Review
Recognizing Resilience in Children: A Review

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Abstract: Resilience is having the necessary capacity and/or resources available to recover from an external or internal threat to one's (personal assessment of) well-being at a particular moment. This scoping literature review examines current research on resilience, framing it within the Relational Developmental Systems theory and emphasizing contributing environmental factors, individual characteristics, and their mutual interaction and influence on resilience in children. Practice and policy implications are also discussed.

Keywords: resilience; stress; development; children; belonging; empowerment

1. Introduction

Resilience is a construct with diverse application. In the physical sciences, it refers to the ability of a material to bounce back or recover its original characteristics after being impacted by an outside force [1]. In business, it refers to a company's capacity to move forward and continue operating in the face of a substantial loss or economic downturn [2]. On a societal level, resilience is how communities are able to withstand and recover from significant adverse events without being negatively altered. All these definitions must take into consideration two factors: what constitutes a stressor and how is recovery or rebounding defined. These are both important for understanding resilience in children as well and can be defined in as many ways as there are individuals. What one child finds common and can easily overcome, another may experience as impossible to bear. A child's level of resilience in a given situation may be the result of learned/modeled behaviors, innate temperament, previous exposure to stress, availability of support, presence or absence of coping skills, access to physical resources, exhaustion, hunger, pain, relational environment, emotional state, or any combination of these. Resilience is multifaceted.

In this review of the literature, the theory of Relational Developmental Systems (RDSs) serves as an organizing framework. After describing this theory, the methods used to determine what research was included in the review are presented. Third, various definitions of resilience are outlined as well as the author's definition. The fourth section defines the community development core concepts of sense of belonging and empowerment and ties them to the topic of resilience and RDS theory. Fifth, there is a review of the relevant literature separated into three sections: (1) environmental factors related to resilience; (2) individual characteristics of resilient children; (3) the interaction of child and environment. The next section highlights policy and practice implications from the literature, and the final sections concludes this review of resilience. The objective of this review is to identify literature that describes either the environment (relational, social, emotional, and physical) or individual characteristics that increase the likelihood of a child to reestablish well-being after major stress, that is, to be resilient.

2. Conceptual Framework: Relational Developmental Systems Theory

For the purposes of this literature review, and to attempt to address the diversity of perspectives, a Relational Developmental Systems framework is used to understand resilience [3,4]. It is now well-documented that adverse experiences in childhood often

lead to a range of long-term detrimental consequences as children develop [5]. An important take away from this research is that resilience is neither just a trait [6] of a particular child (nature), nor simply a product of environment (nurture). As primarily social beings, children are continuously affecting and being affected by the relational connections in their lives. At the same time, resilience is not a constant. A child may be capable of handling a stressful situation at one point in development, but have her capacities overwhelmed by the same stress at another stage. Hence, resilience is "a dynamic attribute of a relationship" that must be considered as multilayered ([3], p. 293). This is why the Relational Developmental System model might be the most appropriate framework for a review of resilience in children.

In Relational Developmental Systems (RDSs) theory, emphasis is placed on "the nature of the mutually influential individual ← → context relations" ([3], p. 294). There is an emphasis on plasticity as well, which allows for hope at all stages of development. A child or adolescent (or even adult) is not bound to the category of functioning in which he currently finds himself. Neuroscientific theory, though not the focus of this paper, also has a lot to add on the topic of resilience, and its research supports RDS theory. Feldman's model [7] proposes three tenets of resilience, which include plasticity, sociality, and meaning. The emphasis on mutual influence in RDS highlights each of these tenets. Particular weight is appropriately placed on the influence of maternal–infant bonding, and the long-term impact disruption to this attachment can have on a child's brain.

