

Reaffirmation of Behavioral Approaches to Depression Treatment

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This meta-analytic review improved on the methods and scope of similar reviews but reached the same conclusion that behavioral activation (BA) therapies for adult depression are much more effective than control conditions and comparable with cognitive-behavioral interventions. Future research should strengthen our understanding of the mechanisms that account for the effectiveness of BA approaches and should provide more evidence on long-term maintenance. The resurgence of interest in BA was attributed to pioneering work of Lewinsohn and the components analysis research of Jacobson and colleagues, who demonstrated the effectiveness of behavioral elements of depression treatment relative to cognitive elements.

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The meta-analytic review by Mazzucchelli, Kane, and Rees (2009) marshaled persuasive evidence to support the efficacy of behavioral activation (BA) therapies for the treatment of adult depression. It followed three other meta-analytic reviews that were concerned primarily with BA therapies for depression (Cuijpers, van Straten, & Warmerdam, 2007; Ekers, Richards, & Gilbody, 2008) or that featured them prominently (Cuijpers, van Straten, Andersson, & van Oppen, 2008). Like the current review, those meta-analyses and two others that focused on the effects of cognitive therapy for depression (Butler, Chapman, Forman, & Beck, 2006; Gloaguen, Cottraux, Cucherat, & Blackburn, 1998) concluded that behavioral approaches were equally as effective as cognitive-behavioral therapy.

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The review by Mazzucchelli et al. (2009) was distinct from the others because it (a) included nearly twice the number of BA outcome studies that were identified by Cuijpers et al. (2007) and Ekers et al. (2008); (b) eliminated studies of BA therapies that incorporated the modification of dysfunctional thoughts; (c) determined if the effects for BA in studies of participants who had elevated depression symptoms were comparable with the effects in studies of participants who met diagnostic criteria for major depressive disorder (MDD); and (d) tested for possible differences in variations in BA. The four variations in BA complexity were pleasant activities (e.g., Lewinsohn, 1974), self-control (e.g., Fuchs & Rehm, 1977), contextual (e.g., Dimidjian et al., 2006), and Behavioral Activation Treatment for Depression (e.g., Lejuez, Hopko, & Hopko, 2001). The review included an informative historical account of the developmental progression of those BA variations.

SUPPORT FOR BROADER APPLICATION OF BEHAVIORAL ACTIVATION

The review by Mazzucchelli and colleagues presented sequentially a wealth of findings on the key questions concerning BA's efficacy, comparative efficacy, and maintenance effects. The main findings were the following:

- (a) BA was more effective than control conditions (pooled effect size of 0.78). This was true for studies of participants with elevated depressive symptoms and those who met MDD diagnostic criteria. There were no apparent differences in the efficacy of the various versions of BA.
- (b) BA was comparable with CT/CBT. This conclusion remained true when studies were restricted to participants who met MDD diagnostic criteria and when CT/CBT therapies that included BA components were excluded from analyses.
- (c) BA was more effective than *other* therapies such as insight-oriented, supportive, and client-centered therapies (medium pooled effect size of 0.33).
- (d) Results at one- to three-month follow-up periods showed that BA was more effective than control conditions (pooled effect size of 0.78).

BA did not differ from CBT/CT and other therapies at short-term follow-up.

For practitioners, these data should inspire them to collaborate with their depressed clients in considering one of the BA therapies. In fact, at the time of this writing, the web site of the Society of Clinical Psychology (Division 12 of the APA) listed two variants of BA, Behavior Therapy/Behavioral Activation and Self-Management/Self-Control, as depression treatments with *strong research support*, a designation shared with CBT, IPT, and problem-solving therapy (see http://www.psychology.sunysb.edu/eklonsky-/division12/disorders/depression_main.php). The web site also contains links to several BA treatment manuals.

FUTURE RESEARCH DIRECTIONS

Although there is ample research to support the application of BA therapies, there are, of course, several topics in need of greater study. The authors acknowledged that very few studies provided follow-up data that permitted evaluations of BA maintenance effects beyond one to three months following the end of treatment. Similarly, there were a very modest number of studies to support tests for differences between the four BA variants. The conclusions that the effectiveness of BA is comparable with that of CT/CBT, and that the four BA variants are comparable, are based on accepting the null hypothesis, obviously a dangerous thing to do, particularly with small numbers. It is quite possible that more recent embellished versions of BA could, in fact, be more effective than their predecessors (Dimidjian et al., 2006).

I shared the authors' recognition that few studies have attempted to clarify the processes (the mediators) that can explain how BA interventions reduce depressive symptoms. During the most intense period of research on BA therapies, quantitative methods for estimating models and for studying mediation were not practiced routinely. Without formally testing for mediation, some studies contained the essential elements by reporting the relation of BA to hypothetical affective, behavioral, and cognitive mechanisms, and then showing the relation of those mechanisms to depression (e.g., Jacobson et al., 1996). This is arguably the most important and profitable topic for future research

because it constitutes depression theory testing through the conduct of therapy outcome research (cf. Howe, Reiss, & Yuh, 2002).

