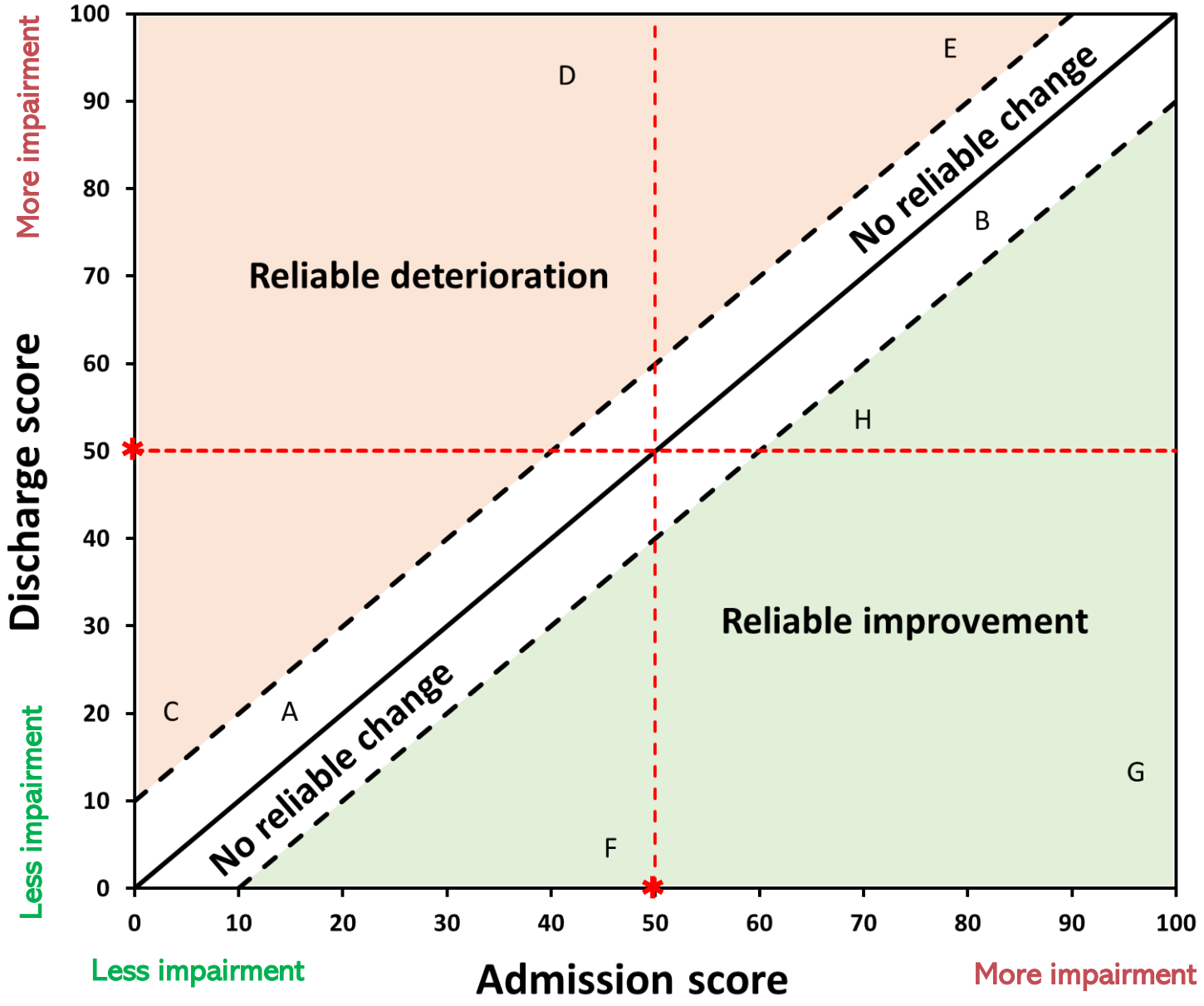
- Intake criteria
- Assessment processes
- Psychosocial interventions
- Care pathways
- Outcomes at the individual level
- Outcomes at the cohort level
- Outcomes at the service level
- Staff attraction and retention

This goal will only be realistic if the systems for collecting data are simple, easy to use, and directly relevant to our day to day work.



Reliable Change Index

- Used to determine whether a reliable (i.e. statistically significant) change has occurred at the level of each individual participant (rather than simply between groups of participants)
- This approach uses the standard error of differences (SEdiff) to establish a threshold for determining that we can have 95% confidence that a difference in pre/post test scores has not arisen by chance.



