Oxford Handbooks Online

Dialectical Behavior Therapy for Pre-adolescent Children

Francheska Perepletchikova

The Oxford Handbook of Dialectical Behaviour Therapy
Edited by Michaela Swales

Subject: Psychology, Clinical Psychology Online Publication Date: Aug 2017
DOI: 10.1093/oxfordhb/9780198758723.013.25

Abstract and Keywords

Dialectical Behavior Therapy for pre-adolescent children (DBT-C) targets severe emotional and behavioural dysregulation in the paediatric population by teaching adaptive coping skills and helping parents create a validating and a change-ready environment. It retains the theoretical model, principles, and therapeutic strategies of standard DBT, and incorporates almost all of the adult DBT skills and didactics into the curriculum. However, the presentation and packaging of the information are considerably different to accommodate for the developmental and cognitive levels of pre-adolescent children. Additionally, the treatment target hierarchy has been greatly expanded to incorporate emphasis on the parental role in attaining child's treatment goals. This chapter discusses the theoretical model, presents the treatment target hierarchy, provides an overview of the adaptations made to skills training and individual therapy, discusses the addition of the parent training component, and finally, briefly presents an empirical evidence for the model.

Keywords: Dialectical Behavior Therapy, DBT, pre-adolescent children, emotion regulation, psychotherapy

Box 1: Key Messages for Practitioners

- DBT-C retains the theoretical model, principles, and therapeutic strategies of standard DBT.
- DBT-C incorporates almost all of the adult DBT skills and didactics into the curriculum, but modified to the developmental and cognitive level of pre-adolescent children.
- DBT-C includes a parent-training component.
- A major departure from standard DBT is the treatment target hierarchy, which emphasizes increasing adaptive patterns of parental responding as central to improving the child's emotional and behavioral regulation.

Theoretical Model

Biosocial Theory

Biosocial Theory (Linehan, 1993) suggests that individuals with emotional dysregulation are usually born sensitive or vulnerable to their emotions, and are unable to effectively modulate their emotional experiences. They display high emotional arousal, high reactivity, and a slow return to baseline. Parents often describe these children as "going from a 0 to a 100 in a split second." Additionally, events that trigger these extreme emotional reactions are not always due to the external environment, and instead may involve just a thought, memory, or stressor so minute it is indiscernible to observers. Children with emotional dysregulation problems often describe their emotional experiences as "tsunamis" that are quite overwhelming, painful, and almost impossible to control.

The environment may not be ready to effectively manage the challenges such children present and "good-enough parenting" may not be sufficient to meet these children's needs. Winnicott's (1973) concept of "good enough parenting" focused on the parental ability to survive a child's anger at the world and their shock of the loss of the omnipotence, as well as to help the child accept reality and relate to it in more realistic terms (Bingham & Sidorkin, 2004; Phillips & Taylor, 2009). With emotionally dysregulated children, surviving the child's frustration with reality frequently becomes an almost insurmountable challenge for both child and parent. This inborn sensitivity significantly exacerbates the child's frustration, as well as feelings of parental hopelessness and defeat because they do not understand the reasons for, nor have methods to deal with, their child's reactivity.

This poor fit between a child's needs and the parental ability to satisfy them may create an invalidating environment over time. It is reasonable to expect that "good enough parenting" will include some level of direct criticism, punishment, and dismissal of a child's feelings, thoughts, and behaviours as invalid. What makes an environment invalidating is the pervasive nature of such events. The invalidating environment indiscriminately rejects private experiences and behaviours as invalid (e.g., "Why are you angry? There is nothing to be angry about!"), oversimplifies the ease of solutions (e.g., "Just snap out of it," "Why can't you be like your brother?"), and intermittently reinforces escalated emotional displays (e.g., child learns that s/he can receive the coveted care and support primarily when she threatens suicide to communicate suffering, while lower levels of such expression are invalidated).

An invalidating environment fails to teach a child how to 1) label private experiences; 2) trust experiences as valid responses to events; 3) accurately express emotions; 4) communicate pain effectively; 5) use self-management to solve problems; and 6) effectively regulate emotions. Instead, an invalidating environment teaches a child how to 1) respond with high negative arousal to failure; 2) form unrealistic goals and expectations; 3) rely on the external environment for cues on how to respond; 4) actively self-invalidate; and 5) oscillate between emotional inhibition and extreme responses.

Transactional Model

Thomas and Chess (1985) have extensively discussed the notion of the "poorness of fit" between an environment and a child as a critical factor in the etiology of psychopathology. They have also highlighted the pattern of reciprocal influence in the child-environment system. Indeed, the characteristics of a child and an environment are not static, but rather change through reciprocal interaction or transaction where components continuously adapt to each other. Such mutual influence may lead to an exacerbation of a child's emotional dysregulation, as well as the development of an invalidating environment. When a child's needs cannot be adequately met by the environment, the child becomes destabilized. As the increasingly destabilized child continues to stretch an environment's ability to respond adequately, further invalidation ensues, and over time this transaction may lead to the development of a psychopathology.

Research indicates that impulsivity and chronic irritability of the kind exhibited in children with emotional dysregulation are associated with a range of impairments. Problematic relationships with parents, siblings, peers, and teachers, persistent difficulties in multiple settings, and negative feedback may lead to the development of negative self-concept in affected children, impede their emotional, social, and cognitive development, and increase chances of psychopathology in adolescence and adulthood (e.g., personality disorders, substance abuse, mood disorders and suicidality) (Althoff, Verhulst, Retlew, Hudziak, & Van der Ende, 2010; Okado & Bierman, 2015; Pickles et al., 2009).

DBT-C Hierarchy of the Treatment Targets

DBT-C aims to stop the harmful transaction between a child and an environment, and replace it with an adaptive pattern of responding. The main goal is to reduce the risk of psychopathology in the future, while intervening to ameliorate presenting problems. The intervention and prevention are primarily achieved via 1) teaching parents how to create a validating and change-ready environment; 2) empowering parents to become coaches for their children to promote adaptive responding during treatment and after therapy is completed; and 3) teaching children and their parents effective coping and problem-solving skills.

In order to incorporate these goals, the hierarchy of treatment targets was greatly extended for DBT-C as compared to DBT for adults and adolescents. While the original DBT hierarchy includes four main categories (i.e., life-threatening behaviours, therapy-interfering behaviours, quality-of-life interfering behaviours, and skills training), DBT-C includes three main categories, which are subdivided into ten subcategories (see Table 1). The DBT-C treatment target hierarchy is the same for outpatient, residential, and inpatient settings. In inpatient and residential settings, milieu and nursing staff share a caregiving role with parents, and in many ways, these assume more caregiving responsibility as children spend more time with the staff than with their parents. Thus, the parent-related treatment targets discussed below apply to all caregivers in contact with a child.

Table 1. DBT-C Hierarchy of the treatment targets	
I. Decrease risk of psychopathology in the future	1. Life-threatening behaviors of a child
	2. Therapy-destroying behaviors of a child
	3. Therapy-interfering behaviors of parents
	4. Parental emotion regulation
	5. Effective parenting techniques
II. Target parent-child relationship	6. Improve parent-child relationship
III. Target child's presenting problems	7. Risky, unsafe, and aggressive behaviors
	8. Quality-of-life-interfering problems
	9. Skills training
	10. Therapy-interfering behaviors of a child

I. Decreasing the Risk of Psychopathology in Adolescence and Adulthood

1. Life-Threatening Behaviours of a Child

The primary focus of treatment is to keep a child alive and well. If a child is at risk of suicide-related behaviours, this target is treated as a priority. The target includes 1) suicidal acts; 2) non-suicidal self-injury (NSSI); 3) suicidal communications and ideations; 4) suicide-related expectations and beliefs; and 5) suicide-related affect. Pre-adolescent children with emotional dysregulation are at an increased risk of suicidal behaviours and ideations and NSSI (Tamás et al., 2007; Holtman et al., 2011). In a study with children with Disruptive Mood Dysregulation disorder (DMDD), where emotion regulation is seen as a core dysfunction, more than 50% of children reported suicidality and/or NSSI (Perepletchikova et al., manuscript in preparation).

