Studies of Treatment Effectiveness: Comparing Psychodynamic Therapies with CBT and Medication

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Introduction: In recent years there has been a great deal of publicity and advertising regarding the benefits of medication and cognitive behavioral therapy (CBT) as cost effective approaches to treating emotional issues and various forms of mental disturbance. Additionally, sources that advocate for the use of "cost-effective" treatments often point to psychodynamic treatment as outdated, ineffectual and not cost-effective. However, the information being disseminated to the public does not accurately portray the effectiveness of either medication or CBT, nor does it accurately represent the available research on psychodynamic therapy as a robust, contemporary treatment that is both clinically effective and cost-effective. The psychopharmaceutical industry and insurance companies have vested monetary interest in misrepresenting the scientific findings for these various treatments. In this brief position paper, the available scientific literature for medication interventions, CBT, and psychodynamic psychotherapy will be contrasted and reviewed.

Large Scale Studies of Treatment Effectiveness: In a large scale review of meta-analyses (a statistical method of combining multiple studies to create a larger subject pool) Shedler (2010) was able to compare the "effect size" of medication only treatments for depression, CBT and other behavioral treatments, and psychodynamic treatments across dozens of studies and thousands of patients. An effect size represents a statistical method for comparing the results of studies that utilize different research designs and outcome evaluation tools. Typically, an effect size of .50 is good and an effect size of 1.0 is extremely good.

<u>Treatment Outcomes</u>	Effect Size
Anti-Depressants (74 studies)	0.31
 Cognitive Behavioral Therapy (33 studies) 	0.68
• Psychodynamic Treatment – General Symptoms (12 studies)	0.97
• Psychodynamic Treatment – Personality Disorders (14 studies	s) 1.46
 Psychodynamic Treatment – Complex Disorders (7 studies) 	1.80

An effect size of 0.31 for anti-depressants does demonstrate a statistically significant effect associated with anti-depressant medications. However, it also demonstrates that the effect of anti-depressants is actually much smaller than either CBT or psychodynamic psychotherapy. Similarly, the overall size of the treatment effect of psychodynamic psychotherapy is

significantly larger than for either CBT or medication. In addition, the table above demonstrates that the treatment effect for psychodynamic psychotherapy is even larger when the patient population being studied has more severe psychological issues, such as a diagnosis of a personality or a complex disorder (i.e. a diagnosis involving several categories of disruption).

<u>Treatment Effect after Treatment Concludes</u>: However, the effectiveness (and cost-effectiveness) of any treatment cannot be evaluated by the degree of change at the conclusion of the study. In CBT and and/or antidepressant treatment the treatment effect begins to decline almost immediately after the treatment is discontinued. Average time to relapse to pre-treatment level of functioning was 3.6 months and approximately 71% total relapse in a combination of CBT and medication (see Rush et. al. 2006).

In contrast, several studies demonstrate that the treatment effect of psychodynamic psychotherapy does not begin to diminish over time. In fact, it continues to grow stronger over time. In other words, psychodynamic therapy does more than provide short-term symptom relief — it also results in positive changes to the patient's psychological structure. Growth in post-treatment effect is shown below:

Effect Size

Post-Treatment Psychodynamic (9 months)
 (depending upon diagnostic group – see Abbass et. al., 2006)

Clearly, the effect size for psychodynamic treatments across various patient population continues to increase at 9 months follow-up after treatment (showing an average increase in effect size of 0.65) rather than declining precipitously as it does with CBT and medication interventions. However, the treatment effect of psychodynamic treatment continues to grow long after treatment concludes:

- Leischsenring et.al. (2013) demonstrated an increase of effect size from 1.03 at the conclusion of treatment to an effect size of 1.25 after 23 months.
- A study by de Maat et. al. (2009) showed that the treatment effect of psychodynamic treatment had grown an additional 0.22 for mild to moderate symptom groups at 3.2 years. The same study demonstrated that the effect grew an additional 0.08 after 5 years for severe personality disorders.
- Another study (Bateman & Fonagy, 2008) examined the effect of intensive psychodynamic treatment (partial hospitalization based) on a group of patients diagnosed with borderline personality disorder (a very difficult condition to treat).
 18 months after the conclusion of treatment, 57% of those patients no longer met the criteria for borderline personality disorder that compares favorably to the

control group for this study for whom 13% no longer met criteria for borderline personality when followed up at 18 months post-treatment. The control group received "treatment as normal" consisting of medication management and CBT. However, what is most astonishing is that when the participants in the study were followed up at 8 years post-treatment it was discovered that 87% of the psychodynamic treatment group no longer met the criteria for borderline personality, while the percentage of improvement for the control group remained unchanged at 13%.

