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Future Directions in Research and Intervention with Youths in Poverty

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Abstract

This paper aims to integrate theory and empirical findings about understanding and fostering the process of resilience and adaptation in children and families who live in poverty. In this paper, we draw from multiple, somewhat distinct, scholarly streams to identify sources of protection; integrating across the literatures on stress and coping, psychophysiology, cultural identity development, and empowerment theory. Because living in poverty cuts across other dimensions of social differentiation and structural inequality, intersectionality theory frames our discussion of how to leverage poverty-affected youths' diverse experiences. We present a framework to guide intervention and research on resiliency promotion, describe the Building a Strong Identity and Coping Skills (BaSICS) intervention stemming from the framework, and suggest possible avenues and next steps for both interventions and research.

Keywords

Poverty; intervention; intersectionality; coping; stress adaptation; cultural identity; social justice

Health disparities associated with poverty and racial inequality are well documented (e.g., Pickett & Wilkinson, 2015). Research has clearly shown that the roots of health disparities take hold during childhood (e.g., Evans, Li, & Whipple, 2013). Poverty-affected children are at significantly elevated risk for developing a wide array of internalizing and externalizing symptoms and disorders (Slopen, Fitzmaurice, Williams, & Gilman, 2010), as well as poor academic achievement and ill health across the lifespan (Evans, Chen, Miller, & Seeman, 2012). Research documenting the pervasive negative effects of poverty on psychopathology across the first two decades of life, provides strong evidence of mental health disparities beginning as early as age 2, and emerging during each developmental period thereafter (Wadsworth, Evans, Grant, Carter, & Duffy, 2016).

Children growing up in the context of poverty are exposed to numerous stressors, such as family conflict and turmoil, changes in family composition, and violence in their homes and communities (Evans et al., 2013). They are similarly exposed to worse physical conditions capable of producing stress, such as toxins, noise, crowding, and substandard housing (Ackerman, Brown, & Izard, 2004) and to chaotic living conditions indicative of a low

degree of structure, stability, routine, and predictability in daily life (e.g., Evans & Kim, 2012; Fiese, 2006). Considerable work has linked high levels of these family-based stressors and conditions with problems in children's socioemotional development (e.g., Fiese & Winter, 2010). Models of how these processes operate such as the Family Stress Model (Conger, Elder, Lorenz, Simons, & Whitbeck, 1994) are instructive for understanding what goes *wrong* in families negatively affected by poverty, but provide little information regarding what goes *right* in resilient families.

This paper aims to integrate theory and empirical findings about the process of resilience and adaptation in children living in poverty. We consider theory and research on children living without sufficient economic resources—whether that is at the family, neighborhood, or community level, and as assessed by either social capital or income. We also use the term poverty-related stress (PRS; Wadsworth & Berger, 2006) to capture the full range of chronic and acute conditions and events that stem from living in the context of poverty. We draw from multiple scholarly streams in identifying sources of protection; integrating across stress and coping, psychophysiology, cultural identity development, and empowerment theory. Because living in poverty cuts across other dimensions of social differentiation and structural inequality, intersectionality theory frames our discussion of how to leverage poverty-affected youths' diverse strengths and experiences. We present a framework to guide intervention and research on resiliency promotion, describe the Building a Strong Identity and Coping Skills (BaSICS) intervention stemming from the framework, and suggest avenues and next steps for both interventions and research.

Functionally Adapted Stress Responses

Despite wide-ranging socioeconomic- (SES) and race-based mental and physical health disparities (Wolfe, Evans, & Seeman, 2012), there is much resilience within the population of youth exposed to poverty and its associated noxious stressors (McBride Murry, Berkel, Gaylord-Harden, Copeland-Linder, & Nation, 2011). Garcia Coll and colleagues' (Garcia Coll et al., 1996) integrative model highlights that social stratification shapes children's lived experiences in both positive and negative ways and emphasizes the need for developmental research to take into account adaptive cultures and competencies — acknowledging and considering both promoting and inhibiting contexts. As Cole (2009) emphasizes, individual-level differences must be understood in light of broader systems-level factors, such as structural inequality, and should attend to sources of strength as well as strain.

To identify protective factors we need developmental models spanning and integrating these multiple levels of analysis. The Adaptation to Poverty-related Stress (APRS; Wadsworth, Raviv, Santiago, & Etter, 2011) expanded strain models of economic hardship to include the experiences of children as well as parents, and to focus on sources of protection in addition to risk. This developmentally and context-informed model proposed that poverty shapes children's skills and abilities to manage and adapt to stress in ways that serve them in the short-term but can place them at long-term risk for mental and physical health problems (Santiago & Wadsworth, 2011). A tendency to view ambiguous interactions as hostile, for example, helps children identify and respond to danger more quickly, but also portends the

development of disruptive behavior problems with negative long-term psychosocial outcomes.

