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Contextual Emotion Regulation Therapy: A Developmentally-Based Intervention for Pediatric Depression

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For this special issue about child and adolescent depression, we were asked to describe Contextual Emotion Regulation Therapy¹ as an example of a developmentally informed psychosocial intervention. To this end, we start with our definition of the elements that should comprise such an intervention. We then provide a succinct summary of this treatment, including its explanatory paradigm of depression, and explain how it addresses the various definitional criteria of a developmentally informed intervention. We conclude with a brief overview of the challenges of implementing a developmentally sensitive psychotherapy for depressed children and adolescents.

WHAT IS A DEVELOPMENTALLY INFORMED PSYCHOSOCIAL INTERVENTION?

As long ago as the 1980's, clarion calls already were sounded for a merger between clinicians and developmentalists in order to improve interventions for pediatric mental disorders.² More recently, Ollendick, Grills, and King³ have specifically noted that developmental theory should inform decisions regarding when to intervene for children, what to target, and how treatment goals should be implemented, and suggested that a useful template is the developmentally-based utilization guidelines for behavioral techniques. Barrett⁴ has raised similar developmentally based concerns in connection with interventions for pediatric anxiety disorders and was especially concerned that standardized interventions tend to view children as "little adults." In a subsequent publication, Kingery and colleagues⁵ underscored that anxious youngsters indeed are not "little adults" and provided a detailed exposition of age appropriate ways to engage such youths in treatment as well as ways to modify demanding therapeutic strategies (such as cognitive restructuring, exposure tasks).

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We ourselves have called attention to the need to render psychosocial interventions for *depressed* young patients developmentally more appropriate.⁶ We have done so because the most commonly studied psychotherapies for pediatric depression (i.e., cognitive behavior therapy and interpersonal psychotherapy) represent “downward” modifications of interventions that were originally designed for adults and are not particularly developmentally sensitive.

Ollendick and colleagues,⁷ along with the other scholars just noted, have identified key issues that should be considered in the delivery of interventions for pediatric mental disorders. In particular, they have emphasized the lack of autonomy of child patients and the need to tailor the level of the intervention to the developmental capacities of the child. However, in designing our treatment for childhood depression, we have taken a different approach: we used the literature on normal development as one of the foundations of Contextual Emotion Regulation Therapy (CERT). Correspondingly, our view of a developmentally informed intervention differs somewhat from what has been articulated in the field.

What constitutes a developmentally informed psychosocial intervention for pediatric depression? We believe that such an intervention has to have at least **four key features**. First, the treatment’s conceptual formulation (or explanatory framework) should include an explicit developmental component. In other words, the explanatory paradigm should specify which developmental parameters or skills are implicated in the unfolding of depression and how dysfunction in that regard paves the way to depression. Second, a developmentally informed intervention should accommodate the fact that young patients will be at different stages of development of the targeted skills when they enter treatment,^{e.g.,⁸} which will have ramifications for what the therapist can do. Further, even at a specific developmental stage or age (for example, all 7-year-olds), young patients will not be at the same skill levels and also will differ in background and contextual variables that may affect treatment. Thus, a developmentally informed intervention should be sufficiently flexible to accommodate multiple sources of variability across young patients and explicate how its implementation for chronologically and/or developmentally younger patients differs from that for older youths.

Third, a developmentally informed intervention should account for the importance of parents (or other key caregivers) in children’s lives. From a legal and a social perspective, children and adolescents have limited rights and are entirely dependent on their parents (at least in the U.S.A.), who control access to resources. From a psychological perspective, parents play critical roles in their children’s emotional and social development and provide the crucible within which developmental skills unfold. Therefore, we believe that the explanatory paradigm of a developmentally sensitive intervention should address how parents impact the skill that is being targeted or else, account for the role of the parents in those areas of the young patient’s functioning that are relevant to treatment targets.

Finally, we strongly believe that a developmentally informed intervention must address explicitly the training and behavior of the therapists and require that they be knowledgeable about principles of development in general and those developmental processes in particular that are most relevant to the intervention. As we now discuss, CERT meets each criterion that was just listed, albeit to varying extents.

CONTEXTUAL EMOTION REGULATION THERAPY (CERT): A BRIEF DESCRIPTION

Contextual emotion regulation therapy (CERT) is based on the proposition that sad, despondent, dysphoric mood is *the* most salient feature of clinical depression, which must be alleviated in order for recovery to occur.¹ It is assumed that clinical depression starts as a response to some initiating stress event or process, which elicits sadness, distress, and dysphoria. From thereon, whether or not the dysphoric emotion develops into a disorder depends in large measure on the way in which the affected youngster responds to the emotion. As Teasdale⁹ has noted, individuals who are prone to clinical depression respond in ways that impede “natural recovery.”