Shedler's findings are consistent with a more recent meta-analysis conducted by Town et. al. (2012) on randomized controlled trials of psychodynamic psychotherapy. Forty-six independent treatment samples totaling 1615 patients were included. The magnitude of change between pretreatment and posttreatment aggregated across all studies (46 treatment samples) for overall outcome was large (effect size 1.01), and further improvement (an additional effect increase of 0.18) was observed between posttreatment and an average follow-up of 12.8-months.

Again, these studies demonstrate that the positive effect of psychodynamic treatment consistently increases across time following the conclusion of treatment and that this effect is more pronounced as the severity and complexity of the patient's symptoms increases. The increase of treatment effectiveness and the greatly diminished chance of relapse in comparison to CBT and medication needs to be taken into consideration when assessing cost-effectiveness of various treatments.

Looking further into CBT: In several large-scale implementations of CBT as the treatment of choice in state sponsored programs in Scotland and Sweden there was no discernable beneficial effect over the long-term. A follow-up evaluation (see Durham et. al. 2005) of the participants in 10 large-scale studies of CBT conducted by the National Health Service of Scotland concluded: "The positive effects of CBT found in the original trials were eroded over longer time periods. No evidence was found for an association between more intensive therapy and more enduring effects of CBT. The cost-effectiveness analysis showed no advantages of CBT over non-CBT."

Similarly, between 2008-2012 there was a countrywide implementation of CBT as the preferred psychological treatment in Sweden. The Swedish government invested more than a billion Swedish crowns (approximately \$500 million US dollars) during the course of the implementation with 40,000 -50,000 individuals receiving CBT treatment in each year of the program. Karolinska Institut (a medical university) conducted an evaluation of the program in two studies. The final conclusion of the research team enlisted to evaluate the program was:

"The widespread adoption of the [CBT] method has had no effect whatsoever on the outcome of people disabled by depression and anxiety," (see Miller, 2012).

Session Frequency and Duration of Treatment: Another criticism of psychodynamic therapies is the tendency for some therapies to take place at a frequency of greater than once per week and to have a longer duration. However, there is evidence for additional effectiveness in psychodynamic therapy when session frequency increases and the duration is longer. A study in Stockholm (Sandell et al., 2000) followed 400 patients over a three-year period. Two groups were treated in 3–4 times weekly psychoanalysis or 1–2 times weekly psychoanalytically oriented therapy. Although both groups improved significantly, treatment duration and session frequency were positively correlated with long-term clinical outcome.

Freedman et. al. (1999) conducted a research project on the effectiveness of psychotherapy in which the factor of frequency was examined as one of the treatment variables. They found that there was a statistically significant incremental gain from the treatment from one to two sessions per week and an additional gain when session frequency moved from two to three times per week. Frequency was positively correlated with specific symptomatic relief and with satisfaction with the treatment received. In addition, there was a close relationship between frequency and duration of treatment the overall effectiveness of treatment. The authors also noted that studies in Scandinavia and England indicated that increased session frequency "exerts a persistent and even long-term impact on patients' mental health" (p. 769).

In a review by Leischsenring et.al. (2004, 2008, 2013), there is evidence from randomized controlled treatment trials which supports the efficacy of both short-term (STPP) and long-term psychodynamic psychotherapy (LTPP) for specific mental disorders. However, in series of meta-analyses, LTPP was shown to be superior to shorter forms of psychotherapy, especially in complex mental disorders. Their data on dose-effect relations suggest that for many patients with complex mental disorders, including chronic mental disorders and personality disorders, short-term psychotherapy is not sufficient. The meta-analysis presented by Leischsenring supports long-term psychodynamic psychotherapy in these populations. In Leischsenring's reviews he has found LTPP to have a 0.65 larger effect size than STPP.

<u>Conclusion</u>: This review supports psychodynamic therapy as an effective form of therapy that is actually more effective over the long term than either medication or CBT. Additionally, because the gains associated with psychodynamic psychotherapy are more stable, the likelihood of relapse is diminished and therefore it has significant additional cost savings over time than CBT and medication where the likelihood of relapse remains high.

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