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Caregiver Regulation: A Modifiable Target Promoting Resilience to Early Adverse Experiences

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Background: Experiences of adversity in early life are associated with increased risk for negative outcomes; yet, the impact of early adversity on any given child is difficult to predict given the considerable heterogeneity in functioning found even among children with similar exposures. Thus, although early adversity is associated with increased risk for negative outcomes on average, many children are resilient. While researchers have highlighted individual differences in children's internal characteristics that may relate to risk and resilience, external characteristics of the environment that differ between children are mutable factors that are also important for understanding heterogeneity in children's outcomes. **Objective:** We propose that caregiver regulation of children's emotions is a key modifiable feature of the environment that promotes resilience to and recovery from early adversity. Specifically, given the critical role of caregiver regulation of emotions in early life for children's ability to understand and recover from adverse experiences, we highlight three levels of intervention focused on fostering healthy development in young children by targeting the availability, consistency, and quality of caregiver regulation, respectively. **Results:** We provide a classification system designed to guide decision making about the level of intervention needed to support a given child's needs in terms of ultimately supporting the goal of receiving effective caregiver regulation. **Implications:** This framework may be useful for guiding the priority of treatments, as well as making clear the needed menu of options to support children following adversity, in addressing specific concerns related to ensuring effective caregiver regulation to promote resilience.

Clinical Impact Statement

For infants and young children who have experienced adversity, resilience is most likely to be supported through caregiver regulation. Different types of early adverse experiences may be coupled with barriers to effective caregiver regulation, and interventions should be selected that are tailored to the level of need, including ensuring young children have a caregiver who is consistently available and who can provide effective regulation.

Keywords: parenting, coregulation, caregiver regulation, adversity, resilience


There is compelling evidence that, at the population level, early adverse experiences are causally linked to risk for poorer functioning across the life span (Jensen et al., 2017; McLaughlin et al., 2019; Nelson et al., 2020). Documenting associations between


adversity and various outcomes draws attention to the importance of early life in setting the foundation for later development and, ideally, focusing resources toward the prevention of early adversity. Research in this area, however, also has revealed that there is heterogeneity in outcomes following adversity (Humphreys et al., 2018; Masten, 2018; McGloin & Widom, 2001; Rutter, 2013). Differences in functioning postadversity have launched a search for factors that differentiate children (Masten & Coatsworth, 1998). Compared to children who demonstrate poor outcomes following adversity, children who show either minimal change in functioning (i.e., resisting or withstanding adversity) or recovery to typical functioning (i.e., overcoming adversity) are considered "resilient" (Masten, 2011; Rutter, 2012).

Selecting Targets to Promote Resilience

The primary goal of research examining features that differentiate "resilient" children from their peers is to identify targets for interventions designed to promote resilience. Both internal and external factors have been identified that may promote adaptive functioning following adversity. Internal factors include characteristics of the

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child, or “within-person” factors that differentiate resilient children, whereas the alternative approach focuses on aspects external to the child, also referred to as an ecosystemic perspective (Queralto, 1996). The internal lens has identified characteristics including higher IQ (Tiet et al., 2001), “easy” temperament (Werner, 1995), and “grit” (Guerrero et al., 2016); all have been identified as factors that may promote resilience, such that children who by genetic endowment alone possess one or more of these attributes are more likely to have better outcomes following adversity than are their counterparts lower on these traits. Nevertheless, there are notable limitations to focusing on internal characteristics, both practical and philosophical.

From a practical perspective, these “resilience-promoting” traits are difficult, if not impossible, to modify. Given the challenges and questionable ethics of attempting to change personality in rapidly developing children, temperament has rarely been a target of childhood interventions; in fact, researchers have instead focused on how to modify treatments to fit children’s temperaments (Shiner et al., 2012). Relatedly, recent research suggests that “grit,” theorized to be a construct unifying the dimensions of perseverance and passion, is actually highly overlapping with aspects of personality (i.e., conscientiousness; Credé et al., 2017). While there is some evidence that IQ can be improved with early interventions (Campbell et al., 2001), early successes in improving IQ often demonstrate fade-out over time (see Bailey et al., 2017). Although other internal characteristics, such as beliefs about the malleability of intelligence, appear to be at least somewhat mutable, effects sizes for “growth mindset” interventions are small (Yeager et al., 2019). Further, our ability to directly influence children’s internal characteristics may depend on developmental stage. Due to developing cognitive and socioemotional capacities, infants and toddlers are unlikely targets for interventions focused on changing appraisals of experience, mindsets, or perseverance. Thus, it may not be feasible or realistic to use an internal focus for promoting resilience when considering individuals early in development.

