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Resilience, Defense Mechanisms, and Implicit Emotion Regulation in Psychodynamic Child Psychotherapy

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Abstract

Resilience is associated with the internal capacity for the regulation of unpleasant emotions in the face of adversity. These self-regulatory processes, linked with both explicit and implicit emotion regulation systems, have wide ranging implications for overall psychological health. Child psychotherapy can be conceptualized as helping children adapt more effectively to the external environment and develop a more comfortable sense of self as a result of improved emotion regulation and, thus, greater resilience. Most available treatments for youth promote resilience by addressing the explicit emotion regulation system. These treatments include helping parents improve their parenting skills or helping youth modify dysfunctional thinking patterns. In these treatments there is less consideration of the key role of implicit emotion regulation in the enhancement of resilience. The psychodynamic construct of defense mechanisms offers an observable and measurable manifestation of implicit emotion regulation. Thus, addressing the nature of a child's maladaptive defense mechanisms in the clinical situation can strengthen the implicit emotion regulation system without explicitly instructing the parent or the child to act in a more pro-social manner. This paper utilizes a Regulation Focused Psychotherapy for Children (RFP-C) model to describe how iterative, systematic interpretation of children's maladaptive defense mechanisms can target the implicit emotion regulation system. This intervention aims to improve the capacity for self-regulation, increase the flexibility of responses to the environment, promote proactivity towards change, and improve interpersonal relatedness. As a result of increases in these adaptive implicit emotion regulation capacities, there is a resultant increase in resilience, especially for children who respond to stressful events with externalizing behaviors. A brief clinical illustration is provided.

Keywords Resilience · Implicit emotion regulation · Defense mechanisms · Regulation Focused Psychotherapy for Children (RFP-C)

Introduction

In psychotherapy with children, clinicians can identify those who seem to be able to bounce back and recover from stressful and traumatic events in contrast to others who are unable to do so. Those who can master adversity more or less successfully, and integrate traumatic experiences adaptively into their lives are often deemed to be resilient. This paper proposes that systematically addressing maladaptive defense mechanisms in psychodynamic child psychotherapy strengthens implicit emotion regulation and promotes resilience.

Resilience

Resilience has been referred to as "ordinary magic" (Masten 2001)—ordinary in its ubiquity and magical because of its power, appearing seemingly out of nowhere, to protect children in the face of adversity. Resilience refers to a range of phenomena "characterized by good outcomes in spite of serious threats to adaptation or development" (Masten 2001, p. 228). Resilience is a trans-theoretical and trans-diagnostic construct gauging the adaptability of the individual to various internal and external stressors. Once seen as a special,



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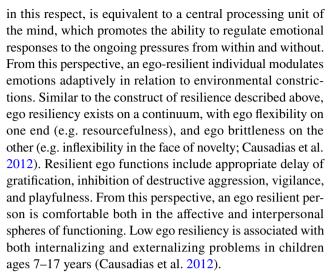
innate characteristic, resilience is now understood as a dynamic process of adaptation, including interactions with important people in the child's life, in the presence of significant adversity (Connelly et al. 2017).

Under the best of circumstances, resilience is a normative, commonly occurring, adaptive process that rests on protective developmental systems. If nurtured by people in the child's life, it can withstand significant threat as the child develops (Masten 2001). Damage or insufficient support for internal protective systems can lead to vulnerability in the context of significant internal or external demands. Identifying the circumstances and attributes that promote resilience is central to understanding developmental trajectories that inhibit the development of resilience and put children at risk. Resources and assets from the community, the family, and from within the individual (e.g., certain genetically-endowed constitutional strengths) can facilitate protective mechanisms in the child to his or her ability to withstand stress. Psychotherapy interventions that enhance these resources can aid in building resilience.

Resilience is dimensional, on a continuum ranging from healthy to maladaptive. Impaired resilience may lead to the uncontrolled expression of disruptive behaviors, which may have been adaptive in situations where maintenance of social ties was less important and social distancing was actually helpful (Bryant 2016). While these behaviors secure survival under certain situations, their role as an attempt to regulate painful emotions in order to overcome them, often proves maladaptive (Goldstein and Rider 2013). For some, achieving resilience may require distancing from other people as well as from their own emotions, which are too painful to consciously experience (Karreman and Vingerhoets 2012; Ungar 2013). This partially-adaptive technique, limits the activation of adaptive emotion regulation processes and impedes the processing of the pain of trauma in ongoing interpersonal relationships. This stance, which is often seen in children with disruptive behavior problems, prevents the reorganization of the trauma, and instead, traumatic memories retain their power over the present. It also limits children's ability to develop capacities to handle difficult and painful emotions later in life.

Psychodynamics of Resilience

There are many similarities between the concept of resilience and those from the tradition of psychodynamic psychotherapy. From a psychodynamic perspective, a key concept is that of the construct of the ego. "Ego" refers to a group of mental functions, whose main task is to regulate the relationship between the internal wishes of the individual and the painful emotions that may be triggered by the frustrations generated by external reality (Hoffman et al. 2016). The ego,



Building on the developmental and interpersonal nature of ego development, there is a robust body of research highlighting the role of relationships with primary caregivers in interaction with constitutional variables in the development of resilience (Cooke et al. 2018; Zolkoski and Bullock 2012). There is substantial evidence that effective parenting promotes resilience even in instances of acute trauma (Masten and Narayan 2012). Specifically, maternal support is a significant factor in the development of resilience (Masten 2014; Moilanen and Shen 2014). With reference to the complexities of parent-child dynamics, there is also research supporting the bidirectional and transactional influences in the development of resilience (Masten 2014). Children's behavior impacts parenting quality and parents also influence the emergence of behavior in children that moderates the child's experience of stress. Taken together, this body of research suggests the importance of attunement and supportive child-caregiver relationships in the development of resilience and adaptation.