2. Therapy-destroying behaviours of a child

Most of the problematic behaviours a child can exhibit during a treatment session (e.g., verbal aggression, threats, cursing, screaming, running around) are addressed with planned ignoring (i.e., removing attention from undesirable behaviours and immediately attending to any positive responses). Additionally, these behaviours are treated as informative (i.e., they help the therapist observe parent-child interactions in the real time) and target-relevant (i.e., they allow the therapist to model and coach effective responding methods to parents and a child).

However, there are behaviours that cannot be ignored. Therapy-destroying behaviours are subdivided into those that occur during a session and those that occur outside a session. Therapy-destroying behaviours that occur in sessions include physical aggression to a therapist and/or parent(s), severe destructive behaviours (e.g., trashing therapist's office, throwing objects), and running out of a treatment room (unless a child stays right outside the therapist's office, when this behaviour can be safely ignored). These behaviours are dangerous for a child, other people, and property, and have to be immediately suppressed. If a behaviour can be addressed in any other way instead of immediate suppression (e.g., ignoring, removing opportunities for behaviour to occur), then this behaviour is treated as therapy interfering, and not as therapy destroying.

When therapy-destroying behaviours occur in session, parents (not the therapist) can put a child into a time out, but only if this technique was already covered with parents in prior sessions and practiced at home. Or, the therapist can end the session with the child while continuing the session with parent(s) if possible. It is important to keep in mind that ending a session can reinforce maladaptive behaviours, especially if the child does not want to continue with a session. This issue is easier to prevent than to resolve. Prevention efforts may include focusing on developing a strong therapist-child relationship, promoting the child's motivation for change, creating a validating environment, and reinforcing treatment engagement (e.g., praise, tangible rewards). If a dangerous behaviour still occurs, safety is prioritized.

Out-of-session therapy-destroying behaviours include dangerous levels of aggression to parents, siblings, peers, and other people, as well as severe property destruction. These behaviours become therapy destroying when the level of escalation precludes application of therapeutic techniques due to safety concerns. Aggressive and property-destroying behaviours can become especially detrimental to conducting effective treatment when temper outbursts and other undesirable behaviours are put on an extinction schedule. Extinction bursts, which occur when a response is no longer reinforced, may escalate to a degree where it is no longer safe to continue to ignore a behaviour. Thus, there is an increased risk that extinction will be terminated and an escalation of an aggressive behaviour will be reinforced by attention, removing an unwanted demand, giving in to a request, granting a covered privilege, etc. For example, a child starts to scream because her parents refused to grant her request. The parents implement planned ignoring, which is followed by an anticipated extinction burst. However, for this child, escalation is likely to quickly reach dangerous levels and may involve running out of the house into traffic,

attempting to choke a sibling, flipping furniture, breaking windows, etc. At this point parents are likely to attempt to pacify a child, or call the police, or resort to a hospitalization. All of these outcomes are highly counterproductive. They reinforce escalated behaviours, and subsequent attempts to follow an extinction protocol will become increasingly futile. Thus, it is important to conduct a very thorough assessment of a child's level of severity before accepting a family into a treatment to determine if child's needs can be addressed on an outpatient level of care. Further, a psychiatric intervention can be considered to ameliorate reactivity with a psychotropic medication at the beginning stages of treatment, with a plan to start titrating medications down as soon as possible. In the randomized clinical trial of DBT-C for children with DMDD, all improvements were achieved without additional psychopharmacological interventions (Perepletchikova et al., manuscript in preparation). Although more research is needed, the results of this study suggest that psychosocial treatment alone without additional medication management may be sufficient, in most cases, for treatment in outpatient settings. However, when there is a choice between placing a child in a residential setting or continuing to address problematic behaviours in an outpatient setting with an addition of a psychotropic medication, it is advised to attempt the latter first. With all things being equal, implementation of the most benign treatment possible is important for any therapeutic approach.

3. Therapy-interfering behaviours of parents and therapists

DBT-C views parental adaptive patterns of responding as key to achieving lasting changes in a child's emotional and behavioural regulation. Thus, DBT-C focuses on teaching parents how to create a validating and change-ready environment for their child in order to address presenting problems and to reduce risk of psychopathology in the future. Parents are trained to become coaches for their children, and to continue the intervention after a treatment ends. Significant and lasting treatment gains cannot be achieved without parental commitment to treatment, engagement in therapy, and willingness to follow the agreed-upon plan. Thus, treatment cannot successfully continue if parents frequently miss sessions, fail to bring a child to treatment, keep re-scheduling appointments, refuse to take part in therapy, fail to follow therapist's recommendations, and continue to use prolonged or harsh punishments or other ineffective parenting techniques to force a child's compliance.

Therapists also can engage in therapy-interfering behaviours. DBT for adults and adolescents highlights a whole range of such behaviours, including a failure to be dialectical (e.g., imbalance of reciprocal versus irreverent communication) and engaging in behaviours that are disrespectful to clients (e.g., coming in late, missing appointments, appearing dishevelled). All of these issues apply to DBT-C therapists as well. However, a behaviour that may be specifically problematic for a DBT-C therapist is an inability to tolerate intense emotional displays. A therapist's difficulties with tolerating children's temper outbursts and other behavioural escalations may lead to attempts to pacify a child

in a moment and, thus, a reinforcement of dysfunctional behaviours, as well as modelling of ineffective problem resolution to parents.

4. Parental emotion regulation

In order for parents to model effective coping and problem solving, ignore maladaptive responses, validate a child's suffering, reinforce desirable behaviours, among other techniques, parents have to be in control of their own emotional reactivity. That is one of the reasons why, in DBT-C, parents not only learn everything that their child is learning (e.g., skills and didactics on emotions), but they must also participate in the parent training component. A DBT-C therapist continues to stress throughout the treatment that while the child's emotion regulation is the main target, the main focus in achieving this goal is parental behaviour, and the therapist also closely monitors parental emotion regulation and the use of DBT-C skills. At times, this may include advising parents to seek treatment for their own psychopathology, as well as marriage counselling.

5. Effective parenting techniques

Frequently by the time parents decided to enter treatment with their child, the disruption in the child-environment system has reached a significant level, and parents are greatly stressed. Screaming and yelling at a child, as well as excessive, prolonged, and/or physical punishment are quite common. It is imperative to ensure parental willingness to employ effective parenting techniques, to rely primarily on validation, reinforcement, ignoring, and natural consequence, and to use punishment only sparingly and strategically. The use of effective parenting techniques is paramount to decrease invalidation, start healing the parent-child relationship, and reduce parental modelling of dysfunctional behaviours.

Parental behaviours can help ameliorate the child's emotional dysregulation or can exacerbate it through the process of the transaction discussed earlier. In DBT-C, whether an incident was effectively resolved is evaluated primarily by the environmental response. For example, if a parent responded to a stressful event in an effective way (e.g., stayed calm, modelled use of skills, validated or ignored as needed) while a child had a two-hour temper outburst, the situation is considered to have been effectively resolved. In this case, the environment was no longer transacting with a child in a dysfunctional way. If applied consistently, parental adaptive responding over time may result in the creation of a validating environment, and the resulting transaction may help ameliorate the child's emotional and behavioural dysregulation. Conversely, in a situation when a child responded effectively to a stressor (e.g., used coping skills, walked away to prevent escalation) while parental responses were dysfunctional (e.g., used inappropriate punishment, resorted to screaming or threatening), the incident was not effectively resolved. Without environmental support, the observed child's adaptive behaviours are likely to remain isolated and sporadic incidents. DBT-C indeed upholds that a child's behaviour is *irrelevant* until the environment is able to consistently and effectively promote progress. Consequently, parental responses are treated as a higher priority than

the child’s behaviours throughout the duration of treatment. Table 2 presents the list of topics of the parent training component.

