A Case Formulation Approach to Resolve Treatment Complications

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There is a tendency to think of case formulation as an activity that occurs at the outset of therapy to guide initial clinical decision-making, but which plays little role once therapy is underway. However, we believe that case formulation is most useful when viewed as a dynamic, iterative process that invites frequent revisiting of hypotheses as new client data become available. As Eells describes in her influential handbook, "A psychotherapy case formulation is a hypothesis about the causes, precipitants, and maintaining influences of a person's psychological, interpersonal, and behavioral problems. A case formulation helps organize information about a person, particularly when that information contains contradictions or inconsistencies in behavior, emotion, and thought content." (Eells, 2007, p. 4). By viewing case formulation as an animate hypothesis-testing enterprise, the process becomes very useful for resolving treatment complications. In particular, it helps with identifying potential "stuck points" by generating alternative approaches and possible explanations for treatment stagnation.

In the current chapter, we consider some of the many ways that case formulations can help enhance treatment outcome for anxiety disorders. We will focus predominantly on case formulation from a cognitive behavioral perspective because this approach reflects the dominant treatment perspective for anxiety disorders (see list of empirically supported treatments; e.g., Chambless & Ollendick, 2001). However, we also consider recommendations from alternate therapeutic orientations. In particular, underlying the proposals we offer is a perspective borrowed from Motivational Interviewing (Miller & Rollnick, 2002), which suggests that apparent "resistance" in therapy is better understood as ambivalence about making changes. Moreover, ambivalence is expected when we ask clients to give up well-established (albeit maladaptive) ways of thinking, behaving, and relating to others. Thus, complications in treatment present puzzles for therapists and clients to investigate, rather than purposeful defiance on the client's part. Case formulation is a valuable tool that can help put the pieces of the puzzle (back) together when a treatment is floundering.

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We will outline the seven steps advocated by Persons and Tompkins (2007) for clinicians to follow to develop an effective cognitive behavioral therapy (CBT) case formulation. These include (1) creating a problem list, (2) assigning DSM diagnoses, (3) selecting a primary diagnosis, (4) applying an empirically supported, nomothetic formulation, (5) integrating individual client characteristics, (6) hypothesizing about mechanisms maintaining the disorder, and (7) considering antecedents for the current onset of illness. Our goal in outlining these steps is not to espouse one "correct" way for devising a case formulation. Rather, we use these steps as a springboard to evaluate the multiple ways that case formulation can help identify problems and potential solutions to aid in treatment planning and implementation. We will close the chapter by discussing the use of different modalities of case formulation and alternative treatment strategies to resolve typical complications that arise in therapy.

Using Cognitive Behavioral Case Formulation to Resolve Treatment Complications

Just as there is not a single cognitive behavioral treatment for anxiety disorders, there is not a single CBT case formulation. Those working from a primarily cognitive orientation are likely to form hypotheses about a client's maladaptive beliefs that contribute to the development and maintenance of their disorder. For instance, clinicians providing cognitive therapy for obsessive compulsive disorder (OCD) will emphasize a client's unhealthy interpretations about the meaning of their intrusive thoughts (see Frost & Steketee, 2002; Rachman, 1998). Analogously, a therapist working from cognitive models of social phobia will highlight the onset of fears of negative evaluation and beliefs that one will fall short of an expected standard (see Clark & Wells, 1995; Rapee & Heimberg, 1997). On the other hand, when working primarily from a behavioral perspective, maladaptive behaviors and environmental contingencies, such as reinforcements for avoidance, will likely feature prominently in case formulation.

Notwithstanding the many varieties of possible *content* in CBT case formulations, Persons and Tompkins (2007) outline a series of seven *steps* that are common to developing effective formulations. As we outline, each of these seven steps provide opportunity for the clinician to re-evaluate a case that is not proceeding smoothly.

Problem List

It is critical to compile a comprehensive biopsychosocial problem list that characterizes the range of different problem areas in a client's life. Although it is unlikely that all of the different problems will be targeted in treatment, having this list (and updating it throughout treatment) will help ensure that a feasible approach to treatment is

selected, and can help both the client and the therapist anticipate barriers to change. In addition to assessing the difficulties associated with the presenting clinical problems, Woody, Detweiler-Bedell, Teachman, and O'Hearn (2002) recommend evaluating the following domains as a start to creating the problem list: Injurious Behavior (e.g., suicidal ideation or actions), School/Occupational Functioning (e.g., job or school stability, financial status), Family Functioning (e.g., relationships with key family members, parenting skills), Other Interpersonal Functioning (e.g., frequency and quality of social supports), Behavioral Health (e.g., medical history and physical fitness), Risky Behaviors (e.g., alcohol abuse, legal difficulties), and Culture, Spirituality, and Moral Development (e.g., involvement with religious institutions, level of acculturation). In addition, evaluation of motivational factors, such as readiness for change, can be useful for anticipating therapy-interfering behaviors.

It is often tempting to skip doing a full assessment of functioning across different life domains when treating an anxiety disorder because there are clear and effective treatments available for most anxiety diagnoses; thus, the full problem list may seem superfluous if therapists feel they already know what type of treatment they will provide. However, not being aware of the broader picture of a client's functioning can easily sabotage a treatment. For instance, it is common for well-intentioned therapists to suggest all manner of creative exposures that turn out not to be viable because of financial problems (attending movies for clients with agoraphobia and taking long excursions for persons with driving phobias are common examples of impractical exposures for clients with limited means). Similarly, identifying challenges related to diversity issues is critical, whether tied to cultural background and difficulties related to acculturation or concerns stemming from prejudice tied to physical challenges, religion, ethnicity, social status, or sexual orientation (see Hays, 1995). By referring to the problem list and recognizing how these other life challenges may impact implementation of standard CBT strategies, homework adherence can often be greatly enhanced.

Using the problem list component of case formulation is also very useful for recognizing complications in treatment that follow from difficult interpersonal relationships. We see this frequently in the context of OCD and generalized anxiety disorder (GAD) where couples may develop an unhealthy dyad with one individual repeatedly requesting reassurance from their partner. Changing this reassurance-seeking ritual is often important for success in treatment, but without some knowledge about the relationship dynamics (including those with a partner, parent, teacher, friend, or other "support" person), interpersonally oriented interventions can easily backfire.

As a general guideline, when treatment is not proceeding as planned, especially when adherence to treatment recommendations is low, returning to the problem list and considering other problems that may be operating as barriers to strategy implementation is an easy and often fruitful first step to resolving the impasse. Additionally, it is important to check if new problems have arisen since the last evaluation or if any major domains were not evaluated. This list can also help clinicians determine if one reason for a stalled treatment is that the wrong problems were prioritized. One of the challenges when working with complicated clients who

have high levels of comorbidity and related impairments in functioning is making an educated guess about a good place to start when forming an initial treatment plan. The problem list and its role in case formulation are helpful in this regard by highlighting how one problem area may fuel another, and in turn, how change in one area may alleviate difficulties in another.

Five-Axis DSM Diagnoses

Once the problem list has been compiled, DSM diagnoses are assigned along the five axes (Axis I: clinical disorders, including major mental disorders; Axis II: pervasive or personality conditions; Axis III: medical conditions; Axis IV: psychosocial and environmental factors; Axis V: Global Assessment of Functioning). Often it is not feasible to complete a full, structured Axis II personality disorder evaluation. In this case, it can still be beneficial to note difficult personality dimensions that may interfere with treatment because they may be helpful when returning to the case formulation to generate hypotheses about why treatment may be stalled. Common situations where this arises in anxiety treatment concern clients with an overly dependent personality (who may then want the therapist to directly give advice and make decisions for them), or clients with an avoidant personality style (who have few social relationships and, in some cases, limited social skills). Recognizing that change in personality disorders tends to occur more slowly than change in Axis I problems is important.

