

## **LETS Act: a behavioral activation treatment for substance use and depression**

### **Comorbid Substance Use Disorder (SUD) and Major Depressive Disorder (MDD)**

Individuals with a substance use disorder (SUD) often meet criteria for comorbid major depressive disorder (MDD; Chen *et al.*, 2013; SAMHSA, 2011). This comorbidity is associated with a number of negative consequences, including low rates of substance use treatment completion (McKay *et al.*, 2002; Tate *et al.*, 2004; Thase *et al.*, 2001), greater relapse rates (Davis *et al.*, 2010; Glasner-Edwards *et al.*, 2009; Hasin *et al.*, 2002; Najt *et al.*, 2011), shorter post treatment abstinence durations (Greenfield *et al.*, 2012; Greenfield *et al.*, 1998), lower levels of treatment motivation and compliance (Lejoyeux and Lehert, 2011), and elevated suicide risk (Blanco *et al.*, 2012). In addition, compared to individuals with either disorder alone, individuals with SUD-MDD comorbidity are two times more likely to report an unmet need for mental health care (Chen *et al.*, 2013).

### **Current Treatment Options for SUD-MDD**

A number of treatments have been developed to address concurrent SUD-MDD, including interpersonal therapy (Markowitz *et al.*, 2008), CBT with or without pharmacotherapy (for review, see Hides *et al.*, 2010), and CBT with motivational interviewing (for review, see Riper *et al.*, 2014). Reports on the effectiveness of these interventions have been mixed, with small overall effect size estimates for both substance use and depression outcomes (Riper *et al.*, 2014). Long term improvement in both depression and substance use up to 6 months (Lydecker

*et al.*, 2010), and 12 months (Kay - Lambkin *et al.*, 2009) have been reported, with a few studies reporting inferior long term outcomes when compared to treatment as usual (TAU; (Glasner-Edwards *et al.*, 2007; Lydecker *et al.*, 2010) and twelve steps therapy (Brown *et al.*, 2006).

Although further empirical evaluation of these approaches is warranted, it is important to note that they are not specifically designed for integration into real-world, substance use treatment contexts, where the majority of low-income substance users with co-occurring mental illness receive care (Clark *et al.*, 2007). Improving continuity of care for individuals with SUDs and co-occurring psychiatric disorders is an important priority (for a review, see McCallum *et al.*, 2015). A key element of improving services for this population is developing interventions to address co-occurring psychiatric disorders that can actually be delivered in substance use treatment. In standard substance use treatment settings, brief, parsimonious treatments and adaptations for low literacy are essential. Traditional substance use treatment programs often require a short period of stay, with detoxification and short-term treatments (< 30 days) being more readily available than long-term treatments (>30 days) in state agencies and hospitals (SMAHSA, 2015). In addition, providers within resource-limited substance use treatment settings often lack specialized mental health training, with few resources to deliver more elaborate mental health interventions (McCoy *et al.*, 2002). Further, there is evidence that some intervention components, such as cognitive restructuring within CBT, may be less appropriate for patients with cognitive deficits resulting from chronic substance use and/or depression (Aharonovich *et al.*, 2006). Taken together, of the existing available treatments for concurrent substance use and depression, results have been mixed, with few indicating feasibility and acceptability for integration into standard substance use treatment settings.

### **Targeting Positive Reinforcement**

Targeting positive reinforcement may be a parsimonious approach to treating SUD-MDD comorbidity. Reinforcement theories of depression state that depression develops and is maintained by low levels of response-contingent positive reinforcement (RCPR), featured by a loss of positive reinforcement from healthy behaviors, and/or a lack of engagement in or perceived pleasure from these behaviors (Lewinsohn & Graf, 1973; Lewinsohn, 1974). Further, according to the matching law (Hernstein, 1961, 1970), depression is a function of relative rates of reinforcement from depressive behaviors vs. healthy, non-depressed behaviors. Matching law, when applied to understanding depression, suggests that the frequency of depressed behavior (vs. healthy, non-depressed alternatives) is proportionate to the relative value of the reinforcement derived from depressed vs. healthy, non-depressed behavior.

Similarly, behavioral economic models of substance use suggest that substance use is a function of available reinforcement in one's environment, such that substance use is most likely when there are minimal constraints on drugs and substantial constraints on access to valued substance-free reinforcement (Vuchinich and Tucker, 1988), with empirical evidence supporting these models (Correia *et al.*, 2005; Murphy *et al.*, 2005). These theoretical foundations suggest a shared vulnerability across individuals with substance use and depression for lower rates of reinforcement for healthy alternative behaviors, supporting the utility of an approach that targets positive reinforcement in one's environment.