Table 2. Parent-training curriculum

Pre-treatment phase	
Biosocial theory, transactional model, and goal	Discussion of the biosocial theory, transactional model, and the DBT-C hierarchy of treatment targets.
Orientation and commitment	Discussion of the treatment model and how it will address specified goals. Commitment is elicited and required from parents to start treatment.
Didactics on emotions and problem solving	
Didactics on emotions	Discussion of the following topics: definition of emotions, function of emotions, myths about emotions, emotions vs mood, feeling/thought/behaviour triangle, levels of emotional intensity, Emotions Wave, Behaviour Change Model, Emotion Regulation Model, radical acceptance, and STOP skill.
Problem solving	Discussion of the following topics: four responses to any problem, pros and cons, cognitive restructuring and five steps of problem solving.
DBT-C skills	
Skills training	Mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness.
Parent training	
Creating a change-ready environment	Discussion of the following topics: definition of a behaviour, three steps to behaviour change, main factors that maintain undesirable behaviours, definition of a problem, five cardinal rules of parenting, and importance of a positive parent-child relationship.
Creating a validating environment	Discussion of the following topics: definition of validation, function of validation, levels of validation, what validation is not, invalidating behaviours, and troubleshooting validation.

Introduction to behaviour change techniques	Discussion of the following topics: definitions of reinforcement, punishment, extinction, and shaping, and how to give effective prompts.
Reinforcement	Discussion of the following topics: function of reinforcement, types of reinforcers, factors that enhance the effectiveness of reinforcement, and using a point chart to reinforce skills use and other adaptive behaviours.
Punishment	Discussion of the following topics: function of punishment, punishment vs retaliation, punishment vs natural consequences, side effects of punishment, punishment traps for caregivers, myths about punishment, factors the enhance effectiveness of punishment, when and how to use each punishment technique (reprimands, time out, chores, and taking away privileges).
A-VCR model of responding	Putting it all together by using an A-VCR model: ***A***ttend/ ***A***ssess, ***V***alidate, ***C***oach skills use, ***R***einforce
Introduction to dialectics	Discussion of the guiding principles of dialectics (there is not absolute nor relative truth, opposite things can both be true, change is the only constant, and change is transactional), how these principles apply to parenting, and ways to practice dialectics.
Dialectical dilemmas	Discussion of dialectical dilemmas of parenting: permissive vs restrictive parenting, overprotective vs neglectful parenting, overindulging vs depriving parenting, and pathologizing normative behaviours vs normalizing pathological behaviours.
Walking the middle path	Discussion on how to walk the middle path by balancing the opposites and looking for a synthesis, balancing extremes of parenting styles, searching for what is valid, and using behavioural principles and effective parenting strategies.

II. Improving the Parent-Child Relationship

6. Improve Parent-Child Relationship

DBT-C Behaviour Change Model maintains that in order for any behaviour change to occur, three factors have to be present: 1) awareness of an action urge before an action occurs; 2) willingness not to follow an action urge if it is not justified by a situation, and instead respond in an adaptive way; and 3) a capability to engage in an effective behaviour.[1] A positive parent-child relationship is required for a child to accomplish each of these tasks successfully.

In order to decrease reactive responding and enhance adaptive functioning, an individual has to be aware of an action urge before it becomes an action. An action urge is a directive from our emotions on how to react to a situation. Although emotions are our main motivators to initiate and sustain behaviours needed to achieve specific goals, they are, so to speak, blind to whether their directives are justified by a situation. To regulate our emotions means to be in control of a decision on whether or not to follow an action urge, given the environmental demands. In other words, an emotion provides the fuel and direction but cannot be in the driver's seat. For example, an action urge of fear to run away from a lion is justified on the open plains of the Serengeti, but not justified when a lion is in a cage in a zoo.

The *awareness* of action urges can be gradually enhanced by practicing mindfulness. Mindfulness means being fully present in the moment, purposefully, and in a non-judgmental way. Mindfulness is a complicated concept. Adults frequently take a considerable amount of time to fully appreciate its meaning and function and to start practicing mindfulness consistently. Therefore, to expect pre-adolescent children to practice mindfulness without support and encouragement from their families is unrealistic. However, even if mindfulness practice becomes a daily routine for parents, a child's interest and motivation to join in largely depend on the relationship they have with their parents. For children, mindfulness practice usually involves mindful participation in games and other activities with family members. If a parent-child relationship is severely strained, a child is more likely to avoid parents and resist joint activities (Kerns et al., 2000). The above discussed issues in a strained parent-child relationship, of course, apply to any skills practice (not just mindfulness) and any parental modelling. Mindfulness practice is a special, albeit very important, case as mindfulness is a core DBT skill on which the use of all other skills depends.

Awareness of an emotional reaction and a corresponding action urge are required, but not sufficient, for a desired response to occur. An individual has to be willing not to follow an action urge if it is not justified by the demands of a situation. This is difficult, especially for children with severe emotional sensitivity. The difficulty comes from a need to somehow harness the willingness to go against our main motivators—our emotions. Willingness is not the same as acceptance, but it is a first step leading to it. Willingness is *acting as if* one has already accepted and is ready for a change. It is starting to walk towards change and away from a wilful stance; it is exhaling fighting and inhaling acceptance.

There are four main sources of willingness—intrinsic motivation, extrinsic motivation, reciprocity and satisfying functions of the behaviour (Ryan & Deci, 2000). Intrinsic motivation occurs when the activity itself is rewarding, satisfies our basic needs (e.g., food, shelter, companionship) and enhances a sense of pride, self-esteem, self-determination, interest to learn, and the ability to gain self-mastery and achieve goals. Extrinsic motivation occurs when an activity is rewarded by incentives not inherent in the task, such as external attention, accolades, praise and recognition from others, as well as material rewards, money, or tokens (e.g., stickers, points). The younger the child, the higher the tendency to be motivated by extrinsic, rather than intrinsic, rewards (Hayamizu, 1997). Extrinsic rewards that are contingent and tied to performance levels can over time establish interest in activities that lack initial interest, as well as enhance effort and persistence, increase perception of self-determination and reliance on intrinsic motivation to continue achieve desired outcomes (Cameron, Banko, & Pierce, 2001). Thus, without a strong extrinsic motivational system, any improvements in children's behaviour may be isolated and sporadic.

Reciprocity is the middle ground between internal and external motivation. It is a transaction in which parents and the child share a mutual goal to act in ways to meet each other's expectations, satisfy interests, and benefit the relationship. To build reciprocity, parents need to focus on doing what their child finds enjoyable (playing a video game) and not what they think may be better for the child (e.g., reading a book). Reciprocity enhances both internal and external motivation and helps build a positive parent-child relationship.

Furthermore, parents need to help child understand the function of his/her maladaptive behaviour and aid in addressing this function in adaptive ways. No amount of skills training and reinforcement will produce a consistent behaviour if a function is not satisfied. For example, if a child's aggression towards a sibling leads to a coveted parental attention and physical contact (even if this means being restrained to prevent injury to self and others), showering this child with rewards for using skills may only produce isolated and sporadic instances of the prosocial behaviour, if the desired attention and contact are not obtained. Understanding and addressing functions are imperative to eliciting and sustaining motivation.

