



What are evidence-based approaches and why use them in children's mental health?

February 2016

Christine Schwartz

Charlotte Waddell

Jen Barican

Caitlyn Andres

Daphne Gray-Grant

Children's Health Policy Centre

Faculty of Health Sciences, Simon Fraser University
Room 2435, 515 West Hastings Street, Vancouver, BC, Canada V6B 5K3
childhealthpolicy.ca

© Children's Health Policy Centre, SFU, 2016

What are the most effective ways to promote emotional well-being and prevent children from developing anxiety disorders? What are the best interventions for children with behaviour problems? Is there a way to ensure that psychiatric medications are not causing harm to children? These kinds of questions used to be answered based on expert opinion and practitioner experience. But now, practitioners increasingly rely on high-quality research evidence to guide their decisions in children’s mental health and many other health fields. Policy-makers do the same.^{1, 2} They do this to ensure that children always receive the best and safest interventions.³

Randomized controlled trials (RCTs) are the “gold standard” for assessing whether health interventions are effective.² This standard applies to prevention programs, psychosocial treatments and medications. RCTs provide certainty that any benefits are due to the intervention rather than to chance or other confounding factors.

In an RCT, outcomes for children receiving a new intervention are compared with those for children in a comparison or control group who do not receive the intervention. The randomization process ensures that every child participating in a study has an equal likelihood of being assigned to the intervention or comparison group, allowing researchers to get an accurate picture of intervention effectiveness. Good-quality RCTs also include measurements to learn whether any improvements are not only statistically significant, but also clinically meaningful to children’s lives.

RCTs are not the only form of research evidence. For example, qualitative studies can tell us about children’s (or families’) experiences and *why* a given intervention may have succeeded or failed. And all practitioners (and policy-makers) always make use of other kinds of information in their decision-making, such as child and family preferences. But RCTs remain the best way to first ensure that interventions actually benefit children and do no harm.

Still, because RCTs are costly and time-consuming, the process of evaluating new interventions may start with smaller pilot or feasibility studies employing less rigorous methods, for example, not using a comparison group. If these initial studies prove successful, and children do not experience harms, larger-scale RCTs may then be considered.

Hundreds of RCTs have now been conducted on a wide array of children’s mental health interventions. These include prevention programs, psychosocial treatments and psychiatric medications. Given the volume of RCTs, researchers have developed new methods for rigorously identifying and critiquing RCTs, then summarizing the findings, including any negative ones.² By evaluating multiple RCTs in what is known as a systematic review, researchers can obtain a clearer picture of the strength of the overall *body* of evidence for a given intervention. If there are enough RCTs assessing similar interventions, researchers can also aggregate the data from several studies to conduct a new statistical analysis on the overall findings.⁴ This is known as a meta-analysis and can give an even more accurate picture of an intervention’s strengths and limitations.

For the *Children’s Mental Health Research Quarterly* and the reports we produce at the Children’s Health Policy Centre, we rely on systematic review methods modified from the *Cochrane Collaboration* and *Evidence-Based Mental Health*.^{4,5} Table 1 shows the criteria we typically use.

Table 1: Children’s Health Policy Centre Criteria for Assessing Randomized Controlled Trials*
<ul style="list-style-type: none"> • Reliable, valid and clinically meaningful outcome measures were used • Information was gathered from two or more sources (e.g., children, parents, teachers) • Fewer than 20% of children dropped out and/or intention-to-treat analysis was used • Tests of statistical significance were conducted on the primary outcome measure(s) • For medications, researchers and participants were “blinded” and placebo controls were used • For psychosocial prevention and treatment interventions, three-month follow-up (or more) was used to determine whether benefits endured**

* These criteria are adapted from the *Cochrane Collaboration* and *Evidence-Based Mental Health*.

** Although we would prefer to have a similar inclusion criterion for medication studies, because so few include follow-up assessments, we have not yet been able to establish this as a criterion.

Based on these standards, we have been able to recommend many different prevention and treatment interventions to practitioners and policy-makers – interventions that we know can help children.^{6,7} We have also been able to advise practitioners and policy-makers about interventions that do not benefit children, or that cause harm. For more information on these interventions, please see past issues of the *Quarterly* at childhealthpolicy.ca/the-quarterly, fully indexed and free online.

Citing This Report

Please cite this report as follows: Schwartz, C., Waddell, C., Barican, J., Andres, C., & Gray-Grant, D. (2016). *What are evidence-based approaches and why use them in children's mental health?* Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.

References

1. Lavis, J. N., Posada, F. B., Haines, A., & Osei, E. (2004). Use of research to inform public policymaking. *The Lancet*, 364, 1615-1621.
2. Ciliska, D., Thomas, H., & Buffet, C. (2012). *An introduction to evidence-informed public health and a compendium of critical appraisal tools for public health practice (revised)*. Hamilton, ON: National Collaborating Centre for Methods and Tools.
3. Waddell, C., & Godderis, R. (2005). Rethinking evidence-based practice for children's mental health. *Evidence-Based Mental Health*, 8, 60-62.
4. Higgins, J. P. T., & Green, S. (2011). *Cochrane handbook for systematic reviews of interventions version 5.1.0* [updated March 2011]. Retrieved June 6, 2015, from <http://www.cochrane-handbook.org>
5. Purpose and procedure. (2012). *Evidence-Based Mental Health*, 15. Retrieved June 6, 2015, from <http://ebmh.bmj.com/content/15/2/e3.full?sid=9a709906-a9ed-4144-bd35-297c433bd2ec>
6. Waddell, C., Shepherd, C. A., Schwartz, C., & Barican, J. (2014). *Child and youth mental disorders: Prevalence and evidence-based interventions*. Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.
7. Waddell, C., Schwartz, C., Barican, J., Andres, C., & Gray-Grant, D. (2015). *Improving children's mental health: Six highly effective psychosocial interventions*. Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.