Similarly, even though a complete medical evaluation for Axis III rarely coincides with a mental health intake evaluation, asking about medical problems is critical for treatment planning. For instance, we frequently learn about medical conditions, such as asthma or neck pain, that influence the type of interoceptive exposures (exercises that bring on physical sensations relevant to anxiety and panic) we recommend for individuals with panic attacks. This is also the time where clients will often discuss upcoming medical interventions that may interfere with treatment attendance.

Psychosocial and environmental difficulties outlined on Axis IV, such as unemployment, and the more general assessment of functioning on Axis V are useful for setting realistic goals for different stages of therapy. It is not unusual for clients (and new therapists) to feel discouraged about progress in therapy because they had unreasonable expectations about the extent and speed of recovery related to the focal disorder (e.g., that a client with OCD would become free of obsessions; that symptoms of panic would never again come out of the blue). Clients sometimes imagine that change in one area of functioning will miraculously solve all other problems. Expectations for a reasonable pace of change are essential for keeping both the client and therapist motivated. Having some idea about other areas of limited functioning will help determine the resources the person has available to aid with the hard work necessary for progress in treatment. Along these lines, it is helpful to get an evaluation of premorbid functioning (i.e., a sense of a client's skills and lifestyle before onset of the disorder).

Primary Diagnosis

Persons and Tompkins (2007) advocate that the therapist should select a primary or "anchoring" diagnosis at this point in CBT case formulation. Frequently this is determined by the diagnosis that causes the most distress for the individual or contributes to the most difficulties on the problem list. This is ideally a collaborative decision so that the client and therapist are working toward similar goals in therapy. The selection of the primary diagnosis is used to guide which nomothetic template will be used as the basis for the individual formulation.

Challenges with this step of the process that can contribute to later treatment complications include: (1) disagreement between the therapist and client about the appropriate diagnosis to prioritize, (2) selection of a diagnosis that is not primary or sufficiently important to the individual's overall functioning, or (3) other comorbid diagnoses interfering with progress on the selected diagnosis. When problems emerge in therapy where the therapist feels like the therapy is repeatedly being pulled off-track because the client regularly wants to work on issues unrelated to the selected focus, it is worth revisiting the case formulation to consider whether one of the above difficulties with selecting the primary diagnosis has occurred.

In the case of complications due to disagreement about the appropriate diagnostic focus, we recommend a careful functional analysis for the client and therapist to evaluate how the different problems are related. For instance, a client may wish to focus on panic attacks even though they occur very infrequently and seem secondary (according to the therapist's perspective) to social anxiety that is limiting social interactions on a daily basis. In this case, the client and therapist might consider how avoidance due to fear of future panic versus avoidance due to fear of negative evaluation from others is most impairing. Did one versus the other lead to missed opportunities at work, or to more conflict with a spouse? When problems are highly connected, as in this example, it is often difficult to tease apart which anxiety problem is contributing most to the overall impairment (e.g., a promotion at work might be passed up because it would involve public speaking where the individual feared having a panic attack). Nevertheless, in the area of anxiety disorders (unlike other problem areas, such as substance abuse), we find that it is usually not very difficult for the client and therapist to come to agreement about an order in which they will tackle different problems so long as the decision is made collaboratively. Deciding on a phase approach to therapy (see Woody et al., 2002), where problems will be broken down and then undertaken in sequence can make this decision process easier. Clearly, some agreement on the treatment plan is needed if "collaborative empiricism" and willingness to try exposures (in a non-coercive environment) is to succeed.

At times, the therapist and client readily agree on an anchoring diagnosis, but they make a poor choice so treatment does not produce the expected gains. This can frequently occur when issues of differential diagnosis are challenging. For instance, in the panic disorder versus social phobia example above, it is not unusual to assume that the presence of panic attacks warrants panic disorder treatment. Frequent panic attacks are without question incredibly distressing, but these can often occur as part

of the presentation of another anxiety disorder, which is in fact primary. Individuals with specific and social phobias, for example, sometimes have panic attacks (or fear they will) when encountering their feared situation. Yet, while there are important overlapping components in the treatments for phobias and for panic disorder, there are also critical differences (in required exposures, catastrophic cognitions, etc.) that may need a targeted treatment. There are numerous challenging differential diagnoses in the context of anxiety disorders: body dysmorphic disorder symptoms can overlap with social phobia, depression symptoms can overlap with GAD, rituals associated with eating disorders can look similar to OCD, to name just a few. When a treatment is not progressing well, considering whether the right treatment targets have been selected is an important step in the problem-solving process, and reconsidering the links between the selected diagnosis and the problem list is a good place to look for solutions.

Re-evaluating the selected primary diagnosis is also useful when a client has other disorders comorbid with the anxiety diagnosis. This is the norm rather than the exception, but the field is still at early stages in terms of research to guide how to select treatment goals with complex clients who have multiple diagnoses. One obvious issue to consider is whether the presence of an additional diagnosis is possibly interfering with the anxiety treatment. This occurs frequently in the context of substance abuse, eating disorders (especially in anorexia nervosa when starvation greatly impairs cognitive processing), psychotic disorders, and severe mood disorders (where lethargy and retardation, unmanaged manic symptoms, or suicidal ideation can all interfere with the ability to engage in treatment). In these cases, it may be necessary to focus on the interfering diagnosis first before returning to treatment for the anxiety problem.

Nomothetic Formulation

Selecting the anchoring diagnosis provides a useful focal point so that the therapist can then turn to the research literature to determine whether a group-level, nomothetic formulation exists for that diagnosis. While many disorders do not yet have such formulations, there are a number of choices that have a strong empirical foundation for anxiety disorders. This does not mean there will be a readily available formulation to exactly match your particular client; for instance, the field sorely needs formulations for anxiety disorders that recognize cultural differences. These include adaptations of standard CBT formulations that take into account unique treatment needs related to age, race and ethnicity, religious affiliation, sexual orientation, etc. Notwithstanding, there are many useful sources to draw upon even when no exact match exists – imagine, for example, that you want to develop a formulation for a client who is 79 years old and has social phobia as the primary diagnosis. There are multiple CBT formulations for social phobia, including the highly influential models by Clark and Wells (1995) and by Rapee and Heimberg (1997). However, these are not geared toward conceptualizing elderly clients, so if this is likely to be central to the case formulation, seeking out a further nomothetic template that includes

an aging focus would be helpful. While we are unaware of such a template specific to social phobia, valuable models exist for anxiety problems in general among elderly persons (see Beck & Stanley, 1997; McCarthy, Katz, & Foa, 1991; Sheikh & Salzman, 1995, among others) and for some specific anxiety disorders, such as GAD (see Ayers, Sorrell, Thorp, & Wetherell, 2007), which can then be modified to reflect social anxiety concerns.

The purpose of selecting the nomothetic formulation is that it serves as the template for developing hypotheses about the psychological mechanisms that are maintaining the disorder, which can then be targeted in treatment. In the case of social phobia, the nomothetic formulation would likely lead to hypotheses about how fears of negative evaluation result in maladaptive avoidance of social situations (the avoidance relieves anxiety in the short-term, but worsens it in the long-term). In panic disorder with agoraphobia, the formulation might highlight how catastrophic misinterpretations of benign bodily sensations and one's ability to tolerate anxiety contribute to a "fear-of-fear" cycle and avoidance of situations where panic sensations might occur (e.g., drinking caffeine). In OCD, a cognitive formulation would emphasize the misinterpretation of unwanted thoughts as being meaningful or personally significant, while a more behavioral formulation would focus on the impact of doing rituals to reduce the anxiety caused by obsessions. As evident from these examples, the nomothetic formulation is particular to the disorder, but is generic in the sense that it is thought to apply to most individuals who have the disorder, regardless of whether OCD involves hand-washing or checking locks, or whether social phobia involves public speaking or dating fears. It is in the next step that the formulation is adapted to the individual client.

