Rapid realist review of the evidence: achieving lasting change when mental health rehabilitation staff undertake recovery-oriented training

GEE, Melanie <http://orcid.org/0000-0001-9149-4314>, BHANBHRO, Sadiq <http://orcid.org/0000-0003-0771-8130>, COOK, Sarah and KILLASPY, Helen

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Running head: Achieving lasting change after recovery-oriented training

Authors
M. GEE¹, Research Fellow/Information Scientist
S. BHANBRHO¹, Research Fellow
S. COOK PhD¹, Reader in Occupational Therapy (retired)
H. KILLASPY PhD², Professor of Rehabilitation Psychiatry
¹Centre for Health and Social Care Research, Sheffield Hallam University
²Rehabilitation Psychiatry, Division of Psychiatry, University College London

Author for correspondence
Melanie Gee
Address: Centre for Health and Social Care Research, Sheffield Hallam University, Montgomery House, 32 Collegiate Crescent, Collegiate Campus, Sheffield, S10 2BP
Email: m.d.gee@shu.ac.uk
Tel: 0114 225 5916

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1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
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ABSTRACT

Aim
To identify the factors contributing to lasting change in practice following a recovery-based training intervention for inpatient mental health rehabilitation staff.

Background
Staff training may help nurses and other staff groups in inpatient mental health rehabilitative settings to increase their recovery-oriented practice. There are no published reviews on the effectiveness of such training and few long-term evaluations. This review informed a realist evaluation of a specific intervention ('GetREAL').
Design
Rapid realist review methodology was used to generate and prioritise programme theories.

Data sources
ASSIA, CINAHL, Cochrane Library, Medline, PsycINFO, Scopus, Web of Science and grey literature searches were performed in September 2014-March 2015 with no date restrictions. Stakeholders suggested further documents. GetREAL project documentation was consulted.

Review methods
Programme theory development took place iteratively with literature identification. Stakeholders validated and prioritised emerging programme theories and the prioritised theories were refined using literature case studies.

Results
51 relevant documents fed into 49 programme theories articulating seven mechanisms for lasting change. Prioritised mechanisms were: staff receptiveness to change; and staff feeling encouraged, motivated and supported by colleagues and management to change. Seven programme theories were prioritised and refined using data from four case studies.

Conclusion
Lasting change can be facilitated by collaborative action planning, regular collaborative meetings, appointing a change agent, explicit management endorsement and prioritisation and modifying organisational structures. Conversely, a challenging organisational climate, or a prevalence of 'change fatigue', may block change. Pre-intervention exploration may help identify any potential barriers to embedding recovery in the organisational culture.
SUMMARY STATEMENT

Why is this review needed?

- It is desirable to increase recovery-based practice in inpatient mental health rehabilitation, but role extension of nursing and other staff groups can be challenging.

- Staff training may encourage increased recovery-based practice in inpatient mental health rehabilitation, but there have been few long-term evaluations and no reviews of the effectiveness of such training programmes.

- Realist methodology enables an investigation into the complexity of the inpatient mental health rehabilitation setting, to understand why and how staff training interventions aimed at increasing recovery-based practice, should 'work'.

What are the key findings?

- Rapid realist review methodology was used to articulate and prioritise programme theories describing configurations of Contexts and Mechanisms which may enable, or block, lasting change following recovery-based training.
• Important Mechanisms for lasting change in recovery-based practice following staff training include staff receptiveness and feeling supported by colleagues.

• Contextual factors that trigger/block lasting change in recovery-based practice include the staff team environment, organisational structures and systems, availability of resources, external pressures and characteristics of the training programme.

How should the findings be used to influence practice?

• Pre-intervention exploration should be undertaken to identify potential organisational, structural, or staff team issues that might cause problems for embedding recovery into organisational practices through staff training.

• In a challenging organisational environment, expecting staff engagement with change may be unrealistic.

• If the organisation is ready for change, the training programme and other organisational contexts and structures can be optimised for staff to feel receptive to change and supported to change.

INTRODUCTION
Mental health rehabilitation services provide specialist assessment, treatment, interventions and support to people whose complex needs cannot be met by general adult mental health services. They include community services, supported accommodation and vocational rehabilitation services and inpatient rehabilitation services (Joint Commissioning Panel for Mental Health 2013). This paper focuses on inpatient mental health rehabilitation services, which provide specialist tertiary care to people whose complex needs prevent them being discharged to the community following an acute admission. Of the 60 National Health Services (NHS) mental health trusts in operation in England in 2009, all had at least one in-patient (or community-based equivalent) mental health rehabilitation unit (Killaspy et al. 2013b).

Globally, mental health rehabilitation services have increasingly adopted a recovery-based approach (Shepherd et al. 2008). There are different interpretations of what 'recovery' actually means to practitioners and service users (Bonney & Stickley 2008, Aston & Coffey 2012). Anthony's definition (Anthony 1993) describes living a meaningful and hopeful life, despite the impact of a mental health problem. The Guidance for Commissioners of Mental Health Rehabilitation Services (Joint Commissioning Panel for Mental Health 2013) emphasises that staff should work with service users in a collaborative partnership to identify and work towards personalised goals and that the service culture should embody and facilitate hope, agency, opportunity and social inclusion. As part of rehabilitation and recovery, gradually increasing a person's engagement in a range and balance of activities of varying complexity has been found to enhance service users' health and functioning (Cook et al 2015). Activities of daily living (e.g. self-care, housework, shopping, cooking and budgeting) prepare the person for living successfully outside hospital and leisure and vocational activities (e.g. attending courses or doing voluntary work) promote confidence and social skills.

Extending traditional roles of mental health nurses and other members of the multidisciplinary team for increased focus on recovery may, however, be
challenging. Repper and Perkins (2003 p71-76) have outlined how some attitudes and actions of mental health workers (such as being overly optimistic, being overly helpful, or using distancing strategies) may be at odds with recovery-based practice. Staff training may be one strategy for improving inpatient recovery-based care (Kidd et al. 2014 p246).

**Background**

As part of a programme of research into inpatient mental health rehabilitation services in England (The REAL - Rehabilitation Effectiveness for Activities for Life study) carried out between 2009 and 2015, a training intervention ('GetREAL') was designed to help staff gain confidence and skills to help service users engage in activities in the unit and in the community. The GetREAL intervention has been described in detail elsewhere (Cook et al. 2012). It was evaluated using a cluster-randomised controlled trial (Killaspy et al. 2013a), which found no significant difference in service user activities at 12 month follow-up between intervention and comparison units (Killaspy et al. 2015). Overall, increased staff skills and changes in practice that were facilitated during the five weeks staff training intervention period were not sustained long-term. A qualitative study of focus group data (Lean et al. 2015) suggested that factors internal and external to the organisation, as well as limitations of the intervention itself, may have contributed to this problem. The complexity inherent in implementing this type of intervention, in this setting, was highlighted. We wished to investigate this complexity further, to identify what may have contributed to, or impeded, lasting change in staff attitudes, behaviours and/or working practices, beyond the immediate intervention period.

We carried out a rapid realist review to create a framework for a realist evaluation of the GetREAL intervention (Bhanbhro et al. 2016). There are no previously published reviews addressing the effectiveness of recovery-based staff training interventions in terms of lasting change in practice.
THE REVIEW

Aim

Our overarching review question was: When multidisciplinary teams working in a mental health inpatient rehabilitative setting participate in a work-based training programme aimed at increasing their engagement with recovery-oriented practice, what factors enable, or inhibit, lasting change?

Design

We used rapid realist review methodology. The PROSPERO reference number for the published protocol for review is: CRD42015016138. In reporting this review we have followed the RAMESES reporting standards (Wong et al. 2013a).

