Cognitive Behavioral Therapy: A Swiss Army Knife of Change

"Ugh," Greg whispers out loud to himself as he wakes up. Stricken with a sense of lethargy and hopelessness, Greg crawls out of bed. He has a hard time deciding what to do for the day. It's the weekend, so no work. To Greg, everything seems to require too much effort and probably won't be worth doing anyways. Without thinking, he picks up a pipe and starts smoking marijuana. The cloud of contentment whirls around Greg until he feels that warm blanket of comfort with which he is all too familiar. He pours the remaining contents of a bag of chips into his mouth, picks up a game controller, and starts playing video games. Alas, his automatic tendencies have decided for him.

A cognitive behavioral therapist could look at Greg's case and have a sense of what they could do to help. But what are cognitive behavioral therapies, also known as CBT. To answer this question, we need to describe how a CBT therapist would define a psychological disorder.

What are Psychological Disorders?

Psychological disorders are overgeneralized and automatic patterns of responding that, despite creating problems, are maintained in a cycle (Fisher, 2015; Hofmann et al., 2016). For instance, just because someone is experiencing depression, doesn't mean that he or she has a depressive disorder. What someone does with depression really matters. In Greg's case, his coping strategies work in the short run, that is, they make him feel a little less depressed in the moment, but create problems in the long run, such as keeping him alone at home, which limits meaningful activities. It's important to note that Greg doesn't wake up in the morning and say, "You know what, I'm going to be depressed today." He doesn't will it to happen, it just happens.

- 1. Overgeneralized the responses occur repeatedly overtime and in a variety of situations
- 2. Automatic things pretty easily trigger particular responses without much, if any effort
- 3. Patterns the components of the disorder, including triggers and responses relate to one another in fairly predictable ways
- 4. Responding it entails patterns of thinking, feeling, attending, and acting in response to triggers
- 5. Problems there are long-term negative consequences to these patterns of responding
- 6. Maintained the pattern continues despite these problems occurring
- 7. Cycle it occurs in a negative feedback loop, where various responses related to one another overtime, oftentimes triggering each other

What are Cognitive Behavioral Therapies (CBT)?

CBT has evolved through several phases. Based on research produced by John B. Watson, B.F. Skinner and others, treatment focused on changing behavioral patterns that kept people stuck. Behavior therapy aimed to modify antecedents and consequences associated with problem behaviors. In the 1960s and 70s, pioneers like Albert Ellis and Aaron Beck introduced cognitive principles, emphasizing the correction of unproductive meaning-making that contributed to psychological struggles. Later, psychologists such as Steven C. Hayes, Marsha Linehan, and others grew dissatisfied with the limitations of traditional cognitive therapy led to the development of a third wave, incorporating acceptance, mindfulness, and emotion-focused approaches.

Psychologists Steven C. Hayes and Stefan Hofmann now advocate for a unification of CBT, referred to as process-based CBT or simply process-based therapy (PBT; Hayes & Hofmann, 2018). The reason for this shift is that many so-called "different" CBT treatment packages rely on a common set of cognitive, behavioral, and emotional processes to foster change (Hofmann et al., 2012). PBT identifies core clinical change processes shared across various forms of CBT. However, before these techniques can be applied, a proper case formulation is essential.

A case formulation is an organized understanding of the relationships between events that characterize a person's difficulties. For example, procrastinating to avoid obligations may temporarily reduce anxiety, but it can also lead to poorer work performance and increased worry, ultimately reinforcing the anxiety. CBT focuses on the immediate situations and responses that create and sustain psychological disorders. While it is less concerned with a person's history, past experiences are relevant when they help explain why certain responses developed and persisted.

By focusing on immediate situations and responses, CBT offers actionable steps to help individuals move past their struggles. These steps are measurable, allowing both therapist and client to track progress and adjust treatment if needed. This makes CBT an individualized and iterative process. A trained CBT therapist will not only assess which change processes are most relevant for you, they will also remain flexible, updating the treatment plan as new data emerges—which is known as a "working case formulation."