Explicit Emotion Regulation and Resilience

There is ample evidence that the capacity for self-regulation, coping, and emotion regulation abilities are associated with the development of resilience (Mikulincer et al. 2015; Thompson et al. 2018). Emotion regulation and resilience appear to work together to mediate the relationship between attachment security and overall well-being (Karreman and Vingerhoets 2012), further highlighting the ways in which these construct impact interpersonal relatedness and adaptation across the lifespan.

Research has identified explicit emotion regulation as a key ingredient in resilience (Kalisch et al. 2014). Explicit emotion regulation includes conscious, effortful attempts to influence the type of emotion experience, when these emotions are experienced and how they are expressed (Gross



2015). Research has historically focused on the conscious strategies of reappraisal and suppression, with increasing interest in acceptance as a way of dealing with unpleasant and distressing emotions (Alberts et al. 2012; Goldin et al. 2019). Reappraisal involves the effortful negotiation of new, positive information in relation to a negative situation, such that the negativity decreases and the situation appears more manageable (Kalisch et al. 2014). New and positive information can be produced internally, such as when positive prior experiences are called to mind, a different perspective is introduced, or alternate aspects of the situation are considered. In contrast, suppression involves effortfully shutting out negative situations. Reappraisal is especially helpful because it is an internal process that does not require change in external circumstances. Specifically, reappraisal is linked to lower levels of mood disorders such as depression and anxiety (Picó-Pérez et al. 2017), as well as increased interpersonal functioning, life satisfaction, optimism, and self-esteem (Gross 2015). Suppression appears to be less effective and requires more resources to utilize than reappraisal when dealing with negative emotions (Chervonsky and Hunt 2018; Kalokerinos et al. 2015). Young children, however, may not have enough neural maturation to effectively utilize reappraisal techniques (Solomon et al. 2012).

More recently, acceptance has been examined as a way of dealing with emotions. Acceptance entails involves a non-judgmental stance towards emotions and requires a willingness to remain in close contact with painful emotions that may seem intolerable (Alberts et al. 2012). This emotion regulation strategy can be employed intentionally or, with practice, automatically; it straddles the border between explicit and implicit emotion regulation. The emergence of third-wave cognitive behavioral interventions like Acceptance and Commitment Therapy (Hayes 2005), has led to increased interest in acceptance as a form of emotion regulation. But acceptance, that is, the acknowledgement and intimate, prolonged tolerance of painful affect states has long been a primary focus of psychodynamic psychotherapies (Julien and O'Connor 2017).

Implicit Emotion Regulation and Resilience

A crucial distinction in the emotion regulation literature has been made between explicit and implicit emotion regulation processes (Gyurak et al. 2011). Research on implicit emotion regulation has become a focus of empirical research that has developed in tandem with advances in cognitive science. This literature moves beyond observable phenomena and provides support for the centrality of unconscious cognitive and affective processes as vital components of self-regulation and mental health (Koole and Rothermund 2011). There is evidence suggesting that implicit emotion

regulation may be even more important to healthy mental functioning than explicit emotion regulation mechanisms (Gyurak et al. 2011).

With the increased emphasis on implicit emotion regulation in the last decade—it now has its own chapter in the most recent edition of Gross's Handbook of Emotion Regulation (2014)—the field has expanded immensely. The study of emotion regulation dates back to Sigmund Freud himself (Gross 2013). This work illustrates that emotion regulation often occurs outside of conscious awareness and without the use of explicit strategies. Implicit emotion regulation is defined as "any process that operates without the need for conscious supervision or explicit intentions, and which is aimed at modifying the quality, intensity, or duration of an emotional response" (Koole and Rothermund 2011, p. 390). Implicit emotion regulation is typically effortless and unintentional and, when it is automatic, causes a corresponding change in behavioral indicators of the emotional response (Braunstein et al. 2017). The distinctions between implicit and explicit processes of emotion regulation provide an organizing model for differentiating between conscious and unconscious processes, as well as communication between psychodynamic approaches with the affective neurosciences (Gross 2013).

Increased implicit emotion regulation capacities enhance resilience by decreasing emotional reactivity and the subsequent behavioral difficulties that leave children vulnerable to psychopathology (Schwager and Rothermund 2013). The existing cognitive science literature supports the significant presence of implicit cognitive and affective processes (Sheppes et al. 2015). Much of what people think and feel is, in fact, unconscious, including processes that shape perception, judgment, affect, memory, and motivation. Implicit emotion regulation mechanisms enable the individual to rapidly process and respond to a multitude of emotionally charged stimuli, without significantly depleting internal resources or interfering with overall functioning.

Furthermore, embedded values and goals underlie implicit emotion regulation (Romero et al. 2014). That is, sensory input is filtered and organized in relation to personal schemas that inform a person's perspective and response to the environment. In this way, implicit mental representations of desired outcomes guide unconscious intentions and responses. Thus, a response can be both goal-oriented and non-intentional, adaptive or maladaptive (Braunstein et al. 2017). By its very nature—the absence of conscious deliberation—implicit emotion regulation avoids the common pitfalls of conscious cognitive processing that in the extreme can result in rumination, leading to negative affect and depression (Wilkinson et al. 2013). Effective emotion regulation can influence the stress response and, in turn, strengthen the capacity for resilience (Ashokan et al. 2016). The key to promoting psychological health and resilience in



children is through understanding and promoting more adaptive automatic affective processing (Schwager and Rothermund 2013).