How people respond to their own emotions has come to be called *emotion regulation*.¹⁰ Individuals are unlikely to become clinically depressed if they are able to manage (regulate) their sadness or dysphoria in a context appropriate fashion, such that it does not get out of hand and does not interfere with functioning. But, when the skills to attenuate or modulate those emotions are lacking, are sub-par, or are not effective, the emotion will progress to persistent mood, which, in turn, will initiate a downward spiral of further depression symptoms. Because CERT focuses specifically on attenuating sadness and distress, it targets regulation that has been called mood repair^{11,12} or negative mood repair.¹³ Mood repair refers to the fact that when a person feels sad, dysphoric, or is in a “bad mood,” there is a natural inclination to behave in ways that will result in feeling better.^{e.g.,14} Thus, *mood-repair* indexes a sub-set of the processes and responses that comprise emotion regulation because it concerns only sadness, dysphoria, or distress, with the goal to attenuate, reduce, or shorten that experience.

According to CERT’s explanatory framework, persistent failure to attenuate sad, dysphoric mood (i.e., maladaptive mood repair) is *the* mechanism that is responsible for the child’s eventual depressive disorder.^{15,16} Mood repair failure contributes to clinical depression in at least two ways. First, it is the mechanism that accounts for how the initial dysphoric emotion experience segues into protracted dysphoric mood and then spirals into a depressive disorder. Second, maladaptive mood repair maintains the depressive episode by contributing to the persistent sadness, distress, and irritability that are central to clinical depression. Therefore, while acknowledging the full range of depressive symptoms, the CERT formulation of depression focuses the therapist’s attention on the young patient’s affective complaints and the regulatory responses that maintain them. CERT’s objectives are to help the child recover from depression and to prevent recurrence primarily by: 1) reinforcing the use of responses that attenuate or modulate dysphoria (adaptive responses) and 2) reducing the child’s use of responses that maintain or exacerbate dysphoria (maladaptive responses).

CERT is *developmentally based* because its target, namely mood repair, is a developmentally mediated construct. More specifically, mood repair skills, along with all emotion regulation skills, unfold as part of normal development starting as early as infancy.^{17,18} Thus, the persistent mood repair failure that predates and also is evident in clinical depression is a function of some atypical feature of the given child’s emotion regulatory development. That atypical aspect of mood repair, which has rendered the child particularly vulnerable to the effects of depressogenic triggers, needs to be identified and remediated. Consequently, CERT emphasizes the adaptive (and age-appropriate) self-regulation of dysphoria as the primary road to recovery from clinical depression. Adaptive regulation of dysphoria means that the child is not disabled or incapacitated by his/her mood and is in a better position to manage the broader context of his/her difficulties.

How is CERT's explanatory, developmentally-based framework translated into practice? In other words, what are the developmental skills implicated by CERT? And how does the developmental basis of CERT inform and affect the behavior of the therapist? Because a developmental perspective also implies an emphasis on individual differences, how is that construct handled in CERT? These questions are the targets of the next section and are explicated in detail in the CERT Treatment Manual.^{15,16} Although the manual focuses on intervening with depressed 7- to 12-year-olds, CERT should be readily usable with somewhat older youngsters as well.

THE IMPACT OF DEVELOPMENTALLY MEDIATED SKILLS AND INDIVIDUAL DIFFERENCES ON THE IMPLEMENTATION OF CERT

Mood repair responding is the specific developmentally mediated skill that is targeted by CERT. However, as we consider the variety of ways in which people (including youngsters) respond to their own emotions in general, and dysphoria in particular, it is clear that mood repair is a meta-skill that is dependent on a broad array of basic skills (e.g., goal-directed behavior, language, cognition, executive functions). Thus, the question is: how is CERT delivered in a way that takes into consideration: a) the *developmental unfolding of mood repair responses*, b) *developmental trajectories* of the underlying basic skills, and c) additional *individual differences* across young patients?

To deliver CERT appropriately requires that the therapist be fully familiar with the relevant empirical literature, including the literature on the normative development of emotion regulatory responses, the unfolding of basic skills and processes that support mood repair, and findings on the phenomenology of pediatric depression. Familiarity with the developmental literature is particularly important in order for the therapist to be able to tailor the focus and content of each session to the developmental phase and needs of the given young patient. More specifically, knowledge of the developmental literature frames the therapist's expectations of the type and quality of mood repair responses for a given child of a particular age; helps the therapist to identify atypical mood repair response features or developmental delay in a given child; and assures that the therapist remains mindful of the fact that mood repair competence depends in large measure on a wide array of basic skills.

