Research Bulletin

Translating youth mental health research into practice

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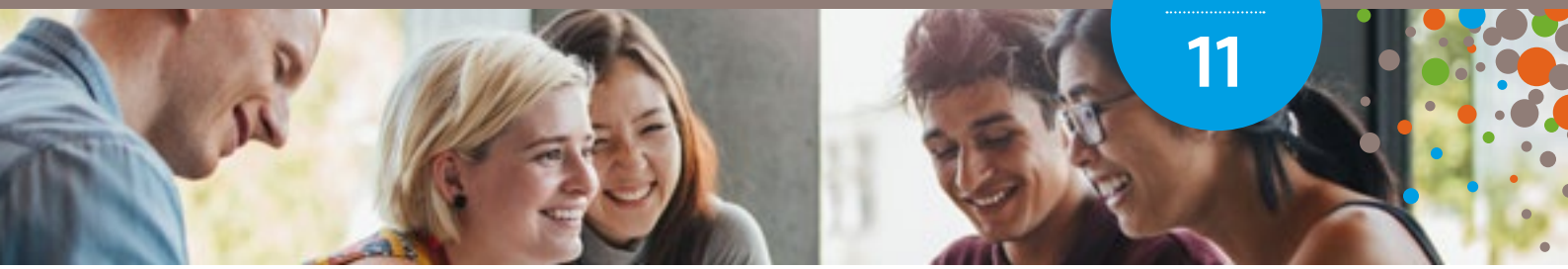

In youth mental health, and the broader health field, there is often a gap between the best evidence from cutting-edge research and how this knowledge is applied 'on-the-ground' in clinical practice.[1] 'Knowledge translation' is about trying to bridge that gap by assisting services and clinicians to implement best practices that are adapted to their particular context. This research bulletin provides an overview of the key literature regarding what approaches and techniques are most effective for translating research evidence into practice in youth mental health.

What is knowledge translation?

Knowledge translation is an ongoing process to improve not only the health of individuals, but also the systems of healthcare delivery. This process includes:

- collating and synthesising evidence
- disseminating or exchanging this information
- applying the knowledge in an ethical way.[2]

Fundamentally, knowledge translation in youth mental health is about applying the latest research and scientific knowledge to service settings in order to provide young people with the best possible care.

Knowledge translation is sometimes used interchangeably with the term 'implementation science', which focuses on how to address the gap between knowledge and practice in 'real world' settings.[3] This includes identifying barriers or facilitators to changes in practice, both by individual clinicians and services as a whole.[4] Growth in this field has led to a greater understanding of the many factors and complexities associated with communicating, translating, and disseminating research insights that enhance clinical practice.

Examples of knowledge translation activities

Here are some of the activities individual clinicians or services as a whole can use in an effort to increase knowledge translation awareness and practice.

- Educational workshops
- Web-based training, such as webinars and e-learning modules
- Fidelity monitoring
- Financial incentives for evidence-based practices
- Journal clubs
- Providing written fact sheets or practice guidelines
- Reminders of evidence-based practices
- Professional development sessions
- Communities of practice
- Changes in organisational culture
- Clinical supervision
- Clinician feedback systems

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The National Centre of Excellence in Youth Mental Health

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What are some existing models and approaches to knowledge translation?

Knowledge translation is a broad field and over 100 different terms have been used to describe its various aspects.[1] A range of frameworks have been developed that either focus on knowledge translation or incorporate knowledge translation as part of a broader effort to implement research in practice in the health field.[5] Examples of relevant frameworks include:

- Exploration, Preparation, Implementation, Sustainment (EPIS) model[6]
- Consolidated Framework for Implementation Research (CFIR)[7]
- the Quality Implementation Framework[8]
- Graham's model of knowledge translation.[9]

In a study that integrated 28 models of knowledge translation, five processes were identified that are common across the different approaches.[10] These five processes are:

1. Identify and communicate the problem.
2. Develop, select, and synthesise knowledge/research.
3. Analyse contextual issues.
4. Implement knowledge transfer activities or interventions that use evidence in practice.
5. Utilise and sustain knowledge/research.

This bulletin is mainly focused on step four: assessing the interventions, activities, or approaches that are most effective in translating research into clinical practice in youth mental health.

So what does the evidence say about what works in translating evidence into practice?

