HRB drug and alcohol evidence reviews

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Health Research Board

**Treatment Services for people with co-occurring substance use and mental health problems.
A rapid realist synthesis.**

Executive summary

Purpose of the rapid realist review

Recent systematic reviews of effective treatments and approaches for co-occurring mental health and substance use disorders (SUDs) are limited by their focus on specific mental health conditions or substances. They do not respond to realist questions that unpack the contexts and mechanisms that may serve as facilitators or barriers to achieving positive outcomes in providing integrated care for mental health and SUDs. Understanding these facilitators and barriers is especially important in healthcare settings, including Ireland's, where funding for services and other administrative challenges may be at odds with ensuring equitable access to services. These characteristics must be considered in order to develop an in-depth understanding of what works for whom under what circumstances. With Ireland's 2017–2025 National Drugs Strategy (Department of Health, 2017), there is a need for information to further progress on goals to integrate mental health and substance use services.

Research questions

The scope of this rapid realist review was developed through a high-level review of relevant literature and early engagement of knowledge users in Ireland. The Health Research Board (HRB) proposed three research questions to guide the rapid realist review. Keeping in line with the realist approach, the research team carried out a process to refine these questions to ensure that they accurately reflected the needs of the knowledge users, including providers and users of dual diagnosis services in Ireland.

» Refined research question 1: What interventions improve treatment and personal functioning outcomes for people with co-occurring substance use and mental health problems and in what circumstances do they work?

» Refined research question 2: What aspects of integrative programmes for the treatment of co-occurring substance use and mental health problems trigger positive system outcomes and in what circumstances do these outcomes occur?

» Refined research question 3: What existing models of care for adults with co-occurring substance use and mental health problems lead to positive treatment outcomes and successful service integration?

Co-production guided the process at the first meetings in Ireland in November 2017. Detailed notes were taken in an effort to identify and draft theory statements that would guide the realist review. Notes were organised based on each of the discussions and activities facilitated with the groups. The research team carried out thematic analysis of this initial dataset of notes to generate 10 theory statements that ultimately guided the literature search, data extraction, and analysis processes. These 10 theory statements were brought back to the knowledge users for revision, validation, and finalisation during the second in-country meetings.

Final theory statements	
Number	**Theory statement**
1	Integration of existing services, particularly community-based services, supports access to care and minimises barriers faced with creation of new service lines.
2	Integrated treatment requires training and cross-training of substance use and mental health service providers at multiple levels.
3	Improved coordination between providers (substance use, mental health, and primary care) will break down administrative silos and improve access to timely diagnosis, care, and treatment.
4	Services must be tailored to the local context and the individual's needs and circumstances to be most effective.
5	Including service users and families in service and care decisions results in better outcomes for individuals and their families.
6	A knowledge of local efforts already in place and co-production with service providers and individuals with lived experience is needed to develop practice-informed strategies and policies that take known facilitators and implementation challenges into consideration.
7	Resources (financial and otherwise) must accompany strategy and policy to enable integration and improve service delivery and individual outcomes.
8	When treatment takes a holistic view and includes housing and social supports, individual outcomes are improved.
9	A holistic model to mental health is needed to improve mental health outcomes, particularly among individuals with co-occurring mental health and substance use disorders.
10	Peer support facilitates recovery and positive outcomes for individuals with co-occurring mental health and substance use disorders.

Methods

The HRB chose (and the Georgia Health Policy Center affirmed) the realist synthesis method for this review given the goal of gaining an understanding of why some interventions work (or do not work) for some people with dual diagnosis and under what conditions. The realist approach provides a strategy to identify characteristics, or mechanisms, that affect the successful implementation and outcomes of evidence-based treatments and their contexts. To answer the question of 'why does a programme work?', it is necessary to employ a theory-driven approach to evaluating the literature. Such a theory-driven explanation is the desired output of this review.

A two-round iterative search process led to the final set of articles reviewed. For Round 1, conducted during March 2018, the searching was carried out by each research question. The searches were limited to results published between 1998 and 2018 that were written in English. For research question 1, only articles that addressed mental health and substance use treatment in the title or abstract were chosen.

For research question 2, articles chosen addressed integration of programmes and services, including primary care. Search results for research question 3 were first scanned for those that addressed integrated dual diagnosis models of care. Additional articles were selected to broaden the final set to include other models and contexts for delivery of integrated care.

Once the data extraction and analysis of the articles from Round 1 was complete, the research team recognised several gaps in the literature. Gaps were identified in the following areas:

» Studies conducted in Ireland

» Peer support

» Consumer, client, service user, and family inclusion in service and care decisions

» Knowledge of local efforts and recognition of service providers and individuals with lived experience as experts.