The Developmental Unfolding of Mood Repair Responses (and Related Skills) and CERT

We know that competent emotion self-regulation and mood repair emerge as part of normal development starting around 6–8 months of age.^{e.g.,17–19} We also know that the social environment is the crucible in which these processes unfold, with parents (or other caregivers) having the greatest developmental impact.^{e.g.,20} Further, as children mature, their own mood repair attempts become more effective in part because they are increasingly able to tailor their responses to the context of the emotion.^{21,22} The increasing effectiveness of mood repair with age partly mirrors developmental trends of the various skills that subserve and support it.

Mood Repair Responses Across Childhood—Studies have identified several *specific developmental trends* in the acquisition of mood repair responses across infancy, toddlerhood, and early- to middle-childhood. One important developmental trend is the shift from *extrinsic* to mostly *intrinsic* modes of regulation.^{23,24} In other words, while regulatory responding of infants and very young children is typically initiated and maintained by caregivers, older children become increasingly able to *self-initiate mood repair*.²⁵ This developmental shift occurs around *age 3 to 4* in Western societies. Consequently, while it may not be unusual for a 6- or 7-year-old to occasionally rely on externally initiated mood

repair, frequent or *persistent* failure to self-initiate mood repair in a school-age child is a cause for concern and represents a CERT target.

Another developmental imperative is to acquire mostly adaptive or helpful mood repair responses along with a few maladaptive or unhelpful responses. Adaptive responses²⁶ are those that help children to “lower the level of distress.”²⁷(p. 314) Responses that diminish, attenuate, or terminate dysphoria also are defined in CERT as *adaptive, but with a caveat*: the response’s adaptive value has to be evident both in the short- and the long-run. Attempts that prolong or exacerbate distress or dysphoria are typically regarded as counter-effective or *maladaptive* both in the literature^{e.g.,27,28} and in CERT.¹⁶ While laboratory studies of young children have shown that adaptive ways of responding to distress typically outnumber maladaptive responses,^{e.g.,26,29} it is not known whether the ratio of adaptive to maladaptive responses changes as a function of development. However, preliminary findings from our own research suggests that, by about the age of 7 years, the adaptive to maladaptive mood repair response ratio in typical school children is about 2:1 or 3:1, and that depressed children have an excess of maladaptive responses, rather than an absence of adaptive ways of managing distress (Kovacs, unpublished data, March 2011). Consequently, while a depressed child’s presenting problem will include many examples of maladaptive mood repair, the CERT therapist knows that the child also must have adaptive ways of managing distress. The therapist therefore focuses on identifying and reinforcing the young patient’s adaptive mood repair responses, while minimizing the use of maladaptive responses.

Development also is believed to signal a *growing repertoire* of regulatory responses,^{e.g.,24,30} but there are scant supporting data.²⁵ Thus, we do not know for sure how the size and scope of the mood repair repertoires of 6-year-olds, for example, differ from that of 12-year-olds. However, children must be acquiring new responses as they mature because, by adulthood, there are hundreds of self-regulatory responses to distress,^{31–34} making it necessary to have some way of categorizing them. CERT’s categories were based on the *types of responses* that emerge in rapid succession during the first year and a half of life, namely: somatic-sensory, cognitive, interpersonal, and behavioral responses.³⁵ These response categories mirror the functional domains through which changes in affect seem to be eventuated (or the areas of functioning put to use in the service of mood repair). Based on pilot experiences, a three-fold grouping of responses was created,¹⁶ namely: the *cognitive response domain* (involving thinking, perception, and the strategic use of attention), the *behavioral response domain* (involving action oriented and instrumental behaviors and self-focused, body-oriented behaviors not involving others), and the *interpersonal response domain* (involving the use of interpersonal processes and other people in order to feel better).

Preliminary findings from our own research with 7- to 14-year-old school children suggest that by 7 or 8 years of age, children have acquired the bulk of their adaptive mood repair strategies: while there is developmental expansion of the repertoire size after that age, its magnitude is quite modest (Kovacs, unpublished data, March, 2011). Further, the behavioral response domain appears to show the most notable development across the age span from 7- to 14-years. Consequently, while it is reasonable to expect a 12-year old to have a somewhat larger overall adaptive mood repair repertoire than a 7-year-old, for example (which may make it easier to work with the older child), the CERT therapist’s default position is to start with the child’s existing mood repair repertoire and to resolve how it can be utilized more effectively. Toward that aim, the therapist has to identify which domain is favored by (or best fits) the given child, and enumerate the adaptive (and maladaptive) responses that comprise it. If a young patient has the propensity to learn a new way of managing dysphoria while in treatment, the developmental findings suggest that it is most likely to be a regulatory strategy in the *behavioral response domain*.