Here is an example of a working case formulation for someone experiencing a depressive disorder. It's within the form of a network analysis, which creates a map of relations among events to visualize someone's dynamic system, i.e., psychological disorder (Borsboom, 2017).



The Tools of a CBT therapist

You can consider these core clinical change processes as the *tools* of a CBT therapist. Keep in mind that just as there are a number of different screwdrivers, each tool comes with a number of different techniques to impart change. Here is a list of each "tool."

- 1. **Contingency management** focuses on changing the outcome of a problematic behavior and noticing or applying desired outcomes to more productive behaviors. It has been helpful for impulse control problems, such as in substance use disorders (Prendergast et al., 2006) and attention deficit/hyperactivity disorder (DuPaul & Eckert, 1997).
- 2. **Stimulus control** has to do with changing a person's environment and creating new associates so that the problematic behaviors are less likely to occur and more desired behaviors are more likely to occur. It is helpful for sleep problems, such as insomnia disorder (Smith et al., 2002), and is a key component in CBT for procrastination (Rozental et al., 2015).
- 3. Successive approximation, also known as shaping, is about reinforcing intermediate actions that are en route to a final target behavior. This change process is quite useful for training entirely new behaviors, including speaking and reading among those with learning and intellectual disabilities (Bredberg & Siegel, 2001).
- 4. **Prolonged exposure** involves coming in contact with things that people have learned to fear, such as cars, spiders, and images, over and over until they learn to no longer fear

these things. Prolonged exposure is very effective when avoidance maintains the fear, such as in panic disorder (Gould et al., 1995), specific phobias (Wolitzky-Taylor et al., 2008), and posttraumatic stress disorder (Kothgassner et al., 2019).

- 5. **Behavioral activation** aims to curb the avoidance that limits engagement in meaningful activities and replace this avoidance with more meaningful activities. It is quite helpful for conditions in which avoidance limits positive affect, such as depressive disorders (Mazzucchelli et al., 2009). Behavioral activation shows promising results for prolonged grief disorder as well (Papa et al., 2013).
- 6. **Cognitive reappraisal** is a meaning-making strategy in which people try to think in ways that are more consistent with the evidence presented to them. It is helpful for disorders that come with automatic thoughts that keep people stuck, such as discounting positives in depressive disorders (Dobson, 1989) and catastrophizing in anxiety disorders (Chambless & Gillis, 1993).
- 7. **Belief modification** focuses on identifying the beliefs we have learned about ourselves, others, the world around us, our futures, and our pasts, with emphasis on changing the beliefs that are inflexible and restrict our lives. Holding the belief that "the world is unsafe" may limit someone's engagement in the world. It is useful for depressive and anxiety disorders (Dobson, 1989; Chambless & Gillis, 1993), among others.
- 8. **Problem solving** entails clearly defining the problem, identifying and making steps toward solving the problem, and resolving any barriers that might get in the way. Problem solving is great in moments when something can actually be done about a problem, for example, when someone is procrastinating (Narimani et al., 2015).
- 9. **Psychological acceptance** is all about accepting the things that we can't control in this world. It is also helpful in moments when we can't do something about a problem, like when we are trying to go to sleep. Acceptance has been shown to reduce the psychological suffering that can come with chronic pain (McCracken, 1998), among other conditions.
- 10. **Mindful awareness** is a type of attending in which one notices their present-moment experiences in a nonjudgmental and curious way. It is quite helpful for disorders characterized by behaviors that occur with little intention, such as binge eating disorder (Kristeller et al., 2014). It can also help reduce the stress that comes from focusing too much on problems (Grossman et al., 2004).

