Psychotherapy Outcomes: Improving Outcomes by 65%

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This presentation is a compilation of slides taken from various presentations:

**Scott Miller:** “Supershrints”; “Improving Outcomes by 65%”; “Revisioning & Recapturing EBP”; “Achieving Clinical Excellence”; “What Works in Drug & Alcohol Treatment.”

**Barry Duncan:** “What Works in Therapy”

**Bruce Wampold:** “Cost Effective Mental Health”

*Slides taken from these presentations noted on the bottom left corner by author’s initials & workshop title. For example: BW: CEMH is Bruce Wampold’s Cost Effective Mental Health.*
Outline

- How effective are we?
- Improving through EBP?
- Improving through self-assessment?
- Improving through __________?
Therapy Works: The Road to Recovery isn’t Long

Meta-analysis found that...

- Meta-analysis about 75% of clients significantly improved after 26 sessions of weekly psychotherapy.

- Approximately 50% of clients show clinically significant change with as few as 8-10 sessions.

Howard, Kopta, Krause, & Orlinsky, (1986)
Therapy Works!

Smith, Glass, & Miller (1980):

- 475 studies and 1766 ES; average ES=0.85
- 0.85 is considered a large effect in social science

Therapy Works!

Therapy Works!

Lipsey & Wilson (1993):

• By 1993, there were over 40 meta-analyses of psychotherapy. Generally, these studies showed that treatment was effective.

• Reviewed all meta-analyses related to psychological, educational, and behavioral treatments. The mean ES for these was .81.
Therapy Works!

Reviewed all meta-analyses (over 25) addressing efficacy. They concluded:

“the average effect associated with psychological treatment approaches one standard deviation unit (i.e. an effect size of 1.00)”

Therapy Works!

Grissom’s meta-meta-analysis (1996):

- Reviewed 68 meta-analyses that aggregated results from studies comparing psychotherapies with no treatment controls.

- Aggregate ES=0.75

NNT: Number Needed to Treat

- NNT = Number of patients needed to be treated to attain one additional success vs. the alternative.

Ex: Treatment vs. No Treatment; NNT = 10

10 patients treated to have one additional success
# NNTs for Evidence Based Medicine

<table>
<thead>
<tr>
<th>Area</th>
<th>Treatment</th>
<th>NNT</th>
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</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>Aspirin prophylaxis</td>
<td>176</td>
</tr>
<tr>
<td>Cardiology</td>
<td>Beta Blockers</td>
<td>40</td>
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<tr>
<td>Post menopausal osteoporosis</td>
<td>Risedronate</td>
<td>20</td>
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<tr>
<td>Influenza</td>
<td>Vaccine</td>
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<td>Hemotology thromboembolism</td>
<td>Warfarin</td>
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<td>Nicotine Inhaler</td>
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<td>Acute Asthma</td>
<td>Budesonide</td>
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<tr>
<td>Sickle Cell Anemia</td>
<td>Transfusion</td>
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<tr>
<td>Acute Myeloid Leukemia</td>
<td>Bone Marrow Transplant</td>
<td>5</td>
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<tr>
<td><strong>Mental Health</strong></td>
<td><strong>Psychotherapy</strong></td>
<td><strong>3</strong></td>
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University of Toronto Centre for Evidence Based Medicine - [http://ktclearinghouse.ca/cebm/](http://ktclearinghouse.ca/cebm/)
Therapy Works!

- From the meta-analyses conducted over the years, the ES related to absolute efficacy falls within the range of .75 - .85 or .80.
- Average client receiving therapy is better off than 80% of the untreated sample.
- Psychotherapy accounts for about 14% of the variance in outcomes.
- Success rate would change from 31% for the control group to 69% for the treatment group.

We’re GOOD!
How Can We Improve?
Outline

• How effective are we?
• **Improving through EBP?**
• Improving through self-assessment?
• Improving through ____________?
Knowledge is Power?

Since the 1960s...

- Number of treatment approaches went from 60 to over 400.
- 10,000 “how to” books on psychotherapy.
- 145 manualized treatments for 51 of the 397 possible diagnostic categories.
“...we recommend that consumers first seek out therapies that have been studied and shown to be beneficial in controlled studies.”