In addition, a focus on the resilient child obscures many complicating factors. For example, following adversity children may be functioning well, or even better than expected, in one developmental domain but not others (Frankenhuis et al., 2020) or meet thresholds for competent functioning at one point in development but not others (e.g., Guyon-Harris et al., 2021). Individuals who experience adversity and later attain good mental health or educational/occupational success may simultaneously evidence poor physical health (Brody et al., 2020). Thus, the notion of a resilient child raises questions about the nature, amount, and length of exposure to adverse experiences, the developmental domains in which outcomes are assessed, and the points in time in which they are measured.

Finally, another risk to overemphasizing internal traits to promote resilience to adversity is that it places the onus on the individual child to change. Those who continue to demonstrate poorer functioning following adversity may be viewed as “deficient, weak, and shameful” (Walsh, 2015, p. 6) or simply not trying hard enough. Thus, the expectation that children, particularly infants and young children who have limited capacity for independent action, “pull themselves up by their bootstraps” is equivalent to abandoning those who most need support and may provide rationale for victim blaming.

Interventions viewed through an external lens are not only very successful at promoting resilience following adversity (for review, see Rutter, 2013), they also reduce the blame assigned to children who struggle following adversity. These interventions promote multisystem functioning through working indirectly to support children by changing their environments. While the scope of this article focuses primarily on the child’s microsystem (i.e., the immediate caregiving environment), it is imperative that this caregiving environment receive support from broader systems and structures that are likely to be better directly targeted by public policy. Here, we emphasize that the external lens shifts responsibility from the child to be resilient to society, such that society is responsible for supporting children and families to promote resilience. For infants and young children, their relationship with their caregivers is perhaps the most important aspect of their world (Powell et al., 2016). Given that the caregiving environment is a “sustaining environment” (Bailey et al., 2017), social policies and interventions that focus on the availability, consistency, and quality of caregiving in order to support children’s emotion regulation (hereafter, “caregiver regulation”) are likely to have lasting positive effects that accumulate over time. Figure 1 illustrates a framework for decision making regarding levels of interventions to promote children’s resilience to adversity. Specifically, we propose that a broad-level view of children’s regulatory needs and the role of society in providing these supports can be conceptualized as occurring at three levels: access to a caregiver, availability of caregivers, and the quality of caregiver regulation.

We define caregiver regulation as the organizing effect of caregivers—both through their presence and their specific behaviors—on children’s emotions in response to stressors and during typical daily functioning (Calkins, 2011; DiCorcia & Tronick, 2011; Gunnar et al., 2015). When effective, caregiver regulation promotes children’s emotional flexibility and scaffolds their recovery from distress. Caregiver regulation is critical for infants’ and young children’s healthy functioning in any context, but particularly so in times of adversity when children face greater challenges. Because emotions “infuse experience with meaning” by signaling one’s appraisal of the situation at hand and how one should prepare to act, caregiver regulation not only influences the valence, intensity, and duration of children’s emotions but also how children orient their attention, coordinate their activities, solve problems, and overcome challenges (Cole et al., 2004, p. 318).