### **Behavioral Activation as a Treatment for Comorbid SUD-MDD**

Behavioral activation (BA) is particularly relevant in this context. BA treatments for depression specifically target reinforcement (Lejuez *et al.*, 2001, 2011; Martell *et al.*, 2001, 2010). The effectiveness of BA for depression has received widespread support across multiple

patient populations (Dimidjian et al., 2006; Dobson et al., 2008; Ekers et al., 2014; Jacobson et al., 1996; Mazzucchelli et al., 2009). Moreover, the Brief Behavioral Activation Treatment for Depression (BATD; Lejuez *et al.*, 2001, 2011) is particularly amenable to dissemination and implementation in a range of resource-limited contexts (Strachan *et al.*, 2012), in conjunction with comorbid conditions (Collado *et al.*, 2014; Pagoto *et al.*, 2008; Hopko *et al.*, 2005), and by a range of provider levels, including paraprofessionals (Ekers et al., 2011; Magidson et al., 2015). Given the theoretical and practical applicability of BA for individuals with comorbid MDD-SUD, in the following sections we provide a detailed description of a BA treatment for comorbid SUD-MDD, the Life Enhancement Treatment for Substance Use (LETS ACT). The core components of LETS ACT and suggested session-to-session content are described in detail, along with example treatment forms.<sup>1</sup>

### **The Life Enhancement Treatment for Substance Use (LETS ACT)**

Based upon the core components of BATD, The Life Enhancement Treatment for Substance Use (LETS ACT; Daughters *et al.*, 2008; Magidson *et al.*, 2011) was developed to address concurrent SUD-MDD based upon the theoretical foundations of behavioral reinforcement theories of depression (Lewinsohn, 1974; Lewinsohn and Graf, 1973), and behavioral economic theories of substance use (Vuchinich and Tucker, 1988). LETS ACT simultaneously targets positive reinforcement—a core mechanisms underlying both substance use and depression. Components of BATD have been modified to meet the needs of individuals with comorbid SUD-MDD who are concurrently receiving substance use treatment. More specifically, complex concepts and forms have been modified or eliminated, thereby reducing client burden. Negative affect and craving surrounding substance use is a primary risk factor

---

<sup>1</sup> A copy of the full treatment manual for integration into residential or outpatient settings can be accessed by contacting the first author.

introduced in the treatment rationale, is presented in a way that is applicable across drug types, and can be tailored to the individual. LETS ACT adopts a small group treatment model, which is preferable to individual-based treatments in terms of utilizing limited therapeutic resources in substance use treatment settings, while still maintaining a reasonable therapist-client ratio compared to large group treatment settings. In addition, LETS ACT is appropriate for individuals with cognitive deficits or a low education level, having adopted terminology at a fifth-grade reading level for all treatment components, which is designed to improve comprehension of the treatment principles, as well as increase the ease of between-session homework completion.

*Treatment Structure.* LETS ACT is designed to have a flexible number of sessions (5-8) to accommodate for flexible distribution among a range of substance use treatment facilities with varying levels of resources. The 5-session version captures all key components, while the 8-session version allows for extended sessions to help the clients consolidate key concepts. The number and frequency of sessions can be easily adjusted based on individual patient needs and the specific clinical context. We also compiled all study related forms into one pocket sized booklet for patients in order to accommodate treatment compliance and homework completion. In the remaining sections, we will highlight the specific LETS ACT treatment components (see **Table 1** for an overview) and include examples of treatment material (**Figures 1-3**).

*Treatment Rationale.* LETS ACT, given its strong theoretical foundation, uses the treatment rationale as an intervention component and framework throughout treatment. As illustrated in **Figure 1**, the treatment begins with a visual depiction of its rationale--targeting the link between mood, substance use, and behavior, with a focus on identifying goal-driven, substance-free forms of positive reinforcement. The exercise begins by discussing client's experience of difficult emotions (e.g., hopelessness, shame, stress) and physical sensations (e.g.,

muscle tension, sweaty palms), negative urges in response to difficult emotions and physical sensations (e.g. isolation, substance use), and subsequent negative behavior (e.g., lay in bed, substance use). Importantly, this can be tailored across different drug classes. The therapist then elicits feedback from the clients as to where they believe they can break the cycle. The purpose of the discussion is to help the client appreciate that it is difficult to suppress our emotions and urges, and therefore, it is most helpful to try and intervene by changing our behavior (i.e., our response to negative urges). Clients are asked to list substance-free activities they currently or in the past have engaged in and find rewarding (e.g., take a walk, spend time with family), and what are their feelings associated with those events. This positive cycle is then illustrated, how when we begin to engage in rewarding activities and begin to feel the associated positive emotions (e.g., relaxed, accomplished, happy), we then are more likely to want to continue to engage in these activities. The therapist acknowledges that although negative emotions and urges will continue to exist, by engaging in healthy and rewarding behavior, the negative urges will soon be replaced with urges to engage in these more healthy and rewarding behaviors in response to difficult emotions and physical sensations. This “positive cycle” is depicted to patients as the focus of the treatment--to identify and engage in rewarding activities. The *Treatment Rationale* is illustrated at the beginning of each session, with clients sharing difficult emotions they have recently experienced and their associated urges and behaviors, with an emphasis on their response to those urges. A visual representation of the cycle either on a white board or on paper is recommended during sessions (see **Figure 1**). A copy of the cycle is provided to the client in the treatment workbook.

