Are clinicians' perceptions of treatment effectiveness consistent with the evidence base?

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Evidence based treatments (EBTs) in children’s mental health

- Many reviews of EBTs for children with mental health problems
- Lack of data on many commonly used interventions
- Lack of information about:
  - what is being used in practice
  - clinicians’ perceptions of evidence
  - How these two are related

Goals of this presentation

- Present a hierarchy of interventions based on available evidence
- Compare clinicians’ perceptions to what is presented in available research
- Hypothesize factors that may limit the implementation of EBTs

How do we categorize evidence?

Traditional hierarchy of study design:
clinical observation → case control → cohort → RCT

Two cautionary tales:


Traditional model of categorization

- Cochrane and Campbell Collaboratives
- well-established vs. probably efficacious
  - well-established:
    - positive effects in ≥ 2 randomized controlled trials or many less controlled studies
    - research conducted by ≥ 2 independent teams.
  - probably efficacious: promising work that has not yet met criteria for “well-established”

Problems with this model

- For many interventions, there is little research
- Big reductions in effect when interventions move from controlled conditions to ‘real world’
- Many youth in ‘real world’ receive many interventions from a range of providers, so challenging to test effects of a given treatment
  - leading to little variability in categorization
An alternative model of categorization (Kazdin, 2004)

1. Not Evaluated
2. Evaluated but no, unclear or negative effects
3. Promising: some positive effects, but evidence does not meet traditional standards
4. Well established: positive effects using criteria of the customary evidence systems
5. Better/best treatments: more effective than other well-established techniques

Reviews

- Based on Kazdin Criteria
  - Bestan & Eyberg, 1998;
  - Compton, Burn, Egger, & Robertson, 2002;
  - Farmer, Compton, Burns, & Robertson, 2002

Reviews

General
- Bestan & Eyberg, 1998;
- Burns & Hoagwood, 2002;
- Burns & Hoagwood, 2004;
- Epstein, Kutash, Duchnowski, 1998;
- Pumariaga & Winters, 2003

Well-Established (Level 4)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Multi-systemic therapy (MST)</td>
<td>Strongest evidence among community interventions. Positive results from RCTs; most research conducted by developer</td>
</tr>
<tr>
<td>Brief strategic family therapy</td>
<td>Evidence for youth with substance use problems</td>
</tr>
<tr>
<td>Behavior therapy</td>
<td>Efficacious for externalizing problems</td>
</tr>
<tr>
<td>Modeling</td>
<td>Efficacious for anxiety and externalizing problems</td>
</tr>
<tr>
<td>Behavioral parent training</td>
<td>Long history of research. Overlaps with Webster-Stratton. Patterson’s Living with Children in prototype.</td>
</tr>
<tr>
<td>Interpersonal therapy</td>
<td>Efficacious for depression in adolescents</td>
</tr>
<tr>
<td>Problem solving skills training</td>
<td></td>
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<tr>
<td>Parent-child interaction therapy</td>
<td></td>
</tr>
<tr>
<td>Voucher-based contingency management</td>
<td>Efficacious for depression in adolescents</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>Medication more effective than CBT alone. Concerns about side effects</td>
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Better/Best (Level 5)

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<tr>
<th>Treatment</th>
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<tbody>
<tr>
<td>Cognitive Behavioral Therapy (CBT)</td>
<td>Strong research base for conditions including depression, trauma &amp; anxiety</td>
</tr>
<tr>
<td>Stimulants for ADHD</td>
<td>Well-designed RCTs</td>
</tr>
<tr>
<td>Webster-Stratton Parents and Children Series</td>
<td>Large body of research; much attention to generalizability, variations in delivery</td>
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Promising (Level 3)

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<thead>
<tr>
<th>Treatment</th>
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</thead>
<tbody>
<tr>
<td>Case management</td>
<td>Recent substantial growth in research. Still needs considerable work on definitions and assessing fidelity</td>
</tr>
<tr>
<td>Exposure therapy</td>
<td></td>
</tr>
<tr>
<td>Social Skills Training</td>
<td>Difficult to rank. Much research suggesting positive effects, but often not generalizable</td>
</tr>
<tr>
<td>Anger coping/management</td>
<td></td>
</tr>
<tr>
<td>Emotive imagery training</td>
<td>Promising for anxiety in very small samples</td>
</tr>
<tr>
<td>Self-control instruction training</td>
<td>Promising for ADHD</td>
</tr>
<tr>
<td>Relaxation training</td>
<td>Promising for depression</td>
</tr>
<tr>
<td>Group CBT</td>
<td>Promising for anxieties in adolescents</td>
</tr>
<tr>
<td>Systematic desensitization</td>
<td>For phobias</td>
</tr>
<tr>
<td>Behavioral teachers training</td>
<td></td>
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<tr>
<td>Assertiveness training</td>
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Evaluated but inconclusive (Level 2)