RDS also has a lot in common with Ungar's [8] social ecology model of resilience, which has moved its view of resilience from a more "individual (micro) focus on traits to a multisystemic understanding of person-environment reciprocal processes" ([9], p. 348). When the strengths of a child can be aligned with the resources in his context/environment, the chance for positive functioning is maximized [3]. This is a family or a community's best chance of growing resilience in its children. Figure 1 shows a model of RDS theory applied to resilience [3]. It has a representation of the individual strength of a child and her environment (or ecological characteristics), which interact to produce development outcomes. The results of these outcomes can be a positive contribution to self and environment or internal or external problem behaviors, depending on the resilience of the child. As the figure shows, all these processes take place within the broader ecology of human development, and across time. As the RDS framework articulates, each new set of circumstances or stressors can produce a different result because the environment and individual characteristics are constantly impacting each other.
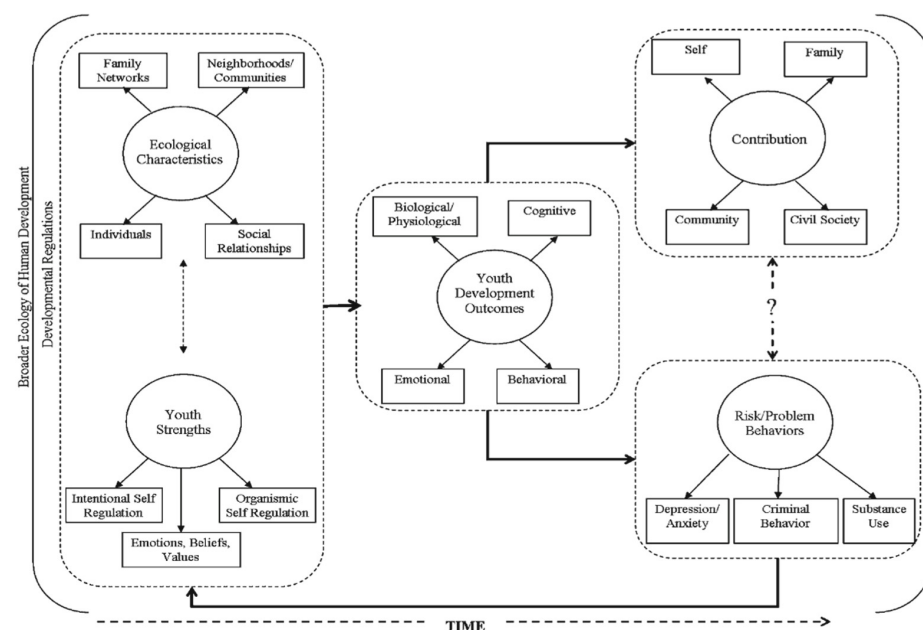

Figure 1. A Relational Developmental Systems model of the individual-context relations in resilience [3].

3. Methods

To identify relevant literature for the review, online searches were conducted on databases, including GoogleScholar and PsychINFO. Search criteria included the following terms, resilien* and children; pathways to resilience; building resilience in children; qualities/characteristics of resilience; resilience-building environment; empowerment; sense of belonging; Relational Developmental Systems theory; trauma and well-being. The search terms were used in various combinations to find journal articles that were relevant to the current review. The initial search produced 169 results, some of which were excluded based on being too narrowly focused (for example military families), some were excluded for being more bio-physiology-based. The primary included articles were from the fields of psychology or sociology/social work. Peer-reviewed articles, literature reviews, and prominent books from practitioners were included, primarily from 2011 to the present. Specific, prolific, individual researchers/authors were also searched, namely Masten, Lerner, and Ungar. Older or seminal works were also reviewed or included as appropriate. In sum, 48 works were included in the final literature review. The findings were examined from a Relational Developmental Systems framework.

4. Resilience Defined

Many variations in the definition of resilience exist in the literature. See Table 1, below, for a sampling of some examples from the more prominent authors from the literature review. The definitions predominantly have two parts. One is exposure to a risk/adversity that commonly threatens good outcomes, and second is that the individual exposed is doing relatively well in response [10]. How this transition from adversity to positive outcome occurs is often left out of these definitions as well as the reality that resilience is not a static characteristic that a child either possess or does not.

Table 1. Definitions of resilience in the literature.