-----

Insert Figure 1

-----

*Daily Monitoring.* Following the treatment rationale, the focus becomes behavioral monitoring, which is a foundational component of a behavioral activation-based intervention. Clients are asked to not change anything in their daily routine, but rather first get a sense of regular activities, and the enjoyment and importance associated with these activities. The purpose of this practice is to offer the clients an opportunity to improve their understanding of the pattern of their daily activities. As a homework assignment, the clients are asked to record their daily activities on an hourly basis in the treatment workbook, as well as how important and enjoyable they found those activities on a scale from one to ten. In the *Daily Monitoring* review in sessions two and three, clients reflect on activities they recorded that were of high and low importance and/or enjoyment. The therapist highlights the value of having a balance of activities that are high on importance and/or enjoyment so as to experience feelings of both accomplishment and pleasure. The *Daily Monitoring* exercise allows the therapists to discuss the utility of identifying activities within important life areas and values, such that activities that are rated low on both constructs are noted as opportunities to replace with new value driven activities that they will find more rewarding.

*Life Areas, Values, and Activities (LAVA).* Once clients have monitored their pattern of current daily activities, the focus turns to identifying new value-driven activities to schedule into one's day across a range of life areas. Clients are encouraged to identify values across a range of areas of their life, including relationships, physical health, emotional health, education/work, spirituality, and hobbies/recreation. Clients first identify up to three life areas that are important to them. The therapist then discusses the concept of values, defined as an ideal, quality, or strong belief in certain way of living. As illustrated in **Figure 2**, within each life area the client is asked

to fill in the blank for “It is important to me...”. For example, within relationships, a client may indicate “It is important to me to be a reliable parent”. After identifying at least one value in each of the clients’ three chosen life areas, the therapist will introduce the concept of “value-driven activities”, defined as the behaviors the clients can engage in that are in line with their values. The therapist indicates the importance of activities being specific, measurable, and attainable. An example activity for the value “being a reliable parent” might be “picking my son up at school on time at 2:30.” Therapists highlight the importance of scheduling *value-driven* activities that are substance-free and most likely to increase natural positive reinforcement. As a homework assignment, the clients will identify approximately three activities for each of the three life area values they identified during group.

-----

Insert Figure 2

-----

*Daily Plan.* Once clients generate a list of values and activities that are important to them, the next step is to concretely “map” these values and activities into their everyday lives. This exercise is called the *Daily Plan* (**Figure 3**). Through practice, the clients will develop the skills to generate specific value-driven activities that he/she would like to complete each day. The clients will be prompted to plan activities in advance (e.g., the night before). Unlike *Daily Monitoring* in which the clients record every single activity they completed in a certain day, in the *Daily Plan*, the clients schedule value-driven activities. Similar to *Daily Monitoring*, at the end of each day, the clients will record how many planned activities they were able to complete, as well as a rating of the importance and enjoyment of each activity. The primary goal for this practice is to establish systematic and routine contact with positive reinforcement in one’s daily



life, with the goal that individuals will identify new positive activities and maintain involvement in these activities post treatment.

-----  
Insert Figure 3  
-----

*Contracts.* Contracts have been widely used to improve treatment outcomes within substance use treatment settings (Petry *et al.*, 2004). In LETS ACT, the purpose of contracts is to utilize healthy social resources that are available to the clients, with the goal of facilitating completion of scheduled value-driven, substance-free activities. For example, a client may be asked to identify one person he/she would like to contract with, list up to three helpful and supportive behaviors that person can do, and work with that individual to ask for the help the client will need. The contracted behaviors are designed to facilitate healthy, positive behaviors (e.g., catch the bus to work on time, go to a movie when bored). Depending on the client's readiness to ask a specific individual for help, the contract may also be used as a way to brainstorm supportive resources, as well as ways in which the identified person(s) could support the client's treatment goals. Nevertheless, if sharing the contract plan with their target person is not in line with the client's readiness, the client may opt out. In this case, the therapist can brainstorm with the clients to make sure that when they are ready to implement the contract, they will be equipped with sufficient resources and skills.

*Relaxation and mindfulness exercise.* A final treatment component is teaching skills for relaxation and/or mindfulness. Introducing a specific healthy coping strategy is also particularly useful for clients who struggle to identify other positive activities in their life. LETS ACT was first implemented using diaphragmatic breathing as the primary relaxation component (see

Daughters *et al.*, 2008; Magidson *et al.*, 2011). The most recent refinements of LETS ACT, presented here, include a brief mindfulness exercise to provide clients with a specific coping strategy to tolerate urges. The exercise guides clients in session to pause, tune into their breath and bodily sensations, and increase their present moment awareness. The inclusion of a mindfulness exercise in the intervention was guided by previous research showing the effects of mindfulness on depressive symptoms and reducing craving among individuals with SUDs (Witkiewitz & Bowen, 2010). In LETS ACT, regular practice of the relaxation and/or mindfulness exercises is encouraged and directly incorporated into activity scheduling. It is also encouraged as an immediate option to cope with overwhelming negative urges.