- 11. **Arousal reduction** is all about reducing physiological distress using techniques such as diaphragmatic breathing, progressive muscle relaxation, and guided imagery. It is helpful for health problems associated with high levels of stress, such as hypertension and gastrointestinal disorders, but is not helpful if it is used to avoid problems that need to be addressed (McKay, 2018).
- 12. Emotion regulation is about identifying emotions, learning what they mean, and effectively addressing the problems that elicit emotions. For example, sadness can occur from losing something important. Connecting with other important things can help. Emotion regulation can be helpful for disorders such as borderline personality disorder (Kliem et al., 2010).
- 13. **Interpersonal effectiveness** means effectively communicating, through verbal and nonverbal means, our intentions to others. It is important for getting the things that we want and need in productive ways, usually through negotiating with others. Those that lack interpersonal skills can benefit from interpersonal effectiveness (Kliem et al., 2010; Matson et al., 2007; McCullough, 2003).
- 14. **Motivational enhancement** involves noticing and discussing reasons for staying the same and reasons for changing. No point in trying to change if we don't have a reason to change. It is helpful for conditions in which the unproductive behavior to change is really attractive, such as substance use (Lundahl et al., 2010).
- 15. **Values clarification** helps people identify what is important to them and how to live in line with their values on a daily basis. Many people that enter therapy could benefit from clarifying what they want their lives to be like. What is all this change for, anyways? It has been integrated into behavioral activation for depression (Kanter et al., 2010) and cognitive therapy for social anxiety (Grumet & Fitzpatrick, 2016).
- 16. Cognitive defusion entails noticing thoughts and the process of thinking without attaching oneself to the content or meaning of thoughts. One technique involves repeating a word over and over until the meaning tied to the utterance falls away (i.e., semantic satiation). Although cognitive defusion was originally developed as a component of acceptance and commitment therapy, its utility in addressing psychological distress of many forms is evident (Levin et al., 2012).
- 17. **Attention training**, also known as attentional bias modification, focuses on creating flexibility in the attention of those with anxiety. Those with anxiety tend to have a bias toward threatening information, and this bias can maintain their anxiety. Shifting

attention away from threat has small but incremental benefits for some anxiety disorders above and beyond traditional CBT packages for anxiety (Hang et al., 2021).

- 18. Self management is a set of tools to help people help themselves. For example, clients are encouraged to monitor their problems, or "shine a light" on their problems so that they know what needs to change. Goals are defined, and plans are created and implemented to reach goals. Oftentimes, other therapeutic skills are used in the process of change. These techniques are found in nearly all CBT treatment packages (Sarafino, 2018).
- 19. **Crisis management** is another tool used with those struggling with suicidality or self-harm behaviors (Alba et al., 2022). Its predominant focus is on developing and implementing a safety plan, which entails identifying triggers for suicidal thoughts and self-harm behaviors, identifying coping skills to tolerate the distress, garnering social support, and developing an emergency plan in case.
- 20. **Therapeutic relationship** is having a relationship with a therapist in which one feels open to explore new ideas and try on new patterns of responding. It is instrumental in many psychotherapies including CBT and has a large body of evidence linking it to reduction of psychological problems and improved quality of life (Wampold, 2015). It is unclear if the relationship alone can impart change or acts more as a facilitator of change.

Conclusion

There are many tools that a CBT therapist could use to treat someone. The tools that are used really come down to the disorder that is identified as well as the nuances identified for that particular individual. Although depression is a pretty specific emotion, depression can be maintained through avoidant behaviors (Mazzucchelli et al., 2009), pessimistic thoughts (Dobson, 1989), and ineffective interpersonal interactions (McCullough, 2003), and sometimes even all of the above. You may find that you have to use a number of different tools. Whatever tools are chosen, the process of change is not always easy. Just remember, small changes are better than no changes.

Citations

Alba, M. C., Bailey, K. T., Coniglio, K. A., Finkelstein, J., & Rizvi, S. L. (2022). Risk management in dialectical behavior therapy: Treating life-threatening behaviors as problems to be solved. *Psychotherapy*, *59*(2), 163–167. <u>https://psycnet.apa.org/doi/10.1037/pst0000376</u>

Bredberg, E. A., & Siegel, L. S. (2001). Learning disability and behavior therapy: A review of

practice and a view to the future. *Behavior Therapy*, *32*(4), 651–666. <u>https://doi.org/10.1016/S0005-7894(01)80014-9</u>

Borsboom, D. (2017). A network theory of mental disorders. *World Psychiatry*, *16*(1), 5–13. https://doi.org/10.1002/wps.20375

