Development of Emotion Dysregulation: Summary

Emotion dysregulation in general, as well as the dysregulation encountered in BPD specifically, is an outcome of biological disposition, environmental context, and the transaction between the two during development. The biosocial developmental model proposes the following: (1) The development of extreme emotional lability is based on characteristics of the child (e.g., baseline emotional sensitivity, impulsivity), in transaction with a social context that shapes and maintains the lability; (2) reciprocal reinforcing transactions between biological vulnerabilities and environmental risk factors increase emotion dysregulation and behavioral dyscontrol, which contribute to negative cognitive and social outcomes; (3) a constellation of identifiable features and maladaptive coping strategies develops over time; and (4) these traits and behaviors may exacerbate risk for pervasive emotion dysregulation across development, due to evocative effects on interpersonal relationships and social functioning, and via interference with healthy emotional development. This model is illustrated in Figure 1.1.

The Consequences of Emotion Dysregulation

Maccoby has argued that the inhibition of action is the basis for the organization of all behavior.[15] The development of self-regulatory repertoires (as in effortful control, described above), especially the ability to inhibit and control affect, is one of the most important aspects of a child's development. The ability to regulate the experience and expression of emotion is crucial, because its absence leads to the disruption of behavior, especially goal-directed behavior and other prosocial behavior. Alternatively, strong emotion reorganizes or redirects behavior, preparing the individual for actions that compete with the nonemotionally or less emotionally driven behavioral repertoire.

The behavioral characteristics of individuals meeting criteria for a wide range of emotional disorders, can be conceptualized as the effects of emotion dysregulation and maladaptive emotion regulation strategies. Impulsive behavior, and especially self-injurious and suicidal behaviors, can be thought of as maladaptive but highly effective emotion regulation strategies. For example, overdosing usually leads to long periods of sleep, which in turn reduce susceptibility to emotion dysregulation. Although the mechanism by which self-mutilation exerts affect-regulating properties is not clear, it is very common for individuals engaging in such behavior to report substantial relief from anxiety and other intense negative emotional states following such acts. Suicidal behavior is also very effective in eliciting helping behaviors from the environment, which may be effective in avoiding or changing situations that elicit emotional pain. For example, suicidal behavior is generally the most effective way for a nonpsychotic individual to be admitted to an inpatient psychiatric unit. Suicide ideation, suicide planning, and imagining dying from suicide, when accompanied with a belief that pain will end with death, can bring an intense sense of relief. Finally, planning suicide, imagining suicide, and engaging in a self-injurious act (and its aftereffects if it becomes public) can reduce painful emotions by providing a compelling distraction.

The inability to regulate emotional arousal also interferes with the development and maintenance