Another developmental trajectory is the gradual *shift from “rudimentary” to more complex or sophisticated* ways of responding to dysphoria. For example, while a 3-year-old may dissolve in helpless tears when facing a distressing stimulus and attempt to visually reference the caregiver, a school-aged child is likely to use language to communicate distress and request the intervention of the parent. While a 5-year-old’s response to distress may entail exploring the environment for whatever distracting activity may be available, a 10-year-old’s response is likely to be more strategic, like occupying himself by fixing a broken train set. There also are some mood repair responses that simply manifest in more age-appropriate ways across development. For example, when toddlers are put into a distressing situation, one common response is to crawl away, which has been called “leaving the scene.”^{17,29} Versions of “leaving the scene” in older children includes barging out of a distressing situation; in adults, it includes going for a drive or taking a walk.³⁴ Thus, if a dysphoric youngster of any age reacts to increasing upset by running out of the room, he or she is displaying a developmentally rudimentary emotion regulatory response.

While any mood repair response is likely to have its specific developmental trajectory, that is, the ways in which its rudimentary form evolves into a more complex version, only a few responses have been studied in sufficient detail and at different ages. For example, refocusing attention is a cognitive process that underlies various mood repair responses and can also be a specific response on its own.^{e.g.,17,36–38} The developmentally earliest version of this response is “gaze aversion.”¹⁷ When infants are presented with distressing visual stimuli (such as a still and unexpressive face), they catch on that by looking away, they are no longer subjected to the unwanted stimulus.^{e.g.,39} Partly as a function of brain maturation,^{40,41} gaze aversion segues into the ability to respond to visual distracters, which does relieve distress in infancy.⁴² That, in turn is transformed into the selective use of attention for distress relief.^{e.g.,28,43,44} As another example, recruiting others for distress relief is an adaptive mood repair response in the interpersonal response domain, whose developmental trajectory also has been documented. Its earliest example, around the age of 6 months, is caregiver-directed distress vocalization.¹⁷ With maturation, mood repair via the help of others progresses from the use of nonverbal responses (e.g., caregiver directed crying and visual referencing) to simple verbal requests for help, and then to more complex use of language and interpersonal discourse.^{30,43–45} Turning to others in order to feel better is a stable component of mood repair repertoires across the life span^{e.g.,32–34} probably reflecting the many ways in which one person can intervene in the affective experience of another.

Recognition that the extent of sophistication of mood repair responses and chronological age are related to one another can help the CERT therapist to pinpoint if a child’s regulatory problems reflect age-inappropriate responding. For example, a 9-year-old girl, whose mood repair response includes sucking her fingers or chewing on her hair, is displaying a developmentally infantile form of self-soothing. A 12-year-old who can be soothed very effectively through getting a long hug or embrace from a parent but not via verbal parental emotional reassurance is showing some developmental delay in that response domain. Likewise, a 7-year-old who responds to distress by becoming destructive is displaying a strategy characteristic of a much younger child. Given the overall context of the child’s difficulties, CERT targets may include assisting the child to deploy a more age-appropriate version of an apparently favored mood repair response.

The Automaticity of Mood Repair Responses—A further developmental dimension of note concerns the process whereby a response is implemented. Implicit in the developmental literature is the fact that regardless of whether a given regulatory response first emerges as a reflex-like behavior, a consequence of operant or classical conditioning, or a result of role-modeling, most responses seem to be deployed *automatically and without*

planning or deliberation. This is particularly evident during the first few years of life. However, researchers have argued that shifting from reactive to voluntary, internal, and “effortful” or deliberate control of emotions is an important developmental trend across childhood.^{23,24} While this is likely to be the case, we propose that even “effortful” as well as “mental” mood repair responses eventually become automatic as a function of practice and experience (also noted by Davidson et al.⁴⁶), which can be conscious or non-conscious. Indeed, various scholars have commented on the automaticity of much of emotion regulation,^{e.g.,46,47} although this area has been generally ignored by researchers.⁴⁷

We believe that the automaticity of mood repair is a very important issue in treatment. In fact, one of the basic tenets of CERT is that adaptive and maladaptive mood repair responses *both are typically automatic* and that deliberate mood repair responses tend to be deployed if the automatic “default” response failed to lift the person’s mood. Therefore, one of the tasks of the CERT therapist is to help parent and child identify the child’s mood repair responses and to make the “unknown” “known.”