Defense Mechanisms and Implicit Emotion Regulation

At this stage of psychological science, cognitive and behavioral models have developed methods to measure explicit emotion regulation and treatment protocols that target this domain. Psychodynamic frameworks—which privilege aspects of emotional and mental life that exist largely outside of conscious awareness—have only more recently been subject to empirical studies. Psychodynamic interventions are important because they lend themselves to addressing the implicit emotion regulation domain by addressing defense mechanisms. Ideas from the psychodynamic literature are very similar to the neuropsychological construct of emotion regulation (Aldao et al. 2015; Rice and Hoffman 2014). Lotterman (2012), from a psychodynamic perspective, succinctly states: "Emotions expedite adaptation" (p. 311).

This new focus on implicit emotion regulation processes is the most direct contemporary scientific link in this chain towards resilience. It follows that implicit emotion regulation processes and defense mechanisms are similar constructs, and that these constructs are likely to be associated with resilience. The inherent links between implicit emotion regulation and defense mechanisms have been explicated in detail (Rice and Hoffman 2014). There are several similarities between implicit emotion regulation and defense mechanisms—(a) both are processes intended to protect against anxiety and other unpleasant emotions; (b) both operate on a largely unconscious level; (c) both mechanisms begin to develop in infancy and are elaborated across the lifespan; and (d) successful use of implicit emotion regulation and defenses requires cognitive flexibility and the capacity for affect tolerance. An added research-related benefit of defense models is the fact that defenses are relatively easy to operationalize (Cramer 2015a, b). Cramer's work exemplifies how neurophysiological givens in children serve as a basis for the development of psychological mechanisms to cope with stressful conditions. Her systematic research indeed shows that the defense of denial predominates in early childhood; later, projection- and identification-oriented defenses become prominent, in the grade school years and in adolescence, respectively. Defense mechanisms have become a staple concept in psychotherapy research (Cramer 2015b), particularly with respect to their role in regulating anxiety (Frederickson et al. 2018) and shame (Grecucci et al. 2017).

Children, like adults, utilize defense mechanisms, often unconsciously, to negotiate internal and external conflicts and the concomitant unpleasant emotional states they provoke. Defenses are automatic protective responses to external stress, threats to the sense of self, or internal anxiety and distress. Some defense mechanisms are inherently more adaptive (e.g. humor and sublimation) while others may be more maladaptive (e.g. projective identification and externalization) (Porcerelli et al. 2016). Similar defenses may be used in adaptive or maladaptive ways depending on the particular situation and the child's temperament and other developmental issues. For children with externalizing problems, implicit emotion regulation deficits manifest through an inflexible use of a restricted range of immature defense mechanisms (Cramer 2015b). These defenses play a central role in the development and maintenance of psychopathology and maladaptive functioning. This is especially true for shame-eliciting situations that are likely to provoke defensiveness, anger and aggression (Grecucci et al. 2017). Despite this critical link, most available treatments for children with externalizing symptoms do not address how children utilize maladaptive defense mechanisms, and, in turn, do not improve their capacity for implicit emotion regulation.

Systematically Addressing Defense Mechanisms in Play Therapy

With their emphasis on complex intra and interpersonal processes through the therapeutic relationship and transference and countertransference processes, psychodynamic psychotherapies are especially well positioned to address interpersonal and intrapersonal aspects of well-being. Specifically, the very nature of psychodynamic psychotherapy—with its developmental origins, the centrality of the therapeutic relationship as a mechanism of change, and attention paid to complex interpersonal processes and the use of defense mechanisms—lends itself easily to interventions that can support the development of implicit emotion regulation and greater resilience.

In psychodynamic psychotherapy with children, play and activity as well as verbal interaction are utilized as in vivo opportunities for developing greater affect tolerance. Children use play to communicate directly or symbolically with the therapist and, reciprocally, play allows the therapist access to the child's inner world, in order to promote the child's understanding, mastery, and coping skills (Bratton et al. 2005). Play and activity constitute both the work and the language of childhood through which children may convey their thoughts and feelings (Hoffman et al. 2016). Bratton et al.'s (2005) meta-analysis of five decades of outcome research investigated the efficacy of play therapy as a psychotherapeutic intervention for children. This study established play therapy as an effective intervention, with an overall effect size of 0.80.



There is a great need for empirically-informed play therapy approaches for children with oppositional and aggressive behaviors (Midgley et al. 2017). These problems, which include aggression, defiance, irritability, hyperactivity, impulsivity, and inattention, have high prevalence rates and are common in disorders like oppositional defiant disorder (ODD), disruptive mood dysregulation disorder, and attention deficit hyperactivity disorder, and conduct disorder. There is increasing evidence that deficits in emotion regulation are a core component of externalizing problems like ODD (Cavanagh et al. 2017).

Regulation-Focused Psychotherapy for Children (RFP-C; Hoffman et al. 2016) is a manualized, psychodynamic treatment for children with disruptive behaviors and emotional dysregulation that aims to activate more adaptive forms of implicit emotion regulation and enhance resilience. The intervention consists of 16 individual play therapy sessions with the child and four parent meetings, delivered over the course of 10 weeks. RFP-C conceptualizes disruptive symptoms as maladaptive attempts to regulate emotions. When certain emotions are too difficult for children to consciously experience or verbalize, they involuntarily rely on aggressive, disruptive behaviors to hide from these painful emotions and remove them from awareness (Prout et al. 2015; Hoffman et al. 2016). In essence, for these children, it is easier to get mad (e.g. act out) than it is to feel sadness, guilt, loss, or shame. Disruptive behaviors divert both the child's and the caregivers' attention away from underlying and painful affect. They also pose a threat to longer-term possibilities for resilience.