Advances in neuroscience have revealed the widespread effects of childhood poverty on children's developing brains. Chronically stressful, unpredictable, unsupportive, chaotic early childhood environments can shape the development of children's brains and stress response systems in different ways from other less stressful, more predictable, relatively supportive rearing environments. Developmental models such as Blair and Raver's (2012) experiential canalization model emphasize that these differences (e.g., smaller hippocampus, larger amygdala) occur because children's brains and bodies develop in accordance with their environments in order to prepare for living in that environment in the future. Children in impoverished environments will develop neural networks and structures well suited to operating in dangerous, unpredictable, chaotic environments. They will not necessarily develop systems to support behaviors well suited to an enriched environment (such as delay of gratification or trust in adults). Del Giudice and colleagues (2011) refer to this process of environmental shaping of biological systems as "adaptive calibration," and they emphasize that these adaptations serve children well in terms of maximizing their evolutionary fitness (ability to survive and grow). The adaptations have trade-offs, however, with negative side effects in other domains such as education and health.

The autonomic nervous system and hypothalamic-pituitary-adrenal axis (HPA) work in tandem to regulate our biological functioning while at rest and during threatening encounters. When over-taxed, the HPA's feedback mechanisms can become modified. This process initially leads to an exaggerated response or what has been termed hyper-activation (inability to down-regulate a stress response) of the HPA and over time eventuates in a hypo-active response (inability to activate the stress response; Booij, Bouma, de Jonge, Ormel, & Oldehinkel, 2013). Both HPA patterns (hypo- and hyper-active) are associated with symptoms of psychopathology.

Chronic poverty (Fernald & Gunnar, 2009) and social class and racial discrimination (Zeiders, Doane, & Roosa, 2012) are known to lead to these atypical HPA responses. Atypical responses, while maladaptive from a psychopathology perspective actually function to protect the developing child from immediate damage in the face of danger (physical or psychological) (Ellis, Del Giudice, & Shirtcliff, 2013), and are therefore adaptive in such contexts. For example, being hyper-vigilant to signs of impending conflict may allow a child to leave a situation (e.g., their home) in time to avoid a potentially dangerous episode of violence, but also causes wear and tear on internal organs and physiologic systems.

Wadsworth (2015) suggested that the functional adaptations in brain structures and physiologic stress responses paralleled a consistent set of findings in her research on how children cope with PRS. Based on her research, it appears that under conditions of chronic PRS, typically maladaptive coping is fostered at the expense of the development of a wide, flexible range of strategies. Hence, a growing body of empirical research suggests that the same conditions that lead to re-calibrated HPA reactivity and structural brain differences also interfere with the development of self-regulation patterns that would be adaptive in a wide array of environments (e.g., Wadsworth, Raviv, Compas, & Connor-Smith, 2005). As a

result, children exposed to chronic PRS develop avoidance-tailored repertoires that are well suited for coping with danger and violence, but which are inadequate and often inappropriate for situations not involving physical threat or imminent harm. As with an atypical HPA response, hypervigilant and avoidant coping are functional and serve a critical purpose in the context of toxic levels of stress, but tax a child's mind and body, predicting the development of psychopathology and health problems over time.

It is therefore not terribly surprising that children facing PRS report using less primary control coping (active attempts to solve problems and manage emotions)—coping that is typically associated with better functioning. Our work has suggested that the chronic and uncontrollable nature of PRS often precludes the use of active coping solutions—a phenomenon common to uncontrollable stress (e.g., Band & Weisz, 1990; Wadsworth & Compas, 2002). Secondary control coping (efforts to accommodate oneself to stress via acceptance, cognitive reframing, and distraction) tends to be more effective for managing uncontrollable stress, but children facing PRS report using less of this type of coping as well (Wadsworth & Berger, 2006; Wadsworth & Compas, 2002). Thus, there is evidence that stress-adapted coping is another mechanism linking PRS to mental health outcomes (e.g., Boxer & Sloan-Power, 2013).