The nomothetic formulation incorporates a number of valuable components for helping resolve treatment complications. In particular, it brings a wealth of empirical support for a given conceptualization and subsequent treatment approach. Using the research literature to understand what approaches have worked well – and equally importantly, worked poorly – saves the clinician an amazing amount of time and trial and error. Notwithstanding, it is difficult to anticipate how an approach that works well for people *on average* will work for a given *individual*, particularly when a case is complex and the client may not match the clinical population used in the research studies on some critical variable (e.g., pattern of comorbidity, ethnic background). To date, there is not sufficient data to guide therapists in deciding when to individually tailor a treatment versus when to adhere closely to an empirically supported treatment (see discussions in Persons & Tompkins, 2007; Schulte, Kunzel, Pepping, & Schulte-Bahrenberg, 1992). We recommend trying the empirically supported approach first but monitoring progress regularly so that a treatment that is not moving ahead is recognized quickly (see Woody et al., 2002). In this way, an unhelpful intervention will not continue unchecked and a change of course can be considered (see discussion of alternate treatment options at the end of this chapter). Thus, individual client-level data should be collected throughout therapy regardless of whether an empirically supported or individually tailored plan is implemented. In this sense, all formulations and treatment plans can be evidence-based.

Perhaps the most useful lesson from this step of case formulation with regards to addressing a stagnant or deteriorating therapy is the focus on empiricism. It is well known that clinicians, like all humans, are vulnerable to biases that distort our memory and interpretations so that we tend to "see what we want to see" (see Garb, 1997; Fiske & Taylor, 1984; Lopez, 1989). This is why including objective measures of progress is so critical. Being an empiricist can occur both at the level of selecting a formulation with compelling research support and at the level of collecting data from the individual client. In turn, these data are often the key to identifying the barriers that are blocking advances in treatment.

Individualize the Formulation

The next step is to take the nomothetic formulation and apply it to a particular individual, taking into account his or her particular problem list and the posited relationships among the problems. As noted, cognitive behavioral formulations for anxiety tend to be diagnosis-based in that there is a model to guide the conceptualization and treatment of a given disorder. While this model has enormous utility and predictive validity, treatment complications can readily ensue if formulation stops at the level of the diagnosis. Knowing that a person meets criteria for post traumatic stress disorder (PTSD), social phobia, or GAD allows one to make an educated guess about a first line of treatment to try (based on the research literature), but it does not explain how the model is a fit or mismatch for that specific person. As Wilson (1998) noted, "Empirically-supported, manual-based treatments are good, but not good enough" (p. 367).

One does not have to be in practice for long before encountering seeming mismatches. There is the client with OCD who reports no awareness of obsessions tied to his compulsions, or who does not see the compulsions as anxiety-reducing. There is the individual with panic disorder who denies experiencing any catastrophic (mis)interpretations of her bodily sensations. Even when the disorder-based model does readily fit, it details a process but does not explain why or how that particular person came to make those catastrophic misinterpretations, experience those obsessions, etc.

Case formulation can help translate the group-level treatment approach to a given client, and this translation can guide critical decision points in treatment when a standard strategy does not appear to be working. One important place to start is to consider how the various difficulties on the problem list might be inter-related. For instance, a recent client seeking treatment at our clinic for GAD was receiving a standard worry control treatment protocol, but progress was incredibly slow. At first, this was puzzling to the therapist because the client, Steve, a 27-year-old recently married man of Korean descent, appeared highly motivated and committed to the therapy. He was early for each session and not only completed his homework, but had assembled a color-coded binder in which he kept his session notes. Moreover, he had inquired about and purchased self-help books to use as adjuncts to his weekly therapy session. It would be hard to imagine a more "perfect" client.

Not surprisingly (in retrospect!), this turned out to be the very problem that was interfering with the client making progress.

When the therapist returned to the problem list, she was reminded of the client's perfectionistic thinking and how this had caused considerable impairment in Steve's job and even in his marriage, because he was so easily discouraged by small setbacks. The clinician had initially missed how this same pattern was playing out in therapy because it had been so pleasurable to work with the client who was clearly trying to please the therapist. Once the clinician recognized the relationship between Steve's perfectionism and his response to treatment, she was able to talk to Steve about his tendency to try to implement the techniques he was learning so rigidly that he felt like a failure whenever he experienced quite minor stumbling blocks (e.g., a single day with increased worry). This was creating a vicious cycle, whereby Steve would experience more worry and then try even more rigidly to follow the program. He became increasingly sensitive to his perceived failings and worried excessively about "screwing up treatment." The therapist suggested Steve put away his binder of session notes and self-help books for a while, and actually do less typical therapy homework for a few weeks. He was encouraged to focus on enhancing the quality of his life versus working on treatment assignments so rigidly. Ironically, by stepping back and reducing his focus on the usual worry control assignments, Steve was able to make far more progress. Of course, Steve was still doing homework for the therapy – the focus of the homework had simply shifted from closely monitoring anxiety and explicitly re-evaluating negative automatic thinking to considering what Steve truly valued in his life and focusing on promoting those goals.

As this case illustrates, the individual's intra- and interpersonal circumstances – and how these interact with the focal diagnosis and its treatment – need to be considered to understand how to apply the nomothetic formulation to help a particular person. This does not mean that clinicians should abandon the evidence-based treatment plan at the first sign of a treatment complication. Instead, it suggests consideration of how the relations among a client's strengths and weaknesses can lead to more effective application of an intervention. Further, the decision to advocate for *less* standard CBT homework (e.g., keeping thought records) in order to challenge perfectionist beliefs highlights the importance of focusing on the principle behind a given strategy, as opposed to rigidly following a script when adapting a formulation to a particular individual.

Hypotheses About the Basis of Mechanisms Maintaining the Disorder

Once the nomothetic formulation has been adapted for the specific individual, the next stage is to develop hypotheses about the origins of the mechanisms that are thought to maintain the disorder. This involves evaluating the client's social and family history (both in terms of family psychiatric history and information about the client's upbringing). Relevant information for a person with social phobia might include early life experiences with parents and teachers that contributed to fears of

being evaluated negatively by authority figures. In GAD, one might inquire about the development of beliefs that the world is an unpredictable and dangerous place, or that the client is somehow vulnerable and unable to cope. For someone with OCD, were there religious teachings that emphasized the importance of purity of thought? More generally, when did the individual start avoiding situations that made him anxious, and in what ways was this avoidance behavior reinforced?

Ideally, one would generate multiple hypotheses about the etiology of the maladaptive ways of thinking, behaving, and relating to others. Considering more than one hypothesis is important down the line for helping the therapist and client see more than one avenue for intervention. The goal of generating ideas about how the problem developed is not to figure out the "cause" of a disorder – this is rarely definable – but to assist with treatment planning. These hypotheses can help the client develop some kind of narrative about the onset of their problems. In turn, this narrative can make the treatment approach more comprehensible and credible, in part by helping clients appreciate the need to identify and then alter maladaptive patterns that maintain the disorder.

For example, Lily, a 43-year-old woman with PTSD (following a rape that occurred when she was in her 20s), recognized that she was trained at a young age to avoid confrontation at all costs. As a result, she developed a pattern of avoiding all interactions that might elicit negative affect, especially anger (either in herself or in others). Upon considering this explanation for the development of her avoidance behavior, and consequent maintenance of her PTSD, Lily was far more willing to consider prolonged exposures in treatment. At the same time, the client discussed her mother's constant warnings as she was growing up about the need to be vigilant around men because "they were only after one thing." Although Lily had enjoyed dating in her teens and early 20s, following the rape she became extremely distrustful of all men who were not family, even ending close male friendships that had been quite supportive. Again, once these early warnings and ensuing beliefs were recognized, the client was able to engage in cognitive restructuring to re-evaluate her over-general conclusions about the dangerousness of men.