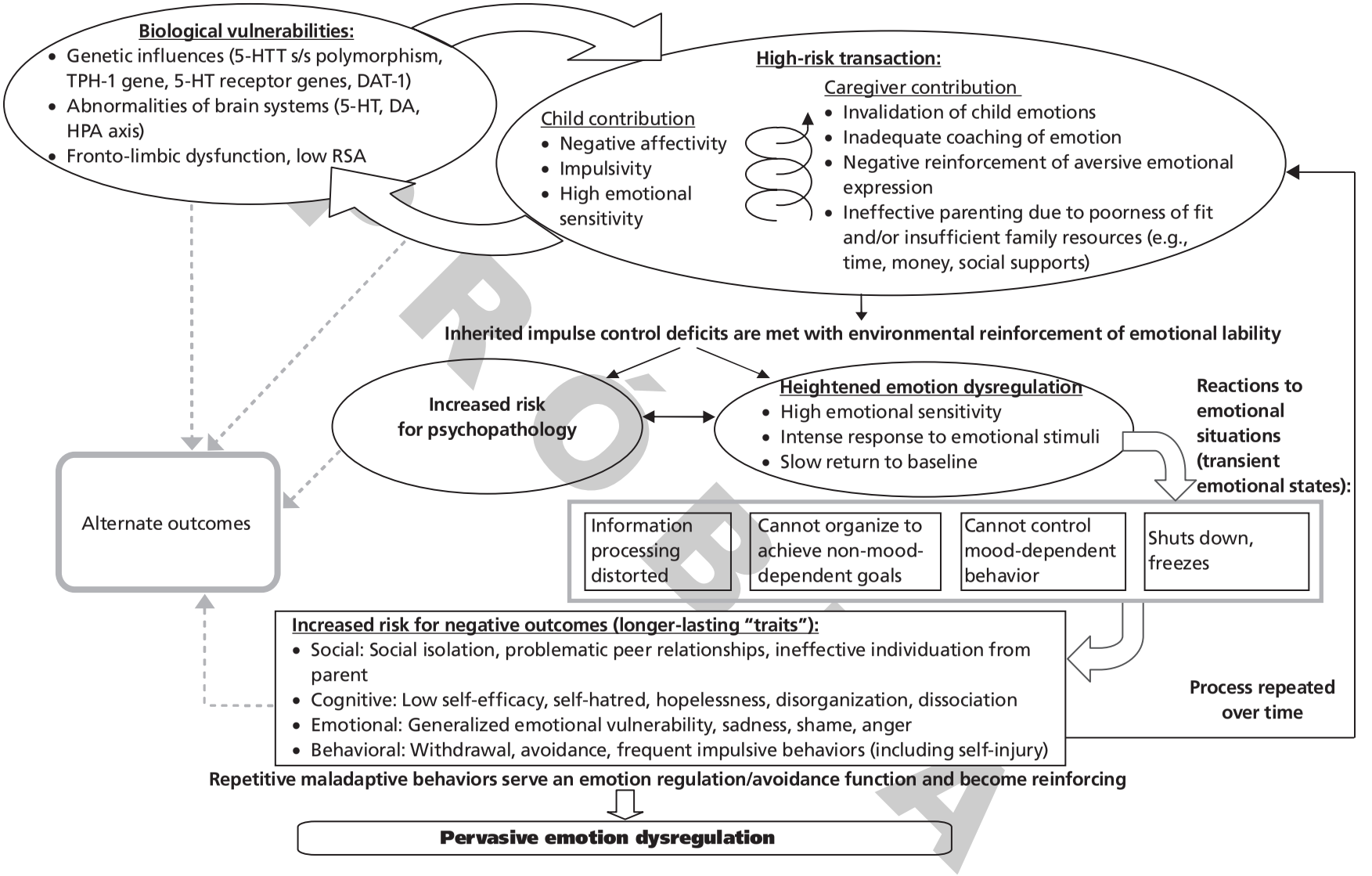

FIGURE 1.1. Illustration of the biosocial developmental model of BPD. 5-HT, serotonin; 5-HTT, serotonin transporter; TPH-1, tryptophan hydroxylase 1; DA, dopamine; DAT-1, dopamine transporter 1; HPA, hypothalamic–pituitary–adrenocortical; RSA, respiratory sinus arrhythmia. Adapted from Crowell, S. E., Beauchaine, T. P., & Lenzenweger, M. F. (2008). The development of borderline personality and self-injurious behavior. In T. P. Beauchaine & S. Hinshaw (Eds.), *Child psychopathology* (p. 528). Hoboken, NJ: Wiley. Copyright 2008 by John Wiley & Sons, Inc. Adapted by permission.

of a sense of self. Generally, one's sense of self is formed by observations of oneself and of others' reactions to one's actions. Emotional consistency and predictability, across time and similar situations, are prerequisites of identity development. Unpredictable emotional lability leads to unpredictable behavior and cognitive inconsistency, and consequently interferes with identity development. The tendency of dysregulated individuals to try to inhibit emotional responses may also contribute to an absence of a strong sense of identity. The numbness associated with inhibited affect is often experienced as emptiness, further contributing to an inadequate and at times completely absent sense of self. Similarly, if an individual's sense of events is never "correct" or is unpredictably "correct"—the situation in an invalidating environment—then the individual may be expected to develop an overdependence on others.

Effective interpersonal relationships depend on both a stable sense of self and a capacity for spontaneity in emotional expression. Successful relationships also require a capacity for self-regulation of emotions and tolerance of emotionally painful stimuli. Without such capabilities, it is understandable that individuals develop chaotic relationships. When emotion dysregulation is pervasive or severe, it interferes with a stable sense of self and with normal emotional expression. Difficulties controlling impulsive behaviors and expressions of extreme negative emotions can wreak havoc on relationships in many ways; in particular, difficulties with anger and anger expression preclude the maintenance of stable relationships.

Relationship of Emotion Dysregulation to DBT Skills Training[16]

As noted above, many mental disorders can be conceptualized as disorders of emotion regulation, with deficits in both up- and down-regulation. Once you realize that emotions include both actions and action tendencies, you can see the link between emotion dysregulation and many disorders defined as behavior dyscontrol (e.g., substance use disorders). DBT skills are aimed directly at these dysfunctional patterns.

First, dysregulation of the sense of self is common in individuals with severe emotion dysregulation. In both depression and BPD, for example, it is not unusual for individuals to report having no sense of a self at all, feeling empty, and not knowing who they are. Feelings of being disconnected from others, of contempt for self, and of invalidity or worthlessness are also common. In addition, individuals with high emotion dysregulation often view reality through the lens of their emotions, rather than the light of reality as it is. Thus both judgmental responses and distorted inferences, assumptions, and beliefs are common sequelae. To address such dysregulation of the sense of self, the first DBT skills training module (Chapter 7) aims to teach a core set of "mindfulness" skills—that is, skills having to do with the ability to consciously experience and observe oneself and surrounding events with curiosity and without judgment; to see and articulate reality as it is; and to participate in the flow of the present moment effectively. To address the impact of high emotionality, mindfulness skills also focuses on observing and accurately describing internal and external present events without judgment or distortion of reality. Mindfulness skills are core to all subsequent skills, and thus are reviewed at the beginning of each subsequent skills module.

Second, individuals with emotion dysregulation often experience interpersonal dysregulation. For example, they may have chaotic and intense relationships marked with difficulties. Nevertheless, they may find it extremely hard to let go of such relationships; instead, they may engage in intense and frantic efforts to keep significant individuals from leaving them. More so than most, these individuals seem to do well when they are in stable, positive relationships and to do poorly when they are not in such relationships. Problems with anger and jealousy can ruin intimate relationships and friendships; envy and shame can lead to avoidance of others. A highly anxious individual may need to have a partner around all the time as a safety behavior. In contrast, severe depression may cause difficulties connecting or engaging in relationships. Thus another DBT skills training module (Chapter 8) aims to teach interpersonal effectiveness skills.

Third, difficulties with emotion dysregulation are common in many disorders. These difficulties include problems with recognizing emotions, with describing and labeling emotions, with emotional avoidance, and with knowing what to do when an emotion is on the scene. Therefore, a third DBT skills training module (Chapter 9) aims to teach these and other emotion regulation skills.

Fourth, individuals with high emotion dysregulation often have patterns of behavior dysregulation, such as substance misuse, attempts to injure or kill

themselves, and other problematic impulsive behaviors. Impulsive and suicidal behaviors are viewed in DBT as maladaptive problem-solving behaviors resulting from an individual's inability to tolerate emotional distress long enough to pursue potentially more effective solutions. To counter these maladaptive problem-solving and distress tolerance behaviors, a fourth DBT skills training module (Chapter 10) aims to teach effective, adaptive distress tolerance skills.

Table 1.1 lists the specific skills in each of these modules.