Forman-Hoffman VL, Middleton JC, McKeeman JL, Stambaugh LF, Christian RB, Gaynes BN, et al. **Quality improvement, implementation, and dissemination strategies to improve mental health care for children and adolescents: a systematic review.** *Implementation Science.* 2017;12(1):93.

This systematic review assessed interventions aimed at disseminating research to clinicians, quality improvement, and implementing evidence in practice for children and adolescents aged up to 18 who were experiencing mental health issues.[11] The review identified 19 studies that examined 18 distinct strategies.

The strongest evidence for effective knowledge translation was 'pay for performance'. This is where a clinician is paid to implement evidence-based practices. In these instances, clinicians were more than twice as likely to apply evidence-based practices competently when compared to those who were not paid. Additionally, there was some evidence for the effectiveness of:

- using 'reminders' to prompt health providers to attend to information, such as practice guidelines
- clinicians having access to patient feedback or updates on their progress.

The review suggests that educational meetings or written materials provided to clinicians do not appear to be of benefit to changing practice when used in isolation. Rather, providing educational materials or meetings was only beneficial when it was combined with other approaches, such as reminders, organisational structural changes, or patient-mediated (e.g. involved) interventions.

It is important to note that most interventions involved multiple components, so it is difficult to clearly demonstrate which aspects of knowledge translation were most effective. Furthermore, there were very few studies on individual strategies and the quality of the studies included in the review was mixed.

Take home messages This quality review contains the interesting insight that the strongest evidence for translating knowledge to practice is to offer clinicians financial incentives. For those involved in training staff, it suggests that simply providing written materials or face-to-face workshops may not be sufficient to motivate clinicians to change their practice in line with emerging research evidence. Rather, these elements need reinforcement from other approaches, like reminders, organisational changes, or feedback from young people.

Williams NJ, Glisson C, Hemmelgarn A, Green P. **Mechanisms of change in the ARC organizational strategy: Increasing mental health clinicians' EBP adoption through improved organizational culture and capacity.** *Administration and Policy in Mental Health and Mental Health Services Research.* 2017;44(2):269-283.

This American study investigated an organisation-level strategy known as Availability, Responsiveness, and Continuity (ARC), which is aimed at increasing evidence-based practice (EBP) in clinicians.[12] 14 specialty youth mental health agencies were matched as pairs based on their size, and in each matched pair, one service was randomly assigned to ARC and the other to no intervention (control group).

The ARC intervention lasted three years and involved ARC specialist facilitators working with agency/service leadership and clinical staff on:

- embedding five principles of service system effectiveness as key priorities
- developing organisational infrastructure, support and tools, such as quality improvement, that assist in effectiveness and improvement
- promoting shared mental models between clinical staff and administrators that support innovation.

The control group received no intervention and continued practice as usual. A total of 475 mental health clinicians participated in the study: 259 in the ARC group and 216 in the control group.

The results showed that ARC was associated with an increase in the use of EBP. One of the strengths of the study was that it looked at mediators of change, or what factors are related to *how* the ARC intervention led to more EBP. Two suggested mediational pathways are:

1. ARC intervention led to a culture that values client wellbeing, competency, and being proficient or skilful.
2. ARC helped organisations identify and reduce job-related barriers to using evidence in practice. Examples of these barriers include policies or workflows that made implementing EBPs difficult, or not providing the materials or supervision required by staff to use EBP.

When tested together, the study found that the first pathway, involving a culture of organisational 'proficiency' and an increased intention to use EBPs, was a stronger driver of change.

Take home messages This study demonstrates that changing or adapting organisation-wide practices can lead to meaningful changes in the uptake of evidence-based practice (EBP) in youth mental health settings. It also shows that organisations should focus on building a culture that values proficiency, client wellbeing, and competency as a means to increasing EBP. A secondary, and important, pathway to improvement in practice relates to removing barriers that impede a clinician's ability to implement EBP, whether they are at a policy or practical level.

Novins DK, Green AE, Legha RK, Aarons GA. **Dissemination and implementation of evidence-based practices for child and adolescent mental health: A systematic review.** *Journal of the American Academy of Child & Adolescent Psychiatry.* 2013;52(10):1009-1025.

This systematic review captured studies aimed at implementing evidence-based practices for mental health problems in children and adolescents.[13] It included studies with experimental or observational designs in community, primary care, and specialist mental health settings.