Realist methodology is gaining traction in the evaluation of complex interventions, especially when the intervention is found to be ineffective overall in certain contexts (Moore et al. 2014). A realist review looks beyond whether an intervention 'works' or not and gives plausible explanations as to 'what works for whom in what circumstances and in what respects' (Pawson 2006 p74). It is a theory-driven approach to evaluation, where underlying assumptions about how an intervention is thought to work (called 'programme theories') are identified through literature searching and discussion with stakeholders. A 'long-list' of programme theories is produced and those of most interest are examined and refined iteratively through purposive searching and sampling of literature evidence (Pawson et al. 2004). The programme theories describe: (a) the contextual circumstances where a programme (or others like it) would be predicted to lead to one or more outcomes of interest; and (b) the mechanisms which may be operating to generate these outcomes. They are typically expressed as Context-Mechanism-Outcome (CMO) configurations. As different people interpret C, M and O differently, early in the review we clarified our team's shared understanding of Context, Mechanism and Outcome (Box 1).
The time-frame to conduct this review was short; it was the preliminary stage of a realist evaluation which was also time-limited. Accordingly, we used rapid realist review methodology as described by Saul et al. (2013) and summarised in Figure 1. We created a Local Reference Group (LRG) comprising psychiatry, occupational therapy and former nurse researchers and practitioners who were members of the original GetREAL project team and also an Expert Panel (EP) comprising mental health rehabilitation researchers and practitioners known to the LRG or other EP members via professional networks. We expedited the review by using both groups to help identify relevant documents and consulting the LRG to 'sense-check' and prioritise our emergent programme theories for maximum utility to our realist evaluation. Additionally, we were able to test and refine our prioritised theories with reference to selected case studies from the literature, but (due to the 'rapid' nature of this review) this was not exhaustive.

**Search methods**

We searched for literature to inform theory development about why, how and for whom, recovery-oriented training programmes for inpatient mental health rehabilitation staff actually 'work' (or not). The literature was sourced from:

a) GetREAL project documentation and notes from dissemination events  
b) Papers identified by LRG and EP members  
c) Bibliographic database searches  
d) Grey literature searches of relevant websites  
e) Reference and citation searches of key papers

The bibliographic database searches were performed by MG in September 2014, using search terms relating to the type of intervention of interest (workplace staff training for recovery-based practice) and the setting (inpatient mental health rehabilitation units). There were no geographic or date limitations but English language papers only were considered. The databases and websites searched are listed in Box 2. See supplementary file 1 for an indicative search strategy.
Screening was performed by MG, SB and SC, following initial piloting with a subset of 10 papers to ensure we had a shared understanding of our inclusion/exclusion criteria (which we developed collaboratively), shown in Box 3. We were more inclusive for the literature from the other sources. These documents were specifically suggested by the stakeholders, came via highly relevant websites, or were cited by, or themselves cited, highly relevant papers and we included any document which related to mental health inpatient rehabilitation and/or staff training and lasting change and which could offer insights to support our theory development.

We identified potential case studies from those relevant primary research papers that involved some empirical evaluation of lasting change in recovery-based practice, attitudes or behaviour. We undertook further searches and contacted authors to identify all relevant published or unpublished documents ('sibling papers') relating to these potential case studies. 'Cluster' searching techniques (Booth et al. 2013) were used. These searches were conducted (by MG) between December 2014 - March 2015.

Following the searches for ‘sibling’ papers, the utility of the resulting study clusters was judged on the basis of: (a) relevance to the theories under scrutiny; (b) conceptual richness (‘a degree of theoretical and conceptual development that explains how an intervention is expected to work’) (Booth et al. 2013 p4); and (c) contextual thickness (detail about what is going on the intervention, the intentions behind it and the wider context where it is situated) (Booth et al. 2013).

Data extraction and quality appraisal

We read and considered the relevant literature, for each document noting (rather than formally 'extracting') how a recovery-oriented training programme was supposed to work, was thought to work, or was thought not to work and/or relevant contextual information. We further noted whether any insights came directly from a finding of the study or policy guidance, were the author's opinion or speculation, or were the reviewer's own thoughts following reading the source. For the primary research documents which fed into the
prioritised programme theories, a data extraction matrix was used to capture details about the setting, research aims and design, intervention and outcomes. (The key extracted data are shown in Table 1.) In keeping with realist methodology, appraisal of the contribution of each piece of extracted data, based on its relevance to theory development/refinement and its rigour (whether the methods used to generate that piece of data were credible and trustworthy), took the place of quality appraisal of the whole document or study (Wong et al. 2013a). This is because there may be ‘nuggets’ of wisdom in poorly-designed studies (Pawson 2006b).

Synthesis

As with any realist review, the process of moving from data extractions to developed programme theories was iterative, with surfacing, consolidation and refinement of our CMOs taking place in parallel with ongoing consideration of the literature. This was carried out by MG but emergent CMOs were discussed with others in the review team to obtain multiple perspectives. Any single piece of evidence rarely presented a clear articulation of Context, Mechanism and Outcome in combination: typically it would provide some insight into a combination of Context and Outcome, with a Mechanism either suggested by the study author, or (more usually) generated by the reviewers’ abductive reasoning, i.e.'examining evidence and developing hunches or ideas about the causal factors linked to that evidence' (Jagosh et al. 2014). A careful audit trail was therefore maintained to trace the final refined CMOs to the sources and processes generating them.

We generated 49 programme theories (CMO configurations) which included seven Mechanisms linked to the final Outcome of lasting change. Other intermediate Outcomes were identified (e.g. staff attendance or engagement during training; management buy-in), but these were captured as Contextual factors feeding into that final Outcome. Our theories were validity-checked by our LRG: we asked via an online questionnaire how ‘important’ each LRG member felt each Mechanism was, in light of their own experiences, by rating it on a 5
point Likert scale. We defined 'importance' as being 'of interest, value and relevance' for interventions such as GetREAL seeking to achieve long-term change in recovery-based practice. As we had generated more CMOs than could be refined within the time constraints of this rapid review, we invited respondents to select the three most important CMOs under each Mechanism. We received six responses from a total of 12 LRG members. Adopting a pragmatic approach, we used the total scores for each Mechanism to prioritise the top two Mechanisms by importance and then under these priority Mechanisms, to focus on those CMOs that had at least 4 votes as our priority theories.

RESULTS

Search outcomes

A document flow diagram is shown in Figure 2. As shown, from 1306 unique documents from the database searches and 22 further documents from other sources, 51 documents were relevant for our theory generation, of which 23 documents contributed to our prioritised theories. The key characteristics of these 23 documents are summarised in Table 1.

Of the primary studies found in our searches, most provided anecdotal data from which Contexts and Mechanisms leading to long-term change could be inferred, but not demonstrated. Three studies that evaluated change following training did so via a before and (immediately) after comparison (Donat et al. 1991, Valinejad 2001, Pollard et al. 2008) and only four performed comparisons over longer periods (12-15 weeks in Way et al. 2002; six months in Bartholomew & Kensler 2010 and Meehan & Glover 2009; 12 months in Tsai et al. 2010). Therefore, these four papers with longer-term evaluations presented themselves as potential case studies. We returned to our original search results to find potentially relevant studies in other mental health contexts. We identified two further case studies (Eklund et al. 2014, Le Boutillier et al. 2015), both in community settings. Of these six potential case study clusters, four were found to be relevant to the priority theories and cluster searches yielded seven additional records related to these case studies (Table 2).
The programme theories

We identified seven potential Mechanisms (M) for lasting change (the Outcome) when mental health rehabilitation staff undertake recovery-oriented training, which we labelled: Reinforced Direction; Recovery is Everyone's Responsibility; Resourced for Recovery; Recovery is Important; Recovery is Realistic; Receptive Staff; and Supported Change. We identified 49 possible CMOs, setting out how specific Contextual factors (C) might cause one or other of these Mechanisms to 'fire', or to be blocked. These are summarised in supplementary file 2. A full statement of our 49 CMOs, organised by Mechanism, is provided in supplementary file 3.

From our LRG consultation, no respondents classified any of the Mechanisms as being of Little Importance or Not Important, giving all Mechanisms some validity. The top two Mechanisms were Supported Change and Receptive Staff, with seven prioritised CMOs under these.

Evidence for our priority theories

We present below a statement of each priority theory and evidence how it is supported by data extracted from the case studies and the other literature shown in Table 1. To aid the reader, we have indicated which aspects of the theory statements relate to the Context (C) and the Mechanism (M). In each case, the Outcome (O) is lasting change in practice.