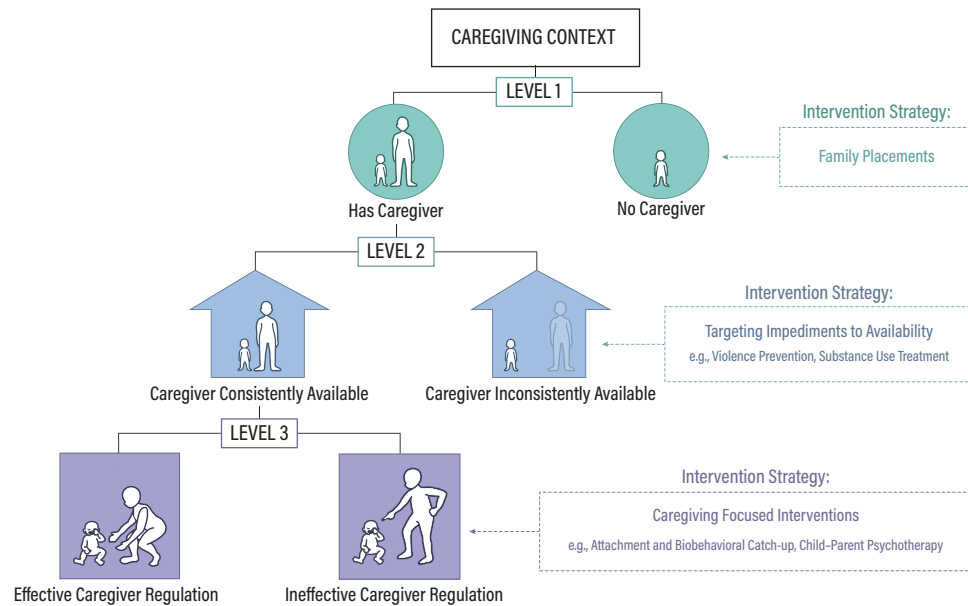
Caregiver Regulation in Typical Development

Caregivers are critical for survival and healthy development of all infants and young children. This early dependence is broad, with caregivers organizing physiology, subjective experience, and behavior. The rhythmic organization of newborn infants’ behavior by caregivers begins with feedings that occur generally every 3–4 hr. Circadian rhythms, which begin to consolidate in the first month of life, are exogenously regulated by light, temperature, as well as by caregiver contact (Anders & Zeanah, 1984); caregivers’ responses to infant cues indicating sleepiness or arousal facilitate the development of circadian rhythms (Barnard et al., 1993).

The regulatory influence of caregivers on infants’ emotions is well-illustrated by its absence. The widely replicated “still-face” effect (Tronick et al., 1978) demonstrates that, at least by 3–4 months of age, 2 minutes of caregiver unresponsiveness leads to

Figure 1

Illustration Demonstrating Levels of the Caregiving Context in Which Interventions Are Needed to Support Effective Caregiver Regulation of Young Children Following Early Adverse Experiences



Note. At the most basic level (Level 1), children require a dedicated caregiver to meet their needs, and thus facilitating family placements is the immediate goal for children without caregivers. Children with caregivers who are not consistently available (Level 2) require intervention to address the barriers to the caregiver's availability to their child. For children who have consistently available caregivers, but who receive ineffective caregiver regulation (Level 3), the intervention goal is to promote effective caregiver regulation through interventions focused specifically on the caregiving relationship. Importantly, at each level there are broader systems and structures outside of the immediate caregiving environment that are needed to support each of these intervention strategies. See the online article for the color version of this figure.

changes in infants' gaze, expressed affect, and physiologic responses (Mesman et al., 2009). Moreover, infants who experience more sensitive caregiving (accurately reading and responding to infants' cues) prior to the Still-Face Paradigm appear to be more successful in regulating their emotions during this stressor (Braungart-Rieker et al., 2001). Sensitive caregiving scaffolds infants' recovery from distress (e.g., through soothing touch), supports infants' understanding of the meaning of their experiences (e.g., by attuning facial expression and tone of voice to the infant's state), and facilitates infants' ability to reinstate exploration of the environment (e.g., through reorientating the infant's attention; Leerkes et al., 2009). Compared to caregiver sensitivity when the infant is not distressed (e.g., during play) or caregiver warmth (i.e., expressions of positive affect toward the child), caregiver sensitivity in the context of infant distress may be especially important for the development of attachment security and regulation of negative affect (Davidov & Grusec, 2006; Leerkes et al., 2012).

The early dynamic interchanges between caregivers' behaviors and infants' responses to challenges like the Still-Face Paradigm precede the development of attachment (Braungart-Rieker et al., 2001, 2014), with attachment theory providing a lens through which to understand these dynamic interchanges and the reliance of young children on their caregivers (Bowlby, 1983). In the first year of life, infants become more social and engage in prolonged turn taking in interactions with their caregivers. Though caregiver