Author	Definition of Resilience
Masten (2001) [11]	A class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development (p. 228).
Bhamra (2011) [12]	The capability and ability of an element to return to a stable state after a disruption (p. 5376).
Ungar, et al. (2013) [9]	Children's developmental success under negative stress (p. 349).
Masten and Moss (2015) [13]	The capacity for adapting successfully in the context of adversity, inferred from evidence of successful adaptation following significant challenges or system disturbances (p. 6).
Lerner, et al. (2013) [3]	A dynamic attribute of a relationship between an individual adolescent and his/her multilevel and integrated (relational) developmental system (p. 293).
Harvard (2015) [14]	A positive, adaptive response in the face of significant adversity (Center on the Developing Child, p. 1).
Ginsberg (2011) [6]	The capacity to rise above difficult circumstances; moving forward with optimism and confidence even in the midst of adversity (p. 4).
Brooks and Goldstein (2001) [15]	The inner strength to cope competently and successfully with challenges, adversity, or trauma encountered daily (p. 1).
Zolkoski and Bullock (2012) [16]	Coping successfully with traumatic experiences, and avoiding negative paths linked with risks (p. 2296).
Yeager and Dweck (2012) [17]	Whether students respond positively to challenges (p. 302)
Masten, et al. (2013) [18]	The capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability, or development.
White and Pulla (2013) [19]	A dynamic process of interactions between a child and his/her social and physical ecology that promote adaptation and positive outcomes despite adverse situations (p. 123).
Khanlou and Wray (2014) [20]	(a) A process, (b) a continuum, (c) or global concept with specific dimensions (p. 68)
Rutter (2013) [21]	An interactive phenomenon that is inferred from findings indicating that some individuals have a relatively good outcome despite having experienced serious stresses or adversities (p. 474).
Lee and Williams (2013) [22]	A capacity to cope successfully with significant adversity or trauma (p. 265).
Masten, et al. (2009) [10]	Patterns of positive adaptation and development during or following exposure to experiences or conditions associated with negative outcomes (p. 118).

Resilience, as defined by the author, is having the necessary capacity and/or resources available to recover from an external or internal threat to one's (personal assessment of) well-being at a particular moment. This definition turns away from the idea of resilience being a trait, and leans into the idea of it being the dynamic interaction of internal and external resources/skills/capacity with internal or external stressors/challenges/trauma. It permits that the resources or capacity to reestablish well-being can come either from the individual experiencing the stressor or from that person's relational environment. A resilient outcome can be seen in a child with few internal strengths if she is surrounded by a deep, capable network of support. Similarly, a child with strong internal capacities is able to cope in many stressful situations even in the absence of a reliable support system. As Feldman [7] noted, "resilient individuals are not only born, but (critically) raised." Another component of this definition is allowing the concept of well-being to be self-defined. That is, well-being (or having recovered) can mean something different for every person in any given situation. This allows the definition to conform individually in all circumstances. Another component is a recognition that stressors are not always external, but can also be internal, i.e., anxiety, depression, anorexia, etc. Moreover, the final piece of this definition of resilience is that it intentionally makes resilience a case-by-case evaluation. For example, if a child is incapable of regulating enough for a spelling test today, all that means in terms of resilience is that his capacity was overloaded for this particular test on this particular day with these particular circumstances. It does not, therefore, mean that this child is in a state of dysregulation and cannot handle spelling tests. Generalizing from one situation must be avoided, hence the inclusion of "at a particular moment."

5. Core Concepts: Sense of Belonging and Empowerment

Many core concepts from community development can be applied to a review of resilience. For this paper, sense of belonging and empowerment are going to be highlighted because of their connection to building resilience in children. Each of these concepts contributes greatly to the concept, research, and then implementation of resilience-building programs. Sense of belonging has been well-established as a core psychological need for humans as social beings. Haggerty, et al. [23], defined it as "the experience of personal involvement in an environment so that persons feel themselves to be an integral part of that system" (p. 173).

Abraham Maslow in the 1960's signified sense of belonging as the third level in human development towards actualization, after physiological/survival and security needs. It ties people together in relationships, families, communities, and creates an important component of how we identify ourselves. It is relevant here because it has also been found to be a necessary ingredient to resilience [24,25]. A sense of belonging is a significant protective factor for children who have experienced multiple adversities in their lives [26], and it is one of the key factors associated with resilience that has also been shown to protect individuals from depression [22]. Interventions with minority students have shown that increasing a sense of belonging encourages academic success and mental health [24,27].

Empowerment is the process of helping an individual or group gain control over their own dealings. It is beneficial on the societal level in community development so that neighborhoods and groups take charge of the atmosphere and trajectory of their contexts [28]. In youth empowerment models, self-efficacy and agency are major components of resilience [21,29]. Both are discussed further in the next section, but their importance here is to point out empowerment's connection to resilience. Christens and Peterson [28] found that empowerment ('sociopolitical control') mediated the relationship between environment, risk factors, and developmental outcomes for youth. Sanders et al. [29] found that youth who received services that were empowering, encouraging personal agency, reported enhanced resilience that was associated with better well-being outcomes.