Clinically significant change

- Clinically significant change considers whether the change in a person's score between admission and discharge crossed a threshold that is meaningful in differentiating a clinical from a sub-clinical population.

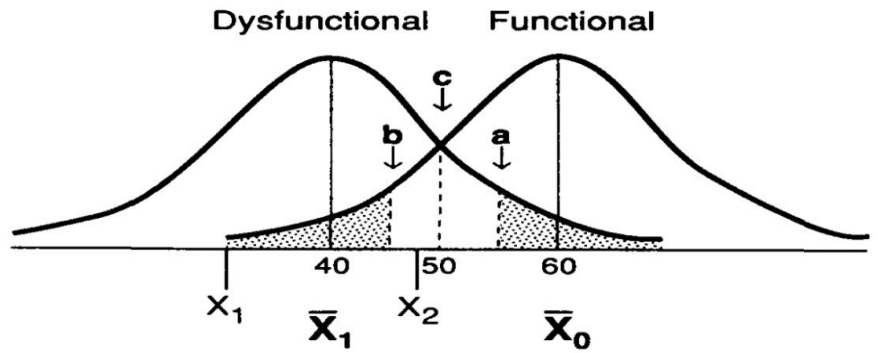
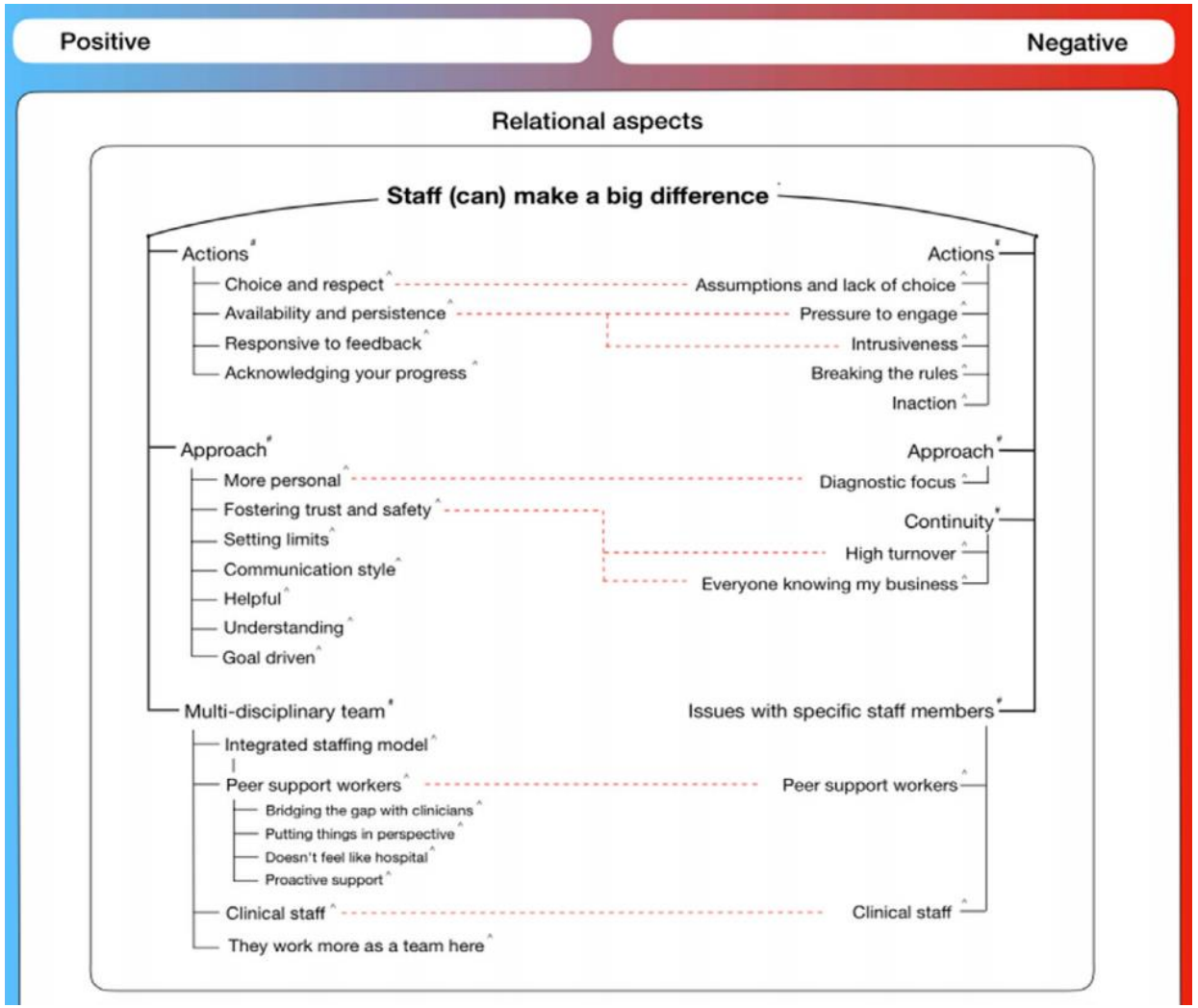
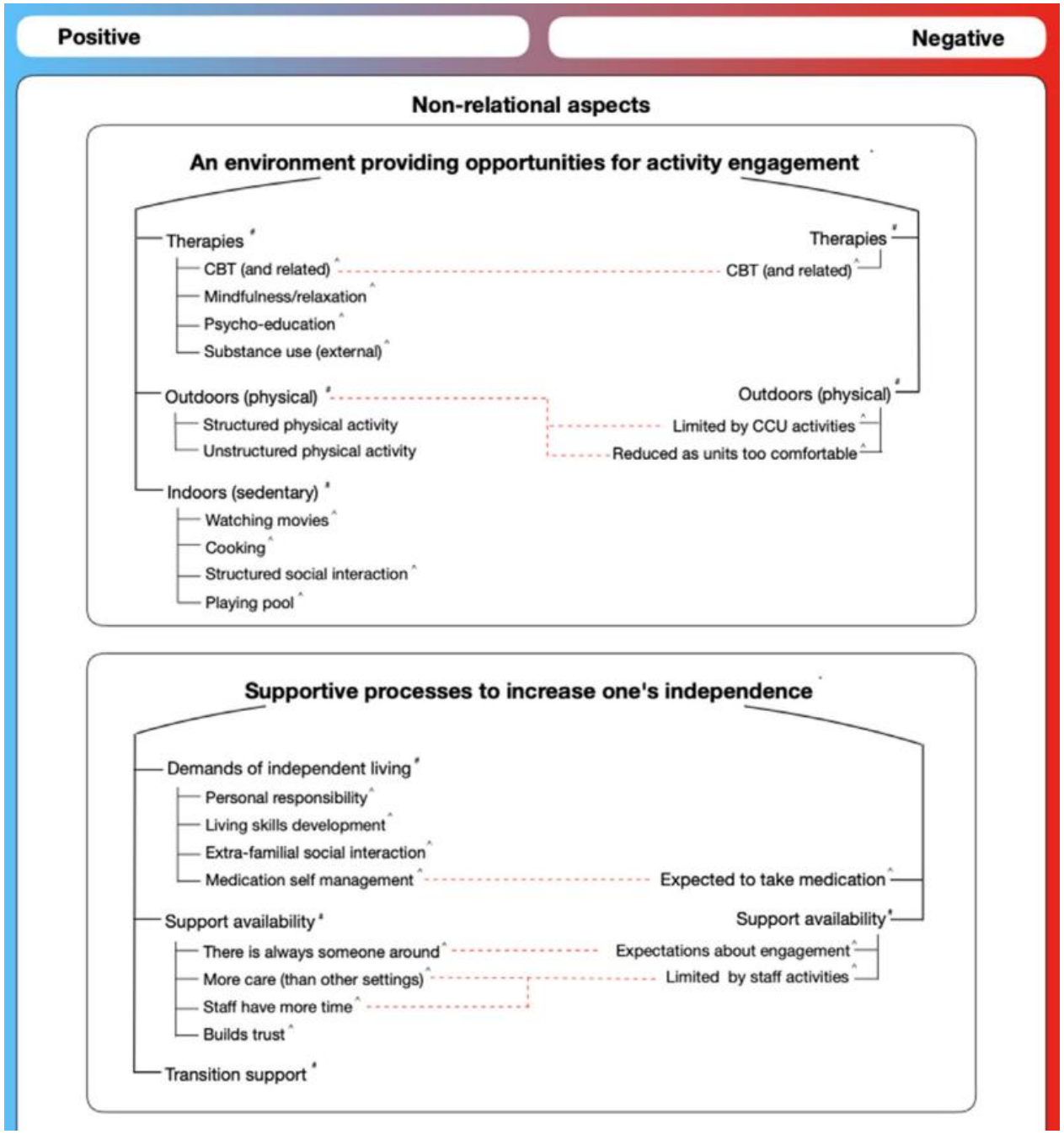