Consistent progress can be achieved when an environment is supportive, reinforcing, and validating. A positive parent-child relationship serves four main functions: 1) modelling a relationship built on acceptance, trust, reinforcement, shared interests, and mutual respect; 2) increasing a child's desire to spend time with parents, which provides parents with more opportunities to model and prompt skills use, and to offer validation and reinforcement; 3) increasing a child's motivation to do desired behaviours to please parents, make parents proud, and earn rewards; and 4) building pathways in the child's brain associated with adaptive functioning. A relationship where parents are punishing, critical, judgmental, and invalidating not only dysregulates a child and models ineffective patterns of relating, but may also lead to the child avoiding, distrusting, and retaliating against the parents (Morris et al., 2002; Strand, 2000). Avoidance and distrust can

significantly decrease the frequency and quality of reinforcement. If a child avoids parents, this may greatly limit the amount of time they spend together, and, thus, the number of opportunities a parent may have to model, prompt, and reinforce the child's effective responding. The quality of reinforcement may also be negatively affected, as children of abusive parents are shown to be less receptive to reinforcement (Strand, 2000). Retaliation against parents is also quite common when the parent-child relationship is severely strained. One function of a child's negative behaviour may be an attempt to inflict upon the parent the same feelings of 'misery' that the child feels by being pervasively invalidated. When this function predominates, it is unlikely that reinforcement and skills training will produce a desired behaviour change. This is because the main goal of reinforcement and skills training is to increase the frequency of positive and prosocial behaviours, which contradicts the goal of inflicting misery.

Additionally, retaliation (e.g., screaming, yelling and inflicting pain) can be modelled by parents as a way to respond to problems. Unfortunately, retaliation is frequently confused with punishment. The function of punishment is to suppress an undesirable behaviour in a moment. Punishment, as a behaviour modification technique, should be applied consistently and strategically (e.g., in DBT-C it is only used to suppress unsafe behaviours, such as physical aggression). The function of retaliation, on the other hand, is to inflict suffering in a response to an aversive event. Retaliation is used inconsistently and indiscriminately because it is a mood-dependent response. While punishment targets a suppression of another person's dysfunctional behaviour, retaliation targets a decrease of one's own aversive emotional state. A parent-child relationship where mutual retaliation is frequent will continue to exacerbate the pattern of invalidation and, thus, decrease child's willingness to engage in adaptive behaviours.

Awareness and willingness are only instrumental when an individual has a behavioural capability to act in an effective way. Behavioural *capability* is achieved via learning and practicing adaptive skills. Learning is initiated during treatment sessions. However, most of the work on the application of the techniques occurs outside of the office. Parents are entrusted with eliciting further discussions of the concepts, practicing techniques, and, most importantly, demonstrating the use of skills via modelling. Skills can be practiced with children in four main ways, such as: 1) during an actual problematic situation; 2) while processing a problematic response after an outburst has occurred and rehearsing alternative solutions; 3) during the practice of skills in hypothetical problematic situations via role-plays; and 4) while coping ahead of problematic situations that are likely to happen in a near future and deciding on how to respond. All four situations necessitate parental participation. The first scenario requires parental attention to prompt, refine, and reinforce adaptive responding, while the last three are primarily elicited by parents.

In DBT-C, parental modelling of skills use is seen as one of the most important ingredients of change. A child's adaptive responding cannot be expected if the environment is consistently reacting in dysfunctional ways, and is not promoting the child's learning by demonstrating skilful behaviours. Developmental psychologists have always maintained

that children learn by imitating adults (Bandura & Kupers, 1964). The importance of modelling for behaviour acquisition has been championed by Albert Bandura and his famous Bobo doll experiment (Bandura, Ross, & Ross, 1961). Bandura's social learning theory postulated that behaviours are learned through the environment by observing, encoding, and imitating modelled responses (1977). More recent research actually indicates that children will imitate everything that adults demonstrate, including actions that are obviously irrelevant (something other primates do not do) (Horner & Whiten, 2005; Nielsen, 2006). It appears that children assume that all actions demonstrated by adults have a purpose (even if unknown), have been tested and presumed rational, and are attempts to transmit knowledge (Gergely & Csibra, 2005, Gergely, Egyed, & Kiraly, 2007). Indeed, our motivation to do things like those around us may be a universal human activity and may be the way that human culture is transmitted (Nielsen & Tomaselli, 2010).

III. Targeting the Child's Presenting Problems

7. Risky or Unsafe Behaviours

Emotional dysregulation is often associated with aggression toward other people (Okado & Bierman, 2015; Roy et al., 2013). Aggressive behaviours can be high risk and can sometimes result in injury or destruction of property. Yet, they are lower on the hierarchy than parental behaviours because addressing them without first targeting changes in the environment is not likely to produce lasting results. Aggression towards others can be divided into four main categories: 1) physical aggression (e.g., kicking, punching, throwing objects with an intend to hit a person, scratching, spitting, pulling hair); 2) verbal aggression (e.g., screaming, yelling, threatening; duration is for longer than one minute); 3) destructive behaviours (e.g., breaking objects, ripping paper, throwing objects without an intent to hit a person); and 4) talking back (e.g., swearing, "smart aleck" comments, name calling; duration is one minute or less).

The risky or unsafe behaviours category includes any behaviours that threaten the safety of other people or property, and thus, cannot be ignored. These usually include physical aggression and destructive behaviours. These behaviours are not dangerous enough to be included into the therapy destroying category, as they are mild to moderate in severity and are not likely to cause significant damage to child, other people or property, or severely disrupt a treatment process.

DBT-C teaches parents to rely almost exclusively on modelling, acceptance, validation, reinforcement, ignoring, and natural consequences. Punishment techniques (i.e., reprimands, time out, assignment of chores, and removal of privileges as a back-up strategy) are used primarily to suppress behaviours that cannot be ignored because they are a safety risk (e.g. a child is throwing objects at her sibling). Punishment procedures are always supported by the reinforcement of desired alternative responses and shaping programs (i.e., reinforcement of the successive approximation of a response in order to produce a final desired behaviour). Parents are made explicitly aware that, even in circumstances when a behaviour has to be suppressed, short-term gains are achieved at the expense of long-term outcomes, as punishment is associated with a slew of detrimental side effects (e.g., emotional escalation, modelling force as a conflict resolution strategy, reinforcement of unwanted behaviours by attention, straining the parent-child relationship, and consequent avoidance of parents) (Strand, 2000). Although DBT-C supports zero tolerance of physical aggression and destructive behaviours and teaches parents punishment techniques, the emphasis is on the reinforcement, shaping, and learning skills. Thus, it is easy to appreciate why parental behaviours are given a priority even over the child's physical aggression, as effective punishment, reinforcement, and skills practice will not occur without first addressing parental capabilities.

8. Quality-of-life-interfering problems

The quality-of-life-interfering problems include child and environmental issues that interfere with a child's functioning. These may include a child's behaviours (e.g., verbal aggression, severe interpersonal problems) and co-morbid psychiatric disorders, as well as insufficient environmental supports (e.g., school services) (see Table 3). Although physical aggression can also be viewed as a quality-of-life-interfering behaviour, it is separated into its own category to ensure that it is treated as a higher priority, and is therefore targeted before other quality-of-life (QoL) issues are addressed. For example, it is advisable to implement a shaping program to reduce verbal aggression only after physical aggression is eliminated. Implementation of multiple reinforcement and shaping programs is undesirable and counterproductive, as a child may have too many venues to earn rewards. Goals that are higher on the target hierarchy are usually more difficult to attain. If a child receives a sufficient number of points and rewards for behaviours that are lower on a target hierarchy (e.g., completing chores, doing homework), it may decrease a child's motivation to work on higher-level targets (cutting, physical aggression).