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<tr>
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<tbody>
<tr>
<td>Wraparound</td>
<td>Frequently used intervention, but relatively little research, often using weak designs</td>
</tr>
<tr>
<td>Family education and support</td>
<td>Very little research</td>
</tr>
<tr>
<td>Respite</td>
<td>Unclear. Little research; only 2 quasi-experimental studies with positive effects for youth with mental health problems.</td>
</tr>
<tr>
<td>Mentoring</td>
<td>Unclear. Promising, but little work specifically on youth with mental health problems. Intervention is difficult to study in well-controlled settings.</td>
</tr>
<tr>
<td>Rational emotive therapy</td>
<td>Unclear</td>
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Unevaluated

| Common Sense Parenting | Used widely, but lacks systematic controlled research |

How we collected information on clinicians’ beliefs and practices

- Surveyed mental health service providers for children with SED
- Web-based (hard copies made available)
- 65 items (15-20 minute completion time)
  - Demographic characteristics
  - Training and experience
  - Knowledge of EBTs
  - Perceived effectiveness
  - Use of EBTs (and their guidelines)
  - Employer support of EBTs

Modified Snowball Sampling Approach to Identify Potential Respondents

- 26 funded and 2 unfunded communities
- 571 agencies identified, 76% complied
- 1969 potential respondents identified
  - Range 1-90 per agency; Avg. 5.5
- 1402 appropriate respondents
  - Proportional sampling from funded communities with 80 or more potential respondents

Response to Survey

- 5-stage mailing (Dillman, 2000)
- 615 responded (44%)
  - 168 hard copy (27%)
  - 447 web-based (73%)
- 547 were direct children’s mental health service providers (89%)

Sample Characteristics

- 84% White,
- 68% Female
- Years as MH Provider to children with SED: M=9.3, range 0-38 yrs
- Primary Position:
  - 50.8% clinician or therapist
  - 13.8% clinical social worker
  - 6.2% counselor
  - 4.1% case manager
  - 3.9% psychologist
  - 3.0% care coordinator
  - 0.8% mental health nurse
  - 0.5% family support provider
  - 17.3% other

Results
Knowledge and use of Level 5

- CBT (familiar but doesn't work)
- Stimulants (works but don't use)
- Webinar Solution (use)

Knowledge and use of Level 4

- EMDR (familiar but doesn't work)
- Medication (works but don't use)
- FCT (use)

Knowledge and use of Level 3

- Mentoring (familiar but doesn't work)
- Respite (works but don't use)
- Wraparound (use)

Knowledge and use of Levels 2 & 1

- Monitoring (familiar but doesn't work)
- Respite (works but don’t use)
- Wraparound (use)

Other therapies listed as EBTs

- Parent education
- Family systems theory
- Solution focused therapy
- Play therapy
- Reality based therapy
- Dialectical behavior therapy
- Psychodynamic therapy
- Individual therapy
- Music/Art therapy
- Client centered therapy
- Narrative therapy
- Family preservation

Overall stats for each level

- Level 5
- Level 4
- Level 3
- Level 2
- Level 1
Summary

- Most clinicians familiar with most interventions at all levels
- Clinician beliefs about effectiveness are not associated with the evidence base
- Clinician use of interventions is associated with the evidence base

If clinicians are important in determining the use of EBTs:

- Knowledge and beliefs are not enough
- How recent are knowledge and beliefs?
  - Do they vary across interventions?
  - Are they associated with use?
- Do EBTs match up with client need?
  - Comorbidity
  - Crises
  - Use of multiple treatments
- Is training sensitive to real world scenarios?
  - Resource requirements (cost time training)
  - Focus on EBTs for population of interest

If clinician knowledge & beliefs are NOT rate limiting steps

- Where is the locus of decision making?
  - System
    - Training
    - Insurance/reimbursement
  - Practice setting
    - Continuing education
    - Administrative decisions