Stress-adapted coping and stress-adapted HPA activity appear to be connected. New findings support that secondary control coping is associated with less HPA reactivity and quicker HPA recovery than is avoidant coping (e.g., Wadsworth et al., 2016), suggesting that different types of coping lead to or co-occur with different physiologic responses. These effects were however, moderated by children's characteristic coping styles. For example, children who reported typically using avoidant coping to cope with stress were less able to experience the physiological benefits of secondary control coping and in fact showed better physiologic regulation in an avoidance coping condition. These findings highlight that coping may be an avenue by which interventions can address biological calibrations, but that such interventions will need to appreciate and work with existing functionally adapted coping repertoires.

The implications of this corpus of work are fourfold. First, growing up in poverty shapes a child's biological and behavioral development in ways that are both adaptive and maladaptive depending on the context and the outcome or domain of interest. Second, these adaptations are not simply deficits; they develop because they are functional in the context of PRS. Third, replacing functionally adapted coping and self-regulation with skills and abilities suited to a different environmental context is likely to be rather difficult and may even be iatrogenic if it leaves children unprepared to survive in their current and future environments. Fourth, in developing interventions to foster positive development and prevent mental and physical health problems in children exposed to chronic poverty, we may need to think outside the typical individualistic skill and coping boxes to locate malleable mechanisms upon which to intervene.

Expanding the Reach of the APRS to Inform Intervention

PRS is exceedingly challenging for children (and adults) to cope with using active approaches such as problem solving, because immediate solutions are not readily available. Many stressors occurring in the neighborhood, community, and at home are so far beyond children's control that persisting in individual active approaches to solve them may in fact lead to even worse problems (e.g., Brody et al., 2013). Moreover, children exposed to these risks likely require an especially wide array of strategies because they are likely to face a wide array of both suboptimal and typical environments and conditions, each type of which may require different strategies and approaches. This necessitates a repertoire of skills with which to respond to normative stressors such as schoolwork, peer interactions, and sibling rivalries as well as stressors linked to structural societal inequities, such as living in a violent neighborhood. In addition, as with all people, children in poverty need skills and knowledge for matching different types of coping with stressful encounters and environments, the flexibility to switch strategies as needed, and the self-efficacy to persist in the face of initial failures. Both palliative (acceptance and positive thinking) and active strategies (taking action) are therefore needed (Thoits, 2006).

Many youths living in poverty develop a restricted repertoire uniquely tailored to cope with violence, victimization, and disorder (Wadsworth, 2015). Primary and secondary control coping skills are underdeveloped and underutilized and avoidance, hypervigilance, and a hyper-reactive stress response are over-represented. Some functional coping adaptations such as self-reliance and perseverance may be helpful in all contexts. The utility of many adaptations such as hypervigilance and hostile attributional biases is, however, context-dependent. There are also adaptations that do not appear to be helpful in any contexts, such as self-blame and internalized racism, which may be non-functional effects of successful adaptation to non-optimal contexts. Paying attention to those skills that children in poverty are adept at using in poverty-related contexts may provide building blocks upon which to scaffold growth of new, more universally helpful coping repertoires. Some coping adaptations, which themselves might be universally helpful if recognized and channeled well, include enhanced signal detection (detecting patterns and changes); highly sensitive ability to read others' emotions (but not their own!); and a tendency to seek out novel experiences. Taking advantage of such enhanced abilities could provide exciting possibilities for ways to meet children where they are skill-wise and use their existing strengths to grow new prosocial skills for tackling a wider array of stressors and problems (e.g., Ellis, Bianchi, Griskevicius, & Frankenhuis, 2017; Wadsworth 2015). Children who grow up in poverty may not possess the necessary architecture upon which to build the exact same skills that youth from advantaged environments possess, but may possess architecture and support systems to grow skills that can serve the same important functions.

Cultural Identity as a Coping Resource

Social experiences stemming from our culture and context shape our way of understanding the world and our place in it (Spencer, 1995). Importantly, the resulting cultural identity informs how we respond to threats, challenges, stressors, and events that we encounter in the world and can serve as a resource for coping with seemingly overwhelming sources of stress

such as racism and discrimination (Spencer, Fegley, Harpalani, & Seaton, 2004). The negative messaging children and adults receive about being members of marginalized groups (people of color, individuals in poverty) can erode internal resources such as self-esteem and pride in one's family—resources sorely needed for coping with stressors stemming from poverty and discrimination, for example (e.g., Spencer, Fegley, & Harpalani, 2003). Accordingly, there is a strong rationale for building cultural identity development into the APRS expansion and for seeking ways in which to harness and build upon a child's existing cultural resources that could promote a positive sense of self needed to persist in facing the challenges of living in poverty.