For a child to have a sense of control over himself and his environment, and believe he can affect his future, provides him an awareness of his power. If the relationships in his life and the institutions he is a part of allow this sense of power to develop and flourish, he

will have the fertile soil in which resilience can most easily blossom. He will take risks, try new things, speak up when he fails to understand an assignment, and push back when he finds something uncomfortable. On the contrary, when a child is denied any voice in what happens to her, she quickly learns she has no control over her circumstances. This truth can unfortunately remove all traces of creativity from a child and leave her feeling helpless, doomed to passively accept whatever life (or parents, caregivers, teachers, etc.) decides. She will not risk attempting something unfamiliar, will not ask for help, and may even stay quiet even when she feels attacked.

Empowerment and a sense of belonging are crucial to understanding and fostering resilience. Thinking about these concepts in the Relational Developmental Systems framework makes it important to remember two things. First, that both internal attributes and relational atmosphere can contribute to or detract from the experience of these concepts for a child. For example, a child may be predisposed to be extraverted, or particularly athletic, which would make finding a group in which to belong a little simpler. Alternatively, this same child can be born into an under resourced, disconnected family that is on the margins of society, and so her natural inclinations would be overridden by her environment. Secondly, in terms of RDS, it is crucial to be mindful of the developmental piece. Just because this young girl is not able to find a sense of empowerment at home, does not mean she is destined never to find her voice. At a new stage in her life, she may discover her athletic abilities on her own and decide to take up a sport, even when her mother cautions her.

6. Review of the Literature

As a result of the literature review, three distinct components became clear. A child's resilience can be found or enhanced as a result of her environment, her personal characteristics, and the interaction between the two.

6.1. The Resilience-Fostering Environment

Because of psychology's historical focus on pathology and diagnosis, much is known about environments that lead to poor outcomes for children. Specifically, the Center for Disease Control's [5] expansive study of Adverse Childhood Experiences (ACEs) gave research eight explicit categories of risk that are statistically linked to negative outcomes. These are, emotional, physical, and sexual abuse; household mental illness, substance abuse, instability, violence; and emotional or physical neglect. These destructive experiences are important pieces in a cohesive understanding of resilience, for without context, a child's behaviors are incomprehensible.

From our definition, we know that resilience takes place in the presence of adversity. Ungar, et al. [9] noted that "the more a child is exposed to adversity, the more the child's resilience depends on the quality of the environment and the resources that are available and accessible to nurture and sustain well-being" (p. 350). In moving from a deficit to asset-based perspective, the question becomes: what is necessary for a child to have this capacity for resilience? Or, what does a resilience fostering-environment look like? The goal is understanding the best way to help children develop the capacity to transform toxic stress into tolerable stress. The Center on the Developing Child at Harvard University [14,30] has spent a great deal of time researching this question. This is what they found regarding external contributors to resilience:

1. The single most common finding is that a child who ends up doing well had the presence of at least one stable, committed, caring, supportive adult in his life;
2. The supportive context of affirming faith or cultural traditions create an atmosphere in which children are more likely to respond effectively to major stressors.

Having a 'supportive adult relationship' is a general description of a particular experience for a child. It does not refer simply to the consistent presence of an adult, but more broadly describes the nature of the relationship. This adult is welcoming, encouraging, a listening ear, nonjudgmental, a guide or mentor.

Dr. K. Ginsberg [6] has spent much of his professional life as a pediatrician helping patients and parents learn the ingredients of resilience. Although he does not reference it, his work aligns well with the Relational Developmental Systems theory, as he sees the interaction between child and parent or caregiver as the primary method for growing resilience and recognizes this environment changes as a child moves into different developmental stages. He speaks to the idea of a resilience-fostering environment with the hope that it is provided by a parent, but as the Harvard [14] study and Bowers et al. [31] found, any stable, supportive adult is an adequate alternative. The three essential themes from Ginsberg's work on how adults build the resilience of children in their lives were: (1) unconditional love and acceptance, which provides a stable sense of belonging; (2) high expectations or standards; (3) and modeling positive coping. The combination of his three ingredients leads to the empowerment of healthy children, who have seen positive role models, know what is expected of them, and have the foundational love and confidence to meet the challenges of life.