-----

Insert Table 1

-----

**LETS ACT Treatment Accommodations**

As demonstrated in the treatment description, the number of LETS ACT sessions can be adjusted based on the treatment setting and/or the clients’ progress throughout the course of treatment. Additionally, sessions can be added if resources are available, which may be particularly relevant for further aiding the practice of the *Treatment Rationale, LAVA* and *Daily Plans*. Depending on the length and structure of the treatment, the therapist has the flexibility to decide which component(s) to emphasize based on the flow of the treatment. In addition to flexible session numbers, the practice of each treatment component can be adjusted according to each individual’s strengths and limitations. For clients who face challenges identifying values or understanding the concept of values, we have adapted language to use metaphors to describe values (i.e., steps, driving directions) as well as using the term “goal” if a value is difficult to

comprehend. For clients who may not have had stable sources of response contingent positive reinforcement in their lives, we have found it useful to focus on making small changes in an immediate context to interact differently in one's environment (e.g., participating more in NA/AA groups, writing a letter to a loved one), and emphasize how small shifts can make significant changes in obtaining positive reinforcement; however, we also try to directly acknowledge in the treatment how prior experiences, such as being faced with punishment or low levels of positive reinforcement, will serve as barriers to re-engaging in some activities.

### **Empirical Support for LETS ACT**

LETS ACT has been conducted and evaluated in a number of substance treatment settings, with the first evaluation in a randomized clinical trial (RCT) within an inpatient substance use treatment center. LETS ACT demonstrated medium to large effects on depressive symptoms, anxiety symptoms, and perceived reward from activities at post-treatment compared to patients receiving treatment as usual (Daughters *et al.*, 2008). A second RCT comparing LETS ACT to a control condition in an inpatient substance use treatment setting demonstrated large effect sizes for LETS ACT in reducing treatment dropout and increasing levels of behavioral activation compared to a contact time matched control condition (Magidson *et al.*, 2011). LETS ACT has also been integrated with a single-session HIV medication adherence to address SUD-MDD comorbidity and improve HIV medication adherence among HIV-infected individuals (Daughters *et al.*, 2010; Magidson *et al.*, 2014). The long-term outcomes associated with LETS ACT were recently examined among patients entering substance use treatment, with a specific focus on the role of the proposed mechanism of action, environmental reward. Over the 1-year follow-up period, 68.8% of LETS ACT participants provided negative urine screens compared to 52.8% of a contact matched control group (OR = 0.16, SE = .07,  $p = .03$ , CI: .009, .313). A serial

multiple mediation model (Hayes, 2012) indicated that compared to a contact time matched supportive counseling control condition, LETS ACT had a significant indirect effect on the likelihood of post treatment substance use through both environmental reward and depressive symptoms (Ind2 = -.088, CI: -.2569, -.0098). More specifically, the effect of LETS ACT on greater increases in environmental reward translated into a reduction in depressive symptoms, which in turn led to a greater likelihood of a post treatment negative urine screen (Daughters *et al.*, 2016). Most recently, a smartphone enhanced version of LETS ACT has been developed to increase homework compliance and treatment engagement outside of clinician administered sessions (Maltalenas *et al.*, 2015).

### **Discussion and Future Directions**

In this paper, we have presented LETS ACT, a behavioral activation-based treatment for comorbid SUD-MDD. We believe its straightforward nature and flexibility make it particularly amenable to delivery in substance use treatment facilities with limited levels of resources, where many patients with comorbid SUD-MDD and a range of SUDs receive treatment. We hope that by providing the treatment manual and treatment description in this paper that it facilitates the use of LETS ACT in a variety of clinical contexts. Although there is accumulating empirical support for this approach, important future questions remain regarding the integration of LETS ACT with other psychosocial and pharmacological intervention approaches, particularly to understand how LETS ACT could be integrated with the use of medication assisted treatments and tailored for patients with opioid use disorders. Ultimately our hope in this program of research is to increase the dissemination and implementation of evidence-based interventions for this prevalent and difficult to treat comorbidity.