How easy are BA therapies? At several points in the manuscript, the authors argued that BA therapies were less complicated than other therapies that showed efficacy that was comparable with BA. For example, they wrote, "The significance of the BA approach is that it may be simpler to deliver and thus represent a more parsimonious treatment option (Jacobson et al., 1996). If similar health outcomes could be achieved with simpler interventions, or a lesser *dose* of psychotherapy, there is potential for increasing the efficiency of services and the reach of effective interventions" (Mazzucchelli et al., 2009, p. 385). Others also have raised this same possibility (Dimidjian et al., 2006; Lejuez et al., 2001). From descriptions of the contextual approach (Dimidjian et al., 2006) and Behavioral Activation Treatment for Depression (e.g., Lejuez et al., 2001), it is not obvious that they would require less therapist training or less therapy time than CBT or IPT approaches. Cost-effectiveness analyses could address this question as they did in comparisons between CBT and antidepressants (Antonuccio, Thomas, & Danton, 1997).

WHY THE RESURGENCE OF INTEREST IN BEHAVIORAL ACTIVATION THERAPIES?

It would not be surprising if most clinicians had the impression that programmatic research on behavioral

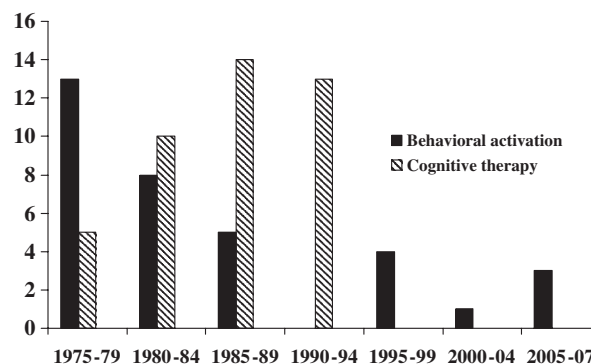


Figure 1. Frequency of studies published within selected time interval that were used in the meta-analysis of behavioral activation therapies by Mazzucchelli et al. (2009) and in the meta-analysis of cognitive therapies by Gloaguen et al. (1998).

approaches to depression treatment was well past its prime. That impression would, in fact, be validated by the publication dates of the 34 studies that provided data for the present review. Figure 1 shows the frequency of outcome studies on BA approaches that were published during five-year intervals from 1975 to 2004, and for an abbreviated interval from 2005 to 2007. It is apparent that activity reached its peak during the interval from 1975 to 1979 and then declined rather steadily after that. For comparison purposes, Figure 1 includes similar tallies for studies that provided data for the meta-analytic review of cognitive therapy by Gloaguen et al. (1998). That review did not include studies published after 1994, 10 years shorter than the time frame Mazzucchelli et al. used. Nevertheless, in an 18-year period, Gloaguen et al. (1998) found 78 controlled clinical trials of cognitive therapy and used 48 in their meta-analysis, still greater than the 34 studies found by Mazzucchelli et al. in a 33-year period. The data show clearly that the frequency of studies on cognitive approaches rose as the frequency of studies on BA fell. Perhaps because of the high-profile National Institute of Mental Health Treatment of Depression Collaborative Research Program (Elkin et al., 1989), most clinicians would recognize CBT and IPT as effective psychotherapies for depression, but not necessarily BA therapies. What motivated the publication of three meta-analyses since 2007 on BA's effectiveness with depression and the development of two new variants of BA since the start of this decade (Dimidjian et al., 2006; Lejuez et al., 2001)?

From my perspective, any resurgence of interest in BA could be attributed to the strength of Peter Lewinsohn's early programmatic research that laid the firm foundation for BA theory and practice (Lewinsohn, 1974), and to the component analysis research by Neil Jacobson and his colleagues that elevated respect for the "B" in CBT (Jacobson et al., 1996). In the spirit of full disclosure scholarship, I should have acknowledged from the start that I was not an unbiased, dispassionate commentator on BA treatments for depression. This meta-analytic review carried me back to my graduate training at the University of Oregon from 1972 to 1977 when Lewinsohn was in the middle of his pioneering programmatic research on behavioral approaches to depression. With that firsthand historical

perspective, I viewed Mazzucchelli colleagues' review as a tribute to Lewinsohn's exemplary research that included basic field research, assessment development, theory building, theory testing, intervention design, intervention evaluation, and intervention dissemination (e.g., Lewinsohn, 1974; Lewinsohn, Antonuccio, Steinmetz, & Teri, 1984; Lewinsohn & Libet, 1972; MacP-hillamy & Lewinsohn, 1982; Zeiss, Lewinsohn, & Muñoz, 1979). He has no peer in the comprehensiveness and scope of his work on this topic. Jacobson et al. (1996) showed that the behavioral component of CBT was as effective as the cognitive component and the full CBT intervention in reducing depression at the end of intervention and at a six-month follow-up assessment. That study encouraged the researchers to develop the contextual BA approach that proved to be superior to a cognitive intervention (Dimidjian et al., 2006). Lejuez and Hopko also credited the study by Jacobson et al. (1996) for promoting the creation of their new BA-oriented intervention (e.g., Lejuez et al., 2001).