Healthy attachment and connection are not found in passive or permissive adult/child relationships. On the contrary, unconditional acceptance is closely tied to having high expectations [6,16]. Ginsberg [6] found that both conditional acceptance and permissiveness (which parents often mistake for acceptance) produce children who cannot bounce back after a stressful event and are quick to give up. His view of high expectations is that they ought to be for character not achievement. Expectations around achievement can lead to a child learning that love is conditional. Ginsberg [6] also promotes the importance of sense of belonging in growing resilience because it provides a child with security. He suggests thinking of connections in a child's life such as "a chain of interlocking circles—the stronger links that build the chain [from friendships, to neighbors, to sports teams, to relatives, to school, etc.], the more children feel a sense of belonging and support" ([6], p. 149). These connections allow children a larger network of resources to draw from during times of stress. It is also important to emphasize that for these relationships to contribute to resilience, they must be mutually respectful [29].

Ungar et al. [9] reported a study of adolescents in 11 countries, which identified seven environmental factors that are associated with resilience across cultures. Both the supportive adult relationship and cultural/spiritual adherence emphasized by the Harvard [14] study above were identified. The additional significant aspects were: a powerful identity, power and control, social justice, access to material resources, a sense of cohesion, and belonging. The community development, core concepts of sense of belonging, and empowerment were strongly evident in the findings of Ungar et al. [9]. Empowerment was noted as particularly important because of its effect on self-efficacy. Adolescents who had been provided a sense of their own power (empowered) were then confident to believe they could navigate to the resources necessary (self-efficacious) to support their resilience, i.e., schools, transportation, or local governments. Congruent with the Relational Developmental Systems framework, Ungar [8] viewed resilience as the interaction between the child and her environment. He represented this using the equation, individual X environment. The outcome of this equation results either in what is necessary to sustain well-being or leads to dysfunction. "Even the most traumatized children do better when their environments are stable" [9] and structured in a way to support growth.

Socioeconomic status (SES) has been shown to have a substantial effect on resilience [16], as measured by academic achievement, prosocial vs. antisocial behavior, psychopathology, and peer acceptance [11]. SES was therefore found to be a major environmental contributor to, or detractor from, resilience. Because it is often interrelated to many of the other external factors, the sweeping impact of SES can be inadvertently minimized. SES can affect neighborhood quality, transportation, parent–child relationships, out-of-school time activities, nutrition, supervision (quality of childcare), stimulation, access to healthcare, etc., all of which contribute to growing resilience. As Ungar et al. [9] noted, "changing the odds stacked against the individual contributes far more to changes in outcomes" (p. 357) than

focusing on changing the individual or his environment alone. In other words, "change becomes less individual and more political" ([9], p. 360).

For children who grow up in a more well-resourced environment, there is an often disregarded factor in building resilience, which Ginsberg [6] and Levine [31] have highlighted in their books; it is that children must experience stress and adversity to be resilient. This may at first seem counterintuitive, especially in the current mainstream, protective parenting culture. In an environment lacking any stress or adversity, however, there is no occasion for resilience to grow. With the help of supportive adults, opportunities to experience manageable stress is growth-promoting and strengthens a child's ability to meet future challenges [30]. Parents who interfere and overprotect their children from failure, rob them of the opportunities necessary to face challenges. By attempting to shield children from trauma, they can inadvertently create a fear of failure, an intolerance for mistakes, and a helpless mentality.

6.2. Recognizing Resilience: Individual Characteristics

Traditionally, there has been more research on this area of resilience. Individual characteristics are the other side of the Relational Developmental Systems theory from environment, discussed in the previous section. Zolkoski and Bullock [16] noted that these characteristics can be innate and recognized as early as infancy. A baby with an easy to soothe temperament is more likely to provoke positive responses from her caregiver and therefore be more likely to form a close bond and secure attachment. An extroverted toddler may appear more interested in social play and therefore receive more stimulation from caregivers which improves sense of belonging and brain development.