## References

- Aharonovich, E. Hasin, D. S. Brooks, A. C. Liu, X. Bisaga, A., and Nunes, E. V. (2006), "Cognitive deficits predict low treatment retention in cocaine dependent patients", *Drug and Alcohol Dependence*, Vol. 81 No. 3, pp. 313-22.
- Blanco, C. Alegría, A. A. Liu, S. M. Secades-Villa, R. Sugaya, L. Davies, C., and Nunes, E. V. (2012), "Differences among major depressive disorder with and without co-occurring substance use disorders and substance-induced depressive disorder: results from the National Epidemiologic Survey on Alcohol and Related Conditions.", *Journal of Clinical Psychiatry*, Vol. 73 No. 6, pp. 1-478.
- Brown, S. A. Glasner-Edwards, S. V. Tate, S. R. McQuaid, J. R. Chalekian, J., and Granholm, E. (2006), "Integrated cognitive behavioral therapy versus twelve-step facilitation therapy for substance-dependent adults with depressive disorders", *Journal of Psychoactive Drugs*, Vol. 38 No. 4, pp. 449-60.
- Chen, L. Y. Crum, R. M. Martins, S. S. Kaufmann, C. N. Strain, E. C., and Mojtabai, R. (2013), "Service use and barriers to mental health care among adults with major depression and comorbid substance dependence", *Psychiatric Services*, Vol. 64 No. 9, pp. 863-70.
- Clark, R. E. Samnaliev, M., and McGovern, M. P. (2007), "Treatment for co-occurring mental and substance use disorders in five state Medicaid programs", *Psychiatric Services*, Vol. 58 No. 7, pp. 942-48.
- Correia, C. J. Benson, T. A., and Carey, K. B. (2005), "Decreased substance use following increases in alternative behaviors: A preliminary investigation.", *Addictive Behaviors*, Vol. 30 No. 1, pp. 19-27.
- Daughters, S. B. Braun, A. R. Sargeant, M. N. Reynolds, E. K. Hopko, D. R. Blanco, C., and Lejuez, C. W. (2008), "Effectiveness of a brief behavioral treatment for inner-city illicit drug users with elevated depressive symptoms: the life enhancement treatment for substance use (LETS ACT)", *Journal of Clinical Psychiatry*, Vol. 69 No. 1, pp. 122-9.
- Daughters, S. B. Magidson, J. F. Schuster, R. M., and Safren, S. A. (2010), "ACT HEALTHY: A combined cognitive-behavioral depression and medication adherence treatment for HIV-infected substance users", *Cognitive and Behavioral Practice*, Vol. 17 No. 3, pp. 309-21.
- Davis, L. L. Wisniewski, S. R. Howland, R. H. Trivedi, M. H. Husain, M. M. Fava, M., and Rush, A. J. (2010), "Does comorbid substance use disorder impair recovery from major depression with SSRI treatment? An analysis of the STAR\* D level one treatment outcomes.", *Drug and Alcohol Dependence*, Vol. 107 No. 2, pp. 161-70.
- Dimidjian, S. Hollon, S. D. Dobson, K. S. Schmaling, K. B. Kohlenberg, R. J. Addis, M. E., . . . Jacobson, N. S. (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*, Vol. 74 No. 4, pp. 658-70.
- Dobson, K. S. Hollon, S. D. Dimidjian, S. Schmaling, K. B. Kohlenberg, R. J. Gallop, R. J., . . . Jacobson, N. S. (2008), "Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the prevention of relapse and recurrence in major depression", *Journal of Consulting and Clinical Psychology*, Vol. 76 No. 3, pp. 468-77.
- Ekers, D. Richards, D. McMillan, D. Bland, J. M., and Gilbody, S. (2011), "Behavioural activation delivered by the non-specialist: phase II randomised controlled trial", *British Journal of Psychiatry*, Vol. 198 No. 1, pp. 66-72.
- Ekers, D. Webster, L. Van Straten, A. Cuijpers, P. Richards, D., and Gilbody, S. (2014),