TABLE 1.1. Overview of Specific DBT Skills by Module

Mindfulness Skills

- Core mindfulness skills
  - Wise mind (states of mind)
  - "What" skills (observe, describe, participate)
  - "How" skills (nonjudgmentally, one-mindfully, effectively)
- Other Perspectives on Mindfulness
  - Mindfulness practice: A spiritual perspective (including wise mind and practicing loving kindness)
  - Skillful means: Balancing doing mind and being mind
  - Wise mind: Walking the middle path

Interpersonal Effectiveness Skills

- Obtaining objectives skillfully
  - Clarifying priorities
  - Objectives effectiveness
    - DEAR MAN (Describe, Express, Assert, Reinforce; stay Mindful, Appear confident, Negotiate)
  - Relationship effectiveness
    - GIVE (be Gentle, act Interested, Validate, use an Easy manner)
  - Self-respect effectiveness
    - FAST (be Fair, no Apologies, Stick to values, be Truthful)
  - Whether and how intensely to ask or say no
- Supplementary interpersonal effectiveness skills
  - Building relationships and ending destructive ones
    - Skills for finding potential friends
    - Mindfulness of others
    - How to end relationships
  - Walking the middle path skills
- Dialectics
- Validation
- Behavior change strategies

Emotion Regulation Skills

- Understanding and naming emotions
- Changing emotional responses
  - Checking the facts
  - Opposite action
  - Problem solving
- Reducing vulnerability to emotion mind
  - ABC PLEASE (Accumulate positive emotions, Build mastery, Cope ahead; treat PhysicaL illness, balance Eating, avoid mood-Altering substances, balance Sleep, get Exercise)
- Managing really difficult emotions
  - Mindfulness of current emotions
  - Managing extreme emotions

Distress Tolerance Skills

- Crisis survival skills
  - STOP skill
  - Pros and cons
  - TIP body chemistry
    - (Temperature, Intense exercise, Paced breathing, Paired muscle relaxation)
  - Distracting with wise mind ACCEPTS
    - (Activities, Contributing, Comparisons, Emotions, Pushing away, Thoughts, Sensations)
  - Self-soothing through the senses
    - (vision, hearing, smell, taste, touch; body scan)
  - IMPROVE the moment
    - (Imagery, Meaning, Prayer, Relaxation, One thing in the moment, Vacation, Encouragement)
- Reality acceptance skills
  - Radical acceptance
  - Turning the mind
  - Willingness
  - Half-smiling
  - Willing hands
  - Mindfulness of current thoughts
- Supplementary distress tolerance skills when the crisis is addiction:
  - Dialectical abstinence
  - Clear mind
  - Community reinforcement
  - Burning bridges and building new ones
  - Alternative Rebellion and adaptive denial

The Standard DBT Treatment Program

DBT was originally created for high-risk, multiple-diagnosis clients with pervasive, severe emotion dysregulation; the clinical problems presented by these clients were complicated. It was clear from the beginning that treatment had to be flexible and based on principles, rather than tightly scripted with one protocol to fit all clients. To give some clarity and structure to the inherent flexibility built into the treatment, DBT was constructed as a modular intervention, with components that can be dropped in and pulled out as the needs of each client and the structure of the treatment dictate.

Treatment Functions

DBT clearly articulates the functions of treatment that it is designed: (1) to enhance an individual's capability by increasing skillful behavior; (2) to improve and maintain the client's motivation to change and to engage with treatment; (3) to ensure that generalization of change occurs through treatment; (4) to enhance a therapist's motivation to deliver effective treatment; and (5) to assist the individual in restructuring or changing his or her environment in such a way that it supports and maintains progress and advancement toward goals (see Figure 1.2).

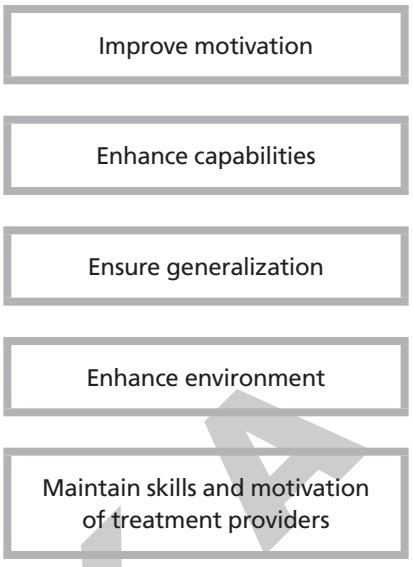

FIGURE 1.2. Functions of comprehensive treatment. Adapted from Lungu, A., & Linehan, M. M. (2015). Dialectical behaviour therapy: A comprehensive multi- and trans-diagnostic intervention. In A. Nezu & C. Nezu (Eds.), *The Oxford handbook of cognitive behavioural therapies*. New York: Oxford University Press. Copyright 2014 by The Guilford Press. Adapted by permission of The Guilford Press and Oxford University Press.

Treatment Modes

To accomplish these functions effectively, treatment is spread among a variety of modes: individual therapy or case management, group or individual skills training, between-session skills coaching, and a therapist consultation team (see Figure 1.3). Each of the modes has different treatment targets, and also different strategies available for reaching those targets. It is not the mode itself that is critical, but its ability to address a particular function. For example, ensuring that new capabilities are generalized from therapy to a client's everyday life might be accomplished in various ways, depending on the setting. In a milieu setting, the entire staff might be taught to model, coach, and reinforce use of skills; in an outpatient setting, generalization usually occurs through telephone coaching. The individual therapist (who is always the primary therapist in standard DBT), together with the client, is respon-

FIGURE 1.3. Modularity of treatment modes. Adapted from Lungu, A., & Linehan, M. M. (2015). Dialectical behaviour therapy: A comprehensive multi- and trans-diagnostic intervention. In A. Nezu & C. Nezu (Eds.), *The Oxford handbook of cognitive behavioural therapies*. New York: Oxford University Press. Copyright 2014 by The Guilford Press. Adapted by permission of The Guilford Press and Oxford University Press.

sible for organizing the treatment so that all functions are met.

DBT Skills Modules

The skills taught to clients reflect a key dialectic described earlier—the need for clients to accept themselves as they are, and the need for them to change. Hence there are sets of acceptance skills as well as change skills. For any problem encountered, effective approaches can include acceptance as well as change (see Figure 1.4). Skills are further divided into the four skills modules by the topics they address: mindfulness, emotion regulation, interpersonal effectiveness, and distress tolerance. Each skills module is further divided into a series of sections, and then further divided into a series of separate skills that are ordinarily taught in sequence but can also be pulled out separately for teaching and review. Clients can work on a single skill or set of skills at a time; this helps keep them from being overwhelmed by all the things they need to learn and change. Once clients have made progress in a set of skills, they can incorporate those skills into work on a new skills module. Some of the more complex skills, such as the interpersonal assertiveness skills (i.e., the "DEAR MAN" skills described in Chapter 8), are also made up of smaller parts to increase comprehension and accessibility.