This step of the case formulation is often helpful when treatment is stuck because the generation of multiple hypotheses about how the disorder developed (or mechanisms maintaining it) can point to a variety of potential targets for intervention. This is not to say that the solution for a disorder has to be rectifying some factor that contributed to its development; after all, aspirin can help a headache, but the absence of aspirin was not the cause of the headache. However, identifying factors that contributed to the development of a disorder can be motivating for clients when they recognize that the disorder was not predetermined. If they learned dysfunctional ways of thinking or behaving, they also have the ability to learn more adaptive approaches. Analogously, this stage of hypothesis generation can help clients see their role in the onset of a problem; this is not done to assign blame but to empower clients by helping them see that they have choices in how they respond to the events in their lives.

For instance, clients with social phobia will often talk about being teased in childhood, and feel this contributed to the development of their fears. While this

hypothesis is certainly reasonable, it is likely incomplete. Most people experience teasing in childhood to some degree, so the individual is challenged to consider why *their* fears of negative evaluation grew and persisted. This may lead to hypotheses about a parent who was overly critical and emphasized the need to "put on a good face", which in turn contributed to the development of a core belief of inadequacy. By recognizing that others might not have accepted the teasing as valid (i.e., as a sign of their inadequacy), the client then has a choice to consider other ways of responding to criticism.

This step of the case formulation can be a powerful one when treatment is going poorly because it can help the client better understand why their problems developed, and show them that they can now work towards a different way of responding to the world.

Precipitants of Illness

The final step in CBT case formulation involves considering possible precipitants for the current period of illness. As with the previous step, the goal is not to figure out the cause of the illness, but to recognize possible triggers and activating situations so clients can learn how to minimize these situations in the future. When antecedents are recognized, clients also learn that seemingly unpredictable anxiety reactions can often be understood more fully (and seem more predictable and controllable). Further, this step can be helpful when a treatment feels stuck because it allows the client and therapist to consider whether the same triggers are still in place and may explain the difficulty in breaking old patterns and alleviating symptoms. For instance, discovering that increased fighting in the marriage preceded a surge in panic attacks can allow the client to work on changing his interpersonal environment (e.g., consider couple's counseling to reduce the marital conflict) while simultaneously using the conflict trigger as an opportunity for exposures to elicit panic symptoms.

Each of these seven steps in CBT case formulation can play a valuable role in resolving treatment complications. In particular, as noted by Eells (2007), the formulation can help make sense of seeming inconsistencies in a client's presentation across thoughts, feelings, and behaviors. To illustrate how the formulation can be used, we introduce a case example that highlights a common inconsistency; the discrepancy between a client's stated treatment goals and her behavior. The "yes, but" refrain in response to one treatment recommendation after another can be frustrating for even the most experienced clinician. By returning to (and potentially reconsidering) the posited origins, mechanisms, and precipitants of the anxiety problem, it often becomes clear why an apparent discrepancy is occurring. Once a possible explanation has been identified, paths to resolve the impasse are much easier to identify.

Case example. Kelly was a 51-year-old mother of two college-aged daughters who contacted our clinic after seeing an advertisement for one of our research studies, which provided free treatment for panic disorder. Upon calling, she reported that

she had a 10-year history of occasional panic attacks but that they had significantly worsened following September 11, 2001. She felt a strong sense of loss of control following 9/11, and was terrified that her college-aged daughters, who no longer lived in their home town, might come to harm. Despite this terror, she rarely spoke of her concerns, wanting to maintain her reputation among her friends as a "woman who had it together." Her panic attacks typically occurred in the evenings and were triggered by small signs of gastrointestinal distress, which escalated into fears that she might lose bladder control and make a fool of herself.

The initial case formulation focused on the standard nomothetic one for panic attacks following Clark's (1986) model – that she was catastrophically misinterpreting changes in bodily sensations, resulting in a rapidly worsening fear-of-fear cycle. At the idiographic level, the fears tied to 9/11 were emphasized as a precipitant for the worsening of symptoms, and her fears about losing control were thought to be critical maintaining factors. At the outset of the treatment, Kelly appeared highly engaged, asking questions during the initial psychoeducation component and commenting frequently that she was so glad to be "helping with a research study" because one of her daughters was working in a research lab at college.

However, when it came time to start doing exposures to elicit panic sensations, Kelly regularly had reasons why a given exposure was not likely to help her. For instance, she initially denied any avoidance behaviors, but subsequent probing revealed that she would not drink caffeine because of the jittery sensations and occasional upset stomach it brought on, and would not eat a full meal after 6:00 pm because of concerns that she would have indigestion. When Kelly was encouraged to consider trying these activities, she suggested that caffeine was not good for you and eating large meals at night was unhealthy because her metabolism worked more slowly then. All the while, she kept reiterating that she was very happy to be in treatment because she believed research was important, and was glad to be contributing. After numerous circular discussions and unsuccessful brainstorming about alternate exposure options, the therapist felt stuck. Kelly regularly said she was happy to be in the study and even agreed that exposures were likely very helpful for reducing panic, but rejected all suggestions for personally tailored exposures.

At this stage, the therapist revisited the case formulation and hypothesized that the critical link that she had been missing was the common denominator that tied together the client's secrecy about her fears amongst her friends (in order to appear "together") and her insistence that she was participating in treatment to help with the research study. The therapist tried focusing less on fears of losing control tied to bodily changes or harm coming to others (e.g., the fears related to 9/11), and reconceptualized the problem around the client's difficulties admitting to a weakness. Just as Kelly had not wanted others to know of her fears about her family or about her panic attacks, she also did not want to think of herself as someone who needed therapy. Focusing on the research component of her treatment participation was interfering with her engaging in the therapy as someone who actually needed help. With this new hypothesis, the therapist was then able to understand the client's seeming resistance and use cognitive restructuring techniques to help the

client re-evaluate her beliefs about the unacceptability of needing help. With this revised case formulation, the client eventually recognized that she was participating to get help for panic as well as to help with research, and became more willing to try exposures.

The following dialog illustrates the therapist and client working together to try to connect the seemingly discrepant components of her presentation:

Therapist: I am wondering how to make sense of the different things you're telling me. On the one hand, you've repeatedly said that you want to be in the group and that you agree that exposures are likely helpful for panic. On the other hand, it feels like whenever we suggest trying an exposure, you have a reason why it won't work for you.

Kelly: I just really want to support the research you're doing, and I've told my daughter all about the study.

Therapist: That's great that you've shared your experience with your daughter and that she has been supportive. I've noticed that you keep referring to our work here as a research study, rather than as therapy. While it's certainly true that we're conducting research, the goal is also to provide you with treatment for your panic disorder. What do you think it would be like to tell your daughter that you are in therapy, instead of in a research study?

Kelly: Then she would think something was wrong with me.

Therapist: I see how that could be difficult, but why would it be bad for her to find out that you needed some help right now?

Kelly: I'm the Mom.

Therapist: And what does it mean for you to be the Mom?

Kelly: It means I should be the one who is always in control.

Therapist: That's quite a tough standard to meet. Is that also the standard you set for yourself with your friends? You told me that you try not to share your problems with them either, and that they don't know about your fears for your family or about your panic attacks.

Kelly: I guess so, although it's not something I really think much about. I suppose I've just always prided myself on being the one who everyone else can count on. It scares me to be the one who has a problem – I've always been the one who fixed other people's problems. Who will they turn to if I'm all screwed up?

Therapist: I understand that acknowledging your own problems can be very scary. I wonder, though, whether having a problem like panic attacks really means that you're "all screwed up" and can no longer help other people. . .