RFP-C is a play-based and verbal therapy which shares some common principles with Child Centered Play Therapy (CCPT; Muro et al. 2006) and other dynamic play therapy approaches that focus on understanding the meaning of behavior (Crenshaw and Mordock 2005; Drewes et al. 2011; McCarthy 2012). The consistent focus on play disruptions in RFP-C is more structured and targeted than in CCPT and other psychodynamic approaches with children (Prout et al. 2018c). This method is a key feature of RFP-C given that it is a short-term approach focused on addressing a particular constellation of symptoms. The short-term, manualized aspect of RFP-C (complete with adherence measures for fidelity) also allows it to be empirically tested in comparison with current evidence based approaches.

A recent study of psychotherapy process prototypes demonstrated that RFP-C has more in common with psychodynamic psychotherapy prototypes and a common factor prototype of reflective functioning than with CCPT (Prout et al. 2018c). In that study, the most characteristic features of RFP-C were: (1) therapist points out child's use of defenses; (2) therapist tolerates child's strong affects or impulses; (3) therapist is sensitive to the child's feelings; (4) therapist draws attention to feelings regarded by the

child as unacceptable (e.g., anger, envy, or excitement); and (5) therapist accurately perceives the therapeutic process. Notably, in that study, there was no relationship between the cognitive-behavioral process prototype and the RFP-C prototype—highlighting the clear distinctions between these modalities.

Through play, RFP-C allows the child to notice and understand the ways in which distressing affects are avoided and learn alternative means of coping with unpleasant affect. RFP-C targets verbal and nonverbal disruptions in the flow of the child's communication. These disruptions are understood within the RFP-C paradigm as attempts to ward off uncomfortable and distressing affects. The clinician attends to topics of discussion or play that provoke a disruption, the emotion inherent in the topic that provokes a disruption, and the nature of the child's play or activity when the disruption occurs. Over time, the therapist attempts to address why the avoided emotion is so disturbing that it needs to be circumvented.

RFP-C targets implicit emotion regulation and fosters resilience through a systematic and iterative method of addressing children's maladaptive defenses. By drawing attention to the protective nature of disruptive behavior, RFP-C leads to a modification of the response (Hoffman et al. 2016) and increased emotion regulation capacities (Prout et al. 2019). By increasing understanding of the function of maladaptive defenses, RFP-C opens up space for alternative ways of functioning, releasing these maladaptive defenses from their imbedded role.

Some current cognitive behavioral interventions for children with externalizing problems address explicit emotion regulation strategies in order to reduce symptomatic behaviors (Derella et al. 2017; Dunsmore et al. 2016). However, few have detailed effective techniques to address implicit emotion regulation (Schore and Schore 2014). In RFP-C, the clinician works with the child to enhance his or her capacity for implicit emotion regulation and with the caregivers to better understand the meaning of disruptive behavior. A key technique of this treatment involves moving the caregivers' focus away from fretting about the disruptive behaviors themselves, and instead helping the caregivers to better understand the meaning of disruptive behavior. In parent sessions, the clinician works with the parent using a graphic representation of the "triangle of conflict" (Malan 1979). According to this model, when an individual encounters a situation that activates a hidden feeling or impulse, which the person or others deem unacceptable (e.g., sadness, anger, etc.), the individual is likely to experience anxiety. The anxiety may overwhelm the individual's regulatory capacities, resulting in an automatic defense against the hidden feeling to hide it from internal and external awareness (Malan 1979). Using a worksheet displaying the triangle of conflict (see Fig. 1),



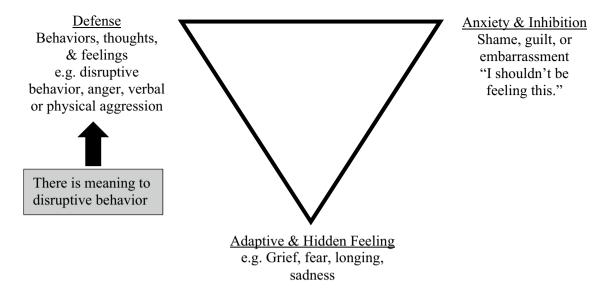


Fig. 1 Triangle of conflict (adapted from Malan 1979)

the clinician partners with the caregiver to identify which feelings are being avoided, the specific defenses employed to avoid the feeling, and the underlying reasons why the child feels the emotions must be avoided. This is used early in treatment to form a case conceptualization and to define how the clinician will interpret the child's disruptive behavior.

In sessions with the child, the clinician systematically targets a child's defense mechanisms and focuses on how disruptive behavior helps the child avoid painful emotions. By consistently addressing the defenses a child utilizes against painful affect during the sessions, the child is able to gain greater mastery of emotions and over time increase implicit emotion regulation capacities. This growth is often seen in the child's increased ability to express feelings verbally, rather than through aggressive means. Two recent pilot studies have demonstrated the efficacy of RFP-C interventions in reducing symptoms of ODD and increasing emotion regulation capacities (Prout et al. 2018a, 2019). A randomized controlled trial of RFP-C is currently underway.