Roles of Skills Trainer and Individual Therapist

As described earlier in this chapter, the theoretical model on which DBT is based posits that a combination of capability deficits and motivational problems underlies emotion dysregulation. First, individuals with severe and pervasive emotion dysregulation, including those with BPD, lack important self-regulation, interpersonal, and distress tolerance skills. In particular, they are unable to inhibit maladaptive mood-dependent behaviors, or to initiate behaviors that are independent of current mood and necessary to meet long-range goals. Second, the strong emotions and associated dysfunctional beliefs learned in the original invalidating environment, together with current invalidating environments, form a motivational context that inhibits the use of any behavioral skills a person does have. The person is also often reinforced for inappropriate and dysfunctional behaviors. Therefore, attention needs to be paid to increasing both a person's repertoire of skills and his or her motivation to employ those skills. However, as my colleagues and I developed this treatment approach, it quickly became apparent that (1) behavioral skills training to the extent we believe necessary is extraordinarily difficult, if not impossible, within the context of a therapy oriented to reducing the motivation to die and/or act in a highly

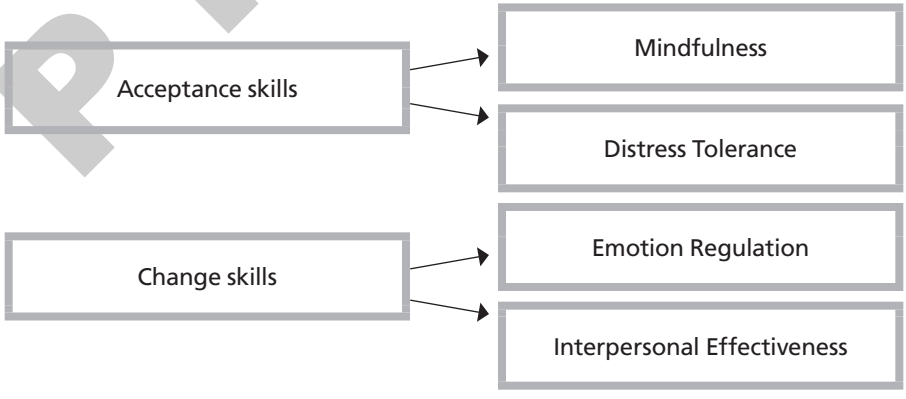

FIGURE 1.4. Modularity of acceptance and change skills. Adapted from Lungu, A., & Linehan, M. M. (2015). Dialectical behaviour therapy: A comprehensive multi- and trans-diagnostic intervention. In A. Nezu & C. Nezu (Eds.), *The Oxford handbook of cognitive behavioural therapies*. New York: Oxford University Press. Copyright 2014 by The Guilford Press. Adapted by permission of The Guilford Press and Oxford University Press.

emotionally reactive fashion; and (2) sufficient attention to motivational issues cannot be given in a treatment with the rigorously controlled therapy agenda needed for skills training. From this dilemma was born the idea of splitting the therapy into two components: one that focuses primarily on behavioral skills training, and one that focuses primarily on motivational issues (including the motivation to stay alive, to replace dysfunctional behaviors with skillful behaviors, and to build a life worth living).

The role of the skills trainer in standard outpatient DBT with severely dysregulated clients is to increase clients' abilities by teaching DBT skills and eliciting practice. The role of the individual therapist is to manage crises and help a client to apply the skills he or she is learning to replace dysfunctional behaviors. The individual therapist provides telephone coaching of skills to the client as needed. Furthermore, as noted above and in Figure 1.3, an integral component of standard DBT is the therapist consultation team: Skills trainers and individual therapists meet on a regular basis not only to support each other, but also to provide a dialectical balance for each other in their interactions with clients.

Individual therapy for chronically suicidal individuals and others with severe disorders may be needed for several reasons. First, with a group of serious and imminently suicidal clients, it can at times be extraordinarily difficult for the skills trainers to handle the crisis calls that might be needed. The caseload is simply too large. Second, in a skills-oriented group that meets only once a week, there is not much time to attend to individual process issues that may come up. Nor is there time to adequately help each individual integrate the skills into his or her life. Some clients need much more time than others do on particular skills, and the need to adjust the pace to the average needs makes it very likely that without outside attention, individuals will fail to learn at least some of the skills.

What kind of individual psychotherapy works best with skills training? Our research findings to date are mixed. In our first study on the topic, we found that skills training plus DBT individual therapy is superior to skills training plus non-DBT individual therapy.[17] In a second study, we tested skills training plus a version of intensive case management that may also be effective for some clients, whereas for others standard DBT with DBT individual therapy may be better.[18] In DBT, "case management" refers to helping the client manage his or her physical and social environment so that overall life functioning and well-being are enhanced, progress toward life goals is facilitated, and treatment progress is expedited.[3] Clients' individual therapists often can serve as case managers, helping the clients to interact with other professionals or agencies, as well as to cope with problems of survival in the everyday world. In this study, however, case management replaced individual DBT therapy. In this version of case management, caseloads were very small (six clients). Case managers met weekly with their teams; used the DBT Suicidal Behavior Strategies Checklist (see Chapter 5, Table 5.2); were available for phone coaching of clients during work hours, and had access to a community crisis line at other times; and applied many of the acceptance elements of DBT (validation, environmental intervention) that balanced the change focus of many DBT skills.

Therapists conducting skills training, however, may not always have control over the type of individual psychotherapy their clients get. This is especially likely in community mental health settings and inpatient or residential units. In settings where DBT is just being introduced, there may not be enough DBT individual therapists to go around. Or a unit may be trying to integrate different approaches to treatment. For example, a number of psychiatric inpatient units have attempted an integration of DBT skills training with individual psychodynamic therapy. Acute inpatient units may structure psychosocial treatment primarily around milieu and skills training, with individual therapy consisting of supportive therapy as an adjunct to pharmacotherapy. The next chapter discusses issues for skills trainers in managing non-DBT individual therapists.