As this case illustrates, revisiting the formulation to look for clues about seeming inconsistencies – in this case, the discrepancy between the client's apparent engagement in treatment yet unwillingness to try exposures – can highlight patterns and likely explanations for treatment barriers that might not be apparent without the formulation's guideposts.

Using Different Modalities of Case Formulation to Resolve Treatment Complications

The above discussion has focused on CBT formulation, but case formulation can take many forms. In some traditions, formulation is done primarily at the outset of therapy (e.g., interpersonal psychotherapy where a focal problem area is selected early on; Markowitz & Swartz, 2007), while for other orientations the formulation occurs later in treatment (e.g., emotion-focused therapy where critical information is not thought to emerge without experience in the "safe context of the therapeutic environment"; Greenberg & Goldman, 2007). Regardless, in all instances the formulation is assumed to be a dynamic hypothesis. As we have outlined, in the case of anxiety disorders, a disorder-specific nomothetic formulation usually serves as the starting point. While this formulation is determined at the outset of therapy as soon as a primary diagnosis is selected, the refining of this formulation to include client-specific data should occur and recur throughout treatment. Moreover, using a DSM disorder-based, nomothetic formulation is not the only approach. For example, the substantial rates of comorbidity across mood and anxiety problems have led to recent advances that focus on treating "negative affect syndrome," rather than isolating single disorders (see Barlow, Allen, & Choate, 2004). Others have advocated focusing on more general, underlying emotional processing difficulties that emerge during therapy, such as fear of abandonment, rather than emphasizing specific disorders at the outset of treatment (e.g., Greenberg & Goldman, 2007).

Another important distinction across different case formulation traditions includes adherence to a categorical versus dimensional model. The categorical approach follows the so-called medical model, which views disorders as "discrete pathological entities" with predictable causes and prognoses (Eells, 2007, p. 9). In contrast, the dimensional approach focuses less on classification, instead viewing psychopathology on a continuum from normal to pathological. CBT formulations for anxiety typically follow a categorical approach, emphasizing a particular disorder to understand a person's problems. This approach is very useful for selecting a treatment plan that corresponds with the categorical decision, but can reify the category (treating an abstract concept, like a disorder, as though it were a concrete entity) and can leave out important non-categorical influences on the origin and course of the disorder. For instance, intra- and interpersonal dimensions, such as openness to experience and ability to form alliances with others, do not fit into neat categories (until you reach the Axis II personality disorders, and even then the categorical nature of these disorders is controversial; Widiger, 1992), but undoubtedly influence treatment outcome (see Martin, Garske, & Davis, 2000).

Related to the focus on dimensions versus categories, case formulation approaches also vary in their emphasis on a person's weaknesses versus strengths and on change versus acceptance (e.g., cognitive-behavioral and interpersonal formulations focus more on fixing problems and skill deficits, relative to more humanistic approaches, such as an emotion-focused therapy formulation). While CBT approaches make some reference to the value of acceptance, this is far more explicit in other approaches, such as case formulation in dialectical behavior therapy

(DBT; see Koerner, 2007). This focus on working to accept some distress and negative circumstances can be extremely valuable with anxiety-disordered clients, particularly when perfectionist tendencies lead to overly rigid applications of change strategies (as the earlier case example with Steve's GAD treatment illustrated). The recent emphasis on mindfulness strategies (see later section) attests to these potential benefits. In fact, many of the dialectics outlined in DBT case formulation can be extremely useful for generating hypotheses to understand treatment complications in anxiety disorders. For example, recognizing both sides of the emotional vulnerability dialectic – inability or unwillingness to regulate emotions during emotional extremes versus attempts to deny or ignore vulnerability – can help make sense of clients' inconsistencies in their readiness to confront avoidance behaviors in anxiety. Similarly, being aware of the active–passive dialectic, where the individual oscillates between passive, acting incompetent behaviors versus trying to appear overly together, can aid in catching over- or under-predictions of fear that can interfere with successful learning during exposures.

Thus, while we advocate starting with a cognitive and/or behavioral case formulation for most anxiety problems because of the extensive research base supporting these treatment modalities, we also note the importance of drawing upon other case formulation approaches when clients are not making the expected progress. Analogously, when starting with an alternate treatment approach (e.g., a recent clinical trial suggests non-CBT approaches, such as psychodynamic therapy, may also be efficacious in the treatment of panic disorders; Milrod et al., 2007), the clinician is advised to consider CBT or other case formulation steps to revise a floundering treatment.

Using Case Formulation to Decide to Add or Change Treatment Strategies

Before closing, we would like to comment on a number of additional treatment strategies that are not explicit components of most standard CBT approaches, which may help address some of the common difficulties that case formulation can reveal. Unfortunately, matching data that indicate specific treatment alternatives to use based on unique client characteristics are limited, both generally (see Project MATCH Research Group, 1993) and for specific anxiety problems (see Clarkin & Levy, 2004; Dusseldorp, Spinhoven, Bakker, Van Dyck, & Van Balkom, 2007). Thus, it is unclear at this point whether these suggested alternatives will ultimately garner empirical support as effective treatment matches for the presenting complications. However, the following suggestions address the theoretical mechanisms thought to underlie the given treatment complication, so are a reasonable place to start. It is important to note that this list is by no means exhaustive, but is included as an initial guide to respond to common problems that can arise in the treatment of anxiety disorders. For further information on combined treatment strategies, see Chapter 5.

Treatment Complication 1: Lack of Motivation or Difficulty with Follow-Through

One of the biggest challenges in psychotherapy is working with clients who have difficulty following through on treatment plans and homework assignments, who have many prior failed treatments, or who experience hopelessness about their ability to change. This problem can sometimes be recognized early in the case formulation process by either learning about a long history of unsuccessful past treatments (especially multiple cases of dropping out of treatment), or by giving a mini-homework assignment and evaluating whether or not this is completed between sessions. We frequently ask clients to spend some time between the first couple of sessions thinking about their specific goals for therapy and trying to identify concrete ways their life would be different if treatment were effective. Whether and how this assignment is completed may give early clues about whether motivation and follow-through are likely to be treatment barriers.

Fortunately, there are a number of specialized treatment approaches that have been developed to address these difficulties. For instance, Motivational Interviewing (MI) (Miller & Rollnick, 2002) is a widely used technique that draws from the transtheoretical model of change (Prochaska & DiClemente, 1992) to highlight the differences between clients' goals and their current behavior, and tries to reduce these discrepancies. Motivational Interviewing has achieved considerable success in helping clients overcome difficult motivational problems in order to profit from treatment, particularly within the realm of substance abuse (Burke, Arkowitz, & Dunn, 2002). Recent evidence indicates that Motivational Interviewing may be beneficial for clients with anxiety problems as well. For example, Westra and Dozois (2006) found that individuals with a principal anxiety diagnosis displayed greater benefits from CBT if they first participated in Motivational Interviewing sessions.

Readiness Treatment (VanDyke & Pollard, 2005) is another promising method for working with individuals who have failed to respond to at least one first-line treatment approach. The basic principle underlying Readiness Treatment is that treatment-interfering behaviors (TIBs; i.e., behavior patterns incompatible with successful participation in treatment) may have disrupted therapy. Common TIBs include failure to acknowledge having a problem, difficulty following the treatment plan, or frequently coming late to treatment sessions. Thus, cognitive interventions are primarily designed to focus on readiness for treatment and beliefs associated with the TIBs, as opposed to focusing on beliefs directly related to the anxiety disorder. Ideally, the TIBs should be added to the problem list and become an active part of the case formulation. Originally developed for OCD, initial pilot data suggest that Readiness Treatment may be effective in reducing TIBs so that clients can more fully engage in treatment (VanDyke & Pollard, 2005). At this point, future research is needed to more fully establish the efficacy of Readiness Treatment for anxiety problems more broadly.