The development of broad, highly diversified coping repertoires which allow poverty-affected poor and minority children to cope effectively with PRS likely require a positive sense of self grounded in an *adaptive culture* that promotes collective and individual agency. According to Garcia Coll and colleagues (1996), adaptive cultures arise out of the collective historical experiences of marginalized groups, which foster culturally defined coping. The exploration of, identification with, and connection to one's cultural heritage are key aspects of cultural identity development likely to promote resilience across social categories and cultural contexts salient to poor youth. Especially important are the stories, practices, ideals, and values that have guided past struggles and led to triumphs over adversity as they validate one's experience of marginalization, celebrate resilience, and encourage agency. These serve as the ideal vehicle for promoting coping in context among youth who may be ethnically/racially heterogeneous, but have poverty in common. The expanded APRS therefore leverages these collective strengths, proposing that cultural identity can serve as a protective asset for youth coping with PRS. For a strength-based (rather than deficit-based) coping intervention for poor children it is vital to leverage context-specific protective factors by "meeting youth where they are" to build upon their preexisting individual and collective assets (Zimmerman et al., 2013).

We have drawn from diverse scholarly streams to inform our expansion of the coping strategies and resources included in the APRS in order to identify new avenues for strengthening poor children's ability to face PRS head-on. The American Psychological Association's updated "Multicultural Guidelines" for psychology practice and research (2017) endorse intersectionality, which emphasizes that "individuals' perspectives are shaped by the multiplicity of identities and contexts to which they belong, some oppressed and some privileged" (p.20). Making visible how these intersecting social categories affect our lived experiences opens up possibilities for finding common ground among seemingly different individuals (Cole, 2009). An intersectionality lens is thereby useful for identifying similar "indigenous" resources that grow out of diverse experiences of marginalization—such resources can be leveraged to cope with systemic stressors associated with multiple disadvantaged and stigmatized social categories.

Applying the intersectionality framework led us to conceptualize cultural identity as a "coping resource" that can be engaged through collective social action such as the creation of community awareness campaigns and peer mentoring programs (Case, 2017). Children living in poverty occupy a common social category that is one among many potential intersecting identities. These intersecting identities shape individual experiences and

perceptions of our society's interlocking systems of advantage and disadvantage (Rosenthal 2016; Warner, Settles, & Shields 2018). This insight directs attention to how cultural identity (e.g., identification with social class or ethnic group) could serve as a similar resource for coping among seemingly dissimilar youths who have poverty in common. By cutting across identity categories to locate shared interests, social action projects are a potential vehicle for "activating" those indigenous coping resources for individual and collective benefit (Cole, 2009).

Racial and ethnic identity.

While research on the protective role of identity reveals some variation across groups, identity affirmation (feeling good about belonging to a group made up of "people like me") provides an important foundation for building resilience in minority youth living in economically strained contexts. Sellers and colleagues (Sellers, Smith, Shelton, Rowley, & Chavous, 1998) argue that centrality (how important race is to your identity), regard (how one's racial group is viewed), and salience (context-specific) are core dimensions of racial identity for African Americans. Thus, positive feelings about (affirmation) and sense of connection to one's racial group can contribute to a stable sense of self. Research on African American and Latino youth paints a remarkably consistent picture of cultural identity affirmation as a developmental asset (Umaña-Taylor, 2011), buffering youth from negative outcomes in the face of discrimination and other stressors (Williams, Aiyer, Durkee, & Tolan, 2014), preserving academic achievement (e.g., Santos & Collins, 2016), and promoting mental and behavioral health (Umaña-Taylor, Wong, Gonzales, & Dumka, 2012).

Racial regard is the affective/evaluative dimension of racial identity, referring to an individual's view of African Americans and their feelings of positivity and negativity about being Black. Both personal attitudes about Black people (private regard) as well as beliefs about how favorably others view Black people (public regard) (Sellers & Shelton, 2003) appear to be central to the protective nature of racial identity of African Americans. Additionally, lower public regard (believing others view Blacks unfavorably) is related to less violence in face of discrimination (Caldwell, Sellers, Bernat, & Zimmerman, 2004), perhaps because it prepares African Americans for inevitable exposure to bias and discrimination. Thus, racial identity appears to serve a protective role for African American youth because it supplies both a source of pride and connection with others as well as acknowledgment of discrimination and strategies for handling that stressor.