Issues that do not qualify as interfering with QoL are usually not extensively addressed during therapy and are instead left for parents to continue to resolve once treatment is completed. However, therapists have to be prepared that parents may have strong opinions on what is a priority and will expect therapist to address most of their preferred targets (e.g., academic achievements, attending extracurricular activities) during the treatment. Additionally, parents may have difficulty agreeing with a need to change their own behaviours and may especially find it problematic to accept a notion that their behaviours take precedence over their child's behaviours. Therefore, parents' orientation to the biosocial theory, transactional model, and a treatment target hierarchy and commitment to the model are prerequisites to initiating treatment, while a child's commitment is not required. Given that it is not always possible to address all of the concerns parents have regarding child's functioning during the treatment, it is always helpful for parents to understand that they will be taught techniques that can be used to develop any child behaviours that are desired, but that are not yet fully established at treatment completion.

Table 3. Pre-adolescent children quality-of-life-interfering behaviours.	
1.	Co-morbid Axis I disorders (e.g., ADHD, anxiety, depression)
2.	Neurophysiological problems (e.g., sensory processing disorder)
3.	Verbal aggression (e.g., screaming, yelling, threatening for longer than one min.)
4.	Talking back (e.g., cursing, smart-alec comments, dismissive or disrespectful responses for ≤ one min.)
5.	Issues with delayed gratification and impulse control behaviours (e.g., stealing, lying, cheating)
6.	Severe interpersonal difficulties with siblings, peers, teaching, family members (other than primary caregivers)
7.	Parent/family issues (e.g., child's response to parental divorce)
8.	School problems (e.g., school refusal, detentions, suspensions, difficulties with homework)
9.	Need for further services (e.g., special services at school, occupational therapy)
10.	Problems with maintaining physical health (e.g., refusing to take prescribed medication, refusing to go to medical appointments)

9. Skills Training

As discussed above, in order for a change to occur, an individual has to have behavioural capabilities. DBT-C requires the skills training curriculum to be completed by children as well as their parents. At least one parent has to attend treatment sessions consistently to learn the material, with a goal of communicating this learning to other caregivers (e.g., the other parent, grandparents, babysitters). DBT-C incorporates almost all of the adult DBT skills into the curriculum, with some exceptions that may not be developmentally appropriate for pre-adolescent children (e.g., finding meaning, sticking to values, no apologies; see Table 4). In DBT-C, "skills" is a general term that encompasses all of the didactic material taught during individual therapy (see Table 5) and skills training (see Table 6). Topics are taught in the sequence presented, and further discussion about treatment structure is discussed in Section 3).

Table 4. DBT for adults skills vs DBT for children skills.

DBT adult skills	DBT-C skills	DBT-C individual	Parent training	Not covered
Mindfulness				
Three states of mind	Three states of mind			
What skills	What skills			
How skills	How skills			
Interpersonal effectiveness				
Factors reducing Interpersonal Effectiveness	What gets in the way of being effective			
Myths	Worry thoughts			
Cheerleading	Cheerleading			
DEAR	DEAR			
MAN, GIVE, FAST	FRIEND			(no) Apologies Stick to values

Walking the middle path			Walking the middle path	
Dialectics			Dialectics	
Validation			Validation	
Behavior change skills			Behavior change skills	
Distress tolerance				
STOP		STOP		
Wise mind ACCEPTS IMPROVE the moment TIP skills	DISTRACT	Self-reinforcement Self-validation		Comparisons Meaning Prayer
Self-soothe	Self-soothe			
Pros and cons	Pros and cons			
Radical acceptance	Letting it go			
Willingness/willfulness	Willingness/willfulness			
Emotion regulation				

Understanding emotions		What am I feeling? Feeling thermometer Feeling/thought/ behaviour triangle		
Myths about emotions		Myths about emotions		
Model for describing emotions		Emotion Wave		
What good are emotions?		Why emotions are important?		
Letting go of emotional suffering	Surfing Your Emotions			
Check the facts		Check the facts		
Problem solving		Problem solving		
Opposite action	Opposite action			
PLEASE	PLEASE			
ABC	LAUGH			

Table 5. Individual counseling curriculum

Pre-treatment phase	
Biosocial model and treatment goals	Discussion of emotional sensitivity, invalidating environment, and resulting problems. Long-term and short-term goals are discussed and an “Eiffel Tower” of the child’s own treatment target hierarchy is created.
Orientation and commitment	Discussion of the treatment model and how it will address specified goals. Commitment is elicited (only if therapist is confident that a child is willing and likely to commit.
Didactics on emotions	
What am I feeling?	Discussion of emotions, corresponding sensations and action urges, changes in face and body.
Feelings/thought/ behaviour triangle	Discussion of how feelings, thoughts, and behaviours are different, how emotions can be turned into mood, and how emotions have different levels of intensity (as a “Feeling Thermometer”).
Why are emotions important?	Discussion of the functions of emotions and myths about emotions.
Emotion Wave	Emotion Wave is seen as going through six stages: event, thought, feeling, action urge, action, and after effect.
Food for emotions	Discussion of three sources of food for emotions: doing what emotion wants, thinking what emotions wants, and maintaining tension in the body that emotion brings
Behavior change model	Three main factors that are needed to change your own behaviour: awareness, willingness and capability.
Willfulness and willingness	Being willing to accept reality as it is as opposed to being willful in refusing to do what works.

Letting it go	Techniques for accepting events that cannot be changed with mind and body.
STOP skill	Avoiding impulsive reactions using STOP skills: ***S***top and do not move a muscle, ***T***ake a step back and breathe, ***O***bserve what is going on inside and outside of you to collect information, ***P***roceed mindfully by considering goals.
Individual therapy following stage 1 targets	
Four responses to any problem	Solve a problem, change the way you feel, tolerate and accept, stay miserable.
Short-term and long-term Pros and cons	To select an effective solution to a problem, consider pros and cons of each response, and note which consequences are short term and long term.
Check the facts	Cognitive restructuring by catching ineffective cognitions, challenging, and changing them.
Problem solving	Five steps to problem solving: describe the situation, consider the “Eiffel Tower of Goals,” brainstorm all possible solutions, choose on that fits bets, act on your choice, and note results to consider next time.

Table 6. DBT-C skills training curriculum

Mindfulness	
Introduction	Meaning, importance, and goals of mindfulness skills.
What is mindfulness?	Paying attention to paying attention on purpose, in this one moment, and non-judgmentally
Three states of mind	"Emotion mind" is when thoughts and behaviours are controlled mostly by emotions and it is hard to think straight. "Reasonable mind" is when thoughts and behaviours are controlled by logic and rules and emotions are not considered. "Wise mind" is a when we take into account information from our feelings and thoughts and add intuition when making decisions. Steps to connect to Wise mind are discussed.
What skills	Observing, describing, and participating with awareness.
How skills	Don't judge, stay focused, and do what works.
Review	Review and discussion of the learned mindfulness skills.
Distress tolerance	
Introduction	Meaning and goals of distress tolerance skills.
DISTRACT	Controlling emotional and behavioral responses in distress using DISTRACT skills: ***D***o something else, ***I***magine pleasant events, ***S***top thinking about it, ***T***hink about something else, ***R***emind yourself that feelings change, ***A***sk others for help, ***C***ontribute, ***T***ake a break and ***T***ense and Relax.
TIP	When at a breaking point, use TIP skills: ***T***ense and Relax, ***I***ntense sensation, ***P***aced Breathing
Self-soothe	Tolerating distress by using the five senses: vision, hearing, taste, smell, and touch.
Review	Review and discussion of the learned distress tolerance skills.
Emotion regulation	

Introduction	Meaning and goals of emotion regulation.
Surfing your emotion	Decreasing the intensity of emotional arousal by attending to sensations the emotion produces in the body without distracting or ruminating.
Opposite action	Changing emotion by acting opposite to the action urge.
PLEASE skills	Reducing emotional vulnerability with PLEASE skills: attend to ***P***hysica***L*** health, ***E***at healthy, ***A***void drugs/alcohol, ***S***leep well, and ***E***xercise.
LAUGH skills	Increasing positive emotions with LAUGH skills: ***L***et go of worries, ***A***pply yourself, ***U***se coping skills ahead of time, set ***G***oals, and ***H***ave fun.
Review	Review and discussion of the learned emotion regulation skills.
Interpersonal effectiveness	
Introduction	Meaning and goals of interpersonal effectiveness.
Worry thoughts & cheerleading	Goals of interpersonal effectiveness, what gets in the way of being effective and cheerleading statements.
Goals	Two kinds of interpersonal goals, “getting what you want” and “getting along.”
DEAR skills	How to “get what you want” using DEAR skills: ***D***escribe the situation, ***E***xpress feelings and thoughts, ***A***sk for what you want, ***R***eward or motivate the person for doing what you want.
FRIEND skills	How to “get along” by using the FRIEND skill: (be) ***F***air, ***R***espect the other person, (act) ***I***nterested, ***E***asy manner, ***N***egotiate and (be) ***D***irect.
Review	Review and discussion of the learned interpersonal effectiveness skills.