Regarding brain development, Harvard's Center for the Developing Child [14] found specific capacities that are strongly correlated with resilience: executive functioning and self-regulation. Self-regulation (sometimes referred to as emotional regulation) has been repeatedly found as a key ingredient to resilience [6,16,32,33]. Self-regulation is the ability to bring your bio-psycho-social-emotional self, back into a state of equilibrium after the stress response is activated. This skill aids children in controlling their unhealthy impulses that if acted upon might change a reaction to trauma from a positive contribution to a problem behavior (see Figure 1). Children who struggle with self-regulation often have difficulty with impulse control and sustaining focus, both of which are essential for resilience [14]. Executive function is best thought of as higher-level reasoning or critical thinking. A child with exceptional executive functioning skills is able to look at a situation from many perspectives, think about consequences before acting, and effectively problem solve. This ability is often co-occurring with high intelligence.

Children who believe in their capacity to guide their own destiny and overcome hardships are far more likely to be resilient [30]. This characteristic of self-efficacy or agency is closely related to the core concept of empowerment [32]. When a child feels as though he has some control over his future, he is more likely to feel empowered to make positive decisions [21] and bounce back after a setback [6]. On the contrary, a child who believes he has no power over anything that happens to him will quickly learn helplessness, passivity, and be unable to cope when additional stress comes into his life. This pessimism can imperceptibly transform into depression, which is a natural enemy of resilience. Ginsberg [6] characterized the positive quality of self-efficacy as a combination of competence, confidence, and control; "the more [children] master life experiences, the more [they] realize they can tackle new challenges, and thereby develop genuine confidence in themselves" (p. 39). A child who is developing self-efficacy has the internal dialogue of 'I can make a difference' rather than 'Nothing I do matters' [32].

Another way to conceptualize competence or self-efficacy has been used by other authors and may be helpful in understanding the concept more clearly: mastery. Children who have built a sense of mastery over their life circumstances are much more likely to be resilient [14,15]. This sense of mastery is fueled by perseverance and determination. When a child is determined not to give up in the face of a struggle, she is much more likely to keep

trying until she finds success. The sense of accomplishment from this success leads to a positive cycle towards competence, and once she experiences this repeatedly, she develops a sense of mastery. This confidence in her ability to seek and find solutions to challenges combines the necessary critical thinking or executive function (discussed above) with the belief that she can control the outcomes of situations in her life. This self-concept is one of the strongest predictors of whether a child will recover when presented with circumstances from a minor challenge to a serious life difficulty [15,18,21,30,33,34].

Recently, a new individual characteristic was found to have a significant impact on whether a child responds positively to challenges. It is called a 'growth mindset' [17]. Children can vary in whether they view personality or intelligence as fixed or malleable. Those who believe that intelligence is malleable view academic ability as something that can change, grow, or be developed over time. Similarly, one who believes personality as malleable view people's traits as having the potential to change [17]. This growth mindset has been found to be a more important contributor to resilience than self-esteem. A child with this mindset interprets challenges as "things they can take on and overcome over time with effort, new strategies, learning, help from others, and patience" ([17], p. 312). Once again, this characteristic is related to previous ones: perseverance, executive function, self-regulation, and self-efficacy.

6.3. The Child in Her Environment

As the RDS framework suggests, it is fundamentally impossible to separate a child's individual characteristics that contribute to a resilient outcome from his environment that shapes these characteristics from before birth and into adolescence [13]. Lerner [3] argued that resilience is not a characteristic of either the individual nor the resources around them, rather the interaction or relationship between the two. Though Ungar et al. [9] agreed with that conclusion to a point, they believe the environment has a disproportionately greater influence, "an adequately resourced environment makes it more likely that the child's motivation, temperament, and special talents contribute to successful development outcomes" (p. 351). The authors summed up their findings as the following three principles that help explain resilience: (1) equifinality, which means there are many ways to good ends; (2) differential impact, which means factors leading to resilience are impacted differently for each individual under each set of stressful circumstances; (3) and contextual and cultural moderation, which means protective processes are available and valued differently depending on the context and culture [9].