Further, research with Latino populations has shown that disconnecting from one's traditional culture is a risk for poor outcomes, and that maintaining connection with one's cultural traditions while also gaining facility with mainstream culture is associated with positive developmental outcomes (Romero & Roberts, 2003). Assimilation, which entails identifying with white majority culture and leaving behind Latino culture and identity, has been repeatedly associated with negative outcomes such as substance use and delinquency among Puerto Rican and Mexican American youth (e.g., Marsiglia & Waller, 2002). For low-income Latino adolescents, learning about one's ethnic traditions, history and customs can serve as a coping resource, but attributing PRS to one's internal characteristics can undermine the buffering effects of ethnic identification (Santiago et al., 2016).

For youth of color the promotive and protective potential of cultural identity stems from feeling pride in belonging to a group that validates one's experiences and provides scaffolding for individual agentic responses. Some have argued that racial and ethnic identities are important coping resources for minority adolescents (Cross & Strauss, 1998) and that the coping styles encouraged by identity affirmation foster resilience and buffer minority youth against stress-induced negative outcomes (Jones & Neblett, 2017). For example, both African American and Latino traditional cultures emphasize familism and religiosity as resources during times of trouble (Kobus & Reyes, 2000), and minority youth rely on both familism and religiosity for coping with stress (Spencer et al., 2003). Such communalistic coping, which engages and prioritizes other group members in coping with adversity, is rooted in historical cultural adaptations to racism and oppression and in traditions of interdependence (Gaylord-Harden, Burrow, & Cunningham, 2012). Research has confirmed that ethnic identity is related to the use of positive strategies such as active coping and social support (Zaff, Blount, Phillips, & Cohen, 2002) and is capable of buffering low-income African American and Latino/a youth from both discrimination and family stress (Mroczkowski & Sánchez, 2015; Williams et al., 2014). A handful of prevention programs have successfully leveraged cultural identity via ethnic and gender pride (Wingood & DiClemente, 2006), Africentric values and racial identity (Berlew et al., 2000), and African American history, values, and culture (Liu, Flay, & AAYP Investigators, 2009) to promote adolescent health and well-being.

Social class identity.

While less is known about how social class identity is related to resilience in poverty-affected youth, emerging scholarship suggests that social class is a basis for identity development among youth growing up in low-income contexts and that the selves that develop under such conditions guide behavior and shape youth's cultural orientation. We argue that the sense of self emerging in an under-resourced and low status social class context can be leveraged as a coping asset by validating a youth's class culture, encouraging connection to the group, and fostering agency. As with racial or ethnic identity, socialization in a particular social class context engenders a culturally specific self; providing an interpretive framework for making sense of environments that guides behavior (Stephens, Markus, & Phillips, 2014). Just as minority youths' cultural identity distinguishes them from their white peers, children growing up in the context of poverty develop an identity that differs from that of affluent peers.

Growing up in a class context characterized by the uncertainty, unpredictability, and limited influence that come with economic constraints and low status promotes identities (ways of being) that emphasize interdependence (Kraus & Stephens, 2012; Stephens et al., 2014). In contrast to the independent model of self, made possible by middle class affluence and status, working class interdependence is geared to an awareness of, and responsiveness to, others and adjustment to social situations. A strong commitment to family and community is central to the working class self. These values may promote positive development in the face of stressors such as discrimination (Townsend, Eliezer, Major, & Mendes, 2014), though there is little research documenting such effects. In addition, working class values of endurance, strength, hard work, and optimism in the face of adversity encourage a

functionally adaptive “shift-and-persist” response to stressors (Chen & Miller, 2012), which can buffer against poverty-related health problems. Historically, working class identity has inspired effective communal responses to inequity, such as formation of labor unions (Fantasia & Voss, 2004).

As such, working class selves are indeed different from middle class selves, but rather than viewing the former as falling short of the gold standard conferred on the latter, we approach them as functional adaptations to different socio-cultural contexts. This perspective reveals numerous promotive and protective features of working class identity, which can be viewed as internal assets to be validated and nurtured. Cohen and Varnum (2016) argue that working class culture shares many positive attributes with east Asian cultures for example, such as interdependence and empathy, and is associated more generally with lower levels of narcissism and entitlement (Piff, 2014), more holistic thinking styles, and more ethical and prosocial behavior as compared to middle class culture (Kraus, Côté, & Keltner, 2010). Recognizing the emergence of context-specific identities as functionally adaptive reveals them as coping resources to build upon, rather than deficits to be eliminated. Connecting with these positive cultural values can connect working class youth with natural resources for coping. Given the interdependent nature of both working class culture and many racial and ethnic minority cultures, learning about one’s family and cultural history—both its struggles and its triumphs—situates young people in a present time that is linked to both the past and the future via interconnection with others. It can also provide examples of how people of color and working class people have come together to solve very large problems.