Collaborative action planning

Collaborative action-planning between staff groups and service users (C) (in particular where the action plan utilises existing strengths of the individuals concerned (C)) leads to staff feeling engaged, valued and involved (M) and hence 'Receptive to Change' (M). Imposing an action plan on staff members (C) will block staff 'receptiveness' (M).
A Team Recovery Implementation Plan (TRIP) instrument for action planning has been used in several mental health organisations (Repper & Perkins 2013). The importance of co-production is stressed: staff at all levels and service users should be involved on an equal footing in discussions about the current situation and achieve consensus on ways forward. Staff members need to be honest about real external or organisational constraints that they experience, something which may be difficult: 'Too often they [staff members] feel they must not 'wash their dirty linen in public'' (Repper & Perkins 2013 p4).

In case study 4, a staff training/change intervention in Northern Sweden for enriching psychiatric day centres for attendees (Eklund et al. 2014) involved staff members’ production of a centre intervention (enrichment) plan. Some co-production was afforded by the centre attendees' provision of feedback to the plan, which could be revised. The authors observed, however, that ‘the balance between staff and user influence may have been suboptimal’ and that ‘involving the attendees in the one-day training session and the workshops would possibly have resulted in a more powerful intervention’ (Eklund et al. 2014, p6).

Incorporating recovery into an existing change programme

Incorporating recovery into an existing change programme (C) may help with staff engagement, enthusiasm and change 'receptiveness' (M), in an organisation subject to much recent change (C).

The difficulty of prioritising and operationalising recovery in addition to other, potentially competing, organisational change processes has been acknowledged in the context of community mental health services (Le Boutillier et al. 2015, case study 3). Trying to leverage some of this existing change may reduce change fatigue, although we found no literature evidence to support or refute this.

Dealing with a climate of job uncertainty and fear

Challenging contextual factors (e.g. economic cutbacks and job uncertainty) (C) will prevent staff members feeling involved, engaged, or valued (M) and hence block their 'receptiveness'
During the 12 months after the GetREAL training programme, one of the intervention units closed down and many others experienced uncertainty in a period of turbulence in the UK healthcare system due to the economic recession. The REFOCUS intervention for community mental health teams (case study 3) took place at a similar time and Leamy et al. (2014) state on p4 'the organisational changes were of such intensity that workers reported focusing on and prioritising their own survival'. It may be overly ambitious to try to engage members of staff with a training/change programme at all in such overwhelmingly negative circumstances. For this reason, a pilot site that was 'not in crisis' was purposively chosen to test the Illness Management and Recovery (IMR) programme in the US (Bartholomew & Kensler 2010 p110, case study 1).

**Regular collaborative meetings**

Regular meetings between staff groups and the training team and/or a local change lead ('champion') (C), in a supportive organisational culture (C), help staff members feel supported by their peers and managers in the change programme (M).

Multidisciplinary staff meetings for sharing concerns and problem solving is desirable (Joint Commissioning Panel for Mental Health 2013), although it may be difficult for some staff members to share their concerns if they view work-related stress as 'normal', or if they see themselves as carers, not needing care themselves (Meaden & Hacker 2011).

Weekly meetings with university consultants, involving group problem solving and discussions, were built into the IMR programme (Bartholomew & Kensler 2010, case study 1). Here, trusting relationships were supported by the fact that the university faculty had no authority over the clinicians. Similarly, supervision from the research team was built into the psychiatric day centre enrichment programme (Eklund et al. 2014, case study 2). Here, staff focus groups revealed high levels of satisfaction with these supervisions: ‘Staff’s reflections and feelings of guidance and confirmation were essential for the development and implementation of the
enrichment intervention’ (M Eklund pers. comm.). Not surprisingly, this supervision was found to be ineffective in one day centre having a substantial staff turnover (M Eklund pers. comm.).

Multidisciplinary staff groups that persist beyond the end of a training programme can help to create an ongoing shared vision (Pollard et al. 2008) and can provide a vehicle for sharing good practice and synthesising approaches between different groups (Valinejad 2001). Measures can be taken to enable participation from different staff groups working on different shifts, but here it will take time to develop a true sense of group 'cohesion' and purpose (Narevic et al. 2011).

Appointing a change agent or 'champion'

A local change agent or 'champion' (C), if supported by management in that role (C), may help to persuade, encourage and empower (M) other staff members to change - i.e. they feel 'supported' to change (M). To be effective, a champion will need to have programmatic optimism, good interpersonal skills, the respect of colleagues and be influential (C).

The use of a champion 'on the ground' might be a possible strategy for lessening any sense of coercion experienced by staff who are expected to change their behaviour (Bartholomew & Kensler 2010, case study 1 ). In the REFOCUS intervention (case study 3), Leamy et al. (2014) report that in some cases, team leaders, psychiatrists or other senior clinicians championed the intervention through actively attending the training sessions and working with the trainer to 'bring on the team'. Corrigan (1995) describes champions as 'yeoman clinicians who exhibit sufficient excitement and knowledge to shepherd rehabilitation innovations through implementation and maintenance phases of program development' (Corrigan 1995 p514). They have 'communication skills that help them express complicated ideas simply [and] good interpersonal skills that serve them well in building consensus among peers’ (Corrigan 1995 p517). A survey of 47 nursing, professional and administrative staff of Extended Care Units in a hospital in Illinois, US (Corrigan et al. 1993) found that peer nominated champions possessed more programmatic optimism than their peers. These
individuals reported significantly fewer barriers - specifically, institutional constraints and philosophical opposition - to implementing behavioural interventions, than those who were not nominated.

Programmatic optimism and communication skills are not enough however: a champion is powerless if not supported by management, or if not well embedded in the multidisciplinary team. As McCracken and Corrigan (2004) observe on p236, 'Institutional constraints may result in a catch-22 situation where evidence-based practice therapists have little influence over the institutional constraints because these factors place them outside the power structure needed to influence the institutional factors.'

**Management support, supported role flexibility**

Explicit management endorsement and prioritisation of the change (e.g. through getting involved in the programme; endorsing an action plan for change; measuring progress; incorporating external drivers for change) (C) helps staff members feel supported to make the change (M) even if it entails moving outside their traditional occupational role and taking some risks (C).

Management endorsement and prioritisation are important for staff members to make long-term changes in practice; in particular if these changes are challenging. Marlowe et al. (1983) present a case report comparing the experiences of two units from separate hospitals in Florida, US, which underwent a staff training programme to implement psychosocial rehabilitation. Although fidelity to the programme was poor and there was little empirical evidence to enable formal evaluation, a comparison of two units found that overall, the unit with supportive management (locally and at administrator level) fared better. Similarly, drawing conclusions from largely anecdotal information, Bartholomew & Kensler (2010)(case study 1) stated regarding the IMR programme that 'Ultimately, it was the support of the CEO [Chief Executive Officer] and ongoing discussions with the leaders who had concerns that allowed the project to eventually achieve broad support' (Bartholomew & Kensler 2010 p112).
Mechanisms of management support may be built into the programme, for instance by ensuring managers attend the training. In the New York Core Curriculum training programme (Way et al. 2002, case study 2), hospital executive staff attended the three-day (mandatory) training programme. The authors observed that 'executive staff members were present at the ward training to stress the importance of the training and to resolve problems' (Way et al. 2002, p402). However, making programmatic provision for management support does not guarantee management buy-in, in word and deed. A behaviour management in-service training programme for staff in an Extended Care Unit in Lincoln, Nebraska (Vangen 1991) included additional modules for supervisory staff which included the assignment of in vivo exercises for them to perform. In practice, take-up of these exercises was poor for nursing supervisors, compared with other staff groups: 'The main message of the Supervisors' Modules, that ongoing training and supervision of direct care staff is a necessary part of behaviour management, was apparently lost on many of the supervisors' (Vangen 1991, p68). In the same study, the registered nursing staff were found to view the ward in a more optimistic manner, as measured by the Ward Atmosphere Scale, than other professional staff and technician staff. Therefore, it was suggested that the supervisory nurses would have little motivation to change the social milieu if they already saw it in a positive light (Vangen 1991).

Ensuring support from senior management may be challenging when organisational change to support recovery-based practice may be perceived to be at odds with competing business priorities and contractual objectives, or when a recovery intervention may be seen as an implied criticism of existing practice (Le Boutillier et al. 2015, Leamy et al. 2014, both case study 3).

