Cognitive-behavioral Therapy in the Treatment of Depression: Implications for Canada

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A Consensus Development Conference on
Depression in Adults:
How to Improve Prevention, Diagnosis, and Treatment

Goals for Today

- Discuss principles related to cognitive-behavioral therapy (CBT) and evidence-based practice
- Examine the efficacy of CBT in depression
- Conclude with future directions and policy implications

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What is CBT?

- CBT is a generic term for a branch of psychotherapy, which addresses cognitive and behavioral change methods to understand and treat health problems.
- Cognitive therapy is a specific form of CBT, develop by Aaron Beck and associates.
- CBT is a practical, present-oriented, problem-solving treatment.
- CBT is a collaborative endeavor in which the therapist and patient work together build a shared idea of the source of problems and strategies to solve them.
- CBT is a time-limited treatment, most often conducted individually. It has been adapted for groups and families.

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Evidence for CBT in Anxiety Disorders

Disorder	Treatment	Type of efficacy data		
		Absolute efficacy	Relative to medications	Relative to other psychotherapies
Specific phobia	Exposure and cognitive restructuring	++	+	
Social phobia	Exposure and cognitive restructuring	++	=	=
Obsessive-compulsive disorder	Exposure and response prevention	+		+
Panic disorder	Exposure and response prevention	+	=	+
Post-traumatic stress disorder	Exposure and cognitive restructuring	++		=
Generalized anxiety disorder	Exposure and cognitive restructuring	+	=	+

Note: A blank space indicates no evidence; - indicates negative evidence; + indicates positive evidence; = indicates approximate equivalence; ++ indicates treatment of choice.

Source: Epp & Dobson, in press

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Evidence for CBT in Other Disorders

Disorder	Treatment	Type of efficacy data		
		Absolute efficacy	Relative to medications	Relative to other psychotherapies
Major depression	Activity, cognitive restructuring and schema change	+	+	=
Bipolar disorder*	Affect regulation and cognitive restructuring	+		+
Anorexia nervosa	Eating regulation and cognitive restructuring	+	=	+
Bulimia nervosa	Eating regulation and cognitive restructuring	++	+	+
Sleep disorders	Behavioral control and cognitive restructuring	+		+
Psychosis*	Affect regulation and cognitive restructuring	+		+
Substance-use disorders	Affect regulation, behavioral control and cognitive restructuring	+		=
Somatization Disorder	Behavioral control and cognitive restructuring	+		

Note: A blank space indicates no evidence; - indicates negative evidence; + indicates positive evidence; = indicates approximate equivalence; ++ indicates treatment of choice.
*- CBT is typically an adjunct to medication in these disorders.

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Efficacy and Effectiveness

"„...in evaluating the benefits of a given treatment, the greatest weight should be given to *efficacy* trials but these trials should be followed by research on *effectiveness* in clinical settings and with various populations and by *cost-effectiveness* research." (p. 7).

Source: Chambless and Hollon (1988)

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Examples of ESTs for Depression

- **Well-established psychological treatments**
  - Cognitive and cognitive-behavioral therapy
  - Interpersonal therapy
  - Behavioral activation therapy
- **Probably Efficacious treatments**
  - Problem-solving therapy
  - Self-control therapy
  - Short-term psychodynamic psychotherapy
- **And don't forget medications!**

How does CBT fare relative to IPT?

CBT versus IPT

- There are 5 RCTs to date which compare CBT and IPT.
- Trials generally report equivalent outcomes (e.g Elkin, et al, 1989; Weissman, et al, 1995)

CBT versus IPT

- Luty et al (2007) reported a large comparison, though, in which no overall difference between CBT and IPT was mitigated by a treatment by severity interaction.
- CBT was superior to IPT for more severely depressed patients.
- No long-term effects were reported (in press).

How does CBT fare relative to Medications?

Efficacy of CT versus medications

Measure	***Cognitive therapy***		***Pharmacotherapy***	
	% Affected	Result from 100	% Affected	Result from 100
Drop out	10%	90	25%	75
Success	67%	60	67%	50
Relapse at 1 year	25%	45	50%	25

Source: Antonuccio, Danton & DeNelsky, 1996

Effect sizes associated with CT

Contrast	N of Studies	Effect Size
Control group/ placebo	20	**-.82*** **
Behavior therapy	17	**-.05**
Pharmacotherapy	13	**-.38*** **
Other psychotherapies	22	**-.24** **

Notes: **- z equivalent, p < .01 ***- z equivalent, p < .001
Specific psychotherapy comparison with IPT was ns.