Modifications of Cognitive and Behavior Therapy Strategies in DBT

DBT as a whole and DBT skills training in particular apply a broad array of cognitive and behavior therapy strategies. Like standard cognitive-behavioral therapy (CBT) programs, DBT emphasizes ongoing assessment and data collection on current behaviors; clear and precise definition of treatment targets; and active collaboration between the therapist and the client, including attention to orienting the client to the intervention and obtaining mutual commitment to treatment goals. Many components of DBT (e.g., problem solving, skills training, contingency management, exposure, and cognitive modification) have been prominent in cognitive and behavior therapies for years.

Although DBT borrows many principles and procedures from standard cognitive and behavioral therapies, the development and evolution of DBT over time came about as I tried—and in many ways failed—to get standard CBT to work with the population of clients I was treating. Each modification I made came about as I was trying to solve specific problems I could not solve with the standard CBT interventions available at the time. These modifications have led to DBT's emphasizing 10 areas that, though not new, had not previously received as much attention in traditional CBT applications. The treatment components that DBT has added to CBT are listed below. Many, if not most, of these are now common in many CBT interventions.

1. Synthesis of acceptance with change.
2. Inclusion of mindfulness as a practice for therapists and as a core skill for clients.
3. Emphasis on treating therapy-interfering behaviors of both client and therapist.
4. Emphasis on the therapeutic relationship and therapist self-disclosure as essential to therapy.
5. Emphasis on dialectical processes.
6. Emphasis on stages of treatment, and on targeting behaviors according to severity and threat.
7. Inclusion of a specific suicide risk assessment and management protocol.
8. Inclusion of behavioral skills drawn primarily from other evidence-based interventions.
9. The treatment team as an integral component of therapy.
10. Focus on continual assessment of multiple outcomes via diary cards.

Whether these differences between DBT and standard CBT approaches are fundamentally important is, of course, an empirical question. In any event, CBT interventions have expanded their scope since DBT first appeared, and components of DBT have made their way into many standard interventions. The differences between them and DBT have eroded. This is most clearly evident in the increasing attention to the synthesis of acceptance and change and to the inclusion of mindfulness in many current treatments (e.g., Mindfulness-Based Cognitive Therapy, Acceptance and Commitment Therapy); it can also be seen in the emphasis on attending to in-session behaviors, particularly to therapy-interfering behaviors (e.g., Functional Analytic Psychotherapy). Although researchers to date have not found that the therapeutic relationship necessarily mediates outcomes in behavior therapy, the field as a whole nonetheless puts a greater emphasis now on developing and maintaining a collaborative interpersonal relationship. Chapters 4 and 5 discuss the DBT strategies listed above, as well as how to apply CBT strategies within DBT's skills training context.

Effectiveness of Standard DBT

An overview of randomized controlled trials (RCTs) examining the effectiveness of standard DBT is presented in Table 1.2. As noted previously, standard DBT includes individual DBT therapy, DBT skills training, between-session coaching, and DBT team. For updates on research go to the Linehan Institute (*www.linehaninstitute.org/resources/fromMarsha*).

Standard DBT as a Treatment for BPD

There have now been a large number of studies evaluating the effectiveness of standard DBT as a treatment for high-risk individuals with severe and complex mental disorders. Most but not all of this research has focused on individuals meeting criteria for BPD—primarily because individuals with BPD have high rates of suicide and pervasive emotion dysregulation, and ordinarily present with a complex range of serious out-of-control behaviors. It is just the complexity that arises from such dysregulation that DBT was originally designed to treat. At present DBT is the only treatment with enough high-quality research to be evaluated as effective for this population by the Cochrane Database of Systematic Reviews, a highly regarded independent review group in Great Britain.[19]

Standard DBT as a Treatment for Suicidal Behaviors

In adults diagnosed with BPD and at risk for suicide, standard DBT has yielded significantly higher improvements on measures of anger outbursts, hopelessness, suicidal ideation, and suicidal behavior, as well as reduced admissions to emergency departments and inpatient units for suicidality, when compared to treatment as usual (TAU)[1, 17, 20, 21, 22, 23, 24] and to treatment by community experts.[23, 25] In the latter study, the expert therapists were nominated by mental health leaders in Seattle as the best

TABLE 1.2. RCTs of Standard DBT

Treatment/diagnosis/study population	Comparison group	Significant outcomes
DBT for BPD: **44** females	Treatment as usual (TAU)	**DBT decreased** risk for suicidal behavior, use of services, dropout **DBT and TAU decreased** suicidal ideation, depression, hopelessness[1, 17, 65]
DBT for BPD: **58** females	TAU	**DBT decreased** suicide attempts **DBT decreased** nonsuicidal self-injury (NSSI); **TAU increased** NSSI **DBT and TAU decreased** substance use[20, 21]
DBT for BPD: **101** females	Community treatment by experts (CTBE)	**DBT decreased** suicide attempts, emergency department and inpatient admissions for suicidality, dropout **DBT produced** significant reduction in substance use disorders; significant changes in self-affirmation, self-loving, and self-protecting; and less self-attacking throughout treatment and follow-up **DBT and CTBE decreased** suicidal ideation, depression **DBT and CTBE increased** remission from major depression, anxiety, and eating disorders **CTBE produced** significant treatment interaction for therapist affirmation/therapist projection **DBT increased** introject affiliation[42]
DBT for BPD: **73** females	TAU + wait list	**DBT and TAU decreased** NSSI, hospital admissions or length of stay in hospital, quality of life, disability[64]
DBT for veterans with BPD: **20** females	TAU	**DBT decreased** NSSI, hospitalizations, suicidal ideation, dissociation, hopelessness, depression, anger suppression/expression[22]
DBT for veterans with BPD: **20** females	TAU	**DBT decreased** NSSI, suicidal ideation, depression (self-report), hopelessness, anger expression **DBT and TAU decreased** service use, depression, anxiety, anger suppression[23]
DBT for BPD with current drug dependence: **28** females	TAU	**DBT decreased** substance abuse **DBT and TAU decreased** anger outcomes[34]
DBT + levo-alpha-acetyl-methadol (LAAM; an opiod agonist medication) for BPD with current opiate dependence: **23** females	Comprehensive validation therapy with 12-Step group (CVT-12s) + LAAM	**DBT and CVT-12s decreased** psychopathology, opiate use; however, participants in CVT-12s increased their use of opiates in last 4 months[35]
DBT for Cluster B personality disorders: **42** adults	TAU	**DBT decreased** self-reported risk behavior **DBT and TAU decreased** NSSI reductions, use of services, aggression anger expression, depression, irritability[24]
DBT + medication for at least one personality disorder, high depression score: **35** adults	Medication only	**DBT produced faster** remission from major depressive disorder[37]
DBT for BPD: **180** adults	General psychiatric management (GPM)	**DBT and GPM decreased** suicidal behavior, use of crisis services, depression, anger, distress symptoms[66]