Le Boutillier et al. (2015)'s study of community care mental health trusts (case study 3) found that 'The relationship of recovery to the statutory clinical obligation of risk management was seen as a competing priority. Staff felt they would encourage recovery support through positive risk-taking if they were better supported by the organization' (Le Boutillier et al. 2015, p5). In the same case study, the qualitative evaluation of the REFOCUS trial found a
variation in attitudes and behaviour towards risk-taking across the participating teams (Leamy et al. 2014).

**Modify organisational structures to support change**

If organisational structures, processes and systems (e.g. working practices, responsibilities, policies, documentation and performance reviews) are modified (C) to facilitate the move towards recovery-based practice, staff members will feel supported by management (M) in changing their practices.

In a collaborative project between a university and a hospital in New Jersey, US, aimed at transforming the hospital's philosophy of care to a greater focus on recovery (Birkmann et al. 2006), an initial needs assessment exercise identified organisational activities and processes that needed to be changed in parallel with staff training. Similarly, describing the IMR programme (case study 1), Bartholomew and Kensler (2010) observe that unless patient recovery goals are systematically included in their individual treatment plan, the IMR group will act as a treatment ‘bubble’ while the rest of the treatment team may be acting at cross-purposes with the patient.

It is, of course, no trivial undertaking to modify organisational structures, processes and systems to facilitate long-term change towards increased recovery-based practice. Additional resources and support, beyond the remit of the programme itself, will be required (Bartholomew & Kensler 2010) and in some instances staff will be forced to work with what they have: in case study 3 a psychiatrist commented that it was impossible to procure an electronic system using data fields which supported recovery-based thinking and practice – they had to work with what they had and ‘serve the system’ (Le Boutillier et al. 2015 p5). The tension between traditional service infrastructures, with their hierarchical, clinical structures and service priorities, versus the individualised approach of recovery-based practice, emerges strongly from this study.

When an organisational systems or process change is made, there needs to be clarity: who is authorising the change? How will it be followed-through? This was posed as another
important contextual factor explaining the differences between the two units in the case study report by Marlowe et al. (1983).

**DISCUSSION**

This is the first literature review investigating the factors leading to lasting change following a recovery-based training intervention for inpatient mental health rehabilitation staff. Our findings are, perhaps, unsurprising. We found that lasting change in practice is facilitated if staff feel receptive to the idea of increasing recovery-based practice and supported (by colleagues, managers and organisational processes and systems) to make the changes. Receptiveness may be hindered when the organisation has undergone much recent change: change fatigue is a recognised phenomenon in nursing (McMillan & Perron 2013, Royal College of Nursing 2013). One unit participating in the GetREAL intervention incorporated the training with an existing Productive Ward programme (thereby reducing the effect of change fatigue) to good effect (Bhanbho et al. 2016).

We found that staff need to feel supported to move beyond their traditional role boundaries and to be able to take risks. An organisational commitment to positive risk-taking, rather than a culture of blame, has previously been endorsed (Boardman & Roberts 2014, Shepherd et al. 2010). Effective interdisciplinary collaboration can also help staff feel supported. In the context of rehabilitation/community care, the ten competencies of an effective interdisciplinary team proposed by Nancarrow et al. (2013) include shared values, a culture of trust and consensus, intra-team communication and collaboration and collaborative decision-making. These competencies would seem to be equally applicable to and desirable in, interdisciplinary teams working in mental health rehabilitation.

Using rapid realist review methodology, we have drawn from a sizeable body of published and unpublished research and grey literature, to develop our programme theories. Our findings are richer than those we would have obtained from a conventional review of intervention effectiveness, given the shortage of long-term evaluations of recovery-based staff training interventions we and others (Campbell & Gallagher 2007), have
highlighted. One limitation of this review is that we have not attempted to produce mid-range theories having wider utility for design and evaluation of a broader range of interventions. Rather, the theories we produced have had specific utility as a framework for a realist evaluation of the GetREAL intervention (Bhanbhro et al. 2016) (ensured through stakeholder engagement). Subjecting our theories to a further level of abstraction and explanation using existing substantive theories of individual and organisational behavioural change would be of interest (Wong et al. 2013b). Another limitation was that we could only focus on a subset of our programme theories, but we have made our other theories available for others to take forward, drawing from wider literature: theory development can help to grow and enrich an understanding of what practice is and what it can be (Walker and Avant 2005 p4). The transparency of process and reporting in this rapid realist review has provided a robust platform on which to build this future work.

We present key implications for practice in Box 4.

CONCLUSION

Staff training interventions may be designed to increase recovery-based practice through role extension of nursing staff and support workers working in inpatient mental health rehabilitation units. However in such units, the staff have complex relationships with service users and they experience pressures of time and resources, with competing demands and priorities. These need to be acknowledged. Our review found that however well-designed the training programme is, it is unlikely to lead to long-term change unless other cultural and organisational changes are also addressed. This may involve action beyond the remit of the training programme itself. Adaptions to tailor the training programme to the specific circumstances of each unit may also maximise the chances of successful long-term uptake.
Author Contributions:

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE*):

1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;

2) drafting the article or revising it critically for important intellectual content.

* http://www.icmje.org/recommendations/

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Lean M., Leavey G., Killaspy H., Green, N.,Harrison, I., Cook, S., Craig, T., Holloway, F., Arbuthnott, M & King, M. (2015) Barriers to the sustainability of an intervention designed to


### Box 1

**Working 'backwards' from the Outcome:**

**Outcome** - What 'happens': the intended or unintended consequences of what is going on. Outcomes can be proximal, intermediate, or final. In our research we focused on the high-level, final outcome of 'lasting change'.

**Mechanism** - The generative force that leads to an Outcome. It can be thought of as the response, and/or reasoning, and/or reaction, and ultimately the behaviour of the subjects/participants, to the resources or capabilities offered by or embedded in a programme (intervention).

**Context** - Something that can 'trigger', or modify, or even block, a Mechanism. The context may be provided by the intervention, or it might relate to a broader contextual 'backdrop' within which the programme (intervention) operates.

### Box 2
Database searches
ASSIA, CINAHL, Medline, PsycINFO, Web of Science, The Cochrane Library (including Cochrane Database of Systematic Reviews (CDSR), Health Technology Assessment Database (HTAD), Cochrane Central Register of Controlled Trials (CENTRAL)), Scopus

Internet sources (grey literature)

Box 3
Clinical context
Include: inpatient rehabilitation unit (including low secure; high dependency; community; complex care)
Exclude: acute mental health unit; day care unit/day centre

Training intervention
Include: training programme for existing staff
Exclude: no training; training for new staff (e.g. induction); training for service users; student training

Purpose of training
Include: increased engagement with recovery-based practice. Also (for older documents which pre-date the recovery movement) psychosocial rehabilitation and behavioural therapy where there is consistency with recovery principles
Exclude: training for other purposes other than psychiatric rehabilitation

Target of training
Include: more than one disciplinary staff group
Exclude: single staff group

Consideration of lasting change
Include: at least a consideration (may be in discussion section) of the factors that might facilitate/inhibit lasting change in recovery-based practice
Exclude: no consideration of lasting change
**Study design**
Include: quantitative, qualitative, and mixed-method studies, editorials, opinion pieces, book chapters, briefings etc.
Exclude: nothing (no study design limitations)

**Box 4**

- **Training attendance is not enough** to secure a lasting increase in recovery-based practice
- **Important mechanisms for lasting change in practice** following training include:
  - Staff feel **Receptive** to the idea of increasing recovery-based practice
  - Staff feel **Supported** - by colleagues and managers, and by organisational processes and systems - to make the changes

(Other mechanisms we identified are shown in Table 3.)