Collective Empowerment and Social Action as Coping

Advocates of intersectionality (Rosenthal, 2016), social justice education (Hahn Tapper, 2013) and community psychology (Prilleltensky & Fox, 2007) remind us that intervention can serve the purposes of either “domestication or transformation,” meaning that it can either serve to keep marginalized people powerless and passive or it can be used for empowerment and action. Empowerment is not simply learning how to live with a terrible situation. While a good deal of acceptance-based coping is essential to make it through the day sometimes, empowerment embodies a dialectic: ‘Yes, I need to cope with this tough situation right now as best I can, AND I need to take action to make things better for the future.’ Taking empowerment seriously requires that interventions sow the seeds of transformation —seeds that can grow to support social action and community change. As proposed by Shin et al. (2017) interventions qualify as “transformative” when they address the intersection of multiple social identities in the context of structural inequalities and call for social justice.

Such an approach to intervention is also influenced by dialectical and cognitive behavioral psychotherapy (Linehan, 1993; Weisz & Kazdin, 2010) and consistent with identity-motivation and sociocultural-self models, which emphasize a non-evaluative, situation-specific understanding and validation of behavior in context. An individual’s own experience and understanding of an event or circumstance needs to be taken seriously and validated. Hence, children’s feelings of unfairness, injustice, outrage, sadness, discouragement, doubt, optimism, excitement, joy, and pain will be accepted nonjudgmentally. At the same time,

children can be encouraged to let go of all-or-none thinking and to embrace a dialectical approach of “yes-and” instead of “yes-but.” In this way, children can come to appreciate that their emotions are—whether of positive or negative valence—neither good nor bad. Rather, emotions are recognized as useful and informative clues to what is happening in a child’s life, and what can be “good” or “bad” is how one deals with their emotions and the situations that elicit them. Feeling angry about injustice makes sense—whether one chooses to break a law in response to the anger or instead works to make things better is what can be “right” or “wrong,” “good” or “bad.”

Connecting with others and learning how to participate in collective social action can be viewed as ways of coping with systemic stressors that enable individual agency and foster belongingness (e.g., Zimmerman et al., 2013). These types of strategies, which we term “collaborative coping” have been shown to lead to positive youth outcomes such as reduced violent behavior and drug use (e.g., Ngwe, Liu, Flay, & Segawa, 2004). A common element in empowerment (e.g., Christens & Peterson, 2012) and social justice interventions for marginalized youth (e.g., Morsillo & Prilleltensky, 2007) is teaching about collective social action as a way to take a stand against injustice and cope with its negative effects.

The ability to engage successfully in social action depends on possessing strong skills for coping with everyday stress as well as knowledge of and appreciation for one’s cultural identity. By using the collective power of one’s friends, family, community and history, youths can become collaborative copers who work towards positive change for themselves and each other. Hence, an additional important message that is essential to convey to children, lest they try to take on too much responsibility for saving the entire world, is that sometimes we have what it takes to cope alone, and sometimes we do not. Sometimes it takes a “school of fish” or “a village” to accomplish a very large or very complex task. Coping with PRS is both large and complex and therefore requires a broad and flexible coping repertoire, containing both individual and collaborative coping strategies. Hence, while children may not be able to change the economic circumstances of their family or avoid witnessing crime, they can join with others to take action in prosocial ways to work towards improving the community.

A logic model of necessary inputs and outputs to be included in an intervention applying the APRS is presented in Figure 1. We suggest that strength-focused, social justice oriented, intersectional interventions building on this solid foundation of empirical evidence are the future direction of both research and intervention for children and families in poverty. To demonstrate how these principles can be incorporated into transformative interventions in the future and push the boundaries of impactful research, we describe core elements of our new intervention program (Building a Strong Identity and Coping Skills; BaSICS) and delineate areas in need of concerted research attention.