Empirically supported therapies meet several “stringent” criteria:
- Controlled (randomization, manualized, equally delivered);
- Better than nothing;
- Equal to an alternative;
- More than one study by more than one research team.

The Birth of an Evidence-Based Practice
Example EBP: DBT

• Currently identified by professional organizations, funding bodies, and government agencies as an “evidence-based,” “empirically-supported,” “best practice.”

• Defined as, “a mode of treatment designed for people with borderline personality disorder (BPD)”;

• Aims to help people to validate their emotions and behaviors, examine the negative impact of emotions and behaviors on their lives, and make a conscious effort to bring about positive change.
Example EBP: DBT

• Currently 15 studies published on DBT (1991-2006);

• 9/15 qualify as RCTs;

• 3/9 conducted by researchers other than the developer;

• All studies but one compared DBT to TAU or wait list control.
Example EBP: DBT

- Compared DBT to “community experts”;
- “Community experts” received no training, supervision, or consultation;
- No control of type, amount, or quality of services;
- Provided significantly less direct service than DBT therapists;
- DBT therapists received 45 hours of specialized training; pre and during study supervision.

Of 382 eligible by dx, only 25 (6.5%) thought it was for them; 25% of those dropped out before program started; another 25% dropped out...is it worth the cost?

Example EBP: DBT

What can we say about DBT:

- DBT based on n=157; 100% female; 81% white;
- Allegiance effects in 7/9 studies;
- No real direct comparisons with other bonafide therapies;
- Inequity in the dose and intensity.
What Do Drug Companies & Psychotherapy Researchers Have in Common?

- Breaking the blind (i.e. people can successfully guess which condition they are in);
- Unfair comparisons (i.e. comparing your drug to a non-equivalent dose of a competitor);
- Multiple outcome measures (i.e. cherry picking);
- Almost always find in favor of their product.
For a Critique on Psychological EBPs...

- Multisystemic Family Therapy
- Emotion Focused Therapy

Duncan, Miller, Wampold, & Hubble. (2010). The Heart & Soul of Change (2nd ed.).
Treating Depression among HIV individuals: “Supportive Therapy” Comparison

- Offer no explanatory mechanism;
- Supportive Therapy had between 8-16 sessions determined by patient need of 30-50 minutes;
- Compared to IPT (16 50 min. sessions).

Stacking the Deck 101

Comparing Applied Relaxation, CBT, and ND for GAD

- All conditions had reasonable rationales;
- ND provided by adherents of AR and CBT;
- ND precluded from direct suggestions, advice, or coping methods;
- CBT=AR (even though CBT had AR included);
- Time spent in AR not related to outcome;
- At the end of 12 months, outcomes were equivalent.

Borkovec & Costello (1993)
Stacking the Deck 101

Weisz et al (2006) meta-analysis of EBT vs. TAU for Youth:

“Our findings support the view that E.B.T.’s have generally outperformed TAU indirect, randomized comparisons” (p. 684).

Finding only possible when:

- EBTs compared with treatments not intended to be therapeutic or treatments of shorter duration and intensity;
- When researchers and clinicians have allegiance to the method under study.

What Happens When We Compare Bona Fide Treatments?
Comparing Bona Fide Treatments for Youth Disorders?

Meta-analysis of all studies published between 1980-2006 comparing treatments for children with ADHD, CD, anxiety, or depression:

• No differences in outcome between approaches.

Comparing Bona Fide Treatments for Substance Use Disorders?

Meta-analysis of all studies published between 1960-2007 comparing bona fide treatments for alcohol abuse and dependence:

- Approaches included CBT, 12 steps, Relapse Prevention, etc.;
- No difference in outcomes between approaches

Comparing Bona Fide Treatments for PTSD?

Meta-analysis of all studies published between 1989-2008 comparing bona fide treatments for PTSD:

- Approaches included desensitization, hypnosis, PD, TTP, EMDR, Stress Inoculation, Exposure, CT, CBT, PCT, Prolonged exposure, TFT, Imaginal exposure;
- No difference in outcome between approaches;
- Upper bound ES=.13.

RCT vs. Real World Clinical Setting

Real world study in the UK comparing CBT, PD, Person-Centered as routinely practiced:

- Large effects comparable to those attained in clinical trials;
- Your outcomes in real world practice meet or exceed the effectiveness of tightly controlled RCTs.