- **Collaborative action-planning** between staff and service users may help staff feel 'Receptive'
- **Be aware of existing change programmes** and consider integrating additional changes with them to lessen the negative effects of 'change fatigue' and hence reduced staff 'Receptiveness'
- **It may not always be realistic to expect staff engagement** where there are overwhelming negative contextual factors that block staff 'Receptiveness'
- **A supportive work culture with effective interdisciplinary collaboration** and regular progress meetings outside line management supervision helps staff members feel 'Supported' to change
- **A local champion** who possesses programmatic optimism, communication skills, is persuasive and is supported by management, may help staff members feel 'Supported' to change
- **Management buy-in, in word and deed** is essential for staff to feel 'Supported' to change, especially in relation to role extension and/or positive risk-taking
- **Recovery needs to become embedded in the organisation** for staff to feel 'Supported' to change - something that may require **pre-intervention exploration** to identify potential problems and possibly providing preliminary organisational change strategies

**Table 1: Papers informing the priority theories**

<table>
<thead>
<tr>
<th>Name, date, country</th>
<th>Paper type</th>
<th>Study design/intervention</th>
<th>Key relevant findings/utility to this review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aarons et al (2011) USA</td>
<td>Opinion piece</td>
<td>n/a</td>
<td>Presents a conceptual framework for considering challenges and opportunities in evidence based practice implementation in public service sectors. Discusses staff retention and leadership</td>
</tr>
<tr>
<td>Ahmed et al. (2013)</td>
<td>Primary study</td>
<td>Case report, descriptive</td>
<td>Describes organisational systemic changes, including creation of 'recovery teams' which</td>
</tr>
<tr>
<td>USA</td>
<td>Describes organisational transformation towards recovery-based care in a psychiatric hospital, in association with academic partners. Includes compulsory, annual staff attendance of 3-hour recovery workshops, and unit problem-identification and goal-setting include the patient. Acknowledges internal and external constraints to change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Bartholomew and Kensler (2010) USA</td>
<td>Case report, evaluation Implementing Illness Management and Recovery (IMR) firstly in a transitional unit and then others including acute and admissions, in a state psychiatric hospital. Programme includes staff training, and ongoing supervision with consultants. IMR client- and clinician-rating scales were administered at baseline and every 6 months Moderate level of implementation fidelity. Clinical competence in IMR varied significantly across facilitators and areas of the hospital. IMR rating scales results from pilot and first year showed positive trends but data was incomplete and sample size too small for stat. significance. Institutional barriers to the program are cited, e.g. resources, and need for inclusion of recovery goals within patient's treatment plan <strong>Case study for theory refinement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birkmann et al. (2006) USA</td>
<td>Case report, descriptive Collaboration between an academic dept and a state psychiatric hospital, including: in-service staff training in group facilitation skills/therapeutic communication skills, discharge planning, and psychiatric rehabilitation practice; improving organisational processes, management processes and internal communications; fostering a recovery-focus Good attendance of in-service training and improvement of organisational processes. Collaborative development of 3-year strategic plan described. Paper describes achievements and acknowledges some barriers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burdett and Milne (1985) UK</td>
<td>Qualitative interviews (n=11) Exploratory study identifying 'settings events' that influence staff's use of behavioural therapy, after 3 year training programme period Most important 'settings event': the programme; also important: nursing officer and peer support; psychologist support; rewards of working with patients. Barriers: lack of equipment and feedback, too many rules and regulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrigan et al. (1993) USA</td>
<td>Survey (n=47) Using a peer nomination strategy to identify a subgroup of 'behavioural advocates' (champions) from the ranks of line-level staff working in a state hospital. To investigate differences between advocates and non-advocates in terms of their perceptions of behavioural innovations Advocates reported significantly fewer barriers to implementing behavioural interventions, perceiving institutional constraints and philosophical opposition to be less an impediment than their non-advocate peers. Advocates also had significantly greater knowledge of behavioural principles, but still only identified 45% items correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrigan (1995) USA</td>
<td>n/a Discusses the role of 'champions' in a staff team, the suitability of psychologists for the role, and the qualities that they should possess</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donat et al. (1991) USA</td>
<td>Case report, evaluation Evaluation of 2-day staff training workshop on behavioural methods. Comparison of Knowledge of Behavioural Methods (KBM) Inventory performance of direct care staff pre- and post-training Knowledge levels increased most for nursing staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drennan and Wooldridge(2014) UK</td>
<td>Briefing paper n/a Discussion of applying recovery principles in forensic settings with reference to a case study of Aurora Ward, W London Mental Health Trust. Includes a co-produced team recovery plan and meetings between staff</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
and service users; cultivating a sense of community; and ensuring activities are appropriately pitched

<table>
<thead>
<tr>
<th>Study</th>
<th>Study Type</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flodgren et al. (2011)</td>
<td>Systematic review</td>
<td>Cohrane review</td>
<td>Review inconclusive due to low quality evidence, but this paper alerted us to the possibility of using local opinion leaders as champions</td>
</tr>
<tr>
<td>Joint Commissioning Panel for Mental Health (2013)</td>
<td>Official guidance</td>
<td>n/a</td>
<td>Guidance for commissioners of rehabilitation services for people with complex mental health needs. Definitions of recovery principles, and description of rehabilitation services, service user qualities, and discussion of need for support/supervision of multidisciplinary teams. This paper helped sensitise our review team to recovery principles</td>
</tr>
<tr>
<td>Linhorst (1995)</td>
<td>Primary study</td>
<td>Qualitative: focus groups (n=205)</td>
<td>Key issues identified: Understanding ('conceptualising') PSR; operationalizing client choice; doing PSR with forensic clients; intensive training; training community mental health agencies; staff roles and role expansion/flexibility; involvement in community activities; continued contact with clients in the community; evaluating both PSR process and outcome, and including client evaluation of services</td>
</tr>
<tr>
<td>Marlowe et al. (1983)</td>
<td>Primary study</td>
<td>Comparative case report between two units</td>
<td>Poor fidelity to intervention, little empirical data presented but case studies provide useful pen-portraits of the two units</td>
</tr>
<tr>
<td>McCracken and Corrigan (2004)</td>
<td>Book chapter</td>
<td>n/a</td>
<td>Extensive discussion of some of the factors that might promote/inhibit lasting change in practice following training, in hospital and community settings</td>
</tr>
<tr>
<td>Meaden and Hacker (2011)</td>
<td>Book chapter</td>
<td>n/a</td>
<td>Rich discussion covering: staff attitudes towards service users; burnout; job satisfaction; qualities of staff and service users; staff support groups; relevance of training</td>
</tr>
<tr>
<td>Naravic et al. (2011)</td>
<td>Primary study</td>
<td>Case report</td>
<td>Findings had little of direct relevance but descriptions of staff support groups might be generalised to other contexts</td>
</tr>
<tr>
<td>Pollard et al. (2008)</td>
<td>Primary study</td>
<td>Brief case report and RCT</td>
<td>Programme groups demonstrated significant improvements on 'staff directed paradigm' and 'evidence-based practices' factors, and overall total score. Results do not distinguish between staff from acute/long-term units, or between different staff disciplines. Useful case descriptive data</td>
</tr>
<tr>
<td>Repper and Perkins (2013)</td>
<td>Briefing paper,</td>
<td>n/a</td>
<td>Description of the TRIP (Team Recovery Implementation Plan) with some examples of its use, and discusses co-production, and possible barriers to co-production.</td>
</tr>
</tbody>
</table>
| Strating et al. (2012)        | Primary study,      | Multiple case report | Findings of marginal relevance, but useful introductory section
term mental health care, including on focusing on recovery-oriented care