Future Directions for Intervention

According to the model, an intervention designed to address the needs of marginalized adolescents such as those living in poverty would include the following. (1) Inputs: the curriculum would embrace a dialectic of acceptance and change—too often interventions

invalidate the legitimacy of children's anger and outrage over injustice. It would use principles of social justice education to infuse children's knowledge and experiences into the fabric of the intervention during every session. Intervention leaders would be sufficiently clinically trained so as to be comfortable naming injustice, able to validate the hurt, anger, and aggressive impulses that stem from marginalization, and skillful in sowing the seeds of empowerment to help children develop socially acceptable ways to address stressors in their lives. (2) **Outputs:** the program would build both personal and collaborative coping skills, help children identify and connect with positive aspects of their cultural backgrounds, and give children experiences that promote belongingness, agency, hope, and a sense of purpose. (3) **Outcomes:** the intervention would attend to both psychological and biological mechanisms and outcomes. Emerging knowledge about the biological embedding of stress and of the biological substrates of coping suggest that potent adaptive coping skills should be evident at multiple levels of analysis, including the biological level. The ability to use relaxation techniques or cognitively reframe negative thoughts should be accompanied by efficient down-regulation of stress physiology (Wadsworth et al., 2016). Similarly, because involuntary stress reactivity can interfere with the use of potentially efficacious coping (e.g., Bendezu, Perzow, & Wadsworth, 2016), the ability to consistently use and incorporate new coping skills into one's habits may in fact depend on the ability to down-regulate stress physiology.

Therefore, we designed the Building a Strong Identity and Coping Skills (BaSICS) intervention to improve and expand preadolescents' coping and self-regulation skills and to (re-) calibrate the physiologic stress response system (especially the HPA). In line with social justice education and empowerment approaches, content is derived from children's own lived experiences. The BaSICS intervention brings a structure for building various skills and techniques to the children and the children bring the problems, struggles, and concerns to which skill development is applied. Next we describe the key components of BaSICS to illustrate the possibilities for designing APRS-informed interventions.

Fundamental coping skills.

During the first five sessions of BaSICS, participants learn and practice foundational coping skills individually and collaboratively. We adapted the child portion of Raviv and Wadsworth's (2010) Families Coping with Economic Strain program (FaCES) to focus on primary control coping (i.e., problem solving and emotion regulation), secondary control coping (i.e., cognitive restructuring and distraction), and relaxation techniques (guided imagery, diaphragmatic breathing and progressive muscle relaxation). Adjustments were made to FaCES content to address social inequality beyond PRS such as discrimination, community violence, and neighborhood disorder, as well as daily stressors and life event stressors typical for preadolescents. Content aims to build emotional literacy (e.g., what are different emotions, where do they come from, emotions are value neutral), help children identify different types of stressors (everyday, major life events, community) and the emotions they elicit, validate emotional responses, and decouple emotional reactions from coping actions.

Primary and secondary control coping strategies are taught using acronyms to help children remember the steps involved in problem solving and cognitive reframing, for example. Lessons in the first module also teach participants about physiological reactions to stress and the use of relaxation exercises to bring physiologic reactivity back to baseline. Children rotate through “relaxation stations” to practice different relaxation strategies and discuss situations in which to use the different strategies. At the deep breathing station for example, they learn how to use breathing to increase their pulse (e.g., quick chest breaths) or to calm their body and mind (e.g., diaphragmatic breathing). The imagery and visualization station guides children through a visualization exercise from a guided imagery script. Children then identify a person, place, or time that makes them feel relaxed, peaceful and happy (e.g., a parent cooking a favorite meal for the child) to develop their own imagery script. Problem solving, cognitive reframing steps, and the different relaxation exercises are practiced in every subsequent session to help participants learn when, why and how to use them in their daily lives.

Community and cultural identity.

The second module of the intervention uses participants’ growing coping awareness and competence to explore their “inhibiting and promotive social environments” and adaptive cultural responses to living in such contexts (Garcia Coll et al., 1996). Portions of this module (community tour and Photovoice activity) were adapted with permission from Youth Empowerment Solutions (YES; Zimmerman et al., 2011). Participants take a walking tour of the local neighborhood during which they photograph features of their environment they view as stressful (e.g., litter, abandoned buildings, graffiti) and aspects that serve as assets by reducing stress and increasing well-being (e.g. community improvement projects, churches, community parks). Children then complete a *Photovoice* project in which they choose a photographed community asset and stressor and write about how each photo makes them feel, why they think that stressor or asset exists, and how each feature of the neighborhood impacts them and others who live in the community. Participants discuss possible changes in their community that would help reduce stressors and increase assets and are encouraged to see how the best way to cope with community stressors that are larger than the individual is through collective action. Participants view examples of how other groups of children have worked together to reduce community stressors and increase assets (e.g., Zimmerman et al., 2011) and discuss how positive changes in a community happen when people come together for a common purpose.