The Context of the Unfolding of Mood Repair Responses—An explicit developmental trend in children’s mood repair concerns the changing context of their lives. Scholars agree that the family in general (and caregivers in particular) have the greatest impact early on and probably up until adolescence.^{20,24} However, it also is widely believed that with the transition into pre-school or school, youngsters are exposed to new role models (e.g., peers, teachers) whose regulatory behavior they may emulate, who may be called upon to reduce distress, or conversely, who may become new sources of distress. Unfortunately, this developmental aspect of emotion regulation and mood repair has received scant research attention. Nonetheless, the CERT therapist is cognizant of the changing context of a given child’s life and takes into consideration how specific contexts can either enable or constrain successful mood repair.¹⁵

The skills that support mood repair responses—As already noted, there is no question that mood repair is a type of *meta-skill*, dependent on a broad array of *basic* developmental and maturational processes. These developmental processes include the use of language for communication, the various attention skills, executive function skills (particularly response inhibition and resistance to distraction), cognitive-information processing skills, social skills, as well as emotion-specific skills (e.g., emotion naming and emotion self-monitoring). Overall, such skills are at rudimentary levels during infancy, show very rapid development during early and middle childhood, and (with some exceptions) more gradual increments after late childhood.^{48–50} Importantly, these various basic skills have their own age-related trajectories.

For example, auditory attention matures quite early, with impressive gains by age 7, whereas visual attention continues to develop into early adolescence.⁵⁰ Executive attention (which involves working memory and the ability to prevent attention capture by distracting stimuli) becomes evident around age 3 and continues to develop across the adolescent years.^{38,48,51} In fact, working memory and attention shifting do not fully mature until mid- to late-adolescence or somewhat later.^{52,53} These developmental trajectories reflect in great measure the process of brain maturation. Namely, brain regions that subserve motor and sensory functions mature the earliest, whereas the prefrontal cortex, which subserves executive function skills and abstract thinking, continues to mature up to young adulthood.^{40,41,54–56}

All in all, successful mood repair depends on the ability to utilize sensory, motor, perceptual, cognitive, linguistic, and social skills *in the service of mood repair*, and in a context-appropriate fashion. Thus, the CERT therapist is cognizant of the fact that a child’s

mood repair problems may reflect developmental delay in one or more basic skills. Similarly, the therapist's decision as to which adaptive mood repair response to reinforce for a given child is informed by recognizing the various skills that are needed to deploy the target response and that child's level of command of those skills.

Development and CERT: A Summary—CERT for depression is guided by the understanding that this treatment targets adaptive mood repair, which is a developmentally mediated skill; that different mood repair response types have varying developmental trajectories; that most responses are acquired early in development and become automatic; and that mood repair competence partly reflects the developmental phases of component skills. Thus, for example, the CERT therapist recognizes that school-age children (the targets of CERT) should be able to deploy responses from each of the three mood repair response domains, but that developmental stage mediates the level and sophistication of available responses. This means that the therapist *does not have the same mood repair expectations* of a 12-year old and a 7-year old. For example, while refocusing of attention, an adaptive mood repair strategy, can be used effectively by middle-school-age children to reduce dysphoria,^{57,58} cognitive responses that require abstract thinking (e.g., reframing the significance of a depressogenic situation) are infrequent and of questionable effectiveness during that age period.¹⁶ As another example, we can expect that a distressed 12-year-old can be soothed effectively through verbal emotional reassurance from a parent, while a 7-year-old is much more likely to obtain emotional relief through getting a long hug or embrace.

The CERT therapist also recognizes that the mood repair problems of some depressed children do not derive from a lack of adaptive responses, or an abundance of maladaptive responses, but reflect that a preferred response is deployed in a *developmentally inappropriate* manner. For example, if a 10-year old girl, whose mood repair relies heavily on interpersonal regulators, responds to distress with a bout of crying, drops to the floor, and waits for the parent to initiate mood repair, her method of trying to recruit the parent as regulator is characteristic of a much younger child (and is not likely to be effective). Further, the CERT therapist recognizes that suboptimal mood repair responding may reflect developmental delay in one or more of the basic skills that support the self-regulation of distress, rather than being a problem more closely related to emotional development. For example, language skills play a critical role in mood repair because they support many cognitive and interpersonal regulatory responses. Therefore, it is not surprising that 6- to 13-year-old children with language impairment have been found to have more difficulties in containing or regulating negative emotion than have typically developing peers.⁵⁹

Individual Differences and CERT

In addition to being developmentally based, an individually-tailored approach to depressed youngsters is at the heart of CERT. This means that, while CERT sets the same overall goals for all depressed children (symptom elimination and mood repair competence), the ways in which those goals are defined and achieved will differ across patients even of the *same age and same developmental level*. It also means that CERT accommodates the fact that certain personal characteristics as well as contextual and cultural differences affect the availability and utilization of particular mood repair responses.