Figure 1. Pretest and posttest scores for a hypothetical subject (x) with reference to three suggested cutoff points for clinically significant change (a, b, c).

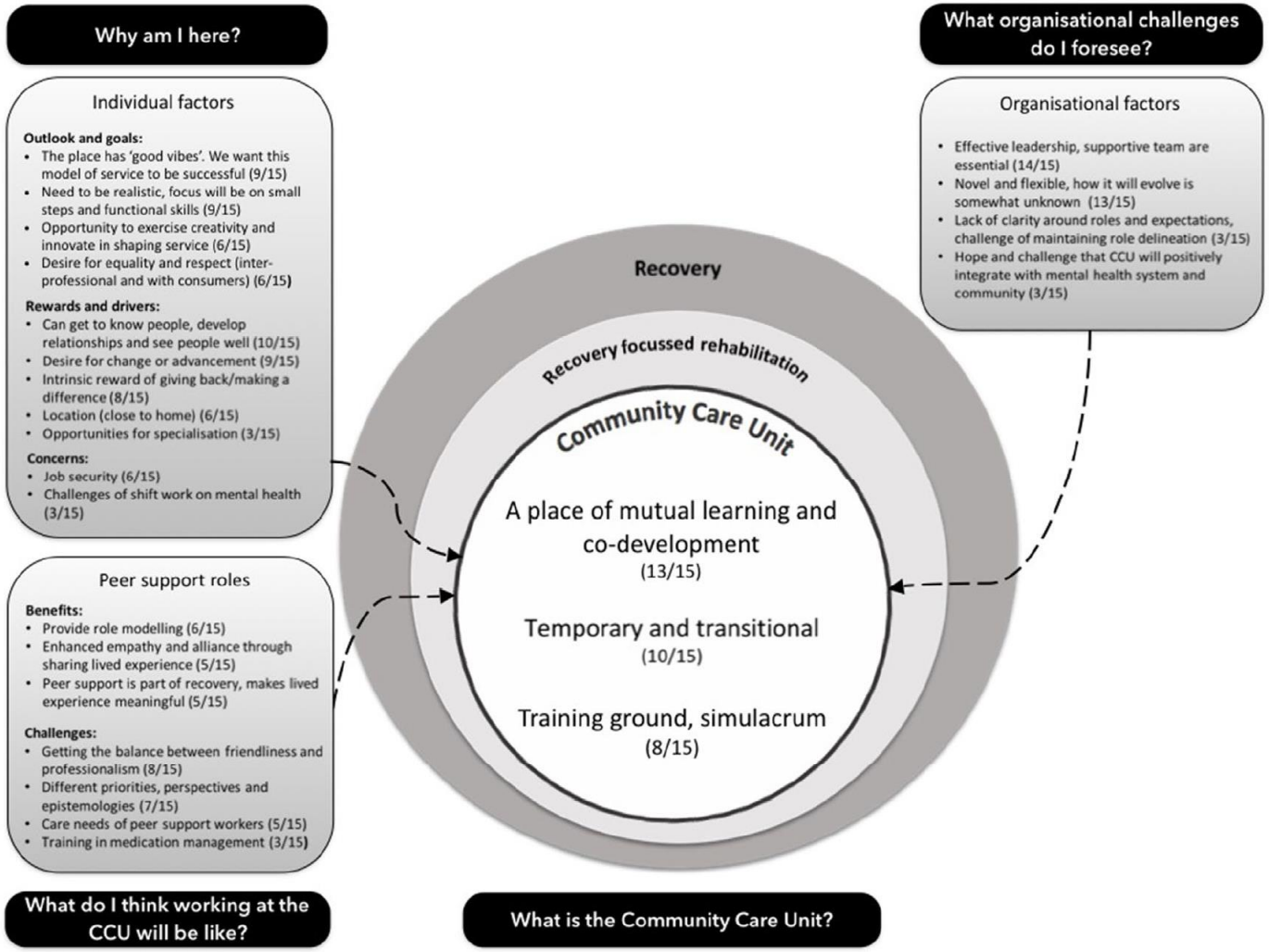
* Clinical significance cut-off





Experience

- All participants reflected positively
- Emphasis on relational aspects (staff>co-residents)
- Emphasis on the environment providing opportunities for activity and processes supporting increased independence



Staff expectations of a CCU operating the integrated staffing model

Staff expectations and experience

- Similar understandings of the function of the CCU emerged across the staffing models
- Staff from the clinically staffed unit emphasised tensions between rehabilitation and recovery, and barriers to rehabilitation engagement.
- ISM staff showed great focus of personal recovery and the opportunities for learning from each other
- ISM acknowledged initial difficulties bringing clinical and lived experience together, but at 12-18 months reflected positively on integration being achieved.