<table>
<thead>
<tr>
<th>Source</th>
<th>Study Type</th>
<th>Study Title</th>
<th>Description</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valinejad (2001) UK</td>
<td>Primary</td>
<td>Description and evaluation of a teaching programme to staff in a mental health rehabilitation unit to raise awareness of the role of psychological approaches in the care of clients with long term mental health needs</td>
<td>Staff comments related to: staff patient interactions; more empathy; change in attitude. Further areas for training identified: using clients as case examples; dealing with challenging behaviours and aggression; cognitive approaches with mental illness. Identified need for multidisciplinary team teaching sessions. Detailed description of training intervention</td>
<td></td>
</tr>
<tr>
<td>Vangen (1991) USA</td>
<td>PhD thesis</td>
<td>Examined the impact of a Behaviour Management Inservice Training Program on staff attitudes, behaviour and perceptions of the ward, and the differential effects of the training on individual staff members</td>
<td>No overall lasting change in desirable staff behaviour following the training programme. There were significant differences between different staff subgroups. Due to small sample size most conclusions drawn are conjectural. Literature review chapter contains rich discussion of staff attitudes, perceptions, and behaviours, ward atmosphere, and maintenance of training</td>
<td></td>
</tr>
<tr>
<td>Way et al. (2002) USA</td>
<td>Primary</td>
<td>Mandatory 3-day training programme (NY Core Curriculum) including Recovery module, for all staff of adult and forensic mental health facilities, having direct contact with service users. Intensive evaluation for 3/20 participating institutions, after 12-15 weeks</td>
<td>Significant increase in staff perception that 'what the recipients say makes a difference in their treatment', that 'staff spend time talking to and doing things with recipients' and in staff's 'believing recipients would get out of the hospital and not come back'. Similar findings were found from service user questionnaires. Significant increases in WAS Support Scale for both staff and service users. Also a significant increase in staff's perception of autonomy. Case study for theory refinement</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Case study clusters for priority theory refinement

Case study 1: Bartholomew & Kensler (2010); Bartholomew & Zechner (2014)

Bartholomew & Kensler (2010) relates to implementing Illness Management and Recovery (IMR) firstly in transitional unit and then other complexes including acute and admissions, in a state psychiatric hospital in the United States (see Table 1).
Bartholomew & Zechner (2014) explores the link between the service user’s ‘dose’ of IMR and their risk of readmission.

Case study 2: Way et al. (2002); Bassman (2000); Bassman (2001)

Way et al. (2002) relates to the NY Core Curriculum 3-day mandatory training programme, which includes a Recovery module, for staff of adult and forensic mental health facilities in the United States (see Table 1).
Bassman (2000, 2001) describe his experiences as an ex service user providing input to the NY Core Curriculum.

Case study 3: Le Boutillier et al. (2015); Slade et al. (2011); Bird et al. (2014); Leamy et al. (2014)

Le Boutillier et al. (2015) relates to an exploratory part of a study (REFOCUS) to investigate barriers and facilitators with providing recovery-oriented support for community mental health staff in England.
Bird et al. (2014) is the intervention manual for the REFOCUS staff training/change intervention aimed at supporting the development of a recovery orientation in community mental health teams.
Slade et al. (2011) is the protocol of the REFOCUS trial. Leamy et al. (2014) is a rich qualitative study of the REFOCUS trial.

Case study 4: Eklund et al. (2014); M Eklund pers. comm

Eklund et al. (2014) is an evaluation of an intervention to improve day centre services for people with
psychiatric disabilities, in Sweden. M Eklund pers. comm. is a draft manuscript for a qualitative evaluation of staff’s experiences and perceptions of developing and implementing the intervention.
<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational structures reflect new activities</td>
<td>REINFORCED DIRECTION (staff know exactly what is expected of them)</td>
</tr>
<tr>
<td>Practical, specific training</td>
<td></td>
</tr>
<tr>
<td>Training is repeated/refreshed</td>
<td></td>
</tr>
<tr>
<td>Clear action plan</td>
<td></td>
</tr>
<tr>
<td>Regular staff supervisions</td>
<td></td>
</tr>
<tr>
<td>Shared training across staff groups</td>
<td></td>
</tr>
<tr>
<td>Shared understanding of recovery</td>
<td></td>
</tr>
<tr>
<td>Staff groups reflect together</td>
<td></td>
</tr>
<tr>
<td>Administrative burdens, competing priorities ✗</td>
<td></td>
</tr>
<tr>
<td>Collaborative action planning</td>
<td></td>
</tr>
<tr>
<td>Role flexibility, support between staff groups</td>
<td></td>
</tr>
<tr>
<td>Strong community and family links</td>
<td></td>
</tr>
<tr>
<td>Shift/working pattern flexibility</td>
<td></td>
</tr>
<tr>
<td>Adequate shift handovers</td>
<td></td>
</tr>
<tr>
<td>Adequate staffing capacity, time, space, resources</td>
<td></td>
</tr>
<tr>
<td>Appropriate medication regime</td>
<td></td>
</tr>
<tr>
<td>Change built into existing organisational structures</td>
<td></td>
</tr>
<tr>
<td>Collaborative culture between staff/service users</td>
<td></td>
</tr>
<tr>
<td>Management endorsement and prioritisation</td>
<td></td>
</tr>
<tr>
<td>Performance is linked to service user feedback</td>
<td></td>
</tr>
<tr>
<td>Training fits job description/professional development</td>
<td></td>
</tr>
<tr>
<td>Recovery is consistent with unit mission</td>
<td></td>
</tr>
<tr>
<td>Staff identify a need for change</td>
<td></td>
</tr>
<tr>
<td>Training is repeated/refreshed</td>
<td></td>
</tr>
<tr>
<td>Recent major negative event affecting unit ✗</td>
<td></td>
</tr>
<tr>
<td>Action planning</td>
<td></td>
</tr>
<tr>
<td>Service users involved in programme design/delivery</td>
<td></td>
</tr>
<tr>
<td>Peer support workers on unit</td>
<td></td>
</tr>
<tr>
<td>Staff understand recovery is non-linear</td>
<td></td>
</tr>
<tr>
<td>Staff find service users hard to engage with ✗</td>
<td></td>
</tr>
<tr>
<td>Service users and staff work together</td>
<td></td>
</tr>
<tr>
<td>Paradigm shift from custodial/protective model</td>
<td></td>
</tr>
<tr>
<td>Appropriate medication regime</td>
<td></td>
</tr>
<tr>
<td>Staff stress, burnout ✗</td>
<td></td>
</tr>
<tr>
<td>Encouraged autonomy, positive risk-taking</td>
<td></td>
</tr>
<tr>
<td>Quick wins demonstrate progress</td>
<td></td>
</tr>
<tr>
<td>Collaborative action planning</td>
<td></td>
</tr>
<tr>
<td>High job satisfaction, low burnout</td>
<td></td>
</tr>
<tr>
<td>Incorporate recovery into existing programme</td>
<td></td>
</tr>
<tr>
<td>Climate of job uncertainty, fear ✗</td>
<td></td>
</tr>
<tr>
<td>All staff receive training</td>
<td></td>
</tr>
<tr>
<td>Programme is part of research project</td>
<td></td>
</tr>
<tr>
<td>Programme is tailored to staff group</td>
<td></td>
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<tr>
<td>Publicly recognise, incentivise programme successes</td>
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</tr>
<tr>
<td>Regular collaborative meetings</td>
<td></td>
</tr>
<tr>
<td>Appointing a change agent or ‘champion’</td>
<td></td>
</tr>
<tr>
<td>Management support, supported role flexibility</td>
<td></td>
</tr>
<tr>
<td>Modify organisational structures</td>
<td></td>
</tr>
<tr>
<td>Involving relevant professional groups</td>
<td></td>
</tr>
<tr>
<td>Long-term change (increased recovery-oriented practice)</td>
<td></td>
</tr>
<tr>
<td><strong>RECOVERY IS EVERYONE'S RESPONSIBILITY</strong></td>
<td><em>(staff and service users feel that recovery is everyone's responsibility - all staff members, all service users)</em></td>
</tr>
<tr>
<td><strong>RECOVERY IS IMPORTANT</strong></td>
<td><em>(staff feel recovery is important to them individually and to the organisation)</em></td>
</tr>
<tr>
<td><strong>RECOVERY IS REALISTIC</strong></td>
<td><em>(staff and service users feel that working collaboratively towards recovery is realistic)</em></td>
</tr>
<tr>
<td><strong>RECEPTIVE STAFF</strong></td>
<td><em>(staff feel enthusiastic, involved, and engaged in the programme)</em></td>
</tr>
<tr>
<td><strong>SUPPORTED CHANGE</strong></td>
<td><em>(staff feel encouraged/motivated/support by management and colleagues to change)</em></td>
</tr>
</tbody>
</table>

Table 3. The 49 CMOs: Postulated mechanisms, and contexts which may trigger or block them, leading to lasting increased recovery-based practice following a staff training programme

(All contexts are positive triggers unless indicated with a ✗. The seven priority context/mechanism configurations are shown in bold)
Figure 1. Summary of rapid realist review methodology
Records identified through strategy-led database searches
(n = 2616)

Records after duplicates and non-English language papers removed and screened from ti/ab
(n = 1306)

Full-text records assessed for relevance
(n = 102)

Included records from strategy-led database searches
(n = 29)

Records excluded
(n = 1204)

Records excluded
(n = 73)
  Unobtainable (n=4)
  Wrong setting (n=20)
  Not staff/multidisciplinary training (n=36)
  Training not recovery-focused (n=5)
  No consideration of lasting change (n=8)

Records identified from reference/citation searches
(n = 12)

Records identified from grey literature (n=4)

Records identified from LRG/EP members (n=6)

Records used for theory generation
(n = 51)

Records used for generation of 7 priority theories
(n=23)

Records for inpatient settings usable for case studies
(n = 2)

Records for 4 case studies
(n=11)

Records from other settings usable for case studies
(n = 2)

Additional records from cluster searching
(n=7)
Supplementary file: Indicative search strategy

The strategy below is for the databases Medline and CINAHL Complete searched on 05/Sep/2014 using the EBSOHost platform. The strategy below was replicated as closely as possible in the other databases searched.