- "Behavioural activation for depression; an update of meta-analysis of effectiveness and sub group analysis", *PLoS One*, Vol. 9 No. 6, pp. e100100.
- Glasner-Edwards, S. Marinelli-Casey, P. Hillhouse, M. Ang, A. Mooney, L. J. Rawson, R., and Project, M. T. (2009), "Depression among methamphetamine users association with outcomes from the methamphetamine treatment project at 3-year follow-up", *Journal of Nervous and Mental Disease*, Vol. 197 No. 4, pp. 225-31.
- Glasner-Edwards, S. Tate, S. R. McQuaid, J. R. Cummins, K. Granholm, E., and Brown, S. A. (2007), "Mechanisms of action in integrated cognitive-behavioral treatment versus twelve-step facilitation for substance-dependent adults with comorbid major depression", *Journal of Studies on Alcohol and Drugs*, Vol. 68 No. 5, pp. 663-72.
- Greenfield, B. L. Venner, K. L. Kelly, J. F. Slaymaker, V., and Bryan, A. D. (2012), "The impact of depression on abstinence self-efficacy and substance use outcomes among emerging adults in residential treatment", *Psychology of Addictive Behaviors*, Vol. 26 No. 2, pp. 246-54.
- Greenfield, S. F. Weiss, R. D. Muenz, L. R. Vagge, L. M. Kelly, J. F. Bello, L. R., and Michael, J. (1998), "The effect of depression on return to drinking: a prospective study", *Archives of General Psychiatry*, Vol. 55 No. 3, pp. 259-65.
- Hasin, D. Liu, X. Nunes, E. McCloud, S. Samet, S., and Endicott, J. (2002), "Effects of major depression on remission and relapse of substance dependence", *Archives of General Psychiatry*, Vol. 59 No. 4, pp. 375-80.
- Hides, L. Samet, S., and Lubman, D. I. (2010), "Cognitive behaviour therapy (CBT) for the treatment of co-occurring depression and substance use: Current evidence and directions for future research", *Drug and Alcohol Review*, Vol. 29 No. 5, pp. 508-17.
- Hopko, D. R. Bell, J. L. Armento, M. E. A. Hunt, M. K., and Lejuez, C. W. (2005), "Behavior therapy for depressed cancer patients in primary care.", *Psychotherapy: Theory, Research, Practice, Training*, Vol. 42 No. 2, pp. 236.
- Jacobson, N. S. Dobson, K. S. Truax, P. A. Addis, M. E. Koerner, K. Gollan, J. K., . . . Prince, S. E. (1996), "A component analysis of cognitive-behavioral treatment for depression", *Journal of Consulting and Clinical Psychology*, Vol. 64 No. 2, pp. 295-304.
- Kay-Lambkin, F. J. Baker, A. L. Lewin, T. J., and Carr, V. J. (2009), "Computer based psychological treatment for comorbid depression and problematic alcohol and/or cannabis use: a randomized controlled trial of clinical efficacy.", *Addiction*, Vol. 104 No. 3, pp. 378-88.
- Lejoyeux, M., and Lehert, P. (2011), "Alcohol-use disorders and depression: Results from individual patient data meta-analysis of the acamprosate-controlled studies", *Alcohol and Alcoholism*, Vol. 46 No. 1, pp. 61-67.
- Lejuez, C. W. Hopko, D. R., and Hopko, S. D. (2001), "A brief behavioral activation treatment for depression. Treatment manual", *Behavior Modification*, Vol. 25 No. 2, pp. 255-86.
- Lewinsohn, P. M. (1974), "A behavioral approach to depression". In R. M. Friedman & M. M. Katz (Eds.), *The Psychology of Depression: Contemporary Theory and Research*, Wiley, New York, NY, pp. 150.
- Lewinsohn, P. M., and Graf, M. (1973), "Pleasant activities and depression", *Journal of Consulting and Clinical Psychology*, Vol. 41 No. 2, pp. 261-8.
- Lydecker, K. P. Tate, S. R. Cummins, K. M. McQuaid, J. Granholm, E., and Brown, S. A. (2010), "Clinical outcomes of an integrated treatment for depression and substance use disorders", *Psychology of Addictive Behaviors*, Vol. 24 No. 3, pp. 453-65.