CERT easily accommodates individual differences in mood repair repertoires because it does not assume that one mood regulatory domain is better or more desirable than is another, but instead focuses on the functional domain which is “the best fit” for the particular child. Thus, CERT easily deals with the fact that for one child, tender hugs from the parent along with reassuring words may be a guaranteed path to feeling better; for

another distressed child of the same age and developmental level, listening to hip-hop music to counter dysphoria may work magic; yet another child may need to be engaged in some absorbing task in order to attenuate distress. Further, for one child, the therapist may need to spend some effort on modifying key contextual features in the home (e.g. parental affect-related behavior), while for another child, the challenge may be to assist the parent in securing mood repair relevant material resources (e.g., access to a basketball court). The flexibility inherent in CERT is reflected by the basic tenets that youths of the same age and developmental stage vary in their inclinations to deploy responses from the behavioral, cognitive, and interpersonal response domains; that some mood repair responses that “work” for some youths may not work for other youths; and that there are individual differences in the skill sets that underlie effective mood repair.

CERT’s individually tailored approach also acknowledges that there are additional personal factors that can hinder or facilitate a given child’s mood repair attempts.¹⁶ Among these factors, the child’s temperament or “inborn wiring” is particularly important because it can affect both the threshold at which the child responds to affect provocation and the ease with which the arousal can be modulated.²⁴ Another important personal variable is the child’s attachment history because the attachment behavioral system is closely related to affect regulation.^{e.g.,60} Children’s early attachment experiences are believed to set the tone for (or against) turning to others to regulate emotion in later years.^{e.g.,19,60,61} Thus, a child with a suboptimal early attachment history is unlikely to develop adaptive interpersonal mood repair responses. Although addressing these issues is likely to be beyond the scope of the initial treatment contract that targets the child’s depression, awareness of them should inform the therapist’s decision making about what are (or are not) feasible treatment goals for a given child.

Intervention Strategies and CERT

CERT’s central goal is to help young patients recover from their depression and remain symptom free. This is accomplished primarily (but not solely) by targeting affective symptoms and remediating the problematic mood repair responses that maintain them. In order to achieve its goals, CERT takes an eclectic stance in regard to therapeutic strategies. That is, the therapist can select from the wide array of goal-oriented and problem-focused intervention strategies that have been documented in the literature, in order to discourage or interrupt dysfunctional mood repair responses, to strengthen or introduce adaptive ways of responding to distress, and to reduce other depression symptoms.¹⁶

For example, initial homework assignments typically include mood monitoring for prescribed amounts of time. For this task, younger children are provided with a page that has a variety of facial emotion expressions (along with verbal labels) and are asked to indicate their affect at a specified point in time by circling the faces “which best fit” how they feel. Depending on their verbal and writing skills, older children are asked to write down the name of the emotion at specific points in time. Another typical homework assignment includes practicing a particular adaptive mood repair sequence: for example, if the child has an upsurge of distress, he or she may be asked to approach the parent, “use words” to verbalize the affect and then receive a parental hug for at least 30 seconds. Within the CERT session itself, the therapist also may employ role-playing, modeling, and didactics in order to implement a particular treatment goal.

Owing to developmental considerations, CERT favors simple intervention strategies over complex ones, behavioral techniques over cognitive techniques, and action over words. For example, moderate physical activity is a well documented adaptive mood repair response. If a child is visibly dysphoric or distressed in a session, the CERT therapist will orchestrate for all participants (child, parent, and therapist together) several minutes of physical activity,

like jumping jacks, right in the treatment room. This inevitably brings the child some degree of emotional relief, demonstrates, *in vivo*, the association between exercise and feeling better, and accomplishes the goal of making a potential mood repair response explicit and conscious.

CERT also uses cognitive or “mental” techniques to accomplish treatment goals. In the traditional cognitive therapies for depression, cognitive techniques (e.g., correcting misperceptions, questioning the evidence) serve to correct negatively biased abstract information processing. Because this use of cognitive techniques usually requires abstract operational thinking, we believe that it is developmentally inappropriate for school-age children. Instead, the CERT therapist uses (or teaches) mental or cognitive techniques (e.g., mental imagery, thought interruption) in order to deter the deployment of maladaptive cognitive responses to distress and to reinforce the use of adaptive responses.

CERT AND THE IMPORTANCE OF PARENTS IN THEIR CHILDREN’S LIVES

It seems self-evident that a child-focused intervention should engage the parents and account for their importance in their offspring’s lives. After all, most psychotherapists who work with children reportedly involve the parents on some level.^{62,63} Parental involvement has long been considered indispensable in the treatment of conduct problems (for a meta-analysis, see Woolfenden et al.⁶⁴) Yet, most treatment studies of depressed children and adolescents have not involved parents or involved them in separate parent groups.^{e.g.,⁶⁵}

In contrast to other currently popular interventions for pediatric depression, CERT *requires* the active involvement of the parent (or primary adult caregiver). Indeed, CERT’s focus on mood repair explicitly calls for parental involvement because they play key roles in the developmental unfolding of children’s regulatory strategies. Parents facilitate their children’s acquisition of regulatory responses across time by selectively reinforcing some responses but not others, and by serving as role models that can be emulated (for an overview, see Morris et al.²⁰). Additionally, when parents (caregivers) themselves respond to a child’s distress, they function as *interpersonal regulatory agents*. The fact that parents remain the most important interpersonal regulators of a child’s distress, at least up to mid-adolescence, further underscores the need for their participation in CERT.