Chambless, D. L., & Gillis, M. M. (1993). Cognitive therapy of anxiety disorders. *Journal of Consulting and Clinical Psychology*, *61*(2), 248–260. https://psycnet.apa.org/doi/10.1037/0022-006X.61.2.248

Dobson, K. S. (1989). A meta-analysis of the efficacy of cognitive therapy for depression. *Journal of Consulting and Clinical Psychology*, *57*(3), 414–419. https://psycnet.apa.org/doi/10.1037/0022-006X.57.3.414

DuPaul, G. J., & Eckert, T. L. (1997). The effects of school-based interventions for attention deficit hyperactivity disorder: A meta-analysis. *School Psychology Review*, *26*(1), 5–27. http://dx.doi.org/10.1080/02796015.1997.12085845

Fisher, A. J. (2015). Toward a dynamic model of psychological assessment: Implications for personalized care. *Journal of Consulting and Clinical Psychology*, *83*(4), 825–836. <u>https://doi.org/10.1037/ccp0000026</u>

Gould, R. A., Ott, M. W., & Pollack, M. H. (1995). A meta-analysis of treatment outcome for panic disorder. *Clinical Psychology Review*, *15*(8), 819–844. https://doi.org/10.1016/0272-7358(95)00048-8

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, *57*(1), 35–43. <u>https://doi.org/10.1016/s0022-3999(03)00573-7</u>

Grumet, R., & Fitzpatrick, M. (2016). A case for integrating values clarification work into cognitive behavioral therapy for social anxiety disorder. *Journal of Psychotherapy Integration*, *26*(1), 11–21. <u>https://psycnet.apa.org/doi/10.1037/a0039633</u>

Hang, Y., Xu, L., Wang, C., Zhang, G., & Zhang, N. (2021). Can attention bias modification augment the effect of CBT for anxiety disorders? A systematic review and meta-analysis. *Psychiatry Research, 299*, 113892. <u>https://doi.org/10.1016/j.psychres.2021.113892</u>

Hayes, S. C., & Hofmann, S. G. (Eds.). (2018). *Process-based CBT: The science and core clinical competencies of cognitive behavioral therapy*. New Harbinger Publications.

http://dx.doi.org/10.1080/07317107.2018.1522153

Hofmann, S. G., Asnaani, A., Vonk, I. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy and Research*, *36*(5), 427–440. <u>https://doi.org/10.1007/s10608-012-9476-1</u>

Hofmann, S. G., Curtiss, J., & McNally, R. J. (2016). A complex network perspective on clinical science. *Perspectives on Psychological Science*, *11*(5), 597–605. <u>https://doi.org/10.1177/1745691616639283</u>

Kanter, J. W., Manos, R. C., Bowe, W. M., Baruch, D. E., Busch, A. M., & Rusch, L. C. (2010). What is behavioral activation? A review of the empirical literature. *Clinical Psychology Review*, *30*(6), 608–620. <u>https://psycnet.apa.org/doi/10.1016/j.cpr.2010.04.001</u>

Kliem, S., Kröger, C., & Kosfelder, J. (2010). Dialectical behavior therapy for borderline personality disorder: A meta-analysis using mixed-effects modeling. *Journal of Consulting and Clinical Psychology*, 78(6), 936–951. <u>https://doi.org/10.1037/a0021015</u>

Kristeller, J., Wolever, R. Q., & Sheets, V. (2014). Mindfulness-based eating awareness training (MB-EAT) for binge eating: A randomized clinical trial. *Mindfulness*, *5*(3), 282–297. https://psycnet.apa.org/doi/10.1007/s12671-012-0179-1

Kothgassner, O. D., Goreis, A., Kafka, J. X., Van Eickels, R. L., Plener, P. L., & Felnhofer, A. (2019). Virtual reality exposure therapy for posttraumatic stress disorder (PTSD): A meta-analysis. *European Journal of Psychotraumatology, 10*(1), 1654782. https://doi.org/10.1080/20008198.2019.1654782