<table>
<thead>
<tr>
<th>#</th>
<th>Query</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>TI ( (mental* OR psychiatric) AND (ward* OR unit* OR inpatient* OR &quot;in patient*&quot; OR residential* OR hospital*) ) OR AB ( (mental* OR psychiatric) AND (ward* OR unit* OR inpatient* OR &quot;in patient*&quot; OR residential* OR hospital*) )</td>
<td>102,839</td>
</tr>
<tr>
<td>S2</td>
<td>(MH &quot;Psychiatric Units&quot;)</td>
<td>1,870</td>
</tr>
<tr>
<td>S3</td>
<td>S1 OR S2</td>
<td>103,696</td>
</tr>
<tr>
<td>S4</td>
<td>TI ( rehabilitat* OR recovery ) OR AB ( rehabilitat* OR recovery )</td>
<td>494,467</td>
</tr>
<tr>
<td>S5</td>
<td>(MH &quot;Rehabilitation, Psychosocial&quot;)</td>
<td>3,953</td>
</tr>
<tr>
<td>S6</td>
<td>S4 OR S5</td>
<td>496,944</td>
</tr>
<tr>
<td>S7</td>
<td>S3 AND S6</td>
<td>6,822</td>
</tr>
<tr>
<td>S8</td>
<td>TI training OR ABtraining</td>
<td>334,279</td>
</tr>
<tr>
<td>S9</td>
<td>TI staff n3 develop* OR AB staff n3 develop*</td>
<td>6,020</td>
</tr>
<tr>
<td>S10</td>
<td>TI staff n3 learning OR AB staff n3 learning</td>
<td>763</td>
</tr>
<tr>
<td>S11</td>
<td>TI workplace n3 learning OR AB workplace n3 learning</td>
<td>492</td>
</tr>
<tr>
<td>S12</td>
<td>TI &quot;research implementation&quot; OR AB &quot;research implementation&quot;</td>
<td>265</td>
</tr>
<tr>
<td>S13</td>
<td>TI &quot;situated learning&quot; OR AB &quot;situated learning&quot;</td>
<td>133</td>
</tr>
<tr>
<td>S14</td>
<td>TI &quot;peer based learning&quot; OR AB &quot;peer based learning&quot;</td>
<td>1</td>
</tr>
<tr>
<td>S15</td>
<td>TI &quot;hands on learning&quot; OR AB &quot;hands on learning&quot;</td>
<td>159</td>
</tr>
</tbody>
</table>
Supplementary file: The 49 candidate programme theories for long-term change in increasing recovery-based practice

The candidate programme theories are organised by Mechanism: thus under a statement of each of the seven proposed Mechanisms leading to long-term change in increasing recovery-based practice (our Outcome of interest), is a statement of each of the candidate programme theories that relates to that Mechanism.

In our review we have developed and evidenced seven of these theories. These theories are indicated below as (PRIORITY THEORY) and the wordings of these theories below reflect their final version as presented in the paper.

**Reinforced Direction**
When staff groups of a mental health inpatient rehabilitation unit have taken part in a training programme aimed at increasing their engagement with recovery-based
practice, they will make long term changes and increase their engagement with recovery-based practice if they know exactly what is expected of them, and this clear direction is continually reinforced.

Organisational structures reflect new activities
The new activities expected of staff should be reflected in organisational structures, processes and systems (e.g. working practices, responsibilities, policies, documentation, and performance reviews).

Practical, specific training
If the training programme is both practical ('hands-on') and specific (rather than generalised/inspirational), modelling desirable behaviour, staff will know what to do and have the tools to do it.

Training is repeated/refreshed
If the training is repeated and refreshed periodically (and appropriate systems and processes in place, e.g. 'train the trainer'), existing and new staff members will be reminded what is expected of them.

Clear action plan
The existence (and regular reference to/updating of) a clearly articulated action plan developed collaboratively with service users will provide clarity.

Regular staff supervisions
Regular supervisions between staff groups and the training team, and/or staff members together with a local change lead, encourage reflection on and understanding of the change process.

Recovery is Everyone's Responsibility
When staff groups of a mental health inpatient rehabilitation unit have taken part in a training programme aimed at increasing their engagement with recovery-based practice, they will make long term changes and increase their engagement with recovery-based practice if they, and the service users, feel that recovery is everyone’s responsibility - all staff, all service users.

Shared training across all staff groups
Shared training with different staff groups together, in a supportive culture, engenders understanding of different values and philosophies held and improved attitudes to service users. It enhances inter-staff group relationships and a sense of shared ownership.

Shared understanding of recovery
All staff needs a shared understanding of what is meant by recovery, and its relevance to all staff disciplines. Additional training time should be provided for staff members who are new to the concepts, using familiar terminology and professional ideology.

Staff groups reflect together
Providing opportunities for different staff groups to reflect together, obtain feedback, monitor their progress and identify areas for further change helps staff feel that recovery is a shared responsibility.

Administrative burdens, competing priorities
Administrative burdens and other competing work priorities may make some staff groups feel recovery (being harder to quantify) is not a priority for them, especially in a culture of role inflexibility, a lack of common understanding and cooperation, and job insecurity.
Collaborative action planning
A clearly articulated action plan that is regularly referenced to and updated, developed with service users, and builds on strengths and experiences within an organisational culture of trust and consensus will foster a common vision, effective collaboration, and allow staff to challenge existing work practices.

Role flexibility, support between staff groups
In a unit culture of role flexibility and/or common understanding and cooperation between the different staff groups, staff will feel less protective of their role boundaries and more open to recovery-focussed role extension.

Resourced for Recovery
When staff groups of a mental health inpatient rehabilitation unit have taken part in a training programme aimed at increasing their engagement with recovery-based practice, they will make long term changes and increase their engagement with recovery-based practice if they feel they have the resources to do so and/or barriers (individual, group or organisational) have been removed.

Strong community and family links
Strong, supportive community and family links need to be in place. Where there are poor links to the community, e.g. in rural/isolated units, engagement with recovery will be perceived to be difficult.

Shift/working pattern flexibility
Staff need sufficient flexibility in their shift/working pattern to enable participation in activities outside their 'normal' working day. A lack of flexibility impedes continuity of service user engagement/activities between one member of staff/one week and the next.

Adequate shift handovers
Where adequate time and resources are devoted to shift handovers, incoming staff feel fully appraised about the individual service users' health states and their recent/ongoing activities, facilitating appropriate patient-centred care.

Adequate staffing capacity, time, space, resources
Adequate staffing capacity, time and physical space and resources are needed. This may require reducing administrative burdens and other competing work priorities, greater role flexibility between staff, and initiatives to free up time to devote on patient-focused care.

Appropriate medication regimes
Appropriate medication regimes are needed. If the service users' own goals, aspirations and interests inform the selection and regimentation of medications, the medication regimes are more likely to be consistent with facilitating, rather than impeding, recovery.

Change built into existing organisational structures.
The change towards recovery needs to be consistent with/can be built into existing organisational structures, processes and systems (e.g. working practices, responsibilities, policies, documentation, and performance reviews). This will help staff members feel that the change will not require a great amount of further effort.