Although there is a long history of psychodynamic psychotherapy being used in the treatment of disruptive behavior problems, RFP-C is the first attempt to systematize the process of addressing children's defense mechanisms against unpleasant emotions. Throughout the course of the play therapy sessions, the clinician notices and gently identifies the child's defensive behaviors and verbalizations when they occur. This iterative and gradual exposure to avoided, and largely unconscious, feelings improves the child's implicit emotion regulation abilities (Hoffman et al. 2016; Prout et al. 2018b, 2019), thereby enabling the child to better function in their environment. This targeted approach helps children become able, in time, to discuss painful emotions more

directly and without the need for externalizing symptoms (Prout et al. 2019).

Case Vignette

The RFP-C treatment approach, along with additional clinical examples, is described in the published treatment manual and several associated papers (Prout et al. 2015; Hoffman et al. 2016; Prout et al. 2018b). The following is a disguised case drawn from a current randomized controlled trial of RFP-C.

A 9-year-old girl came in for RFP-C because of severe disruptive symptoms at home and at school. The case illustrates the value of conceptualizing the disruptive behavior as a manifestation of maladaptive defense mechanisms: denial, projection, and identification with the aggressor, including turning passive to active. These defenses were used (automatically and unconsciously) to help her cope with profoundly negative and painful emotions provoked by a traumatic situation, a medical procedure. We eventually understood that she experienced the procedure as an assault, which over-burdened her capacity for resilience, partially because she did not feel empathically supported by her family, who loved the child very much but struggled to understand the underlying meaning of the behaviors. The girl utilized these defense mechanisms in a maladaptive manner, in order to try to cope with the unpleasant emotions that were triggered by the procedure. More broadly, the procedure was understood as compounding earlier, unresolved feelings the child had experienced due to losses within the family.

The child fulfilled all of the inclusion criteria for our study of RFP-C. She was a school-aged child, had a primary DSM-5 (American Psychiatric Association 2013) diagnosis



of ODD, was fluent in English, and her caregiver was able to attend parent meetings. She did not have any of the exclusion criteria—she was not psychotic, did not have a risk for suicide or severe violence, was not enrolled in another psychosocial treatment program, was not currently on psychotropic medication and did not have any intellectual or developmental disability.

In the beginning of the treatment, she played and interacted with the therapist in an age-appropriate manner. One notable feature was the child's reluctance to discuss a major loss that had occurred within the family in the past year. Very soon, however, she expressed irritability and provocativeness in the sessions. At an early point of the therapy, the girl mentioned that the therapist should talk with the mother about an upcoming school absence of a couple of weeks. The therapist asked the child to tell her more about this. The child would not answer, but became more and more disruptive. The therapist responded, "There is something about that date that makes you worried, and it is hard to tell me about it." This comment highlighted the purposeful function of the disruptive behavior, suggesting it allowed the child to avoid fear and worry; her behavior served as a maladaptive implicit emotion regulation strategy. The disruptive behavior continued, and included attempting to hit the therapist, running out of the playroom, and repeatedly trying to frighten the therapist. Attempts to address the girl's disruptive responses as indicators of something that was difficult to discuss were to no avail.

The therapist learned from the mother that the girl would be having a diagnostic cystoscopy because of recurrent urinary tract infections. The mother's matter-of-fact attitude, lacking any emotion towards this procedure—which, on its face, would be traumatic or at least very disturbing to a little girl—was notable. The clinician understood, therefore, that the child was doing to the therapist, especially frightening her, what she feared would be done to her. Impaired emotion regulation capacities limited the child's ability to speak directly about fear, anxiety, and uncertainty. Instead, she presented as hostile, domineering, and angry. When the therapist pointed out to the mother that such a procedure, which the child knew about, would cause anxiety in any child, the mother replied that the child's grandmother was a urologist who minimized the psychological effects of the procedure. The therapist helped the mother understand that the child was likely experiencing profound anxiety, manifested by disruptive behaviors. The therapist and the mother also worked together to understand how this scary procedure might also trigger unresolved feelings of loss and mourning with regard to the earlier losses. Using the triangle of conflict (Malan 1979), the therapist and mother worked together to develop an understanding of the meaning of the child's disruptive behavior.

In the sessions with the child, the therapist directly addressed the child's symptoms as responses to her upcoming procedure. Disruptive behavior was consistently interpreted by the therapist as a way the child protected herself from distressing emotions. After recovery from the procedure, the child was able to discuss more directly the intensity of her reactions prior to the procedure and to consider how disruptive behavior protected her from feeling her intense anxiety and fear. The mother loved the child deeply, and was able to hear the therapist's comments about understanding the child's emotional sensitivity, which led to maladaptive behavioral responses. Within the relationship with the therapist, the child was noticeably calmer, and demonstrated increased capacity for discussing situations in which she felt vulnerable or afraid. There was an evident decrease in the need for disruptive behavior as an automatic and implicit regulation strategy. Instead the child was better able to employ more mature defenses such as humor and sublimation (Vaillant et al. 1986); the emergence of these new capacities were not in response to explicit coaching (e.g. reappraisal in CBT treatments) but rather highlight the implicit nature of emotion regulation. The therapist and the mother's subsequent supportive interventions helped to scaffold the child's capacity for more adaptive implicit emotion regulation capacities and resilience in the face of later stressors.

Conclusion: Defense Mechanisms, Implicit Emotion Regulation, and Resilience

This paper presents an overview of how defense mechanisms operate in the service of implicit emotion regulation, particularly among children with disruptive behavior problems. We have presented a brief case vignette to highlight how a psychodynamic treatment approach can address and modify defenses in order to enhance resilience for later stressors. The case material presented is brief and, on its own, cannot demonstrate that it was the therapeutic intervention itself that led to the change. We are currently testing the efficacy of RFP-C using a randomized controlled trial design to better answer this question.