Another reason for active parental involvement concerns the importance of re-establishing reasonable parent-child interactions. As any parent will testify, the ability of a child to respond positively to nurturing and caregiving parental behavior is part of the glue of the parent-child relationship. However, depressed children often are unaffectionate and unresponsive.⁶⁵ Additionally, if the parent is depressed, which is not an infrequent occurrence,⁶⁶ a recursive pattern of negative parent-child interactions may result. By the time the family of a depressed child seeks help, it is not unusual for the original psychosocial stressor to have lost its salience and be replaced by negative parent-child interactions as part of the presenting problem. The active involvement of the parent affords the therapist the opportunity to fulfill an important (although implicit) goal of CERT, the normalization of parent-child interactions, particularly around affect-related topics.

CERT relies on a sport analogy to provide a framework for HOW the parent is expected to be involved (and how the child is expected to contribute): *the therapist is the “coach,” the parent is the “assistant coach,” while the child is the special team “player.”* The coach and assistant coach roles make it explicit that the two adults share the goal of helping the child and that the child is the focus of their interactions. One consequence of this formulation is that, as assistant coach, the parent is expected to make objective observations of the child’s behavior and becomes an information source for the therapist. As assistant coach, the parent

also is expected to work with the child around home-work assignments and facilitate the deployment of adaptive mood repair responses.

By defining the roles (and responsibilities) of the assistant coach and player in the presence of the young patient, the sport analogy also serves as a vehicle for transparency: the child knows that the parent will have to report observations (and thus information is not being conveyed behind his/her back). The parent's role as an assistant coach also underscores that the young patient (not the parent) is the treatment focus. It is important to note, however, that while the parent plays a key role in CERT, the final responsibility for the content and format of treatment rests with the therapist.

During each CERT session, the therapist engages the parent as much as possible as the assistant coach: this is often prompted by addressing the parent along the lines of "**can you now put on your coaching hat?**" Further, by identifying *coaching opportunities* for the parent outside the session, the CERT therapist provides the parent-child pair with the framework for new ways of interacting. By definition, coaching opportunities are intrinsic to homework assignments, but they also can be linked more broadly to the child's displays of adaptive (or maladaptive) mood repair responding. Importantly, coaching interactions between parent and child are guided by *rules*, which specify the needed behaviors and attitudes. There are 6 rules for coaches (e.g., a good coach "*Focuses on the player's abilities and strengths,*" "*Hangs in there and works with the player even if the coach had a bad day*"), and 6 rules for the child player (e.g., a team player "*Doesn't mind trying new ways to do things,*" "*Uses words to tell the coaches how he or she feels.*"). The rules are introduced in the first CERT session, are prominently displayed as posters in the treatment room, and also are noted in the Parent's Manual for CERT. Because coaching opportunities provide the parent-child pair with an interactional framework that is different from their usual daily interactions, their successful use signals the possibility of positive change.

CERT AND THE TRAINING OF THERAPISTS

We strongly believe that a developmentally informed intervention for youngsters must pay attention to the therapeutic skills and the empirical and conceptual knowledge of the therapists. While one would expect that professionals trained in "child" programs possess the needed qualifications, this is not necessarily the case. Indeed, it is not uncommon to see pediatric mental health practitioners either to respond to children as if they were miniature adults (a stance also bemoaned by Barrett⁴), or else to modify their behaviors in somewhat theatrical ways (for example, by altering the tempo and quality of their voice). With regard to CERT, we identified three developmentally relevant training needs.

First, it is critical that the therapist know how to establish a therapeutic relationship with children and parents. At the very least, this involves the therapist being fully aware of his or her own verbal and nonverbal behavior and communication. It is not uncommon for young therapists with excellent exposure to cognitive-behavioral interventions to have limited understanding of the dynamics of the therapeutic relationship and how their own behavior contributes to (or detracts from) actualizing that goal. A related issue is the level of oral communication with youngsters and parents. We have been surprised by the extent to which therapists fail to monitor how they use language in treatment. The vocabulary level often is far higher than that of a high school graduate, with frequent use of highly abstract concepts and terms.