Source: Glogcuen, Cottraux, Cucherat & Blackburn, 1998

Other observations from Glogcuen, et al.

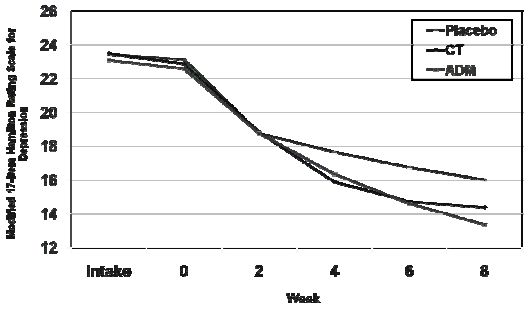
- Prevention of recurrence/ relapse, N = 8 studies, follow-up varies from 1 to 2 years
  - Average recurrence/ relapse in CT 29.5%
  - Average recurrence/ relapse with medications 60.0%

Results from the "Penn/ Vandy" Study

Results published in the *Archives of General Psychiatry*

- Hollon, et al, 2005- Acute Paper
- DeRubeis, et al, 2005- Follow-up Paper

Mean HRSD Scores Over 8 Weeks



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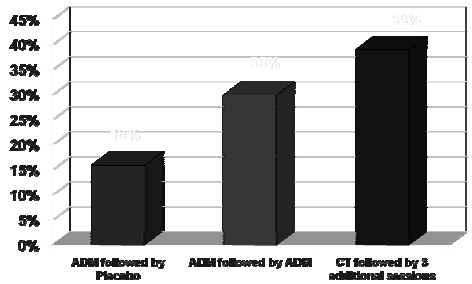
Sustained Improvement for Everyone Assigned to Treatment (1 Year Follow-up)



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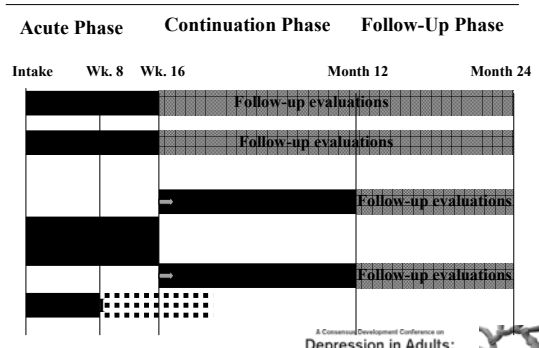
University of Washington TDS Design



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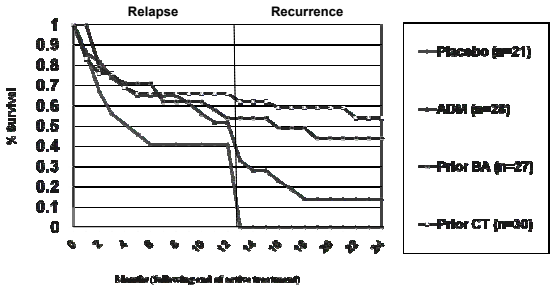
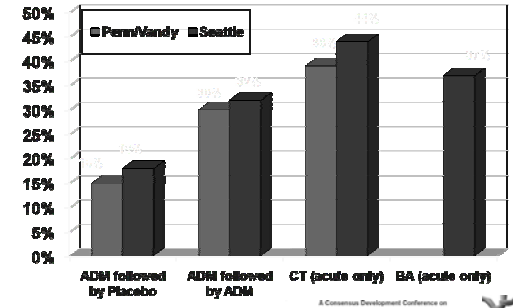
Relapse Following Successful Treatment

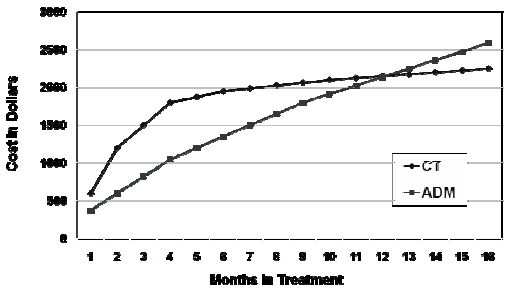


Source: Dobson, et al, 2008

Sustained Improvement Through 12 months Post-treatment by Study and Treatment



Cumulative Direct Costs of ADM and CT



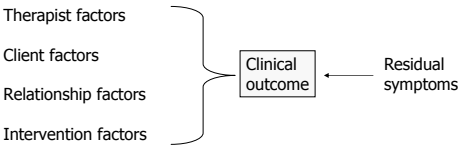
Source: Hollon, et al, 2005.
Results in U.S. 2000- 2003 dollars.