After conversations and engagement with the knowledge users during a second round of in-person meetings (Round 2) to review initial findings, an additional literature search was deemed necessary to ensure that the findings of the review met the needs of the stakeholders.

From a pool of 10,971 unduplicated articles in the PsycINFO, CINAHL, MEDLINE, and Academic Search Complete databases, 151 were screened for review. Data analysis and synthesis of the final set of articles was informed by the synthesis steps outlined by Rycroft-Malone *et al.* (2012: 6–7). Data analysis began by organising the data collected utilising the data extraction form into EPPI Reviewer software. The software enabled the research team to systematically code all articles included in the review, as well as rapidly retrieve the context, mechanism, and outcome codes throughout data analysis. Across articles, reviewers paid particular attention to common themes in both the context and mechanisms present in the literature. These themes were then compared across articles and formulated into appropriate chains of inference.

Throughout the stages of data analysis and synthesis, reviewers, who included the research team and other experts in behavioural health, public health, and/or health systems, participated in iterative sense-making sessions. These sessions allowed each reviewer to provide concise summaries of emerging patterns and themes from their articles reviewed and describe whether the articles addressed the identified theories. A core member of the research team took detailed notes to support the identification of themes and patterns across reviewers and content-relevant articles for each research question.

Findings were synthesised in two rounds. The first round synthesised the context, mechanism, and outcomes found in the literature aligned with each research question, with attention given to the thematic areas of the theory statements and additional concepts that surfaced in the literature. This level of synthesis revealed the need for further synthesis, cutting across literature identified for each research question, and focusing on the outcomes aligned with the theory statements.

The 10 theory statements were grouped into outcome areas of **integration, access,** and **individual and family treatment outcomes**. These three outcome areas distil essential components of the three research questions, which address, in reverse order, 1) the conditions that affect individual treatment outcomes, 2) characteristics of integrative programmes that yield positive system outcomes (distilled into access here), and 3) successful integrated models of care. Each of the three outcome areas is associated with a different context. The mechanisms in improved integration are associated with the provider context. The context for the access mechanisms is the systems of mental health and substance use services. The context for individual and family outcomes is the care setting.

Main findings

The 151 articles selected for review included 118 empirical studies (n=22 randomised trials, 48 programme evaluations, 15 longitudinal analyses, 39 qualitative studies, 14 other), 16 syntheses or reviews (n=11 systematic reviews, 4 literature syntheses, 1 other), 16 brief reports, and 1 commentary. Findings aligned with the three outcome areas derived from grouping the theory statements are presented as follows.

Integration

Several resource and reasoning mechanisms serve as enablers and barriers to successful integration of co-occurring mental health and substance use service delivery. In summary, the organisational and financial resources must align with strategy and policy, but this alone will not ensure successful integration. Provider belief that change is possible and enthusiasm for implementing these changes serve as catalysts for implementing the necessary changes that integrated care requires. Provider belief and enthusiasm are influenced by a variety of factors, such as the climate in which they operate, the organisational partnerships involved, and their confidence in their skills and abilities to implement new services or implement services differently in coordination with other providers.

Access

Review of all articles revealed 19 that described context, mechanism, and outcome patterns broadly related to access. On the whole, these mechanisms were found to be operating at the organisational or staff levels rather than an individual level. For example, the predominant mechanisms identified related to staff changes in knowledge, skills, and attitudes associated with training; staff changes in thinking and reasoning associated with their inclusion

and/or co-production of services for co-occurring disorders; and changes in staff reasoning associated with the process of organisational integration. Additional mechanisms related to what one might consider changes in organisational reasoning such as organisational climate and readiness to change. Each of the mechanisms, in some way, helped to explicate three of the study's 10 theory statements that had been co-produced with local knowledge users. Further, the findings related to access helped to begin to unwind the complex story addressing the study's second research question: What aspects of integrative programmes for the treatment of co-occurring substance use and mental health problems trigger positive system outcomes and in what circumstances do these outcomes occur? Based on the analysis, these aspects include, but are not limited to, changes in staff knowledge and skills associated with training that is, ideally, designed and/or delivered by individuals with lived experience, and organisational climates and readiness for change that facilitate successful integration of mental health and substance use services.