Treatment Complication 2: Interpersonal Problems

Interpersonal issues often disrupt treatment, and may need to be addressed to begin making progress in therapy or to restart a "stuck" treatment. This is part of why it is imperative to create a full biopsychosocial problem list at the outset of treatment, which can help to identify interpersonal problems early on. Additionally, there are times when maladaptive relationship patterns may contribute to the client's anxiety disorder. Frequent reassurance-seeking was one example mentioned earlier. We also sometimes see interpersonal conflict arise when the client starts to make progress in therapy and their dependence on others is reduced as avoidance behaviors diminish. This often requires redefining roles in the relationship, and can dramatically change power dynamics in the relationship. Although the progress in therapy is clearly positive, treatment can stall if these new relationship demands mean that avoidance behavior (rather than exposure) is being reinforced. In these cases, therapists will want to identify interpersonal problem areas that seem thematically or temporally related to the client's anxiety disorder and incorporate them into the case formulation.

Applying techniques from interpersonal psychotherapy (IPT; Weissman, Markowitz, & Klerman, 2000) is one approach to handling these problems. Although IPT focuses on identifying and changing interpersonal problems implicated in the development of depressive episodes, these same types of problem areas are often important in pathological anxiety. Traditionally, these include unresolved grief, disputes with friends or relatives, difficulties forming or maintaining relationships, and problems coping with a life transition (e.g., leaving home for college, getting married, having a baby, etc.). Notably, IPT is an empirically supported treatment for both depression (Weissman et al., 2000) and bulimia nervosa (Fairburn, Jones, Peveler, Hope, & O'Connor, 1993), two disorders that share a high rate of comorbidity with anxiety problems. Further, initial pilot studies indicate that IPT may be an effective alternative for treating anxiety problems, including social phobia (Lipsitz, Markowitz, & Cherry, 1999), PTSD (Bleiberg & Markowitz, 2005), and panic disorder (Lipsitz, Gur, & Miller, 2006). Additionally, Crits-Christopher, Gibbons, and Narducci (2005) suggest that clients suffering from GAD may particularly benefit from interpersonally oriented therapy given that relational fears are the predominant worry domain in GAD (Roemer, Molina, & Borkovec, 1997).

Treatment Complication 3: Emotion Regulation Difficulties

There are a variety of ways that severe emotion regulation difficulties may impact treatment of anxiety problems. For instance, early exposure exercises, ratings of automatic thoughts, or mood evaluations may indicate that a client uses only extreme ends of rating scales, reporting either exceptionally low or high anxiety, regardless of the provocation. This is useful information for the case formulation because it may indicate that the client has trouble feeling or expressing gradations in

emotions, and is experiencing the world in a very all-or-nothing fashion. Similarly, clients may have difficulty identifying a range of different emotions, using anxiety as a default response when the situation may be eliciting sadness, disgust, anger, or other forms of negative affect. We often find this pattern will emerge early in the case formulation process if therapists inquire about triggers for the current episode. In other cases, emotion regulation difficulties present later in treatment, and can then be used to revise the case formulation. For example, we occasionally see clients who reliably over- and then under-predict the fear they expect to experience in various situations, contributing to a recycling pattern of excessive avoidance and lack of self-efficacy, followed by disappointment over a perceived failed exposure.

Fortunately, a number of treatment approaches have been developed to enhance emotion regulation skills, including those specific to treatment-resistant anxiety disorders (see Mennin, 2006). Also, dialectical behavior therapy (DBT) (Linehan, 1993), an empirically supported treatment for Borderline Personality Disorder, includes multiple emotion regulation strategies. Although we are not aware of clinical trials evaluating the efficacy of DBT specific to treating anxiety, there is evidence that integrating aspects of DBT may be useful. For example, Cloitre, Koenen, and Cohen (2002) found that individuals with PTSD benefited from the inclusion of DBT strategies focused on emotion regulation skills prior to exposure work.

When incorporating DBT, clients are taught to observe and describe their current emotional state (without judgment), placing a particular emphasis on separating descriptions of how one is *feeling* from descriptions of the actions that led up to that emotion. DBT techniques include helping clients to identify the precipitating events for emotional reactions, instructing clients to observe ongoing cognitive, physiological, and nonverbal behavior responses, and focusing on what other people might feel in similar situations (Linehan, 1993). For example, the client who consistently fails to predict how fearful she will be in a given situation may be instructed to imagine what others would feel when encountering a similar challenge. Meanwhile, an anxious client who has difficulty identifying a range of emotions may be taught to pay attention to physiological and behavioral reactions for "cues" that highlight the complexity of his or her emotions.

Treatment Complication 4: Difficulties with Relaxation and Acceptance

It is not uncommon for the case formulation to reveal difficulties with acceptance of negative affect and arduous life circumstances, or problems with relaxation. During the assessment and initial case formulation phase, clients often report having difficulty relaxing. Alternatively, this problem becomes apparent if the therapist asks how the client spends his or her leisure time. Some individuals may not actually *do* anything to relax, and many anxious persons are unaware that they lack pleasurable activities in their life designed just for fun. In our experience, it is less common for clients to directly report that they have problems with acceptance; yet, this may also

constitute a treatment complication in pathological anxiety. This often emerges during case formulation when a client repeatedly talks about an issue that they cannot seem to "let go" of (e.g., an old relationship or perceived slight). In some cases, the difficulty focuses on rumination over an incident that the client sees as tied to the onset of the anxiety problem, such as an experience of childhood bullying that contributed to excessive worry or fears of negative evaluation. Although difficulties with relaxation and acceptance clearly differ, similar treatments may be helpful for both when standard relaxation techniques that are part of many CBT formulations are not successful at resolving the impasse.

In particular, Mindfulness (e.g., Kabat-Zinn, 1990) and Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) may be useful approaches to target problems with relaxation or acceptance. For example, Mindfulness, a type of awareness stemming from Eastern traditions, focuses on relaxation techniques, developing an awareness of different possibilities, and altering habitual ways of responding (Martin, 1997). Demonstrating its potential utility, a group intervention based on mindfulness meditation led to significant reductions in anxiety among people with generalized anxiety and panic disorders (Miller, Fletcher, & Kabat-Zinn, 1995). Roemer and Orsillo (2002) advise that when incorporating mindfulness into traditional CBT, clinicians should focus on enhancing awareness of patterns of anxious responding. For instance, they suggest teaching clients to contrast typical patterns of avoidance with mindfulness techniques, such as "noticing and letting go" of tension during progressive muscle relaxation.

ACT, another technique to address difficulties with relaxation and acceptance, has received preliminary empirical support for treating a variety of problems (Hayes, Follette, & Linehan, 2004), including anxiety disorders (Twohig, Masuda, Varra, & Hayes, 2005). ACT is premised on the idea that trying to eliminate the occurrence of negative thoughts and feelings may be counterproductive (Hayes et al., 1999); instead ACT focuses on altering the ways that difficult private experiences function mentally. Researchers stress that a so-called "negative thought" or "negative emotion" that is mindfully observed may no longer *function* in a negative way, even if it might in other contexts (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Thus, ACT may be particularly useful for addressing acceptance concerns in anxiety given that a core goal of the treatment is to facilitate acceptance and a sense of "psychological flexibility" (Hayes et al., 2004). However, it should be noted that other authors have questioned the claim that ACT is uniquely different from CBT (Hofmann & Asmundson, 2008) and questioned the empirical support for ACT (Öst, 2008).

