VALUEOPTIONS’ SUPPORT OF EVIDENCE-BASED PRACTICES

Definition

Evidence-based practice is the integration of clinical expertise, patient values and the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients to improve clinical and functional treatment outcomes.\textsuperscript{1,2}

ValueOptions supports evidence-based practice by disseminating information on those interventions with current best evidence for the most common behavioral health conditions.

What is best evidence?

Best evidence means evidence obtained from the highest possible level using the following hierarchy:\textsuperscript{3}

Level 1 Evidence from a systematic review or meta-analysis of all relevant randomized controlled clinical trials (RCTs) or evidence-based clinical practice guidelines based on systematic reviews of RCTs.

Definitions

\textit{Randomized, double-blind controlled clinical trial:} In a randomized, double-blind clinical trial, neither the investigators nor the subjects know whom is receiving the study intervention vs. the control intervention.

\textit{Randomized controlled clinical trial:} Same as above, but not double blind.

\textit{Meta-analysis:} A review in which the results of many RCTs are pooled and the overall results are analyzed.

\textsuperscript{1} Crossing the Quality Chasm: A New Health System for the 21st Century, Institute of Medicine, 2001
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Comment
A randomized controlled clinical trial (RCT) is a prospective study in which people are allocated at random (by chance alone) to receive one of several clinical interventions. One of these interventions is the standard of comparison or control. The control may be a standard practice, a placebo ("sugar pill"), or no intervention at all. Prospective means that no one receives the study or control intervention until the study begins. This is considered the “gold standard” of scientific studies.

Level 2 Evidence obtained from at least one properly designed randomized controlled trial

Comment
A single study, though well designed, is not as high a level of evidence as multiple studies, as there is a greater likelihood that the results were due to chance alone.

Level 3 Evidence obtained from well designed controlled clinical trials without randomization

Definition
Clinical trial: A prospective study in which an intervention is made and the results of that intervention are tracked longitudinally. The study does not meet standards for a randomized clinical trial.

Comment
If a study is not randomized, there is a possibility that the study intervention is superior because of characteristics of the subjects, not the study. However, a well designed study is still prospective, so there is still the possibility that the results are due to the intervention and not to chance alone or to some other factor.

Level 4 Evidence from well designed case-control and cohort studies

Definition
Cohort or longitudinal study: A study in which subjects are prospectively followed over time without any specific intervention. Control study: A study in which a group of patients and a group of control subjects are identified in the present and information about them is pursued retrospectively or backward in time.
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Comment
Level 4 has a lower likelihood of showing that an intervention results in positive findings either because it is conducted retrospectively, or because there is no specific intervention studied. This level of evidence is still a clinical “study” but is scientifically weaker than the levels above.

Level 5    Evidence from systematic reviews of descriptive and qualitative studies

Level 6    Evidence from a single descriptive or qualitative study

Comment
Levels 5 – 6 are single studies without quantitative data. Because of the lack of data, the results are highly likely to be due to chance alone.

Level 7    Evidence from opinion of authorities and/or reports of expert committees

Comment
Level 7 is based on expert opinion. Although expert opinion is often the basis of the community standard of care, it is not considered scientific evidence and thus is the lowest possible level of best practice. Still, there are many conditions for which there is no scientific evidence because the relevant research has not been funded or conducted. In the absence of any research, Level 7 is acceptable as best practice.
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### Best Interventions for Common Behavioral Health Conditions

<table>
<thead>
<tr>
<th>Condition/Intervention</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
<th>Level 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression, Major</td>
<td>Systematic review of RCTs</td>
<td>At least one RCT</td>
<td>Non-randomized clinical trials</td>
<td>Case-control and cohort studies</td>
<td>Systematic reviews of qualitative studies</td>
<td>Single qualitative study</td>
<td>Expert opinion</td>
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<tr>
<td>Antidepressant medication</td>
<td>Interpersonal psychotherapy</td>
<td>Combined antidepressant medication and cognitive/behavior therapy for chronic depression</td>
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<tr>
<td>Cognitive behavioral therapy</td>
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<tr>
<td>SSRIs (children)</td>
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<tr>
<td>Maintenance with full antidepressant dose for &gt;=3 episodes</td>
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<td>Electroconvulsive therapy</td>
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<tr>
<td>Increased physical activity</td>
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10 Kupfer DJ, Management of recurrent depression, J Clin Psychiatry. 1993 Feb;54 Suppl:29-33; discussion 34-5. Review
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<th>Level 7: Expert opinion</th>
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<tr>
<td>Generalized Anxiety Disorder</td>
<td>(aerobic exercise and resistance training)(^{12,13,14,15})</td>
<td>Cognitive behavioral therapy(^{20,21})</td>
<td>Antidepressant medication(^{22})</td>
<td>SSRIs (children)(^{23})</td>
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\(^{21}\) http://www.apa.org/divisions/div12/rev_est/anxiety.html#gad


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<td>Behavioral change for substance use, lifestyle modification and medication adherence</td>
<td>Motivational interviewing (MI)²⁴,²⁵</td>
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**ValueOptions’ position:**

Because there is Level One evidence supporting the use of Cognitive Behavioral Therapy, singly or in combination with appropriate prescribed medication, for the treatment of both Major Depression and Generalized Anxiety Disorder, ValueOptions encourages providers to use this treatment approach for these two disorders as appropriate.