(*cont.*)

TABLE 1.2 (*cont.*)

Treatment/diagnosis/study population	Comparison group	Significant outcomes
DBT for 18- to 25-year-old college students with current suicidal ideation: **63** individuals	Supervision by experts in psychodynamic treatment (SBE)	**DBT decreased** NSSI, use of psychotropic medication, suicidality, self-reported depression **DBT increased** life satisfaction[31]
Inpatient DBT for PTSD: **74** females	TAU + wait list	**DBT increased** PTSD remission[32]
Inpatient DBT for BPD: **60** females	TAU + wait list	**DBT increased** abstinence from NSSI, **decreased** depression and anxiety **DBT and TAU decreased** anger[26]
DBT for any eating disorder and substance abuse/dependence: **21** females	TAU	**DBT decreased** dropout rate, dysfunctional eating behaviors/attitudes and severity of use of substances at post compared to pre **DBT increased** ability to cope and regulate negative emotions at post compared to pre[33]

Note. Data from Neacsiu, A. D., & Linehan, M. M. (2014). Borderline personality disorder. In D. H. Barlow (Ed.), *Clinical handbook of psychological disorders* (5th ed., pp. 394–461). New York: Guilford Press.

(nonbehavioral) therapists in the area. The aim of the research was to find out whether DBT works because of its own unique characteristics or because it is just a standard good therapy. In other words, the question was "Are all treatments equal?" The answer was "No." In comparison to treatment by community experts, DBT cut suicide attempts by half, admissions to hospital emergency departments for suicidality by half, and inpatient admissions for suicidality by 73%. Bohus and colleagues obtained similar findings for a 12-week inpatient DBT adaptation for females with BPD and a history of suicidal behavior.[26] More patients receiving DBT abstained from self-injurious behaviors at posttreatment than patients receiving TAU (62% vs. 31%).

Standard DBT as a Treatment for Mood and Other Disorders

Among individuals meeting criteria for BPD, outcomes across DBT studies indicate that DBT is an effective treatment for a number of disorders other than BPD. During 1 year of treatment, those in DBT have improved significantly in reductions of depression, with remission rates from major depression and substance dependence as good as those found in evidence-based CBT and pharmacological interventions.[27] DBT participants also reported significant improvements in developing a more positive introject (a psychodynamic construct we measured to test the view that DBT only treats symptoms). Those in DBT developed significantly greater self-affirmation, self-love, and self-protection, as well as less self-attack, during the course of treatment; they maintained these gains at a 1-year follow-up.[42]

DBT as a treatment for suicidality is not limited to adults. Research with suicidal adolescents[28, 29, 30] and suicidal college students[31] has also found significant reductions in use of psychotropic medications, depression, and suicidal behaviors, as well as increases in life satisfaction, when DBT is compared to control conditions.

Standard DBT as a General Treatment

Although DBT was originally developed for high-risk, out-of-control individuals with complex difficulties, the modular makeup of the treatment allows therapists to "rev up" or "rev down" the number of components actively used in treatment at a given time. To date, adaptations of DBT have been shown to be effective for posttraumatic stress disorder (PTSD) due to childhood sexual abuse;[32] eating disorders comorbid with substance abuse;[33] drug dependence comorbid with BPD; [34, 35, 36] eating disorders alone; [39, 40] Cluster B personality disorders;[24] PTSD with and without comorbid BPD;[41] and depression in older adults.[37, 38] Taken as a whole, these

studies suggest that DBT is a broadly efficacious treatment.

This modular flexibility also allows us to bring into the treatment new interventions and strategies to replace old strategies that are less effective. Thus, as time goes on, it is likely that the utility of DBT will expand as the research base expands.

DBT Skills Training as a Stand-Alone Treatment

DBT skills training is rapidly emerging as a stand-alone treatment. Although the majority of research on DBT efficacy consists of clinical trials on standard DBT, many sites over the years have provided DBT skills alone, usually because of insufficient resources to provide the entire treatment. As these programs multiplied, research to determine whether such programs provided effective treatment got started. This growing area of research is suggesting that skills training alone can be very effective in many situations.

Evidence for the Effectiveness of DBT Skills as a Stand-Alone Treatment

An overview of RCTs examining the effectiveness of DBT skills training without individual therapy is presented in Table 1.3. Additional non-RCT studies examining the effectiveness of DBT skills alone are presented in Table 1.4.