Collaborative culture between staff and service users
To identify and resolve individual, group, and organisational barriers to change, staff and service
users need to be involved in developing the programme, within a positive, collaborative culture.

**Recovery is Important**
When staff groups of a mental health inpatient rehabilitation unit have taken part in a training programme aimed at increasing their engagement with recovery-based practice, they will make long term changes and increase their engagement with recovery-based practice if they feel that recovery is important to themselves individually and to the organisation.

**Management endorsement and prioritisation**
If the management team actively endorses and prioritises the programme, supports the staff and encourages change (e.g. gets involved, endorses the action plan, quantifies progress, and incorporates external drivers), the staff will feel that recovery is important to the organisation.

**Performance is linked to service user feedback**
If the performance of the unit as a whole or of individual staff members is linked to service user feedback (either verbal or behavioural), or some other measure of patient-focused care and recovery, the staff will feel that recovery is important to the unit/organisation and to themselves individually.

**Training fits job description/professional development**
If the training/change programme is consistent with the job descriptions of staff members or continuing professional development (CPD) requirements of any professional bodies that the staff belong to, the staff members are likely to consider the training to be of professional importance.

**Recovery is consistent with unit mission**
If the move towards greater recovery-based practice is consistent with the stated mission of the unit or the wider organisation, staff members are likely to perceive it to be important to the organisation.

**Staff identify a need for change**
If the desirability of the move towards increased recovery-based practice has been identified by the staff members themselves (e.g. through the training programme), they will automatically feel that recovery is important.

**Training is repeated/refreshed**
If the training is refreshed periodically (and appropriate systems and processes in place, e.g. "train the trainer"), new and existing staff members will feel that the change programme is important.

**Recent major negative event affecting the unit**
If there has been a recent major negative event affecting the unit (e.g. changed location; significant loss of staff; illness or accident affecting the unit atmosphere), dealing with this will be prioritised over a change programme.

**Recovery is Realistic**
When staff groups of a mental health inpatient rehabilitation unit have taken part in a training programme aimed at increasing their engagement with recovery-based practice, they will make long term changes and increase their engagement with recovery-based practice if they, and the service users, feel that working collaboratively with service users towards recovery is realistic.

**Service users involved in programme design/delivery**
Involvement of current or former service users in the design and/or delivery of the training programme
will persuade staff that recovery is achievable and realistic for service users, and that collaborative working with service users is achievable.

**Peer support workers on the unit**

Peer support workers operating in tandem with the staff helps to give service users a 'voice', and give both staff and service users a sense of hope, optimism and encouragement to work together.

**Staff understand recovery is non-linear**

When staff members understand that recovery is non-linear they will understand how to respond flexibly, with realistic expectations, rather than becoming demotivated by fluctuations in an individual service users' mental health status.

**Staff find service users hard to engage with**

When staff find service users with complex needs to be hard to engage with (e.g. due to medication side-effects, physical or mental co-morbidities, impaired insight) they may have a pessimistic view about recovery, feel they do not have the tools/skills/confidence to engage with them, and do 'for' rather than 'with' the service users.

**Service users and staff work together**

In an environment (physical and social) on the unit that facilitates service users and staff working together as a 'community', and challenges power imbalances or paternalistic attitudes, service users are encouraged to become active agents in their own recovery and care becomes more individualised and patient-focused.

**Paradigm shift from custodial/protective model**

Some staff members may need to undergo a paradigm shift from a 'custodial' or 'protective' model of mental health care to recovery-based, less restrictive care. Without this, they will find it hard to treat service users as partners in recovery and service users may feel threatened when faced with the possibility of recovery.

**Appropriate medication regimes**

If medication regimes are selected and regimented according to service users' own goals, interests and aspirations, then staff and service users will feel that recovery is realistic, rather than adopting a 'medicalised' view of service users.

**Staff stress, burnout**

Where there is a high prevalence of stress, low job satisfaction, and burnout amongst staff groups, those members of staff affected are more likely to perceive a threat more readily and/or make negative attributions towards the service users (i.e. recovery is not realistic).

**Encouraged autonomy, positive risk-taking**

In an organisational culture which encourages autonomy and supports positive risk-taking in the pursuit of recovery, staff will feel that they have the autonomy and empowerment to manage risk or act beyond their traditional role descriptions.

**Quick wins demonstrate progress**

If 'quick wins' in change towards increased recovery-based practice are identified, implemented and promoted, the staff groups will feel they have made progress and further change is achievable. Staff members who were previously reluctant to engage may be newly motivated to engage with the programme.

**Receptive Staff**

When staff groups of a mental health inpatient rehabilitation unit have taken part in a training programme aimed at increasing their engagement with recovery-based
practice, they will be receptive to making long term changes and increase their engagement with recovery-based practice if they feel involved, valued, enthusiastic and engaged in the programme.

**Collaborative action planning (PRIORITY THEORY)**
Collaborative action-planning between staff groups and service users (in particular where the action plan utilises existing strengths of the individuals concerned) leads to staff feeling engaged, valued, and involved, and hence ‘Receptive to Change’. Imposing an action plan on staff members will block staff ‘receptiveness’.

**High job satisfaction, low burnout**
When the staff have high levels of job satisfaction and low burnout, they are likely to be engaged and motivated by the change programme, fostered by supportive organisations/colleagues and collaboration.

**Incorporate recovery into existing programme (PRIORITY THEORY)**
Incorporating recovery into an existing change programme may help with staff engagement, enthusiasm, and change ‘receptiveness’, in an organisation subject to much recent change.

**Climate of job uncertainty, fear (PRIORITY THEORY)**
Overwhelming negative external contextual factors (e.g. economic cutbacks and job uncertainty) will prevent staff members feeling involved, engaged, or valued and hence block their ‘receptiveness’ to a change programme.

**Not all staff receive training**
In an organisation lacking a culture of mutual support between and within different staff groups, and where only some staff members receive training, others may feel threatened by their own relative lack of ‘expertise’ and react defensively or resistively to the change efforts.

**Programme is part of research project**
If the training programme is part of a research project with positive collaboration between the unit/organisation and an academic body, staff members are likely to feel motivated and enthusiastic about being part of a ‘scientific’ process.

**Programme is tailored to staff group**
If the training programme has been tailored to the staff group, and its existing systems, processes and cultures, then the staff members are likely to feel that their experiences and opinions are valued.

**Supported Change**
When staff groups of a mental health inpatient rehabilitation unit have taken part in a training programme aimed at increasing their engagement with recovery-based practice, they will make long term changes and increase their engagement with recovery-based practice if they feel encouraged/motivated/supported by management and colleagues to change.

**Publicly recognise, incentivise programme successes**
If the programme successes are shared with the staff group, recognised publicly (e.g. conferences, publications), rewarded or otherwise incentivised, the staff members will feel motivated by management and colleagues to persevere, even those formerly reticent.
Regular collaborative meetings (PRIORITY THEORY)
Regular meetings between staff groups and the training team, and/or a local change lead ('champion'), within a supportive organisational culture, help staff members feel supported by their peers and managers in the change programme.

Appointing a change agent or 'champion' (PRIORITY THEORY)
A local change agent or 'champion', if supported by management in that role, may help to persuade, encourage, and empower other staff members to change - i.e. they feel 'supported' to change. To be effective, a champion will need to have programmatic optimism, good interpersonal skills, the respect of colleagues, and be influential.

Management support, supported role flexibility (PRIORITY THEORY)
Explicit management endorsement and prioritisation of the change (e.g. through getting involved in the programme; endorsing an action plan for change; measuring progress; incorporating external drivers for change) helps staff members feel supported to make the change even if it entails moving outside their traditional occupational role and taking some risks.

Modify organisational structures (PRIORITY THEORY)
If organisational structures, processes and systems (e.g. working practices, responsibilities, policies, documentation, and performance reviews) are modified to facilitate the move towards recovery-based practice, staff members will feel supported by management in changing their practices.

Not involving relevant professional groups
If the programme is developed/facilitated by someone external to the unit who does not involve any of the same professionals within the unit, those individuals are likely to feel professionally threatened and unsupported and may disrupt the programme.