Stiles, Barkham, Mellor-Clark, & Connell, 2008
RCT vs. Real World Clinical Setting

Real world clinical study including over 6000 clients:

- The average clinician achieves outcomes on par with success rates obtained in RCTs (with and without co-morbidity).

What About Specific Ingredients?
Specific Ingredients...

Meta-analysis of component studies between 1970-1998: "Does a specific component produce effects above those produced by the same treatment without the component?"

- No;
- Half the ES were negative.
So, Should We Focus on Specific Ingredients?

C isn’t needed in CBT

EM isn’t needed in EMDR
Are Outcomes Improving Over Time?

“There is no demonstrable evidence that current treatments are more effective than treatments delivered in past decades.”

Why Aren’t We Improving?

• We are focusing on variables that do not account for much of the variance in outcomes (i.e. specific treatments for specific disorders).
Outline

• How effective are we?
• Improving through EBP?
• Improving through self-assessment?
• Improving through __________?
Pop Quiz Part Deux

• Compared to other mental health professionals within your field (with similar credentials), how would you rate your overall clinical skills and effectiveness in terms of a percentile?

Please estimate from 0-100%.
For example, 25% = below average, 50% = average, 75% = above average.
Pop Quiz Part Deux

- What percentage (0-100%) of your clients get better (i.e. experience significant symptom reduction/relief during treatment)? What percentage stay the same? What percentage get worse?
Self-Assessment Rocks!

80th %ile

How Awesome Are We?

91.6% rated themselves at or above the 75th %ile

There's No Charge for Awesomeness

What %age of Your Clients Get Better?

• The average clinician believed that 80% of their clients improved as a result of being in therapy with them (17%, stayed the same, 3% deteriorated);

• Nearly a quarter sampled believed that 90% or more improved!

• Half reported than none (0%) of their clients deteriorated while in their care.

What %age of Your Clients Get Better?

Fact Check...

• Effectiveness rates vary tremendously (RCT average RCI = 50%, best therapists = 70%);

• Therapists consistently fail to identify deterioration and for dropping out of services (10% & 47%, respectively).

How Awesome Are We?

Hiatt & Hargrave (1995) published an outcome study...

• Significant differences in effectiveness between clinicians.

• The **LEAST** effective practitioners rated themselves as effective as the **MOST** effective practitioners.

"I had expected to find that I had gotten better and better over the years. But my data failed to suggest any change in my therapeutic effectiveness across the 26 years in question."

Paul Clement after 40 Years

Outcomes from 40 Years of Psychotherapy in a Private Practice

Results from a 40 year period with almost 2,000 clients:

Outcomes not only failed to improve but actually began to decrease!

Training & Experience

- Little or no difference in outcome between professional therapists, students, and minimally trained paraprofessionals;

- The effectiveness of the “average” therapist plateaus very early.

Study on the relationship between therapist effectiveness and level of training:

“Clients who obtained services…experienced moderate symptom relief over the course of six sessions.”

It didn’t matter if the client was “seen by a licensed doctoral –level counselor, a pre-doctoral intern, or a practicum student” (p. 206).

“It may be that researchers are loathe to face the possibility that the extensive efforts involved in educating graduate students to become licensed professionals result in no observable differences in client outcome” (p. 208).

Therapists Think They’re Pretty Darn Good

“The enemy of excellence is proficiency…”

Why Aren’t We Improving?

• We are focusing on variables that do not account for much of the variance in outcomes (i.e. specific treatments for specific disorders).

• Most therapists believe they are already pretty darn good.

• Most therapists achieve a stable level of performance relatively early on.
What Else Could We Focus on to Improve?

What Do You Talk About in Clinical Meetings?
What Else Could We Focus on to Improve?

• Diagnosis?
• Prior treatment history?
• Client characteristics (i.e. age, gender)?
• Therapist training? Experience?
What Accounts for Outcome Variance?

Factors widely and traditionally believed to exert strong influence on outcome accounted for little or no variability:

- Client diagnosis after accounting for severity and for case mix (<1%);
- Client age and gender (0%)
- Therapist age, experience level, professional degree or certification (0%)
- Within and between therapist regression to the mean
- Use of medication

Fig. 2 Outcomes of 15 therapists for patients with concurrent medication and no medication.