"If adaptive developmental regulations [see Figure 1] emerge or can be fostered between the plastic, developing young person and features of his or her context (e.g., the structure and function of his or her family, school, peer group, and community), then the likelihood will increase that the young person will thrive (that is, manifest healthy, positive developmental changes)" ([3], p. 613). The core concepts of sense of belonging and empowerment are prime examples of the 'child in context' idea. A child may be born with a more difficult temperament, which would make healthy attachment and bonding more challenging. If this child is born to a balanced, stable, and caring mother, she will not be put off by his fussiness or difficulty to soothe. Rather, she will continue to talk and sing to him, make eye contact and smile, and help his brain develop in a way that learns to trust. This unconditional acceptance will lead the child, whose nature would on its own tend to isolation, to feel loved and supported and in turn feel a sense of belonging in his family. On the contrary, if a child is born with an easy-going personality, highly intelligent, and extroverted, she is likely to learn to trust her own ability to confront challenges. If this child is raised by a mentally ill caregiver who is controlling, belittling, and narcissistic, however, she will quickly realize that speaking up and trying to control her life will lead to pain. Rather than her natural inclinations paving the way toward empowerment, her environment stifled them.

7. General Implications for Policy and Practice

As White and Pulla [19] pointed out, "interventions need to focus on both the child's strengths and their environments so they can be holistically supported to develop the capacity to be resilient" (p. 124). Promoting resilience needs to be seen as the collective responsibility of society to help our children be prepared for the challenges of life, from individual families to schools and neighborhoods to government policies. Interventions that focus on universal preventive intervention appear to be promising [35]. Hawkins et al. [36] found broad and significant effects on "positive functioning in work and school and on emotional and mental health" (p. 30) of young adults (at 21 years of age) who participated in a program delivered to them as elementary students. Consistent with the Relational Developmental Systems framework, the program was designed to influence both the environment by training teachers and parents and the individual children by helping them develop social and emotional skills. The long term and extensive impact shows that there is initial evidence to implement a kind of universal preventative intervention (teaching emotional regulation, executive function, and social skills) with young children that can last into adulthood [14,35,36]. Universal implementation prevents singling out any children from abusive or neglectful homes and avoids potential bias that may overlook a child who needs additional help but appears to have a healthy home life.

The importance of a child's earliest environment cannot be overstated for policy or practice. Unborn babies to preschool children are essentially vulnerable to and dependent upon their social and physical environment [19]. From in utero nutrition or exposure to stress hormones to eye contact and conversation in infancy [37], the foundation for biological ability to be resilient is laid [11]. "Virtually all aspects of development and health are affected by the interaction between genes and experience" ([14], p. 4). A safe, healthy pre and post birth atmosphere is an essential element to providing a child the best possibility of successfully facing life's challenges. Many of the differences in brain functioning between children who are more likely to respond resiliently to those who are not, have roots in these early experiences [5]. Sustained stress can reduce the number and/or strength of neural connections in a child's developing brain, particularly in regions of the brain that manage executive function and emotional regulation, which are key ingredients in resilient outcomes [5,30]. Lack of stimulation, warmth/connection, or conversation can have a similar impact on neural connectivity, stunting a child's brain development in ways that have a long-term effect on capacity for resilience [38]. Therefore, preventing abuse and neglect (ACEs) and increasing parent/caregiver understanding of the permeating impact of stress and supreme significance of relationships are key components of effective policy and practice. These crucial elements are the first piece of the policy and practice proposal.

Enrichment is the second piece. Children need opportunities to participate in the creative arts. Using imagination, abstract thinking, problem solving, and critical thinking are all necessary for engaging in various art forms. Each of these skills build a child's capacity for responding to trauma in a positive way. Participating in creative writing, painting, dancing, singing, drawing, playing an instrument, pottery, theater, and any other form of creative art supports resilience by promoting self-regulation, executive function, mastery (or self-efficacy), and a growth mindset [18,32,34,37]. Not only are the structured creative arts an important part of practice and policy, so is unstructured play time [6,32]. Play allows children to be creative on their own terms. Play also contributes to healthy brain development and is "a natural tool for children to develop resiliency as they learn to cooperate, overcome challenges, and negotiate with others" ([37], p. 204). Specifically, outdoor play or time in nature has been shown to improve cognitive function and act as a buffer from stress in children [39]. Physical play is also important for the activity and exercise it provides for children. Physical exertion is an effective stress reduction practice [39]; it increases the oxygen and blood flow to a child's developing brain that can aid in forming new neural pathways [14]. Sedentary lifestyles can reduce a child's exposure to social environments and prevent opportunities for relationship building, problem solving, and self-regulation [6,23]. Parents and child caregivers can aid in this enrichment by offering simple opportunities

for children to be outdoors, listen to music, create art, or dance. The interventions are accessible to most because they do not require significant resources to accomplish.