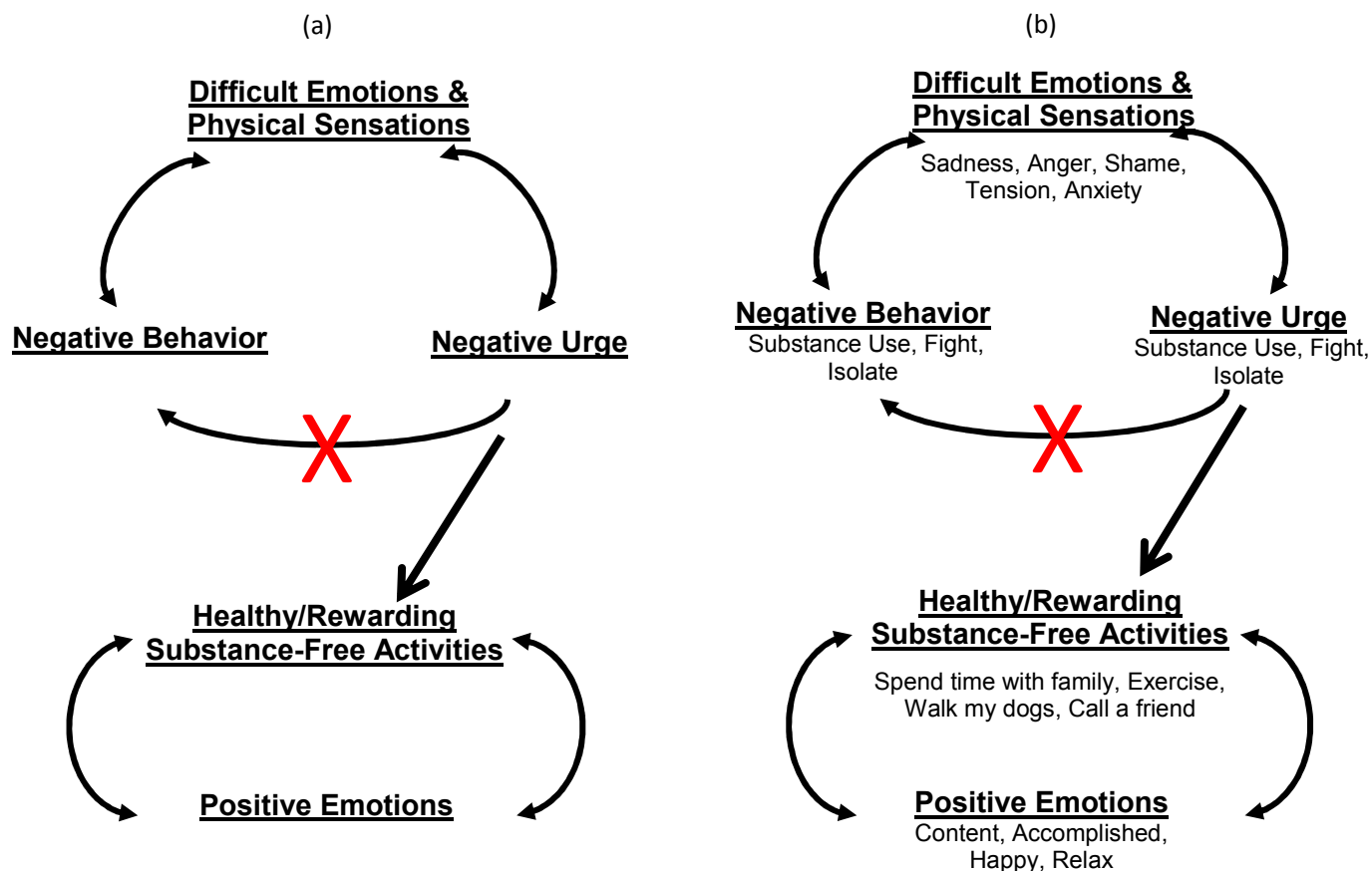
- Magidson, J. F. Gorka, S. M. MacPherson, L. Hopko, D. R. Blanco, C. Lejuez, C. W., and Daughters, S. B. (2011), "Examining the effect of the Life Enhancement Treatment for Substance Use (LETS ACT) on residential substance abuse treatment retention", *Addictive Behaviors*, Vol. 36 No. 6, pp. 615-23.
- Magidson, J. F. Lejuez, C. W. Kamal, T. Blevins, E. J. Murray, L. K. Bass, J. K., and Pagoto, S. (2015), "Adaptation of community health worker-delivered behavioral activation for torture survivors in Kurdistan, Iraq.", *Global Mental Health*, Vol. No. 2, pp. e24.
- Magidson, J. F. Seitz-Brown, C. J. Safren, S. A., and Daughters, S. B. (2014), "Implementing behavioral activation and Life-Steps for depression and HIV medication adherence in a community health center", *Cognitive and Behavioral Practice*, Vol. 21 No. 4, pp. 386-403.
- Markowitz, J. C. Kocsis, J. H. Christos, P. Bleiberg, K., and Carlin, A. (2008), "Pilot study of interpersonal psychotherapy versus supportive psychotherapy for dysthymic patients with secondary alcohol abuse or dependence", *Journal of Nervous and Mental Disease*, Vol. 196 No. 6, pp. 468-74.
- Martell, C. R. Addis, M. E., and Jacobson, N. S. (2001), "*Depression in context: Strategies for guided action.*" WW Norton & Co.
- Mazzuchelli, T. Kane, R., and Rees, C. (2009), "Behavioral activation treatments for depression in adults: a meta-analysis and review.", *Clinical Psychology: Science and Practice*, Vol. 16 No. 4, pp. 383-411.
- McCoy, H. V. Messiah, S. E., and Zhao, W. (2002), "Improving access to primary health care for chronic drug users: an innovative systemic intervention for providers", *Journal of Behavioral Health Services & Research*, Vol. 29 No. 4, pp. 445-57.
- McKay, J. R. Pettinati, H. M. Morrison, R. Feeley, M. Mulvaney, F. D., and Gallop, R. (2002), "Relation of depression diagnoses to 2-year outcomes in cocaine-dependent patients in a randomized continuing care study", *Psychology of Addictive Behaviors*, Vol. 16 No. 3, pp. 225-35.
- Murphy, J. G. Correia, C. J. Colby, S. M., and Vuchinich, R. E. (2005), "Using behavioral theories of choice to predict drinking outcomes following a brief intervention.", *Experimental and clinical psychopharmacology*, Vol. 13 No. 2, pp. 93.
- Najt, P. Fusar-Poli, P., and Brambilla, P. (2011), "Co-occurring mental and substance abuse disorders: a review on the potential predictors and clinical outcomes", *Psychiatry Research*, Vol. 186 No. 2-3, pp. 159-64.
- Petry, N. M. Tedford, J. Austin, M. Nich, C. Carroll, K. M., and Rounsaville, B. J. (2004), "Prize reinforcement contingency management for treating cocaine users: how low can we go, and with whom?", *Addiction*, Vol. 99 No. 3, pp. 349-60.
- Riper, H. Andersson, G. Hunter, S. B. Wit, J. Berking, M., and Cuijpers, P. (2014), "Treatment of comorbid alcohol use disorders and depression with cognitive-behavioural therapy and motivational interviewing: a meta-analysis.", *Addiction*, Vol. 109 No. 3, pp. 394-406.
- SAMHSA. (2011), "Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings" HHS Publication, Rockville, MD, pp. 11-4658.
- SMAHSA. (2015). "2013 NSSATS - Data on Substance Abuse Treatment Facilities", available at <http://www.samhsa.gov/data/substance-abuse-facilities-data-nssats/reports>
- Strachan, M. Gros, D. F. Ruggiero, K. J. Lejuez, C. W., and Acierno, R. (2012), "An integrated approach to delivering exposure-based treatment for symptoms of PTSD and depression in OIF/OEF veterans: Preliminary findings", *Behavior Therapy*, Vol. 43 No. 3, pp. 560-