10. Therapy-Interfering Behaviours of the Child

DBT-C is quite tolerant of child behaviour that may interfere with conducting a session. This stems from its ability to rely almost exclusively on parental learning, when necessary, which significantly relieves the pressure of ensuring the child's full engagement during a session. In DBT-C, problematic behaviours (verbal aggression, threats, cursing, screaming, using threatening body language, devaluing treatment as a waste of time, running around, and other distracting behaviours) are just ignored with a plan to help a child re-regulate and re-focus attention when appropriate. If such behaviours occur consistently, they are targeted by a shaping program.

Furthermore, problematic behaviours that occur during sessions, such as temper outbursts, can be very informative and target relevant, as they allow a therapist to: 1) observe parent-child interactions; 2) model to parents how to respond to problematic situations; 3) coach parental responses in the moment; and 4) model effective conflict resolution, problem solving, and skills use to parents and a child. Ignoring of problem behaviours in session also helps with extinction generalization (e.g., swearing is not attended to at home and in therapy).

If DBT-C is conducted in a residential setting or inpatient units, skills training is usually delivered in groups and parents are not present. However, ignoring the above-described behaviours is still practiced to the fullest extent possible. For other participants, a temper outburst of a group peer (unless a behaviour is aggressive or dangerous) is viewed as an opportunity to practice ignoring, distress tolerance, and other skills.

Attempts to correct therapy-interfering behaviours as they are occurring during a session via discussions, behaviour analysis, suppression of behaviours via punishment (except if dangerous), etc., can reinforce these behaviours with attention, interfere with addressing higher level targets (e.g., teaching skills to parents), lead to escalation, strain the therapist-child relationship, and decrease a child's willingness to attend further sessions. For example, in a situation when a child will only attend therapy if allowed to play on his iPhone during a session, instead of wrestling over electronic devices, this behaviour is ignored, and engagement is prompted and reinforced, while a therapist is teaching skills to parents. Similarly, if a child is very hyperactive and keeps moving and exploring objects in a room, focusing on having him sit quietly in one place will not be productive. In such situations, a therapist continues to teach and ask the child questions to assess attention and comprehension, as well as to engage the child in task-relevant activities.

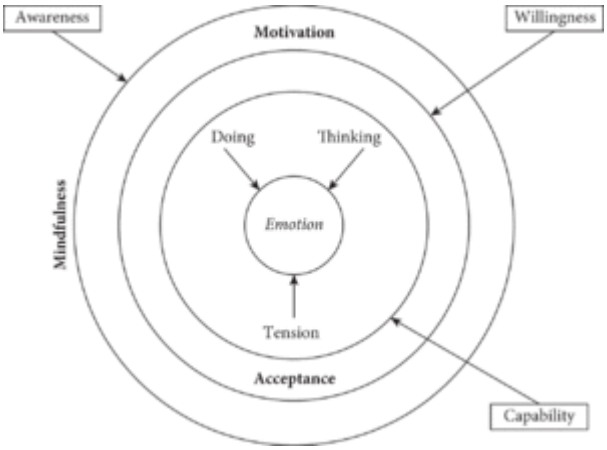
A child's therapy-interfering behaviours are addressed primarily via 1) developing a strong therapist-child relationship; 2) reinforcing desired behaviours in the moment and shaping adaptive responding over time; 3) ignoring problematic behaviours (except if dangerous); 4) relying on natural consequences (i.e., a child does not get a participation reward); 5) conducting a chain and solution analysis of a behaviour in subsequent sessions; and 6) if child is not engaging, teaching the material to parents with the goal for

them to communicate this material to a child at home via modelling, discussions, and prompting, reinforcing, and practicing skills use.

Overview of adaptations

DBT-C adaptations to therapeutic strategies, skills training, and individual treatment, as well as the parent-training component have been discussed elsewhere (Perepletchikova et al., 2011; Perepletchikova & Goodman, 2014). Therefore, they will only be briefly reviewed in this section. DBT-C retains all principles, therapeutic strategies, didactic information, and skills modules of DBT for adults (Linehan, 1993, 2015). However, significant deviations from the original DBT permeate the entire DBT-C model, starting with how the presenting problem is discussed with children and their families. In working with this population, clinicians have to ensure that the terms “sensitive” does not continue to be associated with a child being touchy, defensive, uptight, paranoid, or neurotic. To aid this goal, the term “supersenser” may be used as a better descriptor. This word was derived from terms describing people with heightened sensitivity to sensory perceptions. Indeed, there are those who have an increased number of taste buds and experience the sense of taste with far greater intensity than an average person; these people are referred to as supertasters (Hayes & Keast, 2011). There are also supersmellers who have an increased olfactory acuity that causes them to have a lower threshold for odour, or hyperosmia (Hummel, Landis, & Huttenbrink, 2011). Having “super” abilities may present with some advantages as it allows such people to appreciate the nuances of tastes and smells to a greater extent; however, the intensity of their experiences can be overwhelming. Similarly, those who have a lower threshold for emotional arousal and experience it with greater intensity and duration than an average person may be referred to as supersensers. Just like the others with “super” abilities, supersensers can be easily overpowered by their reactions; however, their abilities may have some advantages. Research and clinical practice indicate that these people are not only sensitive to their own emotions, but also may be more attuned to other people’s emotional states and may be very empathic (see, e.g., Spinrad & Stifter, 2006; Zahn-Waxler, Robinson, & Emde, 1992). Perhaps people who are reactive themselves have an enhanced understanding and concern about another person’s distress. Explaining the notions of emotional sensitivity from a perspective of supersensers’ special abilities and challenges rather than a vulnerability can achieve multiple functions. It may help avoid the risk of invalidation, provide a dialectical view of the presenting issue, and in many cases, give children and their parents a sense of relief and even contentment. Furthermore, a child’s interest and willingness to learn techniques can be greatly enhanced when s/he understand that emotional sensitivity is a special ability that needs to be better controlled, rather than a problem to be corrected.