Individual and family treatment outcomes

The literature related to interventions that include service users and families in treatment reveals important mechanisms for building an integrated system for individuals with co-occurring mental health and substance use diagnoses. A dominant theme is the importance of engagement in treatment or recovery. We now know more about how these interventions can lead to engagement in treatment. Conditions that are associated with engagement in treatment paint a picture of a client who is embedded in a supportive social network, has mastered self-management behaviours, has stability in basic social and employment needs, and is motivated and has individualised incentives to engage in treatment and recovery. The care system and the individual have worked together to establish a secure and stable environment that supports recovery.

The literature also reveals three more difficult to observe mechanisms that are part of this complex system: trust, flexibility, and hope. The treatment approaches explored in this literature (including service users and families, holistic view, and peer support) lend themselves to triggering these mechanisms. Review of the detail of this literature creates a roadmap for the design of services that are most likely to trigger recovery. There are

specific actions and orientations that contribute to trust. For example, creating an environment that is intentional about displaying simple acts of kindness will help build trust. Purposefully building flexibility into treatment through co-design will help build the conditions necessary for recovery. Building a culture of hope among providers, family, and clients through instilling confidence, self-esteem, and empowerment is critical to recovery. Also included in the system are a number of barriers to recovery such as isolation, intense emotions, and lack of trust in institutions that can trigger negative reinforcing loops away from treatment and recovery. Careful design of a system of care that leverages these mechanisms is more likely to create an environment of recovery.

Initial recommendations

The HRB seeks to contribute to the development of a standardised evidence-based approach to the identification, assessment and treatment of co-occurring mental illness and substance disorders. The results of this realist review and synthesis provide ideas regarding how integrated systems can be built to use evidence-based models of care to improve outcomes for individuals.

Knowledge users in Ireland described six dual diagnosis programmes in different communities (Waterford, Limerick, Cork, Clondalkin, Kilkenny, and Dublin) that engaged in locally driven integration efforts across the drug and alcohol task forces, mental health or psychiatric services, and a Recovery College. These programmes create vehicles for learning among the providers and consumers involved in these programmes. There are opportunities for learning about each other's programmes, as well as evidence for treatments, models, and integration produced by this project. Additionally, learnings from these programmes can be used to support the development of additional programmes.

These six local integrated programmes provide a starting place for learning and integrating knowledge about treatment and building a culture of co-production that supports putting the individual at the centre of the system. The wisdom gained from knowledge users and the literature synthesis reveals numerous ideas for building an integrated system. Content in each section of this report can be translated into evidence-based actions.

The four-level framework that emerged from this project provides a structure to organise potential steps. At the policy/system level, high-leverage steps may focus on the alignment of resources. At the organisation/provider level, a focus on building a knowledgeable workforce is important. Initial recommendations, included in the following table for each level, are focused on a few preliminary actions that may have high leverage and build on what currently exists. A next useful step could be a collaborative session with local Irish knowledge users to meaningfully mine the findings for appropriate actions and would be in keeping with the co-production recommendation.

Level	Potential action
Policy/system	» Create incentives in payment to providers for integrating care of individuals with co-occurring diagnosis » When developing service payment agreements, include deliverables that recognise the long path to recovery » Analyse the system as it relates to access to psychological services and align providers with service needs » Examine payment structure for peer mentors, coaches, and instructors » Explore how resources can be allocated to support a holistic approach to care (e.g. housing, supportive employment)
Organisation/provider	» Build a knowledgeable, integrated workforce that keeps the individual at the centre » Develop a common language among different provider types, consumers, and families » Examine training modes and build in time to support provider training and cross-training to build competence and confidence » Build a culture of hope
Service/treatment	» Create a learning community among the current integrated programmes » Conduct a realist evaluation of the current work and use the learnings to improve current programmes and build others » Allocate resources to support the creation of new integration pilot programmes that includes resources for programmes, technical assistance, and peer support from current integrated programmes » Use the evidence from this review to guide future programme development
Individual/family	» Build systems for co-production at each level of the system: policy, provider, treatment design, and individual care

Conclusion

This realist review and synthesis begins to answer the overarching question of 'how can integration using effective models of care improve outcomes for individuals with co-occurring mental health and substance use disorders?' Integration is not a single concept related to a specific treatment or relationship among providers, but rather a complex, multifaceted portfolio of interrelated parts of a system. Central to development of integrated models is a four-level framework for integration that is co-produced by policy-makers, providers, and clients at the policy, organisation or provider, treatment, and individual levels. Policies and resources need to be aligned to create incentives for providing integrated care, while a knowledgeable, coordinated workforce keeps the individual at the centre.

Keywords: co-occurring disorders, dual diagnosis, integration, mental health disorders, rapid realist review, substance use disorders

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