The self-regulatory process of implicit emotion regulation has wide ranging implications for overall psychological health and the practice of child psychotherapy (Koole et al. 2015; Powers et al. 2015; Southam-Gerow and Kendall 2002). Research and practice recommendations related to resilience and implicit emotion regulation developed independently and, to date, there has not been conceptual integration that relates directly to psychotherapy with children, especially addressing the child's maladaptive defense mechanisms. Effectively improving implicit emotion regulation



via addressing the use of maladaptive defense mechanisms can enhance resilience.

The conceptual overlap and similarities between implicit emotion regulation and defense mechanisms provides the basis of RFP-C's therapeutic approach. The iterative process of defense interpretation that is central to RFP-C can be utilized both as a stand-alone therapeutic technique or as an add-on to other modalities (Prout et al. 2018b for elaboration on how RFP-C can be integrated with other modalities). In contrast to common behavioral interventions that focus on changing dysfunctional behavior through explicit skill building and parenting techniques, RFP-C provides a targeted therapeutic approach to understanding the meaning of maladaptive defenses. This approach allows children and their parents to experience a shift in awareness that creates space for stronger implicit emotion regulation capacities, and, by extension, supports the protective mechanisms that foster resilience.

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Compliance with Ethical Standards

Conflict of interest The authors all declare they have no conflicts of interest.

Ethical Approval The case vignette in the paper is a highly disguised description of a study participant who provided informed consent.

References

- Alberts, H. J. E. M., Schneider, F., & Martijn, C. (2012). Dealing efficiently with emotions: Acceptance-based coping with negative emotions requires fewer resources than suppression. *Cognition & Emotion*, 26(5), 863–870. https://doi.org/10.1080/02699 931.2011.625402.
- Aldao, A., Sheppes, G., & Gross, J. J. (2015). Emotion regulation flexibility. Cognitive Therapy and Research, 39(3), 263–278. https:// doi.org/10.1007/s10608-014-9662-4.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th edn.). Washington, D.C.: American Psychiatric Association.
- Ashokan, A., Sivasubramanian, M., & Mitra, R. (2016). Seeding stress resilience through inoculation. Neural Plasticity, 2016, 1–6. https://doi.org/10.1155/2016/4928081.
- Bratton, S. C., Ray, D., Rhine, T., & Jones, L. (2005). The efficacy of play therapy with children: A meta-analytic review of treatment outcomes. *Professional Psychology: Research and Practice*, 36(4), 376–390. https://doi.org/10.1037/0735-7028.36.4.376.
- Braunstein, L. M., Gross, J. J., & Ochsner, K. N. (2017). Explicit and implicit emotion regulation: A multi-level framework. *Social Cog*nitive and Affective Neuroscience, 12(10), 1545–1557. https://doi. org/10.1093/scan/nsx096.
- Bryant, R. A. (2016). Social attachments and traumatic stress. European Journal of Psychotraumatology. https://doi.org/10.3402/ejpt. v7.29065.

- Causadias, J. M., Salvatore, J. E., & Sroufe, L. A. (2012). Early patterns of self-regulation as risk and promotive factors in development: A longitudinal study from childhood to adulthood in a high-risk sample. *International Journal of Behavioral Development*, 36(4), 293–302. https://doi.org/10.1177/0165025412 444076.
- Cavanagh, M., Quinn, D., Duncan, D., Graham, T., & Balbuena, L. (2017). Oppositional defiant disorder is better conceptualized as a disorder of emotional regulation. *Journal of Attention Dis*orders, 21(5), 381–389.
- Chervonsky, E., & Hunt, C. (2018). Emotion suppression and reappraisal associated with bullying involvement and other social outcomes in young adults. *Social Psychology of Education*, 21(4), 849–873. https://doi.org/10.1007/s11218-018-9440-3.
- Connelly, E. B., Allen, C. R., Hatfield, K., Palma-Oliveira, J. M., Woods, D. D., & Linkov, I. (2017). Features of resilience. *Environment Systems and Decisions*, 37(1), 46–50. https://doi.org/10.1007/s10669-017-9634-9.
- Cooke, J. E., Kochendorfer, L. B., Stuart-Parrigon, K. L., Koehn, A. J., & Kerns, K. A. (2018). Parent–child attachment and children's experience and regulation of emotion: A meta-analytic review. *Emotion*. https://doi.org/10.1037/emo0000504.
- Cramer, P. (2015b). Defense mechanisms: 40 years of empirical research. *Journal of Personality Assessment*, 97(2), 114–122. https://doi.org/10.1080/00223891.2014.947997.
- Crenshaw, D. A., & Mordock, J. B. (2005). A handbook of play therapy with aggressive children. Lanham: Jason Aronson.
- Derella, O. J., Johnston, O. G., Loeber, R., & Burke, J. D. (2017).
 CBT-enhanced emotion regulation as a mechanism of improvement for childhood irritability. *Journal of Clinical Child & Adolescent Psychology*. https://doi.org/10.1080/15374416.2016.1270832.
- Drewes, A. A., Bratton, S. C., & Schaefer, C. E. (2011). *Integrative play therapy*. Hoboken: Wiley.
- Dunsmore, J. C., Booker, J. A., Ollendick, T. H., & Greene, R. W. (2016). Emotion socialization in the context of risk and psychopathology: Maternal emotion coaching predicts better treatment outcomes for emotionally labile children with oppositional defiant disorder. Social Development (Oxford, England), 25(1), 8–26. https://doi.org/10.1111/sode.12109.
- Frederickson, J. J., Messina, I., & Grecucci, A. (2018). Dysregulated anxiety and dysregulating defenses: Toward an emotion regulation informed dynamic psychotherapy. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2018.02054.
- Goldin, P. R., Moodie, C. A., & Gross, J. J. (2019). Acceptance versus reappraisal: Behavioral, autonomic, and neural effects. *Cognitive*, *Affective*, & *Behavioral Neuroscience*. https://doi.org/10.3758/ s13415-019-00690-7.
- Goldstein, S., & Rider, R. (2013). Resilience and the disruptive disorders of childhood. In *Handbook of resilience in children* (pp. 183–200). Boston: Springer US. https://doi.org/10.1007/978-1-4614-3661-4_11.
- Grecucci, A., Frederickson, J., & Job, R. (2017). How dare you not recognize the role of my contempt? Insight from experimental psychopathology. *Behavioral and Brain Sciences*, 40, e238. https://doi.org/10.1017/S0140525X16000777.
- Gross, J. J. (2013). Emotion regulation: Taking stock and moving forward. *Emotion*, 13(3), 359–365. https://doi.org/10.1037/a0032 135.
- Gross, J. J. (2014). Emotion regulation: Conceptual and empirical foundations. In J. J. Gross (Ed.), *Handbook of emotion regula*tion (2nd edn., pp. 3–20). New York: Guilford Press.



- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1–26. https://doi. org/10.1080/1047840X.2014.940781.
- Gyurak, A., Gross, J. J., & Etkin, A. (2011). Explicit and implicit emotion regulation: A dual-process framework. *Cognition & Emotion*, 25(3), 400–412.
- Hayes, S. (2005). Get out of your mind & into your life: The new acceptance & commitment therapy. Oakland, CA: New Harbinger Publications. https://doi.org/10.1109/NISS.2009.91.
- Hoffman, L., Rice, T. R., & Prout, T. A. (2016). Manual of regulation-focused psychotherapy for children (RFP-C) with externalizing behaviors: A psychodynamic approach. New York, NY: Routledge.
- Julien, D., & O'Connor, K. P. (2017). Recasting psychodynamics into a behavioral framework: A review of the theory of psychopathology, treatment efficacy, and process of change of the affect phobia model. *Journal of Contemporary Psychotherapy*, 47(1), 1–10. https://doi.org/10.1007/s10879-016-9324-9.
- Kalisch, R., Müller, M. B., & Tüscher, O. (2014). A conceptual framework for the neurobiological study of resilience. *Behavioral and Brain Science*, 38, e92.
- Kalokerinos, E. K., Greenaway, K. H., & Denson, T. F. (2015). Reappraisal but not suppression downregulates the experience of positive and negative emotion. *Emotion*, 15(3), 271–275. https://doi.org/10.1037/emo0000025.
- Karreman, A., & Vingerhoets, A. J. J. M. (2012). Attachment and well-being: The mediating role of emotion regulation and resilience. Personality and Individual Differences, 53(7), 821–826. https://doi.org/10.1016/J.PAID.2012.06.014.
- Koole, S. L., & Rothermund, K. (2011). "I feel better but I don't know why": The psychology of implicit emotion regulation. *Cognition & Emotion*, 25(3), 389–399. https://doi.org/10.1080/02699 931.2010.550505.
- Koole, S. L., Webb, T. L., & Sheeran, P. L. (2015). Implicit emotion regulation: Feeling better without knowing why. *Current Opinion in Psychology*, 3, 6–10. https://doi.org/10.1016/J.COPSY C.2014.12.027.
- Lotterman, A. C. (2012). Affect as a marker of the psychic surface. *The Psychoanalytic Quarterly*, 81(2), 305–333. https://doi.org/10.1002/j.2167-4086.2012.tb00495.x.
- Malan, D. (1979). Individual psychotherapy and the science of psychodynamics. London: Butterworth.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227–238. https://doi.org/10.1037/0003-066X.56.3.227.
- Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development*, 85(1), 6–20. https://doi.org/10.1111/ cdev.12205.
- Masten, A. S., & Narayan, A. J. (2012). Child development in the context of disaster, war, and terrorism: Pathways of risk and resilience. *Annual Review of Psychology*, 63(1), 227–257. https://doi. org/10.1146/annurev-psych-120710-100356.
- McCarthy, D. (2012). A manual of dynamic play therapy: Helping things fall apart, the paradox of play. London: Jessica Kingsley Publishers.
- Midgley, N., O'Keeffe, S., French, L., & Kennedy, E. (2017). Psychodynamic psychotherapy for children and adolescents: An updated narrative review of the evidence base. *Journal of Child Psychotherapy*, 43(3), 307–329. https://doi.org/10.1080/0075417X.2017.1323945.
- Mikulincer, M., Shaver, P. R., & Solomon, Z. (2015). An attachment perspective on traumatic and post-traumatic reactions. In M. Safir, H. Wallach & A. Rizzo (Eds.), Future directions in post-traumatic stress disorder (pp. 79–96). Boston: Springer.
- Moilanen, K. L., & Shen, Y.-L. (2014). Mastery in middle adolescence: The contributions of socioeconomic status, maternal