No differences!

TDCRP

Largest study in history on depression. Compared IPT, CBT, Med, & Placebo.

• No difference in outcome between treatments;

• Prescribers with the best outcomes also had the best outcomes when using placebos.

Where is the Medicine?

General Effects: The Case of the Alliance in the CYP

Client Ratings of the Alliance Predicted:

- Premature drop out;
- Substance abuse and dependency symptoms post-treatment and cannabis use at 3-6 months follow up;
- Treatment approach accounted for less than 1% of the outcome variance.


Project MATCH

Project MATCH and the Alliance: The largest study ever conducted on the treatment of problem drinking comparing CBT, 12 step, and MI:

- No difference in outcome between approaches;
- Client’s rating of the alliance was the best predictor of treatment participation, drinking behavior during treatment, and drinking at 12 month follow up.

Evidence Based Practice defined...

“...the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences.” (p. 273)

“Clinical expertise also entails the monitoring of patient progress that may suggest the need to adjust the treatment.” (p. 276)

Outline

• How effective are we?
• Improving through EBP?
• Improving through self-assessment?

• Improving through **FEEDBACK**!
How Can Feedback Help Us to Improve?
Improving Outcomes by 65%

65% Improvement!

Baseline

Effect size

2nd quarter 2002 (n=529)
3rd quarter 2002 (n=722)
4th quarter 2002 (n=723)
1st quarter 2003 (n=845)
2nd quarter 2003 (n=882)
3rd quarter 2003 (n=1020)
4th quarter 2003 (n=945)
1st quarter 2004 (n=865)

Lambert’s 5 Feedback & Outcome Studies

Sig. gains for At-Risk Cases through Feedback Feedback

BD: WWIT
Feedback for Couples Tx

Back at the CMHC:

- Avg. # of sessions dropped 40% (10 to 6) while outcomes improved by 7%;
- Cancel and no show rate reduced by 40% and 25%;
- % of long term null cases diminished by 80% (10% to 2%);
- Estimated savings of $489,600.

How Can We Improve If We Don’t Know Our Baseline?

“Therapists typically are not cognizant of the trajectory of change of patients seen by therapists in general…that is to say, they have no way of comparing their treatment outcomes with those obtained by other therapists.”

How Can Feedback Help Us to Improve?
Which cell is the healthy cell?
3 Scenarios for Improving Outcomes:

(Hollon vs. Wampold)
Quality Improvement Scenario
VA Outpatient Clinic

- 20 Therapists
- Caseload = 600 patients
- 200 meet PTSD diagnosis

Goal
- Improve outcomes for PTSD patients
- Cost effective
Scenario 1: Roll out evidence based treatment

- Workshop for therapists (2 day)
- Supervision for therapists by master therapist
- Collect evidence for adherence
- Costs:
  - Workshop: $7000 (2 days)
  - Supervision, 1 hr/wk, 15 wks, $45,000
  - Adherence, $5000
Scenario 1: Roll out evidence based treatment

- Cost = $57,000
- Effect, $d = .2$, NNT = 9, 22 successes
- Marginal cost:
  - $57,000/22 = $2591/success
  - $7000/22 = $318 (Workshop ONLY)
Scenario 2: Measure outcomes and provide feedback

- Lambert’s OQ Analyst
- Provide therapist feedback based on expected progress
- Cost: $1/patient = $200
- $d = .40, NNT = 5, 40 successes
- Marginal cost:
  - $200/40 = $5/success
Scenario 3: Select therapists

- Hire based on therapist outcomes
- Use top ¾ v. entire population of therapists
- $d = .75$, $NNT = 3$, successes = 66
- Marginal Cost:
  - $0$/66 = $0/$success
NNT and Additional Successes

Relative Efficacy

- EBP
- Feedback
- Prune Therapists

# patients

NNT
Success

Bruce Wampold

BW: CEMH
Marginal Costs for an additional success

- EBP (Workshop Only): $300
- Feedback: $0
- Prune Therapists: $0

Marginal Cost
Conclusions

- Particular treatment approach accounts for between 0-1% of outcome variance.
- Implement Practice-Based Evidence by monitoring your outcomes.
- Implement Practice-Based Evidence by creating a culture of feedback & privilege client preferences.