One aspect of establishing a positive therapist-patient relationship is to know how to engage younger or inattentive depressed children in a goal oriented intervention like CERT. The withdrawn depressed child makes this task even more difficult. Therapists with limited

exposure to pediatric depression frequently have difficulties in this regard. For example, it was necessary on occasion to tell therapists to get up from their chair, kneel or bend down near the child, and figuratively “get into the child’s face” and visual field in order to capture the child’s attention. The painstaking details of how to engage anxious children in treatment offered by Kingery et al.⁵ suggest that our training experiences are not that unusual.

CERT requires that therapists have a broad knowledge base about general developmental trends of various basic skills, emotion regulation, and mood repair responding. For example, to work with a depressed child effectively, the therapist should know that attention is a multifaceted phenomenon: that is, visual attention and auditory attention are not the same and have different developmental trajectories, and further, that there is a distinction between stimulus-driven and goal-directed attention skills. The latter point is exemplified by the difference between asking a depressed boy to listen to his favorite upbeat music versus to make a list of all the things he will need for the new school year, as a way to respond to acute dysphoria. While a comprehensive textbook of developmental psychology may provide important initial chunks of the needed knowledge about basic skills, it is harder to acquire the knowledge base about the development of emotion regulation and mood repair. This is partly because the developmental literature on the unfolding of emotion regulation, in general, and mood repair in particular, is discontinuous and uneven: most empirical work has addressed infants, toddlers, and very young children, with relatively few studies of older children, and almost none of young adolescents (e.g. 11–12 years of age). Further, the few studies of older adolescents that exist have focused almost exclusively on cognitive mood repair responses. Thus, the developmental lacunae have to be filled based on literature reviews that also contain case narratives, descriptions based on clinical experience, and by extrapolating from research findings with college students. One way we addressed this issue is to include in the CERT Treatment Manual a summary of the findings of developmental studies, and also to require therapists to become familiar with major reviews of the field. e.g.,^{17,20,23,24,30} Unfortunately, with the exception of the Morris et al.²⁰ article, reviews typically focus on emotion regulation in younger ages.

THE CHALLENGES OF DELIVERING A DEVELOPMENTALLY BASED TREATMENT

We would like to end by noting some of the challenges that we have encountered in delivering CERT. Possibly the biggest issue has been the lack of psychometric tools to assess children’s developmental level on the key construct of interest, that is, mood repair. Owing to a lack of assessment tools, there are no standardized and age specific guidelines about what mood repair “looks like” at the various ages across childhood and adolescence. Because we lack a quantified index of *mood repair developmental stage*, the therapist must rely on qualitative information about a young patient, along with clinical experience (and knowledge of the literature), in order to estimate whether that young patient handles distress in age-appropriate ways. This state of affairs adds an extra layer of challenge to any training initiative.

A related issue has been that mood repair (or emotion regulation) is a meta-skill that recruits a wide array of basic skills. Thus, ideally, if we wanted to establish a child’s developmental level vis a vis mood repair, we should assess not only the meta-skill, but also the developmental stages of the various aspects of language skills, attention skills, executive function skills, social skills, and motor skills, etc., which subserve emotion regulation. It may be conceivable under some circumstances to use standard neuropsychological tests to assess key skill domains. For example, there are reliable and valid assessment batteries that target areas of executive function (e.g., The Delis Kaplan Executive Function System;⁶⁷ domains of attention (e.g., The Integrated Visual and Auditory Continuous Performance

Test;⁶⁸), visual-motor skills (e.g., The Developmental Test of Visual Motor Integration;⁶⁹), and aspects of language skills (e.g., Test of Language Development;⁷⁰). However, the usual community- or university-based treatment setting is unlikely to accommodate full assessment of all the necessary skills. The administration and interpretation of many of these tests require specialized training, are costly, and also are very time-consuming. Further, such tests typically have not been used for case conceptualization in psychotherapy.

Another challenge has concerned therapists' qualifications. There is no formal way to assess the development-specific therapeutic skills of new therapists, nor their knowledge of the related empirical literature. This renders training efforts less efficient than one would like. Requiring therapists to work conjointly with parent and child at the same time, and in the same room, also posed some unexpected problems. Specifically, while therapists could easily focus on the child (and thereby not attend to the parent), or focus on the parent (and thereby ignore the child), focusing on the child while actively engaging the parent proved to be a far more difficult undertaking. Thus, it had become necessary to dedicate parts of CERT training to some areas of basic therapeutic skills.

In summary, the two major challenges of delivering a clearly articulated, developmentally based intervention for pediatric depression include the assessment of young patients' developmental stages on the skills of interest and the training of therapists. Research attention to these dimensions should help to pave the way for innovative solutions, which, in turn, could help in further treatment-development efforts for depressed youngsters.

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