Treatment Complication 5: Information Processing Biases and Rigid Thinking

Cognitive models of anxiety disorders have increasingly relied on information processing paradigms to better understand the maintenance and development of maladaptive anxiety and avoidance (Beck & Clark, 1997). These paradigms suggest that reductions in the tendency to preferentially process potentially threatening

information may decrease anxiety symptoms (see Williams, Watts, MacLeod, & Mathews, 1997). Not surprisingly, biases in the ways clients attend to, interpret, and recall threat cues often figure prominently in case formulation, and can be detected in a variety of ways. For instance, during the initial assessment, accounts of prior fear-relevant interactions can be challenged to examine the rigidity with which a client clings to overly negative interpretations of the encounters.

When the case formulation reveals a rigid pattern of selectively processing threat material, an experimental treatment approach known as "information processing training" may be considered. During information processing training, researchers are attempting to reduce anxiety by literally "re-training" biases in interpretation of and attention to danger cues. Although still preliminary, results are promising that these techniques may effectively shift processing biases in healthy (see MacLeod, Rutherford, Campbell, Ebsworthy, & Holker, 2002; Mathews & MacLeod, 2005) and anxious populations (e.g., Amir, Weber, Beard, Bomyea, & Taylor, 2008; Teachman & Addison, 2008). Further, information processing training may be used to augment existing, empirically supported approaches to help clients consolidate their treatment gains more rapidly. Note, though, that the ultimate impact of these types of interventions for reducing anxiety symptoms is not yet known.

Treatment Complication 6: Low Self-Efficacy and Losing Treatment Gains

In some instances, an empirically supported treatment is showing signs of progress, but the gains are painfully slow, suggesting additional treatment may be necessary. If the case formulation reveals that a client has extremely low self-efficacy (e.g., about the ability to implement treatment strategies), or the client is regularly losing gains between sessions or having trouble practicing on his or her own, more intensive treatment may be indicated. Whenever possible, decisions about enhanced treatment should be made collaboratively by the client and therapist. Further, more intensive treatment should be framed as additional support as opposed to a failure on the client's part.

Introducing more intensive treatment can be as simple as adding a few "booster" sessions, or increasing sessions from once to twice a week. For certain clients, particularly those whose issues are most salient in their homes, adding home visits may also be helpful. OCD clients with hoarding problems, for example, may greatly benefit from having a therapist come to their house to help begin the exposure exercises necessary to get rid of excessive belongings. Alternatively, when pathology is so severe that significant treatment gains are unrealistic in a standard setting, inpatient care may be recommended. This more intensive form of treatment offers several advantages over traditional outpatient care, including enhanced structure, support, and therapeutic contact (VanDyke & Pollard, 2005). For example, Abramowitz, Foa, and Franklin (2003) found that, although treatment effects for twice-weekly outpatient (versus inpatient) work were similar for clients with OCD, there was a trend for clients in the more intensive setting to show greater symptom improvement.

Conclusion

In this chapter, we have outlined just a sampling of the myriad ways that case formulation can help rejuvenate a flailing anxiety treatment. While the chapter focused mainly on the steps used to develop a CBT case formulation and ways that these steps can aid in identifying potential treatment complications early on, it is clear that case formulation across many different treatment modalities can help manage difficulties in anxiety disorder treatments. In most cases, CBT case formulation will initially be matched with CBT approaches. However, we have tried to show that when these first-line approaches are not successful, alternative treatment options may be helpful. Case formulation is especially useful for highlighting likely treatment barriers early in the evaluation and therapy process, so that minimal time is wasted on strategies that are not likely to bear fruit. Further, because case formulation involves generating multiple hypotheses about the factors that led to the development and maintenance of the mechanisms fueling the disorder, the process naturally leads to multiple, creative solutions to address problems. Case formulation is a dynamic process that encourages clinicians to be similarly dynamic in their treatment planning. When case formulation becomes stagnant, so too will treatment. Whether using CBT or another modality, case formulation is most successful in helping to resolve treatment complications when it encourages therapists to think outside the box and truly use collaborative empiricism – iteratively trying and then evaluating new ideas to move therapy forward.

References

Abramowitz, J. S., Foa, E. B., & Franklin, M. E. (2003). Exposure and ritual prevention for obsessive-compulsive disorder: Effects of intensive versus twice-weekly sessions. *Journal of Consulting and Clinical Psychology*, *71*, 394–398.

Amir, N., Weber, G., Beard, C., Bomyea, J., & Taylor, C. T. (2008). The effect of asingle session attention modification program on response to a public speaking challenge in socially anxious individuals. *Journal of Abnormal Psychology*,*117*(4), 860–868.

Ayers, C. R., Sorrell, J. T., Thorp, S. R., & Wetherell, J. L. (2007). Evidence-based psychological treatments for late-life anxiety. *Psychology and Aging*, *22*, 8–17.

Barlow, D. H., Allen, L. B., & Choate, M. L. (2004). Toward a unified treatment for emotional disorders. *Behavior Therapy*, *35*, 205–230.

Beck, A. T., & Clark, D. A. (1997). An information processing model of anxiety: Automatic and strategic processes. *Behaviour Research and Therapy*, *35*, 49–58.

Beck, J. G., & Stanley, M. A. (1997). Anxiety disorders in the elderly: The emerging role of behavior therapy. *Behavior Therapy*, *28*, 83–100.

Bleiberg, K. L., & Markowitz, J. C. (2005). A pilot study of interpersonal psychotherapy for posttraumatic stress. *American Journal of Psychiatry*, *162*, 181–183.

Burke, B. L., Arkowitz, H., & Dunn, C. (2002). The efficacy of motivational interviewing and its adaptations: What we know so far. In S. Miller & S. Rollnick (Eds.), *Motivational interviewing: Preparing people for change* (2nd ed., pp. 217–250). New York: Guilford Press.

Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology*, *52*, 685–716.

Clark, D. M. (1986). A cognitive approach to panic. *Behaviour Research and Therapy*, *24*, 461–470.

Clark, D., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment, and treatment* (pp. 69–93). New York: Guilford Press.

Clarkin, J. F., & Levy, K. N. (2004). The influence of client variables on psychotherapy. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th ed., pp. 194–226). New York: Wiley.

Cloitre, M., Koenen, K. C., & Cohen, L. R. (2002). Skills training in affective and interpersonal regulation followed by exposure: A phase-based treatment for PTSD related to childhood abuse. *Journal of Consulting and Clinical Psychology*, *70*, 1067–1074.

Crits-Christoph, P., Gibbons, M. B. C., & Narducci, J. (2005). Interpersonal problems and outcome of interpersonally oriented psychodynamic treatment of GAD. *Psychotherapy: Theory, Research, Practice, Training*, *42*, 211–224.

Dusseldorp, E., Spinhoven, Ph., Bakker, A., Van Dyck, R., & Van Balkom, A. J. L. M. (2007). Which panic disorder patients benefit from which treatment: Cognitive therapy or antidepressants? *Psychotherapy and Psychosomatics*, 76(3), 154–161.

Eells, T. D. (Ed.). (2007). *Handbook of psychotherapy case formulation* (2nd ed.). New York: Guilford Press.

Fairburn, C. G., Jones, R., Peveler, R. C., Hope, R. A., & O'Connor, M. (1993). Psychotherapy and bulimia nervosa: Longer-term effects of interpersonal psychotherapy, behavior therapy, and cognitive behavior therapy. *Archives of General Psychiatry*, *50*, 419–482.

Fiske, S., & Taylor, S. E. (1984). *Social cognition*. Reading, MA: Addison-Wesley.

Frost, R. O., & Steketee, G. (Eds.). (2002). *Cognitive approaches to obsessions and compulsions: Theory, assessment, and treatment.* Oxford: Pergamon/Elsevier.

Garb, H. N. (1997). Race bias, social class bias, and gender bias in clinical judgment. *Clinical Psychology: Science and Practice*, *4*, 99–120.

Greenberg, L. S., & Goldman, R. (2007). Case formulation in emotion focused therapy. In T. D. Eells (Ed.), *Handbook of psychotherapy case formulation* (2nd ed., pp. 379–411). New York: Guilford Press.