attunement (i.e., the ability to recognize and mirror the infant's emotional state) is associated with attachment security, no caregiver–infant pair will be perfectly attuned. In fact, optimal attunement may consist of less than perfect synchrony, allowing for ruptures and repairs (DiCorcia & Tronick, 2011). In other words, simply “good enough” (Winnicott, 2002) caregiver–infant relationships—defined by the caregiver regularly attending and responding to the child—may be sufficient. Infants who experience more sensitive caregiving as well as those whose caregivers meet their needs, even if insensitively, for both comfort and exploration (i.e., secure base provision) are more likely to develop organized attachments, that is, secure, avoidant, or resistant (Ainsworth et al., 1978; van den Boom, 1994; De Wolff & van IJzendoorn, 1997; Woodhouse et al., 2020). In contrast, children who experience severe deviations in caregiving (e.g., maltreatment), are more likely to develop disorganized attachments (Cyr et al., 2010). Within organized attachments, those relationships classified as “secure” are further characterized by the child's confident exploration from their caregiver (i.e., secure base), direct expression of distress in anticipation of comfort, and accepting and responding to support and comfort with resolution of distress. Secure attachments develop from and go on to reinforce effective caregiver regulation (Sroufe, 2005). Specifically, experiences of seeking and receiving comfort from the caregiver support the development of an internal working model or representation that

the caregiver is reliable, which, in turn, enhances the power of the caregiver, through their presence and their behaviors, to organize the child's emotions adaptively (Powell et al., 2016).

As children gain more sophisticated representational capacities, they are able to imagine something that is not part of their immediate experience, and develop a nascent appreciation of the perspective of others (see Humphreys et al., 2014). While caregivers' use of language has primarily been studied in Western educated industrialized rich democratic (WEIRD) contexts, studies from these samples indicate that language may be regulatory both as a marker of the caregiver's availability to and engagement with their child that promotes emotional well-being (King et al., 2021), as well as a means to convey an understanding of children's mental states (e.g., mind-mindedness; McMahon & Bernier, 2017; Meins et al., 2013). Attachment interventions include "organizing children's feelings" by naming the emotion and validating the reason a child may be feeling that way (Powell et al., 2016), which is theorized to be an emotion socialization pathway toward children developing independent emotion-regulation capacities. Of course, there is variability both within and between cultures in the modes of communication that caregivers most use to convey that they are available to and engaged with their child and/or that they acknowledge and understand their child's feelings (Keller, 2016).

Regulation in the Context of Adversity

While caregiver regulation is found to be meaningful in understanding risk for negative outcomes among typical or community samples (Denham et al., 1997; Eisenberg et al., 2003; Silkenbeumer et al., 2018), given that different types of adversity may be relevant in identifying access to caregiver regulation, we should consider caregiver regulation in the context of adversity. McLaughlin and Sheridan's dimensional model of adversity outlines threat and deprivation as having potentially shared and unique neurobiological consequences (McLaughlin et al., 2021; Sheridan & McLaughlin, 2014). Experiences of threat involve the potential for, and experiences of, direct physical harm (e.g., abuse) and activate the stress response system. Experiences of deprivation involve the lack of adequate physical, cognitive, and/or socioemotional input, which are linked to smaller brain volume (McLaughlin et al., 2019). While this is a helpful framework to better link experience to outcome, we suggest that caregiver regulation may be a useful additional dimension to consider when examining heterogeneity in child outcomes.

Although effective caregiver regulation is a dimension of young children's early experiences, there are immediate obstacles to facilitating caregiver regulation in contexts of adversity based on several factors, including the nature of the focal adversity (e.g., whether the focal adversity itself involves the absence or inconsistent availability of a caregiver or the presence of a threatening caregiver). An approach that considers the nature of each child's exposure to adversity is useful for determining priorities of intervention, starting with the most basic needs. Figure 1 provides a framework for matching needs to the specific circumstances of the child and their caregiving context in the service of promoting resilience, which is conceptualized here as three different levels of need from the most basic level (i.e., having a caregiver) to the most advanced (i.e., receiving effective caregiver regulation).