Time will tell if there is truly a resurgence of interest in BA therapies for depression that is reflected not only in research activity but also in clinical applications. Much progress has been made over the past 35 years. Evidence from this review and from others should bring comfort to clinicians and depressed clients that there are a variety of evidence-based therapies available to them, including variants of BA therapies that show comparable effectiveness. This evidence suggests that treatment choices might be guided more by the preferences of clients and the expertise of therapists in implementing these evidence-based therapies than by sizable differences in their effectiveness.

REFERENCES

- Antonuccio, D. O., Thomas, M., & Danton, W. G. (1997). A cost-effectiveness analysis of cognitive behavior therapy and fluoxetine (Prozac) in the treatment of depression. *Behavior Therapy, 28*, 187-210.
- Butler, A. C., Chapman, J. E., Forman, E. M., & Beck, A. T. (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical Psychology Review, 26*, 17-31.
- Cuijpers, P., van Straten, A., Andersson, G., & van Oppen, P. (2008). Psychotherapy for depression in adults: A

- meta-analysis of comparative outcomes studies. *Journal of Consulting and Clinical Psychology*, 76, 909–922.
- Cuijpers, P., van Straten, A., & Warmerdam, L. (2007). Behavioral activation treatments of depression: A meta-analysis. *Clinical Psychology Review*, 27, 318–326.
- Dimidjian, S., Hollon, S. D., Dobson, K. S., Schmalzing, K. B., Kohlenberg, R. J., Addis, M. E., et al. (2006). Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the acute treatment of adults with major depression. *Journal of Consulting and Clinical Psychology*, 74, 658–670.
- Ekers, D., Richards, D., & Gilbody, S. (2008). A meta-analysis of randomized trials of behavioral treatment of depression. *Psychological Medicine*, 38, 611–623.
- Elkin, I., Shea, M. T., Watkins, J. T., Imber, S. D., Sotsky, S. M., Collins, J. F., et al. (1989). National Institute of Mental Health Treatment of Depression Collaborative Research Program: General effectiveness of treatments. *Archives of General Psychiatry*, 46, 971–982.
- Fuchs, C. Z., & Rehm, L. P. (1977). A self-control behavior therapy program for depression. *Journal of Consulting and Clinical Psychology*, 45, 206–215.
- Gloaguen, V., Cottraux, J., Cucherat, M., & Blackburn, I.-M. (1998). A meta-analysis of the effects of cognitive therapy in depressed patients. *Journal of Affective Disorders*, 49, 59–72.
- Howe, G. W., Reiss, D., & Yuh, J. (2002). Can prevention trials test theories of etiology? *Development and Psychopathology*, 14, 673–694.
- Jacobson, N. S., Dobson, K. S., Truax, P. A., Addis, M. E., Koerner, K., Gollan, J. K., et al. (1996). A component analysis of cognitive-behavioral treatment for depression. *Journal of Consulting and Clinical Psychology*, 64, 295–304.
- Lejuez, C. W., Hopko, D. R., & Hopko, S. D. (2001). A brief behavioral activation treatment for depression treatment manual. *Behavior Modification*, 25, 255–286.
- Lewinsohn, P. M. (1974). A behavioral approach to depression. In R. J. Friedman & M. M. Katz (Eds.), *The psychology of depression: Contemporary theory and research* (pp. 157–185). Washington, DC: Winston-Wiley.
- Lewinsohn, P. M., Antonuccio, D. O., Steinmetz, J. L., & Teri, L. (1984). *The coping with depression course. A psycho-educational intervention for unipolar depression*. Eugene, OR: Castalia Press.
- Lewinsohn, P. M., & Libet, J. (1972). Pleasant events, activity schedules, and depression. *Journal of Abnormal Psychology*, 79, 291–295.
- MacPhillamy, D. J., & Lewinsohn, P. M. (1982). The Pleasant Events Schedule: Studies on reliability, validity, and scale inter-correlation. *Journal of Consulting and Clinical Psychology*, 50, 363–380.
- Mazzucchelli, T., Kane, R., & Rees, C. (2009). Behavioral activation treatments for depression in adults: A meta-analysis and review. *Clinical Psychology: Science and Practice*, 16, 383–411.
- Zeiss, A. M., Lewinsohn, P. M., & Muñoz, R. F. (1979). Nonspecific improvement effects in depression using interpersonal skills training, pleasant activity schedules, or cognitive training. *Journal of Consulting and Clinical Psychology*, 47, 427–439.

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