Levin, M. E., Hildebrandt, M. J., Lillis, J., & Hayes, S. C. (2012). The impact of treatment components suggested by the psychological flexibility model: A meta-analysis of laboratory-based component studies. *Behavior Therapy*, *43*(4), 741–756. https://doi.org/10.1016/j.beth.2012.05.003

Lundahl, B. W., Kunz, C., Brownell, C., Tollefson, D., & Burke, B. L. (2010). A meta-analysis of motivational interviewing: Twenty-five years of empirical studies. *Research on Social Work Practice*, *20*(2), 137–160. <u>https://psycnet.apa.org/doi/10.1177/1049731509347850</u>

Matson, J. L., Matson, M. L., & Rivet, T. T. (2007). Social-skills treatments for children with autism spectrum disorders: An overview. *Behavior Modification*, *31*(5), 682–707. <u>https://doi.org/10.1177/0145445507301650</u> 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*(4), 383–411. <u>https://psycnet.apa.org/doi/10.1111/j.1468-2850.2009.01178.x</u>

McCracken, L. M. (1998). Learning to live with the pain: Acceptance of pain predicts adjustment in persons with chronic pain. *Pain*, 74(1), 21–27. https://doi.org/10.1016/s0304-3959(97)00146-2

McCullough, J. P. (2003). Treatment for chronic depression using cognitive behavioral analysis system of psychotherapy (CBASP). *Journal of Clinical Psychology*, *59*(8), 833–846. <u>https://doi.org/10.1002/jclp.10176</u>

McKay, M. (2018). Arousal reduction. In S. C. Hayes & S. G. Hofmann (Eds.), *Core competencies of behavioral and cognitive therapies* (pp. 233–244). Context Press.

Narimani, M., Mohammad, A. Z., Zahed, A., & Abolghasemi, A. (2015). A comparison of effectiveness of training self-regulated learning strategies and problem-solving on academic motivation in male students with academic procrastination. *Journal of School Psychology*, *4*(1), 139–155. <u>http://dx.doi.org/10.13005/bbra/1939</u>

Papa, A., Sewell, M. T., Garrison-Diehn, C., & Rummel, C. (2013). A randomized open trial assessing the feasibility of behavioral activation for pathological grief responding. *Behavior Therapy*, *44*(4), 639–650. <u>https://doi.org/10.1016/j.beth.2013.04.009</u>

Prendergast, M., Podus, D., Finney, J., Greenwell, L., & Roll, J. (2006). Contingency management for treatment of substance use disorders: A meta-analysis. *Addiction*, *101*(11), 1546–1560. <u>https://doi.org/10.1111/j.1360-0443.2006.01581.x</u>

Rozental, A., Forsell, E., Svensson, A., Andersson, G., & Carlbring, P. (2015). Internet-based cognitive-behavior therapy for procrastination: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *83*(4), 808–824. <u>https://doi.org/10.1037/ccp0000023</u>

Sarafino, E. P. (2018). Self-management. In S. C. Hayes & S. G. Hofmann (Eds.), *Process-based CBT: The science and core clinical competencies of cognitive behavioral therapy* (pp. 233–244). New Harbinger Publications. <u>http://dx.doi.org/10.1080/07317107.2018.1522153</u>

Smith, M. T., Perlis, M. L., Park, A., Smith, M. S., Pennington, J., Giles, D. E., & Buysse, D. J. (2002). Comparative meta-analysis of pharmacotherapy and behavior therapy for persistent insomnia. *American Journal of Psychiatry*, *159*(1), 5–11. <u>https://doi.org/10.1176/appi.ajp.159.1.5</u>

Wampold, B. E. (2015). How important are the common factors in psychotherapy? An update. *World psychiatry*, *14*(3), 270–277. <u>https://doi.org/10.1002/wps.20238</u>

Wolitzky-Taylor, K. B., Horowitz, J. D., Powers, M. B., & Telch, M. J. (2008). Psychological approaches in the treatment of specific phobias: A meta-analysis. *Clinical Psychology Review*, *28*(6), 1021–1037. <u>https://doi.org/10.1016/j.cpr.2008.02.007</u>