As can be seen in Table 1.3, in clinical RCTs, DBT skills training without concurrent individual therapy has been found effective in a number of areas. It was found to reduce depression in nine separate studies;[38, 42, 45, 47, 48, 49, 51, 52, 54] anger in four studies;[43, 46, 52, 53] and emotion dysregulation,[38, 51] including affective instability[43] and emotional intensity,[44] in four studies. Adaptations of DBT skills have also been found to be an effective treatment for eating disorders in three studies,[39, 45, 46] as well as for drinking-related problems[51] and attention-deficit/hyperactivity disorder (ADHD).[50] Among incarcerated women, DBT skills have been effective at reducing PTSD symptoms, depression, and interpersonal problems.[54] Among men and women in correctional facilities, DBT skills have been shown to decrease aggression, impulsivity, and psychopathology.[55] Skills have also reduced intimate partner violence potential and anger expression among those with histories of such violence. Among individuals in vocational rehabilitation with severe mental disorders, DBT skills have decreased depression, hopelessness, and anger, and have increased number of hours working as well as job satisfaction.[52]

As can be seen in Table 1.4, studies of DBT skills training in pre–post research designs (where there is no control condition to which to compare outcomes) have findings similar to the RCTs. These studies have shown decreased depression [57, 58, 60, 61, 62] and ADHD symptoms,[61] as well as increased global functioning[60] and social adjustment coping.[62] Three studies have been conducted of DBT skills training with families of troubled individuals,[56, 57, 58] and all three showed reduction in grief and a sense of burden. Very few studies have been published of skills training for children; however, in the case of children with oppositional defiant disorder (ODD), DBT skills training was associated with reductions in externalizing and internalizing depression, a reduction in problematic behaviors, and an increase in positive behaviors.[60]

The majority of these studies offered only the skills training component of DBT. Two exceptions were presented by Lynch and colleagues.[37] In the first study, DBT skills and DBT phone coaching were added to antidepressants and compared to antidepressants alone for an elderly, depressed sample. In the second study, standard DBT with medication was compared to medication alone for an elderly, depressed sample with comorbid personality disorders. In both studies, the authors found that the depression remitted much faster when individuals were treated with DBT and medication than when they were treated with medication alone

The eating disorder studies used skills-only adaptations of DBT. Several of these studies did not report which DBT skills they used, making it difficult to determine which skills were important in bringing about clinical change. Although skills training has been linked to the reduction of emotion dysregulation in general,[63] we will need more research to determine exactly which skills are necessary and which can be discarded.

The next chapter addresses key issues in planning to conduct skills training, including suggestions for planning a skills training curriculum.

TABLE 1.3. RCTs of DBT Skills Training Only

Diagnosis/study population	Comparison group	Significant outcomes
BPD: **49** women, 11 men	Standard group therapy	**DBT skills decreased** depression, anxiety, irritability, anger, affective instability, treatment drop-out[43]
BPD: **29** women, **1** man	Control video	**DBT skills increased** DBT skills knowledge, confidence in skills **DBT skills decreased** in emotional intensity[44]
Bulimia nervosa: **14** women	Wait-list control	**DBT skills decreased** bingeing/purging behavior, depression[45]
Binge eating disorder: **101** men and women	Active comparison group therapy	**DBT skills decreased** binge eating[39]
Binge-eating disorder: **22** women	Wait-list control	**DBT skills decreased** anger, weight, shape and eating concerns **DBT skills increased** abstinence from bingeing behavior[46]
Major depressive disorder: **24** men and women	Control condition	**DBT skills decreased** scores on depression **DBT skills increased** emotion processing[47]
Major depressive disorder: **29** women and **5** men over **60**	DBT + medication management vs. medication management only	**DBT skills decreased** self-rated depression scores **DBT skills increased** full remission of depressive symptoms/dependency, adaptive coping[38]
Major depressive disorder: **18** women, **6** men	Wait-list control	**DBT skills increased** emotional processing associated with **decreases** in depression[48]
Bipolar disorder: **26** adults	Wait-list control	**DBT skills decreased** depression, fear toward reward **DBT skills increased** mindful awareness, emotion regulation[49]
ADHD: **51** adults	Loosely structured discussion group	**DBT skills decreased** ADHD symptoms[50]
Problem drinking: **87** women, **58** men (all college age)	BASICS[a]; control	**DBT skills decreased** depression, drinking-related problems **DBT skills increased** emotion regulation, positive mood[51]
Vocational rehab. for severe mental illness: **12** adults	TAU	**DBT skills decreased** depression, hopelessness, anger **DBT skills increased** in job satisfaction, number of hours worked[52]
Intimate partner violence: **55** men	Anger management program	**DBT skills decreased** intimate partner violence potential, anger expression[53]
Incarcerated women with histories of trauma: **24** women	No-contact comparison	**DBT skills decreased** PTSD, depression, and problems in interpersonal functioning[54]
Correctional facility inmates: **18** women, **45** men	Case management	**DBT skills decreased** aggression, impulsivity, and psychopathology **DBT skills increased** coping[55]

[a]Brief Alcohol Screening and Intervention for College Students (a harm reduction approach).

✓ A. What Is Missing-Links Analysis?

A "missing-links analysis" is a series of questions to help a person figure out what got in the way of behaving effectively. Its purpose is to show where in the chain of events something happened (or failed to happen) that interfered with effective behavior when it was needed or expected.

Two types of effective behaviors can be missing.

1. Expected Behaviors

Expected behaviors are ones you have agreed to do (e.g., get to work on time), have been instructed to do (e.g., skills training homework), have planned to do (e.g., clean your room), or have desperately hoped to do (e.g., exercise in the mornings).

2. Needed Behaviors

Needed behaviors are skillful behaviors that constitute effective responses in a specific situation (e.g., skillful interpersonal behavior to calm down a stressful interaction) or to address specific problems (e.g., getting up on time when your alarm clock is broken).

B. When Is Missing-Links Analysis Used?

Missing-links analysis and problem solving are likely to be sufficient when the problem is not knowing what was expected or needed, unwillingness to do what was expected or needed, or never having the thought enter your mind to do what was needed or expected.

Missing-links analyses together with chain analyses may be useful in figuring out the problem when you know what the effective behavior is but still do not do it. See below for an example.

C. Why Bother?

A missing-links analysis can be an invaluable tool for assessing situations when effective behaviors are repeatedly missing. As noted in discussing chain analysis, attempts to solve a problem often fail because the problem at hand is not fully understood and assessed.

An advantage of the missing-links analysis is that the questions can usually be asked and answered very rapidly.