DBT-C maintains emotion dysregulation as its main target. In DBT-C concepts are simplified to promote better comprehension, given the developmental level of the target population. For example, DBT-C Emotion Change Model discusses emotion regulation as "not feeding" an unwanted emotion. Children are taught that emotions have three main sources of food: 1) doing what an emotion is saying to do (i.e., following an action urge); 2) thinking what an emotion is saying to think (e.g., rumination about a triggering event); and 3) maintaining tension in the body that is associated with emotional arousal. So, if an action urge is not justified by a situational demand, in order for an emotion to subside or change, all three sources of "food" have to be interrupted. Emotion regulation skills, such as "Surfing Your Emotion" and "Opposite Action," can change an emotional experience because they include techniques that interrupt all three sources of "food" for an emotion. For example, "Surfing Your Emotion" skill 1) interrupts action by performing a skill instead of a dysfunctional behaviour, 2) interrupts rumination by re-orienting attention from thoughts to sensations in the body that are associated with an emotion (e.g., "butterflies in the stomach" for fear), and 3) releases tension by doing half smile and willing hands. Most of the distress tolerance skills, on the other hand, are designed to tolerate a situation without making it worse and not to change an emotional experience, as they usually interrupt just one or two of the "food" sources (e.g., "Do Something Else" skill interrupts dysfunctional actions, and the "Tense and Release" skill interrupts a dysfunctional action and releases tension). Figure 1 presents the Emotion Change Model within the context of the Behaviour Change Model.



Click to view larger

Figure 1. DBT-C Emotion Change Model within the context of the Behavior Change Model.

DBT-C aims to improve emotion regulation through intervening into each step of the Emotion Wave paradigm that is taught to participants (Figure 2: Step 0) vulnerabilities or events that increase chances of a dysfunctional response occurring, targeted through mindfulness and problem-solving; Step 1) an event, which can be internal (e.g., thought, memory, another feeling) or external (e.g., being called names, not getting a coveted item) is targeted through teaching effective problem-solving and conducting exposure; Step 2) a thought or interpretation of an event is targeted through mindfulness and cognitive restructuring; Step 3) physical feeling or sensations in the body is targeted through mindfulness; Step 4) an action urge or a directive from an emotion on how to respond to an event (e.g., pushing or kicking for anger) is targeted through mindfulness; Step 5) an action, whether or not to follow an action urge, is targeted through skills training and teaching effective problem-solving; and Step 6) the

after-effects or consequences of an action (e.g., being rewarded or punished, other thoughts or emotions) are targeted through implementing and teaching contingency management procedures.

Click to view larger

Figure 2. Emotions Wave and targets for intervention.

DBT-C favours practices, experiential exercises, role-plays, and games to didactic presentations and lengthy intellectual discussions. Active learning (through experiencing or practicing a technique) is preferred to passive learning (through reading and discussing) for several reasons: 1) to help engage and sustain children's attention; 2) to promote understanding of the discussed skills; and 3) to allow the therapist to directly observe the use of a technique and provide immediate feedback to further refine skills use. *Experiential exercises* help participants experience aspects of the presented skills and may greatly aid in the understanding of techniques. For example, asking a child to balance a peacock feather on a tip of her finger will require a mindful participation in order to keep the feather from falling, thus eliciting an experience of mindfulness. *In-session practice* is also used to enhance understanding of techniques, as well as to help refine skills use. Practices follow the presentation of didactic materials and include the therapist's modelling of a skill, eliciting the child's performance of a skill, and providing corrective feedback. *Role plays* give a child an opportunity to practice skills in a playful way and to apply techniques to real-life situations.

During individual sessions, therapists address specific concerns, review Diary Cards, perform behavioural analyses, exposure, and cognitive restructuring, provide contingency management, and help the child apply learned skills to everyday problems. During the first several individual sessions of DBT-C, the child and caregivers receive didactic instructions on emotions. The child also learns problem-solving and cognitive restructuring techniques. Information taught during skills training is simplified and condensed from DBT for adults. For example, "Wise Mind ACCEPTS," "IMPROVE the moment" and "TIP" skills were combined into one skill: "DISTRACT" (see Table 5). DBT-C skills training is also augmented by multimedia and games. Multimedia presentations utilize video clips with cartoon characters performing skills effectively or ineffectively, which helps engage children in a discussion of techniques. Several games also have been developed for DBT-C. The "Skills Master" card game was created to assist with review of

the learned skills at the end of each skill module. The “Three-Headed Dragon” game was developed to assist with chain and solution analysis. Additionally, a parent-training component has been added to the model, with some strategies adapted from Kazdin (2005). Parents are required to learn everything their child is learning (i.e., didactics on emotions and DBT-C skills), and participate in the parent training (i.e., validation, creation of change-ready environment, behaviour modification techniques, and dialectics of parenting).

Therapy structure largely depends on organizational demands and family needs. For example, on an outpatient basis, all treatment components are provided individually to family units. Children and their parents are seen once weekly for 90 minute sessions (30 min for individual child therapy, 20 min for individual parent component, and 40 min for skills training with a child and a parent together). A substantial difference in the developmental levels between seven-year-old and twelve-year-old children can make it quite a challenge to conduct effective skills training in a group format on an outpatient level of care. In residential care facilities, on the other hand, children and parents participate in separate skills trainings. Also, children are typically housed by age which allows a natural opportunity to conduct group skills training by units.

DBT highlights function over form. DBT-C does not prescribe a specific form for implementing treatment components, but rather emphasizes adherence to DBT principles and strategies, which enhances the flexibility of implementation. For example, didactics on emotions and DBT-C skills are usually taught to children together with their parents. However, separate training can be conducted when a parent-child relationship is so strained that a child becomes extremely reactive in his parents’ presence, and where that reactivity interferes with learning. Separate trainings continue to be conducted until the relationship sufficiently improves to allow joint sessions.

Empirical support

Two randomized clinical trials were recently completed on DBT for pre-adolescent children (seven to 12 years of age). The outpatient setting trial targeted children with DMDD Perepletchikova et al., manuscript in preparation). More than half of these children reported suicidality and/or non-suicidal self-injury (NSSI), with Attention Deficit Hyperactivity Disorder (ADHD) and Anxiety Disorders being the most prevalent co-morbid conditions. Results of this trial indicated that DBT-C was acceptable to children and their parents and was significantly more effective in decreasing DMDD symptoms than Treatment As Usual (TAU). DBT-C had a significantly higher rate of attendance, treatment acceptability, and satisfaction, and a significantly lower dropout rate as compared to TAU. Further, 90% of children in DBT-C responded to the intervention as compared to 45.5% in TAU, despite three times as many subjects in TAU as in DBT-C receiving additional psychopharmacological treatment. Differences between groups were

shown for both mood symptoms and behaviour outbursts. Observed changes were also clinically significant and maintained at three-month follow-up.

The residential care trial was completed with male children with a range of psychiatric conditions, with ADHD, Disruptive Behaviour Disorders and Anxiety Disorders being most prevalent (Perepletchikova et al., manuscript in preparation). Most children had three or more co-morbid disorders, and reported suicidality and/or NSSI. The mean IQ for participants was 88.9. The results of this trial indicated no significant differences in the attendance and dropout rates between groups, which was expected given the nature of the residential setting programme. However, significant differences were observed on the main measures of outcome—the *Child Behaviour Checklist* (CBCL) and the milieu staff report. Children in the DBT-C condition as compared to TAU had significantly greater reduction in scores on both the CBCL Internalizing and Externalizing scales. Results were maintained at follow-up, and observed changes were clinically significant.

Significant differences between groups were reported on the CBCL only by the milieu staff, and not by teachers or parents. One of the factors that may have contributed to the disparity in the results was the degree to which these caregivers received DBT-C training. Teachers were not trained in DBT-C, and the same teachers were in contact with both groups of children. Parents unfortunately attended only a fraction of parent training groups in both conditions and, thus, also did not receive sufficient training. DBT-C milieu staff, on the other hand, received intensive training in the DBT-C strategies, coping skills, didactics on emotions, and the parent-training component, and were supervised weekly on the application of the techniques. As noted, the goal of caregiver training is to help create a validating and change-ready environment with the expectation that this will facilitate children’s progress. Indeed, results of both studies indicated significant and rapid symptom reduction for children receiving DBT-C within the trained environment. More research is needed to further examine the caregivers’ role in treatment and to evaluate the efficacy of DBT for children; however, the obtained results are promising and provide preliminary support for the model.