Because the study designs were varied, it wasn't possible to do a statistical meta-analysis, which would allow for an estimate of the effect size, or strength, of specific practices. Instead, the authors provided a comprehensive narrative review. They organised the studies according to the EPIS model,[6] which separates knowledge translation into exploration (considering new approaches), preparation (planning for new services), implementation (providing the service), and sustainment (maintaining the services over time). In terms of knowledge translation, the preparation and implementation components are most relevant to this bulletin.

The review found strong evidence for two factors in effective knowledge translation:

1. Fidelity monitoring: this involves ensuring that the practice is being applied consistently with the model.
2. Quality supervision: this assists with knowledge translation and improves staff retention.

Additionally, the review found that interventions that target organisational culture, climate, and leadership were effective in implementing evidence-based practices. In terms of training strategies and technologies, there was no consistent evidence of superiority of one approach based on the length, learning format (e.g. didactic versus experiential), or mode of delivery (in-person versus video conference) of the training.

Take home messages This review emphasises the utility of 'model fidelity' practices and quality supervision for improving knowledge translation among staff. The importance of monitoring the fidelity of a particular treatment, intervention, or practice model is increasingly being recognised in youth mental health, and more tools are being developed to help clinicians and services monitor their practice.[14] This review also highlights how targeting organisational culture, climate, and leadership can have meaningful impact on the uptake of evidence-based practice, in line with the ARC study previously reviewed. In terms of training staff, the review indicates that there is no consistent evidence to suggest that one approach, learning format, or mode of delivery is superior to any other.

Barwick MA, Schachter HM, Bennett LM, McGowan J, Ly M, Wilson A, et al. **Knowledge translation efforts in child and youth mental health: a systematic review.** *Journal of Evidence-Based Social Work.* 2012;9(4):369-395.

This was the first systematic review that addressed the effectiveness of knowledge translation in youth mental health. It has the benefit of taking a broader definition of youth as those aged up to 24-years-old.[15] To be included in this review, studies had to have objective behavioural outcome data, as opposed to subjective measures of clinician attitudes or knowledge. It also included studies with simulations of 'real-world practice', which is a potential limitation because simulations rarely fully capture the realities of 'on-the-ground' practice.

The review identified 12 studies: five in community-based settings and seven in schools. Eight out of 12 studies had educational workshops as the primary form of intervention designed to improve knowledge translation. The authors suggested that practitioner training should incorporate adult learning principles as well as interactive learning strategies, such as role-play, video review, and group discussion. The review highlighted that quick doses of training are not typically effective in leading to behaviour change, and that interventions that work in one service may not readily translate to another. This demonstrates the importance of considering organisational and contextual factors when implementing knowledge translation efforts.

Take home messages Most knowledge translation approaches in youth mental health have focused on educational workshops as the primary strategy. However, short (e.g. two-hour) training workshops are unlikely to be effective in leading to meaningful changes in practice. When workshops are used, they should involve interactive learning strategies that are not overly didactic, and be guided by adult learning principles. Any such training must also be customised to take account of local context issues in order to be beneficial.

Where to from here?

Summary of the evidence

The evidence to date suggests that there is no knowledge translation strategy or approach that is consistently effective; rather, different approaches are likely to be effective in different contexts. However, there is emerging evidence about the importance of organisational culture factors, individual clinicians receiving progress feedback, and monitoring fidelity of treatments or models of care. Interventions can and should be applied at different levels. Damschroder[7] distinguishes between approaches that focus on the inner setting of an organisation or an outer setting within a broader community and society.

Inner-setting approaches

Individual clinician level: The strongest evidence to date is for providing clinicians with financial incentives to implement evidence-based practices. There is also evidence that ongoing processes that offer feedback to clinicians can impact their practice. This can take the form of reminders about evidence-based practice, or can involve feedback from young people, or progress updates on clients. It can also include fidelity monitoring, where clinicians get feedback on how well they are adhering to a treatment model.

Team level: One of the most common modes of knowledge translation is to provide teams with educational content in written or workshop format. The best current evidence suggests that a brief didactic workshop or written handout is insufficient to make meaningful change to practice. Some evidence suggests interactive workshops that incorporate adult learning principles can aid knowledge translation, and that educational content can be effective when it is part of a package, which includes other components such as reminders, changes in organisational structure, or patient feedback.