Hayes, S. C., Follette, V. M., & Linehan, M. M. (Eds.). (2004). *Mindfulness and acceptance: Expanding the cognitive-behavioral tradition*. New York: Guilford Press.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006) Acceptance and commitment therapy: Model, process and outcomes. *Behaviour Research and Therapy*, *44*, 1–25.

Hayes, S. C., Stosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. New York: Guilford Press.

Hays, P. A. (1995). Multicultural applications of cognitive-behavior therapy. *Professional Psychology: Research and Practice*, *26*, 309–315.

Hofmann, S. G., & Asmundosn, J. G. J. (2008). Acceptance and mindfulness-based therapy. New wave or old hat? *Clinical Psychology Review*, *28*, 1–16.

Kabat-Zinn, J. (1990). *Full catastrophe living: The program of the stress reduction clinic at the University of Massachusetts Medical Center*. New York: Delta.

Koerner, K. (2007). Case formulation in dialectical behavior therapy for borderline personality disorder. In T. D. Eells (Ed.), *Handbook of psychotherapy case formulation* (2nd ed., pp. 317–348). New York: Guilford Press.

Levitt, J. T., Brown, T. A., Orsillo, S. M., & Barlow, D. H. (2004). The effects of acceptance versus suppression of emotion on subjective and psychophysiological response to carbon dioxide challenge in patients with panic disorder. *Behavior Therapy*, *35*, 747–766.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder.* New York: Guilford Press.

Lipsitz, J. D., Gur, M., & Miller, N. L. (2006). An open pilot study of interpersonal psychotherapy for panic disorder (IPT-PD). *Journal of Nervous and Mental Disease*, *194*, 440–445.

Lipsitz, J. D., Markowitz, J. C., & Cherry, S. (1999). Open trial of interpersonal psychotherapy for the treatment of social phobia. *American Journal of Psychiatry*, 156, 1814–1816.

Lopez, S. R. (1989). Patient variable biases in clinical judgment: Conceptual overview and methodological considerations. *Psychological Bulletin*, *106*, 184–203.

MacLeod, C., Rutherford, E., Campbell, L., Ebsworthy, G., & Holker, L. (2002). Selective attention and emotional vulnerability: assessing the causal basis of their association through the experimental manipulation of attentional bias. *Journal of Abnormal Psychology*, *111*, 107–123.

Markowitz, J. C., & Swartz, H. A. (2007). Case formulation in interpersonal psychotherapy of depression. In T. D. Eells (Ed.), *Handbook of psychotherapy case formulation* (2nd ed., pp. 221–250). New York: Guilford Press.

Martin, J. R. (1997). Mindfulness: A proposed common factor. *Journal of Psychotherapy Integration*, *7*, 291–312.

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, *68*, 438–450.

Mathews, A., & MacLeod, C. (2005). Cognitive vulnerability to emotional disorders. *Annual Review of Clinical Psychology*, *1*, 167–195.

McCarthy, P. R., Katz, I. R., & Foa, E. B. (1991). Cognitive behavioral treatment of anxiety in the elderly: A proposed model. In C. Salzman & B. D. Lebowitz (Eds.), *Anxiety in the elderly: Treatment and research* (pp. 197–214). New York: Springer Publishing Co.

Mennin, D. S. (2006). Emotion regulation therapy: An integrative approach to treatment-resistant anxiety disorders. *Journal of Contemporary Psychotherapy*, *36*, 95–105.

Miller, J. J., Fletcher, K., & Kabat-Zinn, J. (1995). Three-year follow-up and clinical implications of a mindfulness meditation-based stress reduction intervention in the treatment of anxiety disorders. *General Hospital Psychiatry*, *17*, 192–200.

Miller, S., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change* (2nd ed.). New York: Guilford Press.

Milrod, B., Leon, A. C., Busch, F., Rudden, M., Schwalberg, M., & Clarkin, J., et al. (2007). A randomized controlled clinical trial of psychoanalytic psychotherapy for panic disorder. *American Journal of Psychiatry*, *164*, 265–272.

Öst, L. G. (2008). Efficacy of the third wave of behavioral therapies: A systematic review and meta-analysis. *Behaviour Research and Therapy*, *46*, 296–321.

Persons, J. B., & Tompkins, M. A. (2007). Cognitive-behavioral case formulation. In T. D. Eells (Ed.), *Handbook of psychotherapy case formulation* (2nd ed., pp. 290–316). New York: Guilford Press.

Prochaska, J. O., & DiClemente, C. C. (1992). The transtheoretical approach. In J. C. Norcross & M. R. Goldfried<snm> (Eds.), *Handbook of psychotherapy integration* (pp. 300–334). New York: Basic Books.

Project MATCHResearch Group. (1993). Project MATCH: Rationale and methods for a multisite clinical trial matching clients to alcoholism treatment. *Alcoholism: Clinical and Experimental Research*, *17*, 1130–1145.

Rachman, S. (1998). A cognitive theory of obsessions: Elaborations. *Behavior Research and Therapy*, *36*, 385–401.

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behavior Research and Therapy*, *35*, 741–775.

Roemer, L., Molina, S., & Borkovec, T. D.(1997). An investigation of worry content among generally anxious individuals. *Journal of Nervous and Mental Disease*, *185*, 314–319.

Roemer, L., & Orsillo, S. M. (2002). Expanding our conceptualization of and treatment for generalized anxiety disorder: Integrating mindfulness/acceptance-based approaches with existing cognitive-behavioral models. *Clinical Psychology: Science and Practice*, *9*, 54–68.

Schulte, D., Kunzel, R., Pepping, G., & Shulte-Bahrenberg, T. (1992). Tailor-made versus standardized therapy of phobic patients. *Advanced Behavior Research and Therapy*, *14*, 67–92.

Sheikh, J. I., & Salzman, C. (1995). Anxiety in the elderly: Course and treatment. *Psychiatric Clinics of North America*, *18*, 871–883.

Teachman, B. A., & Addison, L. M. (2008). Training interpretation biases away from threat in spider fear. *Cognitive Therapy and Research*, *32*, 448–459.

Twohig, M. P., Masuda, A., Varra, A. A., & Hayes, S. C.(2005). Acceptance and commitment therapy as a treatment for anxiety disorders. In S. M. Orsillo, & <fnm>L. Roemer (Eds.), *Acceptance and mindfulness-based approaches to anxiety: Conceptualization and treatment* (pp. 101–129). New York: Springer Science and Business Media.

VanDyke, M. M., & Pollard, C. A. (2005). Treatment of refractory obsessive-compulsive disorder: The St. Louis model. *Cognitive and Behavioral Practice*, *12*, 30–39.

Weissman, M. M., Markowitz, J. C., & Klerman, G. L. (2000). *Comprehensive guide to interpersonal psychotherapy*. New York: Basic Books.

Westra, H. A., & Dozois, D. J. A. (2006). Preparing clients for cognitive behavioral therapy: A randomized pilot study of motivational interviewing for anxiety. *Cognitive Therapy and Research*, *30*, 481–498.

Widiger, T. A. (1992). Categorical versus dimensional classification: Implications from and for research. *Journal of Personality Disorders*, *6*, 287–300.

Williams, J. M. G., Watts, F. N., MacLeod, C., & Mathews, A. (1997). *Cognitive psychology and emotional disorders* (2nd ed.). Chichester, England, UK: Wiley.

Wilson, G. T. (1998). Manual-based treatment and clinical practice. *Clinical Psychology: Science and Practice*, *5*, 363–375.

Woody, S., Detweiler-Bedell, J., Teachman, B. A., & O'Hearn, T. (2002). *Treatment planning in psychotherapy: Taking the guesswork out of clinical care.* New York: Guilford Press.