Experiencing effective caregiver regulation can bolster children's resilience in the face of adversity. Regardless of the type of adversity the child experiences, caregiving behaviors that tend to undermine representation of the caregiver as a source of comfort and to disorganize children's emotions (e.g., hostile, rejecting, and invalidating behaviors) are believed to compromise children's outcomes (Goldberg et al., 2003), and dysregulating caregiving may be a form of adversity itself. Given that caregivers can be intermittently regulating and dysregulating, as well as relatively active or inactive in each dimension, further research would usefully disentangle the degree to which occasional dysregulation may preclude adequate function. In any case, at present we contend that active regulatory presence is most helpful, as adaptive functioning following adverse experiences can be supported when caregivers are able to help children to understand, process, and respond to those experiences. Following exposure to war trauma, young children with secure attachment behaviors with their mothers were less likely to meet criteria for PTSD than those children with greater behavioral avoidance in their interactions (Feldman & Vengrober, 2011). Another study examining the effects of war trauma classified children in terms of their attachment security and family relationships. Children classified as insecurely attached with negative family relationships displayed more internalizing and externalizing symptoms compared to children with other classifications such as secure with optimal relationships and moderate security with neutral relationships (Punamäki et al., 2017). Furthermore, there is evidence that qualities of the caregiver-child relationship predict child functioning following disasters, including the September 11th terrorist attacks (DeVoe et al., 2011) and Hurricane Katrina (Gil-Rivas & Kilmer, 2013).

Interventions to Improve the Caregiving Context

Children are most likely to be resilient to adversity if they have a dedicated caregiver to help them regulate their emotions following adverse experiences. In order to clarify the immediate targets for intervention to address children's needs for effective caregiver regulation, below we outline specific interventions based on the caregiving context (see Figure 1). It is conceivable that the level of intervention an individual child requires shifts as prior levels have been successfully addressed (e.g., moving between levels as needed). However, we view the levels of intervention as a hierarchy of needs such that successfully addressing the prior level is necessary for proceeding to the subsequent level. Children require a caregiver before the caregiver's availability to that child can be addressed; only available caregivers can successfully engage in interventions designed to enhance effective caregiver regulation. Furthermore, the stakeholders capable of supporting efforts at the different levels may differ, with large-scale government and non-governmental agencies being the primary supporters of changes at Level 1 whereas smaller agencies and individual practitioners have the potential to be more active at Levels 2 and 3.

Caregiver Presence

The first and most basic intervention target (Level 1) addresses when caregivers are largely absent, such as when abandoned children are homeless (sometimes referred to as "street children"), live in institutional care settings (e.g., orphanages), or when children

experience severe neglect. Psychosocial deprivation experienced in institutional care settings has far-reaching effects on child health and wellbeing (for a review, see Nelson et al., 2014). Fortunately, there is causal evidence that removing children from institutional care and placing them into families is an effective method for promoting healthy development for children, particularly healthy parent–child relationships (Smyke et al., 2010, 2012). In fact, the improvement in parent–child attachment security observed among children removed from institutional care is an important mechanism in promoting healthy development following psychosocial deprivation (e.g., McLaughlin et al., 2012). Thus, in severe situations, such as institutional care or in circumstances where children are homeless and living without adults who look after them, positive outcomes can be achieved through obtaining a dedicated caregiver for that child; a call supported by a recent Lancet commission report (van IJzendoorn et al., 2020).

Caregiver Consistency

Once a child has an identified caregiver, consistency of the caregiver's availability to provide regulation should be the primary target of intervention (Level 2). Caregivers may be inconsistently available due to psychosocial challenges (e.g., mental health difficulties, substance use, or intimate partner violence [IPV]) or external challenges (e.g., financial distress) that interfere with providing regulation to the child. A caregiver who is physically abusive to the child or engages in violence toward another family member, while perhaps is able to provide intermittent regulation, cannot be a sufficiently consistent regulating presence. Still, they may be available to acknowledge the child's feelings and provide comfort afterward. Parents with mental health difficulties (e.g., severe depression; Gotlib et al., 2020) or who abuse substances (Shadur & Hussong, 2020) may also be inconsistently available. When a caregiver's psychopathology or substance use is severe, children are likely to both experience their environment as threatening (e.g., due to unpredictable caregiver behavior) and to be deprived of care; however, during periods of symptom remission/sobriety, they may receive effective caregiver regulation.

Caregivers who are facing psychosocial challenges that disrupt their ability to be consistently available require interventions that specifically address the impediments that prevent consistent availability (e.g., empirically supported interventions for adults that address psychiatric disorder, substance use, and IPV). Some of these interventions are specifically designed for parents with young children, including shelters for women and children to safely leave IPV situations (Rivas et al., 2015) and substance use treatment programs with integrated parenting interventions (Moreland & McRae-Clark, 2018; though findings are inconsistent across programs).