69.

- Tate, S. R. Brown, S. A. Unrod, M., and Ramo, D. E. (2004), "Context of relapse for substance-dependent adults with and without comorbid psychiatric disorders", *Addictive Behaviors*, Vol. 29 No. 9, pp. 1707-24.
- Thase, M. E. Salloum, I. M., and Cornelius, J. D. (2001), "Comorbid alcoholism and depression: treatment issues", *Journal of Clinical Psychiatry*, Vol. 62 Suppl 20 No., pp. 32-41.
- Vuchinich, R. E., and Tucker, J. A. (1988), "Contributions from behavioral theories of choice to an analysis of alcohol abuse", *Journal of Abnormal Psychology*, Vol. 97 No. 2, pp. 181-95.



**Figure 1.** A (a) Blank and (b) Patient example of the treatment rationale diagram. The therapist works sequentially through steps 1-5. The upper circle represents the “negative cycle”, and the lower cycle represents the “positive cycle,” which is the focus of the LETS ACT treatment.



**Figure 2.** A (a) Blank and (b) Client example of the LAVA form for the Life Area ‘Relationships’.

Life Area: Relationships		Life Area: Relationships	
Values: <i>It is important to me to...</i>		Activities	
Life Area: Relationships		Life Area: Relationships	
Values: <i>It is important to me to...</i>		Activities	
1. To be a responsible father.		1. Read a book to my daughter each night before bed.	
2. Re-establish my relationship with my wife.		2. Have a date night every Saturday.	

**Figure 3.** A blank and client example of the Daily Plan.

Circle the day & write the date:  
M T W Th Fr Sa Su Date: \_\_\_\_\_

Today's Life Areas:

Today's Values:

- 1.
- 2.
- 3.

Time	Activities	E 1-10	I 1-10	C
				Y/N
				Y/N
				Y/N
				Y/N
				Y/N
				Y/N
				Y/N
				Y/N
<b>Total Activities Completed:</b>				

*E = Enjoyment; I = Importance; C = Completed? (circle Y or N)*

Circle the day & write the date:  
M **T** W Th Fr Sa Su Date: April 18<sup>th</sup>

Life Areas Relationships, Spirituality

Today's Values:

1. To be a responsible father
2. Feel inner peace
- 3.

Time	Activities	E 1-10	I 1-10	C
7:30am	Drive my kids to school before work	5	9	<input checked="" type="radio"/> N
1:30pm	Pray for 10 minutes	7	8	<input checked="" type="radio"/> N
6:00pm	Help my kids with school work	4	10	<input checked="" type="radio"/> N
8:00pm	Pray for 10 minutes	7	8	<input checked="" type="radio"/> N
				Y/N
				Y/N
				Y/N
				Y/N
				Y/N
<b>Total Activities Completed: 3</b>				

*E = Enjoyment; I = Importance; C = Completed? (circle Y or N)*

**Table 1.** LETS ACT 6-Session Schedule.

<b>Session 1</b>	Treatment Rationale Daily Monitoring Mindfulness Rationale and Practice Homework: Daily Monitoring Form
<b>Session 2</b>	Treatment Rationale Review Homework (Daily Monitoring) Life Areas, Values, and Activities (LAVA) Mindfulness Practice Homework: Daily Monitoring Form; Add Activities to Life Areas and Values
<b>Session 3</b>	Treatment Rationale Review Homework (Daily Monitoring and LAVA Activities) Life Area, Values, and Activities (LAVA) Daily Plans Mindfulness Practice Homework: Complete Daily Plan; Finish any remaining LAVA
<b>Session 4</b>	Treatment Rationale Review Homework (Daily Plans, LAVA) Contracts Daily Plans Mindfulness Practice Homework: Complete Daily Plan and Contracts
<b>Session 5</b>	Treatment Rationale Review Homework (Daily Plans, Contracts) Daily Plans Mindfulness Practice Homework: Complete Daily Plan
<b>Session 6</b>	Treatment Rationale Review Homework (Daily Plans) Post Treatment use of LAVA and Daily Plans Review and Summarize Overall Treatment Progress Mindfulness Practice