The Relational Developmental Systems framework supports this holistic proposal for resilience-building policy and practice. As RDS theory posits, the individual child and his environment are mutually influential. Interventions must consequently address as many levels of the systems surrounding each child as possible to be the most effective. Concrete suggestions for how to implement the relevant research to make a tangible impact on children are as follows:

1. Compassionate classrooms:
   a. Teacher and administrator training on topics of: stress/trauma, its developmental impact, emotional regulatory skills, respectful classrooms, growth mindset, high expectations, and establishing a sense of belonging;
2. Mandatory minimum for recess and outdoor play in schools;
3. Universal policy focused on building: Agency (self-efficacy), Belonging, Critical thinking (executive function), Determination, Emotional regulation, Flexibility, and Growth mindset;
4. Afterschool enrichment opportunities for under resourced schools/neighborhoods;
5. Access to creative art programs for all students from any SES;
6. Funding for field trips for all schools;
7. Safe and clean outdoor play spaces in all areas of a community;
8. Mandatory healthy school meals and access to fresh food in all areas of a community;
9. Parent education on the positive impact of connection and enrichment and the negative impact of stress;
10. Access to consistent, high quality health care and childcare for all;
11. Mentor programs to provide stable, caring adults in the lives of struggling children.

The final two practices are specific interventions that can be used to bolster resilience in various relationships: parent/child, teacher/student, mentor/mentee, aunt/nephew, grandparent/grandchild, neighbor/child, coach/child, minister/child, etc. These tools are scaffolding and meaning-making. Scaffolding can have a major impact on the interaction of environmental/relational resources and individual assets of a child [30]. Scaffolding is the process where an experienced individual first shows and then teaches an unexperienced individual how to perform a task or skill. The term comes from the name of structures used to support a new construction as it is being reinforced. The scaffolding materials hold up the new building until it is able to stand on its own. The scaffolding is slowly removed as the new structure is solidified to be certain it is stable and self-sustaining. Scaffolding with children works similarly. After an adult has shown and taught a child a new skill, the adult helps the child attempt it on his own. As he gains more experience, the adult removes his help slowly until the child is capable without any help. This strategy is one of the most effective in skill transfer [6,30]. Fenning and Baker [40] found that mothers who used scaffolding with their at-risk children reduced the likelihood of the emergence of an intellectual disability and contributed to resilience in adaptive behavior. Scaffolding is a very practical way to incorporate empowerment into an adult child relationship or into a classroom setting.

The second tool is called meaning-making, which is a kind of narrative therapy where adults (parents or caregivers) facilitate discussions of stressful experiences with children and co-construct meaningful narratives [41]. This is also a kind of scaffolding where adults first model and then help children develop capacities for emotion regulation and coping, by processing and making meaning from a traumatic event. This process aids in positive communication, increasing belonging, positive coping, and ultimately growth that promotes resilience. Meaning-making is a way to help children learn to integrate stressful experiences into their identity without losing their positive self-concept. Once a child internalizes this ability, she can approach potentially traumatic situations with a

stronger sense of self because she has been empowered to incorporate the circumstance into her experience without it overwhelming her emotional resources.

8. Conclusions

In summary, it is impossible to think about resilience as simply a product of environment or simply a combination of individual characteristics. As the Relational Developmental Systems model posits, a resilient outcome depends on the mutual influence of assets/protective factors and relational/developmental atmosphere. Resilience, such as the classic nature versus nurture debate, is not either/or, but both/and. Policy makers and practitioners must take this reality into consideration. The individual characteristics that incline a child toward resilience and the assets that their environment ought to cultivate are: executive function, self-regulation (emotional regulation), self-efficacy (agency/empowerment), growth mindset, sense of belonging, and determination. The environmental qualities that promote the individual assets leading to resilience are: stable, caring adult role models, high expectations, creative arts enrichment, unstructured play time, adequate nutrition, empowerment, support of faith and cultural beliefs, time in nature, access to resources, and social justice. As individuals, as a community, and as a society, we must strive to create relational and developmental atmospheres where a child's capacity to recover from threats to her well-being are optimized and she can have a resilient outcome as often as possible.

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