- mastery and supportive-involved mothering. *Journal of Youth and Adolescence*, 43(2), 298–310. https://doi.org/10.1007/s1096
- Muro, J., Ray, D., Schottelkorb, A., Smith, M. R., & Blanco, P. J. (2006). Quantitative analysis of long-term child-centered play therapy. *International Journal of Play Therapy*, 15(2), 35–58. https://doi.org/10.1037/h0088914.
- Picó-Pérez, M., Radua, J., Steward, T., Menchón, J. M., & Soriano-Mas, C. (2017). Emotion regulation in mood and anxiety disorders: A meta-analysis of fMRI cognitive reappraisal studies. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 79, 96–104. https://doi.org/10.1016/J.PNPBP.2017.06.001.
- Porcerelli, J. H., Huth-Bocks, A., Huprich, S. K., & Richardson, L. (2016). Defense mechanisms of pregnant mothers predict attachment security, social-emotional competence, and behavior problems in their toddlers. *American Journal of Psychiatry*, 173(2), 138–146. https://doi.org/10.1176/appi.ajp.2015.15020173.
- Powers, A., Etkin, A., Gyurak, A., Bradley, B., & Jovanovic, T. (2015). Associations between childhood abuse, posttraumatic stress disorder, and implicit emotion regulation deficits: Evidence from a low-income, inner-city population. *Psychiatry*, 78(3), 251–264. https://doi.org/10.1080/00332747.2015.1069656.
- Prout, T. A., Gerber, L. E., Gaines, E., Hoffman, L., & Rice, T. R. (2015). The development of an evidence-based treatment: Regulation-focused psychotherapy for children with externalizing disorders. *Journal of Child Psychotherapy*, 41(3), 255–271.
- Prout, T. A., Aizin, S., Clements, T., Rice, T., & Hoffman, R. (2018a).
 Evaluation of regulation-focused parent group for parents of children with oppositional defiant disorder. Amsterdam, Netherlands: Society for Psychotherapy Research.
- Prout, T. A., Chacko, A., Spigelman, A., Aizin, S., Burger, M. Chowdhury, T., et al. (2018b). Bridging the divide between psychodynamic and behavioral approaches for children with oppositional defiant disorder. *Journal of Infant, Child, and Adolescent Psychotherapy*, 17(4), 364–377. https://doi.org/10.1080/15289 168.2018.1519755.
- Prout, T. A., Goodman, G., Hoffman, L., Rice, T., & Sherman, A. (2018c). Expert clinicians' prototype of an ideal treatment in Regulation Focused Psychotherapy for Children (RFP-C). *Journal of Psychotherapy Integration*, 28(4),401–412. https://doi.org/10.1037/int0000102.
- Prout, T. A., Rice, T. R., Murphy, S., Gaines, E. Aizin, S., Sessler, D., et al. (2019). Why is it easier to get mad than it is to feel sad? Pilot study of regulation focused psychotherapy for children. *American Journal of Psychotherapy*. https://doi.org/10.1176/appi.psychotherapy.20180027.
- Rice, T. R., & Hoffman, L. (2014). Defense mechanisms and implicit emotion regulation: A comparison of a psychodynamic construct with one from contemporary neuroscience. *Journal of the Ameri*can Psychoanalytic Association, 62(4), 693–708.
- Romero, C., Master, A., Paunesku, D., Dweck, C. S., & Gross, J. J. (2014). Academic and emotional functioning in middle school: The role of implicit theories. *Emotion*, 14(2), 227–234. https://doi.org/10.1037/a0035490.
- Schore, J. R., & Schore, A. N. (2014). Regulation theory and affect regulation psychotherapy: A clinical primer. Smith College Studies in Social Work, 84(2–3), 178–195. https://doi.org/10.1080/00377317.2014.923719.
- Schwager, S., & Rothermund, K. (2013). The automatic basis of resilience. In M. Kent, M. C. Davis & J. W. Reich (Eds.), *The resilience handbook: approaches to stress and trauma* (pp. 55–72). New York: Routledge.
- Sheppes, G., Suri, G., & Gross, J. J. (2015). Emotion regulation and psychopathology. *Annual Review of Clinical Psychology, 11*(1), 379–405. https://doi.org/10.1146/annurev-clinpsy-032814-11273



- Solomon, B., Decicco, J. M., & Dennis, T. A. (2012). Emotional picture processing in children: An ERP study. *Developmental Cognitive Neuroscience*, 2, 110–119. https://doi.org/10.1016/j. dcn.2011.04.002.
- Southam-Gerow, M. A., & Kendall, P. C. (2002). Emotion regulation and understanding: Implications for child psychopathology and therapy. *Clinical Psychology Review*, 22(2), 189–222. https://doi.org/10.1016/S0272-7358(01)00087-3.
- Thompson, N. J., Fiorillo, D., Rothbaum, B. O., Ressler, K. J., & Michopoulos, V. (2018). Coping strategies as mediators in relation to resilience and posttraumatic stress disorder. *Journal of Affective Disorders*, 225, 153–159. https://doi.org/10.1016/J. JAD.2017.08.049.
- Ungar, M. (2013). Family Resilience and At-Risk Youth. In *Handbook of Family Resilience* (pp. 137–152). New York: Springer New York
- Vaillant, G. E., Bond, M., & Vaillant, C. O. (1986). An empirically validated hierarchy of defense mechanisms. *Archives of General Psychiatry*, 43(8), 786–794.

- Wilkinson, P. O., Croudace, T. J., & Goodyer, I. M. (2013). Rumination, anxiety, depressive symptoms and subsequent depression in adolescents at risk for psychopathology: A longitudinal cohort study. *BMC Psychiatry*, *13*(1), 250. https://doi.org/10.1186/1471-244X-13-250.
- Zolkoski, S. M., & Bullock, L. M. (2012). Resilience in children and youth: A review. *Children and Youth Services Review*. https://doi. org/10.1016/j.childyouth.2012.08.009.

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