Combined CT and pharmacotherapy

- Study combined 7 CT and 9 other treatments (including PST, CBT and IPT)
- Patients receiving combined psychotherapy and pharmacotherapy improved significantly compared to drugs alone; Odds ratio = 1.86
- Specific combined treatment with CT versus pharmacotherapy alone; Odds ratio= 2.27
- Dropout rates during acute phase treatment:
  - Pharmacotherapy alone = 31.9%,
  - Combined treatment (CT) = 23.5%
- Based on 16 trials, N = 932

Source: Pampallona, et al, *Archives of General Psychiatry*, July, 2004.

So how does CBT for Depression Work?



Therapist Factors related to better outcome

- Empathy
- Positive regard, authenticity, caring and warmth
- Secure attachment style
- Self-disclosure

Client variables related to better outcome

- Lower problem severity
- Lower problem chronicity
- Absence of a personality disorder
- Positive expectations abut treatment
- Matching of client and therapist on racial or ethnic status (?)

(From Castonguay & Beutler, 2006)

Relationship factors related to better outcome

- Therapeutic collaboration or alliance
- Goal consensus and pursuit
- Congruence
- Feedback
- Managing relationship disruptions
- Recognition of and response to affect about the relationship

Intervention factors related to better outcome

- Treatments that reduce patient resistance
- Homework and homework completion

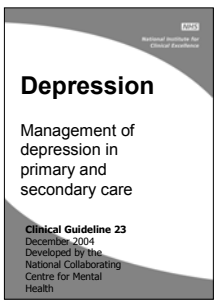
(From Castonguay & Beutler, 2006)

Adaptations of CBT

CBT for depression has been successfully adapted:

1. As a booster program in pharmacotherapy for depression (Jarret, et al, 2004; Paykel, et al, 2005)
2. As a secondary prevention program for depression (Lewinsohn, et al, 1987; Dobson & Konnert, 2002)
3. As a prevention program for minority Latino women (Munoz, et al, 1998)
4. As a relapse prevention program in major depression (Dobson & Mohammadkhani, 2007)
5. Mindfulness-based Cognitive Therapy is an integrative prevention program for relapse prevention in depression (Teasdale, et al, 2001; Ma & Teasdale, 2004)

Moving towards Evidence-based Practice Guidelines (adapted from NICE)



Moving towards Evidence-based Practice Guidelines (adapted from NICE)

For Mild Depression

Watchful waiting; outpatient information

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Moving towards Evidence-based Practice Guidelines (adapted from NICE)

For Mild to Moderate Depression

Self help; minimal CBT care

Watchful waiting; outpatient information

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Moving towards Evidence-based Practice Guidelines (adapted from NICE)

For Moderate to Severe Depression

CBT or Medications, based on preference

Self help; minimal CBT care

Watchful waiting; outpatient information

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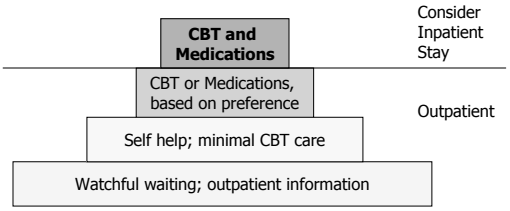
Moving towards Evidence-based Practice Guidelines (adapted from NICE)

For Severe; prolonged Depression



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What do we know?

- CBT is an effective treatment for depression, both in terms of acute and long-term results.
- CBT is as effective as any treatment alternative for depression, and more effective than continued medications in the long term.
- The costs for CBT are initially higher than pharmacotherapy, but become roughly equal about 8- 9 months into treatment.
- CBT can be adapted for prevention and relapse prevention phases of depression.

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What don't we know?

- Despite considerable efficacy data, our knowledge of CBT's effectiveness is limited.
- Optimal methods for training and dissemination are unclear.
- The study of interactions among individual difference variables and treatments for depression is rudimentary.
- The interaction between patient preference and treatment success is largely unknown.
- The study of treatment mechanisms is still developing.

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Policy Implications

- ✓ Health care systems should examine the use of CBT and other evidence-based treatments in depression.
- ✓ The current capacity for CBT services, and funding and access formulas should be evaluated.
- ✓ Capacity-building for CBT therapists should be initiated, at all levels, from university programs to mental health systems.
- ✓ Funds should be increased for prevention efforts, using CBT as a conceptual and methodological base.
- ✓ Utilization, patient satisfaction and cost-effectiveness data should be incorporated into evaluations of CBT's effectiveness.