There are also interventions designed to support the psychosocial health of those who care for young children. One such intervention is the Family Check-Up (FCU; Dishion & Kavanaugh, 2003), which is an evidence-based parenting intervention designed to prevent child behavior problems through addressing family and caregiver psychosocial challenges, in addition to promoting positive parenting. Originally developed for families with adolescents, the FCU has been adapted for early childhood, and now to early infancy (Roby et al., 2021). The early childhood version of the FCU has demonstrated long-term positive outcomes, including reducing disruptive behavior and risk for child neglect, and

improving maternal depression, social support, parent–child relationship quality, and positive behavior in parent–child interactions (Dishion et al., 2008, 2015; Shaw et al., 2009). Families with the greatest risk for poor outcomes due to caregiver psychosocial challenges (e.g., parental depression, involvement with child protection, history of parental criminality) benefit the most (Pelham et al., 2017; Smith et al., 2018). These findings indicate that addressing the challenges to caregiver consistency is an important step for improving child outcomes.

Finally, experiences of material deprivation in a family, including food insecurity and other financial distress, may lead to inconsistent caregiver regulation. In these situations, stress related to material deprivation may compromise caregivers' engagement with their children. Thus, interventions focused on the level of caregiver consistency also include efforts to overcome barriers to consistent availability through strengthening social policies. These policies include building a more generous social safety net (e.g., guarantee paid sick and parental leave, including incentives for paternal leave, food assistance, public housing, and affordable health care). We emphasize that caregivers require resources to provide a regulating environment, and that it is the responsibility of a functioning society to support those who care for the next generation. Unfortunately, even in wealthy countries, many caregivers are forced to make difficult decisions to ensure basic survival (e.g., working multiple jobs) that come at the cost of consistent availability to their children. As such, emphasizing policies that reduce burdens on caregivers of infants and young children is a public health priority. Further, high-quality childcare and universal preschool programs are likely to reduce burdens on parents during a developmental period when children otherwise do not have access to childcare during the day through public schooling. Collectively, these policies would have large downstream effects.

Effectiveness of Caregiver Regulation

Once a child has a consistent caregiver, interventions focused on the final level (Level 3) aim to enhance caregivers' ability to notice and effectively respond to children's emotional needs, so that caregivers may more effectively provide regulation to young children following adversity. Being a sensitive and skilled caregiver may not come naturally (Humphreys & Salo, 2020), and in the context of adversity the consequences of variation in the ability to provide effective regulation are magnified. Further, children vary in their temperaments and competencies, which suggests that a one-size-fits-all approach, as well as the possibility for differential success of interactions based on these factors (e.g., Cassidy et al., 2011), is relevant on a case-by-case basis. There are a number of interventions developed for use in caregivers and/or caregiver–child dyads that improve caregiver regulation of young children. Of note, there are some interventions that focus on improving caregiving behavior and caregiver–child interactions in specific populations of caregivers with impediments to caregiver consistency addressed in Level 2, such as *Mothering from the Inside Out* (Suchman & Bers, 2015). This program is designed to improve caregiver reflective functioning among mothers in recovery from substance use disorders who are caring for young children, and serves to provide an example of how families may move from Level 2 to Level 3 needs after impediments to consistency are addressed. The interventions reviewed below focus on supporting the adult in becoming a safe

and trusted caregiver who is able to tolerate the distress of the child and provide appropriate regulation. Examples of these types of intervention are described below, all of which integrate, to varying degrees, social learning, attachment theory, and cognitive-behavioral approaches.

Child-Parent Psychotherapy (CPP) addresses trauma symptoms that are due to adversity within the caregiver-child relationship, such as the child witnessing past IPV or experiencing prior physical abuse perpetrated by the caregiver (Lieberman et al., 2015). A key element of CPP is explicitly naming the traumatic experience(s) in the service of highlighting the importance of the experience and creating an environment in which it is safe to talk and play about what happened. Explicitly mentioning the child's experiences affords the child the opportunity to share their story of the trauma with their caregiver with the support of a therapist. Sometimes, the caregiver is implicated directly through perpetrating abuse and sometimes indirectly by failing to protect the child from traumatic experiences. The shared emotional experience of talking through the trauma with therapeutic support is designed to heal both the child, the caregiver, and their relationship. Primary outcomes of CPP include reductions in caregiver and child trauma symptoms and increases in caregiver-child attachment security (Lieberman et al., 2015).