Conclusion

DBT for pre-adolescent children retained the theoretical model, principles, and therapeutic strategies of standard DBT. DBT-C incorporates almost all of the adult DBT skills and didactics into the curriculum; however, the presentation and packaging of the information are considerably different to accommodate for the developmental and cognitive levels of pre-adolescent children. One of the major departures from the original model is the treatment target hierarchy, which has been greatly expanded to incorporate DBT-C’s emphasis on the parental role in attaining child’s treatment goals. DBT-C views parental adaptive pattern of responding as key to achieving lasting changes in a child’s emotional and behavioural regulation.

References

Althoff, R. R., Verhulst, F. C., Retlew, D. C., Hudziak, J. J., & Van der Ende, J. (2010). Adult outcomes of childhood dysregulation: A 14-year follow-up study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *49*, 1105–1116.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A, & Kupers, C. J. (1964). Transmission of patterns of self-reinforcement through modeling. *Journal of Abnormal and Social Psychology*, *69*, 1–9.

Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through imitation of aggressive models. *Journal of Abnormal and Social Psychology*, *63*, 575–582.

Bingham C. W., & Sidorkin, A. M. (2004). *No education without relation*. Peter Lang Publishing.

Cameron, J., Banko, K. M., & Pierce, D. (2001). Pervasive negative effects of rewards on intrinsic motivation: The myth continues. *The Behavior Analysis*, *24*, 1–44.

Gergely, G., & Csibra, G. (2005). The social construction of the cultural mind: Imitative learning as a mechanism of human pedagogy. *Interaction Studies*, *6*, 463–481.

Gergely, G., Egyed, K., & Kiraly, I. (2007). On pedagogy. *Developmental Science*, *10*, 139–146.

Hayamizu, T. (1997). Between intrinsic and extrinsic motivation: Examination of reasons for academic study based on the theory of internalization. *Japanese Psychological Research*, *39*, 98–108.

Hummel, T., Landis, B. N., & Huttenbrink, K. B. (2011). Smell and taste disorders. *GMS Current Points in Otorhinolaryngology*, *10*, 1–15.

Hayes, J. E., & Keast, R. S. J (2011). Two decades of supertasting: where do we stand? *Physiology & Behaviors104*, 1072–1074.

Holtman, M., Buchmann, A. F., Esser, G., Schmidt, M. H., Banaschewski, T., & Laucht, M. (2011). The Child Behavior Checklist—Dysregulation Profile predicts substance use, suicidality, and functional impartment: a longitudinal analysis. *Journal of Child Psychology and Psychiatry*, *52*, 139–147.

Horner, V., & Whiten, A. (2005). Causal knowledge and imitation/ emulation switching in chimpanzees (Pan troglodytes) and children (Homo sapiens). *Animal Cognition*, *8*, 164–181.

Kazdin, A. E. (2005). *Parent management training: Treatment of oppositional, aggressive and antisocial behavior in children and adolescents*. New York, NY: Oxford University Press.

Kerns, K. A., Tomich, P. L., Aspelmeier, J. E., & Contreras, J. M. (2000). Attachment-based assessment of parent-child relationships in middle childhood. *Developmental Psychology, 36*, 614–626.

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

Linehan, M. M. (2015). *DBT skills training manual*. New York, NY: Guilford Press.

Morris, A. S., Silk, J. S., Steinberg, L., Sessa, F. M., Avenevoli, S., & Essex, M. J. (2002). Temperamental vulnerability and negative parenting as interacting predictors of child adjustment. *Journal of Marriage and Family, 64*, 461–471.

Nielsen, M. (2006). Copying actions and copying outcomes: Social learning through the second year. *Developmental Psychology, 42*, 555–565.

Nielsen, M., & Tomaselli, K. (2010). Overimitation in Kalahari Bushman children and the origin of human cultural cognition. *Psychological Science, 21*, 729–736.

Okado, Y., & Bierman, K. L. (2015). Differential risk for late adolescent conduct problems and mood dysregulation among children with early externalizing behavior problems. *Journal of Abnormal Child Psychology, 43*, 735–747.

Perepletchikova, F., Axelrod, S. R., Kaufman, J., Rounsaville, B. J., Douglas-Palumberi, H., & Miller, A. L. (2011). Adapting Dialectical Behavior Therapy for children: Towards a new research agenda for pediatric suicidal and non-suicidal self-injurious behaviors. *Child and Adolescent Mental Health, 16*, 116–121.

Perepletchikova, F., & Goodman, G. (2014). Two approaches to treating pre-adolescent children with severe emotional and behavioral problems: Dialectical Behavior Therapy adapted for children and Mentalization-Based Child Therapy. *Journal of Psychotherapy Integration, 24*, 298–312.

Perepletchikova, F., Klee, S., Davidowitz, J., Nathanson, D., Merrill, C., Axelrod, S., McArthur, M., & Walkup, J (manuscript in preparation). Dialectical Behavior Therapy with pre-adolescent children in residential care: Feasibility and primary outcomes.

Perepletchikova, F., Nathanson, D., Axelrod, S., Merrill, C., Grossman, M., Rebeta, J., Scahill, L., Kaufman, J., Flye, B., & Walkup, J. (manuscript in preparation). Dialectical Behavior Therapy for pre-adolescent children with Disruptive Mood Dysregultion Disorder: Feasibility and primary outcomes.

Phillips, A. & Taylor, B. (2009). *On Kindness*. London: Hamish Hamilton.

Pickles, A., Aglan, A., Collishaw, S., Messer, J., Rutter, M., & Maughan, B. (2009). Predictors of suicidality across the life span: the Isle of Wight study. *Psychological Medicine*, *26*, 1–14.

Roy, A. K., Klein, R. G., Angelosante, A., Bar-Heim, Y., Leibenluft, E., Hulvershorn, L., Dixon. E., Dodds, A., & Spindel, C. (2013). Clinical features of young children referred for impairing temper outbursts. *Journal of Child and Adolescent Psychopharacology*, *23*, 588–596.

Ryan, R. M., & Deci, E. L. Intrinsic and extrinsic motivations: Classic Definitions and new directions (2000). *Contemporary Educational Psychology*, *25*, 54–67.

Spinrad, T. L., & Stifter, C. A. (2006). Toddlers' empathy-related responding to distress: Predictions from negative emotionality and maternal behavior in infancy. *Infancy*, *10*, 97–121.

Strand, P. S. (2000). A modern behavioral respective on child conduct disorder: Integrating behavioral momentum and matching theory. *Clinical Psychology Review*, *20*, 593–615.

Tamás, Z., Kovacs, M., Gentzler, A. L., Tepper, P., Gádoros, J., Kiss, E., Kapornai, K., & Vetró, A. (2007). The relationship of temperament and emotion self-regulation with suicidal behavior in a clinical sample of depressed children in Hungary. *Journal of Abnormal Child Psychology*, *35*, 640–652.

Thomas, A., & Chess, S. (1985). The behavioral study of temperament. In J. Strelau, F. H. Farley, & A. Gale (Eds.), *The biological bases of personality and behavior: Vol. 1. Theories, measurements techniques and development* (pp. 213–235). Washington, DC: Hamisphere.

Winnicott, D. W. (1973). *The Child, the Family, and the Outside World*. Harmondsworth: Penguin Books.

Zahn-Waxler, C., Robinson, J. L., & Emde, R. N. (1992). The development of empathy in twins. *Developmental Psychology*, *28*, 1038–1047.

Notes:

([1]) DBT-C Behaviour Change Model discusses factors that have to be present to change one's *own* behaviour. A behaviour can be changed without person's awareness through shaping and reinforcement.

Francheska Perepletchikova

Francheska Perepletchikova, Assistant Clinical Professor of Psychiatry, Yale University