Organisation level: Evidence suggests that changes at an organisational level can have a meaningful effect on translating research into evidence-based practice. Frameworks like the ARC strategy assist administrators and clinicians to build cultures and structures focused on innovation, quality improvement, and effectiveness. This offers opportunities towards building competencies and removing barriers to the implementation of evidence-based practice.

Outer-setting interventions

Interventions at this level would consider aspects outside an organisation that might impact on the quality of knowledge translation. These could include factors like public policy, funding frameworks, and relationships between organisations. At present there is not enough research on these issues to draw any firm conclusions.

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What does this mean for clinical practice?

Organisations and clinicians can't afford to ignore the field of knowledge translation. Research can identify better treatments and models of care that improve the mental health and daily functioning of young people. It can also identify how to use *existing* resources or treatments more effectively to achieve better outcomes for young people.

It is important to note that many interventions have not been studied at all, or sufficiently investigated to give clear answers on what works. Nevertheless, the studies synthesised in this bulletin suggest that effective knowledge translation in a youth mental health context is likely to require:

- Consideration of interventions at multiple levels, including what might be offered to individual clinicians (e.g. incentives, feedback), clinical teams (e.g. workshops, supervision), and the broader organisation (e.g. leadership, cultural change).
- Consideration of knowledge translation as an ongoing process. This means that interventions might benefit from being multi-faceted. For example, there might be an education component, and follow-up mechanisms that might involve feedback, reminders, fidelity monitoring, or supervision processes as ongoing supports. This also affords the opportunity for knowledge exchange, where ongoing dialogue can occur between research and practice.
- Tailoring to the specific context in which a service is being delivered. In youth mental health settings, this could involve considering the developmental needs of young people and their families, as well as the importance of involving young people in knowledge translation strategies.

Questions for future research

- Are there knowledge translation interventions or approaches that evidence shows rarely work, or are harmful, and which shouldn't be used?
- How can we best use technology, such as e-learning platforms and computerised feedback systems, to improve research translation?
- What are the key outcomes we should be measuring? In addition to client outcomes, should we be assessing client and staff satisfaction, treatment fidelity, staff service retention, and other factors?
- Research has often limited 'youth-focused' interventions to young people aged up to 18. If a broader definition of youth is used, which includes those up to age 25, does this impact on which approaches of knowledge translation are most effective?
- How are knowledge translation efforts best adapted to non-traditional services and settings, including Indigenous communities, rural and remote communities, the developing world, as well as linguistically, ethnically, culturally, sexuality, and gender diverse communities?

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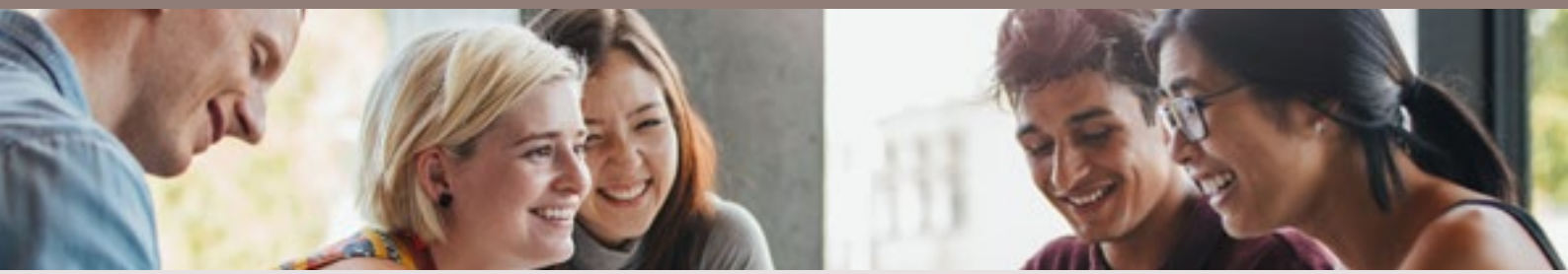

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Research bulletins are designed so that clinicians and researchers can access an overview of recent research on a specific topic without having to source the primary articles. The implications of the research for clinical practice and opportunities for future research to advance knowledge in the particular topic area are also canvassed.

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