Attachment and Biobehavioral Catch-up (ABC) addresses experiences of maltreatment among young children and the concomitant emotional, behavioral, and physiological dysregulation that occurs as a result of maltreatment and disruptions in caregiving (Dozier et al., 2002). The goal of ABC is to help the caregiver to enhance the young child's regulation by providing sensitive, responsive, and nonfrightening caregiving. Sessions focus on directly and indirectly addressing and enhancing child regulatory capacities by guiding the caregiver to follow the young child's lead during interactions, including reading and responding effectively to infant distress. Also emphasized is the dysregulating effect of frightening behavior by the caregiver. Trained coaches encourage caregivers to understand their own reactions to, and behavior with, their children. ABC has been shown to be more effective than a psychoeducational intervention at improving regulation in the young child (Bernard et al., 2015; Dozier et al., 2008).

Circle of Security (COS) was designed to promote secure caregiver-child attachment in early childhood through promoting and supporting caregivers' understanding of their child's needs for both closeness and exploration (Powell et al., 2016). Caregivers learn how to recognize their child's need for them to be a secure base from which to explore the world and a safe haven from whom to seek comfort in times of stress or distress. Using video reviews of interactions, the therapist helps caregivers to recognize their own responses that enhance or inhibit healthy exploration and comfort seeking. Caregivers also have the opportunity to reflect on how their own history of being cared for when they were a child impacts how they interact with their own child. COS has been shown to improve caregiver-child attachment security, caregiving quality, and caregiver self-efficacy (Huber et al., 2015; Yaholkoski et al., 2016).

Parent-Child Interaction Therapy (PCIT) is a structured dyadic intervention initially developed for use in children with oppositional/defiant behaviors (Brinkmeyer & Eyberg, 2003). It involves two phases (i.e., child-directed and parent-directed) with didactic and

observational components in which a "coach" provides immediate feedback to a caregiver during real-time caregiver-child interactions. Given the focus on structured and consistent nonphysical discipline, the use of PCIT in families that use physical discipline and even physical abuse helps caregivers replace current parenting practices with nonviolent alternatives (Urquiza & McNeil, 1996). Numerous studies now support the use of this intervention to reduce maltreatment risk for young children with a history of maltreatment by a perpetrator (see Lieneman et al., 2017). Though not explicitly the target, allowing for more consistent and nonviolent parent-child interactions also increases opportunities for effective caregiver regulation.

Policy Implications

Considering the broad policy landscape, the proposed framework for characterizing the needs of a specific child can be expanded to inform the structures required to serve broader population needs. Those interested in promoting the welfare of children would benefit from identifying the specific needs in a given service area, jurisdiction, or country, and assessing whether there are sufficient services available to meet needs at every level. Large numbers of orphaned children should motivate structures that focus first on providing large-scale efforts to address caregiver presence. For populations with substantial substance use difficulties or exposure to violence, evidenced-based programs focused on reducing these impediments to caregiver availability can be seen as part of a broader effort to promote child well-being. Last, for potentially well-resourced contexts, promoting infant and early childhood mental health training to clinicians along with increasing access to these services (e.g., including home-based interventions) is an important final piece of this set of foundational supports needed to improve caregiver regulation following adversity.

Conclusion

Effective regulation of children's emotions is an important external target for promoting resilience following exposure to early adverse experiences. The nature of some types of adversity indicates the likely level of intervention needed to facilitate the child receiving effective caregiver regulation. Identifying the level of need based on the caregiving context provides guidance for how best to support children through malleable characteristics of the environment, specifically ensuring the child has access to a present, consistent, and effective regulator. A focus on the caregiving relationship, and caregiver regulation of children's emotions, removes the blame children may experience for struggling following adversity and harnesses what we know from developmental science regarding the crucial role of caregiver regulation in responding to adversity in the earliest stages of life. While we emphasize caregivers' essential role in supporting children who have experienced adversity, society has a responsibility to support family placements, provide interventions that remove impediments to caregiver consistency, including social safety net programs to reduce poverty, and to establish access to high-quality dyadic interventions to help caregivers in providing effective regulation to their children. Future work examining effective interventions (e.g., dismantling studies) to identify the most important active ingredients to supporting regulation, as well as a focus on

ecologically valid and culturally sensitive understanding of children and families, will be important for guiding this area of research.

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