✓ D. How to Do It

Tell clients: "Answer the questions on General Handout 8 until further questions would not be helpful or don't make sense. As soon as you get to that point, start problem solving."

For example, if a person did not know that an effective behavior was needed or expected, it is pointless to ask whether he or she was willing to do what was needed or expected. If a person is willful right from the start and decides not to engage in effective behavior, solving that problem is more important than asking whether the person thought about engaging in the behavior at a later point. If the thought of doing something effective never came to mind, asking what got in the way of effective behavior (other than never thinking of it) would not be very useful.

General Worksheet 3 (the missing-links analysis worksheet) is structured to identify the critical pieces of information necessary to understand and solve the missing behavior.

✓ **Practice Exercise:** Ask one participant to volunteer to have a missing behavior analyzed, and go through the questions and problem solving described on General Handout 8 and listed below. If time allows, do several examples.

1. "Did you know what effective behavior was needed or expected?"

If no, ask, "What got in the way of knowing?" Then stop questions and move to problem solving for what got in the way.

If yes, move to Question 2.

2. "Were you willing to do the needed or expected effective behavior?"

   If no, ask, "What got in the way of willingness to do an effective behavior?" Then stop questions and move to problem solving for lack of willingness.

   If yes, move to Question 3.

3. "Did the thought of doing the needed or expected effective behavior ever enter your mind?"

   If no, stop questions and move to problem solving for a way to get the thought to enter the participant's mind.

   If yes, move to Question 4.

4. "What got in the way of doing the needed or expected effective behavior right away?"

   Move to problem solving for what got in the way.

Make a concerted effort to generate a wide range of possible solutions. This can take more time than simply asking and answering questions. In a group setting, ask group members to help generate solutions. Refer to the problem-solving skill in the Emotion Regulation module if necessary (see Chapter 9, Section XI of this manual, and Emotion Regulation Handout 12: Problem Solving).

Discussion Point: Elicit from participants patterns of effective behaviors that are missing in their lives—or, if they cannot yet articulate a pattern, instances when they did not do something that was really important to do.

Practice Exercise: Ask one participant to volunteer to have a missing behavior analyzed, and ask another group member to volunteer to practice analyzing the missing behavior. Coach the person doing the analyzing. When doing so would not be disruptive to a group, encourage participants to analyze each other's missing homework behaviors.

Practice Exercise: When a person comes to skills training without doing all the homework assigned, hand out copies of General Worksheet 3 to each participant and have them fill it out as you ask the missing-links questions.

VIII. MISSING-LINKS ANALYSIS COMBINED WITH A CHAIN ANALYSIS (GENERAL HANDOUTS 7–8)

A complete analysis of missing behavior requires that you combine a missing-links analysis with aspects of a chain analysis of the same behavior. This should happen when the factors that contribute to you not doing something are complicated or are somehow preventing you from doing what is needed even when you know what that is. When this is the case, you start with a missing-links analysis and after question 4 switch to a chain analysis. Use the example below or one of your own to teach this.

Example 3: Missing behavior: I missed 45 minutes of a 1-hour weekly meeting at work that started at 8:30 A.M.

(Start with question 1 on General Handout 8 here.)

1. **Did I know what effective behavior was needed or expected?** Yes
2. **Was I willing to do what was needed?** Yes
3. **Did the thought of doing what was needed or expected ever enter my mind?** Yes
4. **What got in the way of doing what was needed or expected right away?** A chain of events.

(Start with question 2 on General Handout 7 or 7a here.)

Step 2. Describe the prompting event that started the chain of events: After I got up on time and

made a cup of coffee, I brought in the morning newspaper. On the front page, there was an article about a scandal in our city that I was interested in and wanted to read [**beginning of the chain of events leading to being late**].

Step 3. What made me vulnerable: I had gone to bed late the night before. I had gotten little sleep, was very tired and moving slowly, and had little resistance to temptation.

Step 4. The specific behaviors and events that were links in the chain:

1st. As I was turning to the second page of the article, I glanced at the clock and saw that I did not have a lot of time.

2nd. I thought "Oh, well, I will dress really fast and get there on time."

3rd. The second page was really interesting, so I sat down for just a minute to read it.

4th. I was thinking I still had time.

5th. Just as I looked up at the clock and realized I really had to get a move on, . . .

6th. . . . the phone rang and it was my mother.

7th. I picked up the phone and started talking to her.

8th. Mom started chatting about something going on at home.

9th. I started worrying about getting off the phone to get to the meeting on time. (I still had time if I really put some energy into getting dressed, out of the house, and into the car to drive to work.)

10th. I felt guilty getting off the phone with Mom so fast.

11th. I stayed on the phone for 10 minutes (time I didn't have) listening to Mom.

12th. I finally did get off the phone.

13th. I saw the clock and realized I would be late by at least 10 minutes.

14th. I decided since I was going to be late anyway, I might as well not hurry.

15th. I finished reading the article.

16th. Then I dressed and left for work an hour after I usually leave.

Step 5. The consequences of the behavior—the harm my behavior caused:

a. In the environment: It took up the time of the people in the meeting who had to tell me what happened; it took time waiting to see whether I would be coming at the beginning; it made people feel less like I am a team player. People at the meeting were distressed that I was so late.

b. For myself: I felt guilty, and it also took a lot of my time to find out what had happened in the meeting.

Step 6. Skills to replace problem links:

2nd. Replace "Oh, well, I will dress really fast," with "I'd better dress now to be on the safe side; remind myself that when I read the paper before work, I am often late."

3rd. Don't sit down in the kitchen in the morning when I am tired.

7th. When I am running late, don't pick up the phone.

10th. Practice interpersonal skills to tell Mom I will call her later (and then call her!).

14th. Do pros and cons about giving up and giving in to being more late than necessary. Rush to get to work just a little bit late, rather than writing it off, relaxing, and being very late.

Step 7. Ways to reduce my vulnerability in the future:

- Go to bed earlier to get more sleep (to reduce vulnerability).
- Call Mom once a week, if only for a really brief chat (to reduce vulnerability).