What do individuals bring to the group and how does the group find its shared purpose? Next, children construct identity trees to guide an exploration of personal and cultural identity. Group leaders explain that in order to engage in collective action, each person needs to know what unique assets and strengths they can bring to the group and to learn about the experiences and values group members have in common. Children assemble poster board cutouts of a tree trunk, branches, roots, and leaves in several stages to create an increasingly detailed identity tree self-portrait. The branches of the tree contain different aspects of identity (e.g. social roles, interests, personal characteristics, values, hopes and dreams) and the leaves represent each person’s unique traits. The tree’s roots contain the individuals in their family or community that support and nourish them as they grow the leaves that make

them the unique person they are. Children write in the names of the most important people in their root system and add labels that describe aspects of these people's identity that have contributed to making them who they are today. Finally, children add the sociocultural groups to which they and the people in their root system belong and discuss how these groups connect people through a shared cultural heritage that is transmitted from roots to leaves. This activity helps participants recognize that working together to create community assets means that each person contributes differently to reaching a common goal.

To help make their shared social class context salient as a potential identity resource, children participate in an activity that links economic resources to group values. Children are divided into three groups and are instructed to plan a barbecue for 20 people. Children assigned to an "upper-class" group have \$300 to spend, a "middle-class" group has a \$150 budget, and a "low-income" group has only \$75. After planning and comparing their menus, the children discuss the decision-making that took place in each group and the problem-solving skills needed to plan an event with more or fewer dollars to spend. Typically, children in the "low-income" group share how they met the challenge of deciding on the bare barbecue essentials, while the other groups had money leftover to purchase special items. Discussing how access to economic resources shapes group decision making encourages children to think about how being part of a "low-income" group requires cultural adaptations that foster positive values like sacrifice, hard work, persistence, and caring for others.

Enacting collaborative coping.

In the final intervention module participants apply their coping skills and draw on what they've learned about their community and themselves to design and carry out a community action project. They learn the purpose and principles of social action as a constructive, group-based response to community stressors. They learn budgeting, teamwork, and how to compromise and reach consensus. The purpose of this collaborative project is not only to add to the community's assets, but to instill in the children a sense of purpose, efficacy, and agency. The community project is driven by participants and requires them to work together as a team to choose and achieve a common goal. Upon completion, participants present their community project to invited friends and family and explain how they used the skills and knowledge acquired in previous sessions to successfully complete it together.

Building on their exploration of cultural identity at the individual and group levels, participants are asked to examine what they have in common with the other members of the intervention group and how they fit together as a team that can plan and carry out a community project. Children revisit their photographs from the neighborhood tour to help them think through the stressors people in their community face and how the community's assets make things better for them. The group brainstorms ideas about what they can do to make their community a better place to live. With an idea for a community project coming into focus the children use their identity trees to identify the strengths each individual brings to the group and the need for any well-functioning group to have people who can fulfill different roles on a project using their different strengths and abilities. Thus, group identity

development is built by “collecting” the strengths of group members and identifying cares and concerns that they share about their neighborhoods and community.

Creating group solidarity requires identifying what the members have in common as well as the individual differences that will make the group stronger. One group of children felt that they were like a school of fish and used that analogy often during the group meetings. They identified community violence as a major issue in their neighborhoods. The group came up with a “shark” to represent community violence, and the participants agreed that when you are a solitary fish, the shark would just eat you with no trouble. However, when all the little fish come together, they can appear to be larger than the shark and scare him away. This analogy brilliantly highlighted how a group can accomplish so much more than a single individual, especially when facing a large, overwhelming stressor. When there was conflict in the group about differing ideas, the fish and shark analogy would be used to emphasize that coming together as a group was essential to overcome these larger stressors. Finally, participants identify the social identities they have in common with each other and discuss things that are difficult about being a member of that group, the common values of the group, and how group membership helps them cope with stressors. Using this information as well as their trees and overlapping identities, the group is challenged to solidify a group identity by coming up with a group name.

Engaging communities.

An individual skill building approach that appreciates the strengths youths in poverty possess is a necessary but insufficient condition for transformative interventions because children cannot solve stress produced by inequality resulting from social stratification alone—no one person can. The development of youths’ collaborative coping through social action will be optimally accomplished by fostering deeper connections with family and community sources of adult support and strength. Here too, a shift away from a deficit orientation is essential. Many cultural practices that arise out of the experience of marginalization (e.g., soul food, spirituals, familism) are adaptations that serve important functions for children, families, and communities (Travis & Leech, 2014). Such practices can be leveraged to support youth efforts to enact and sustain change on a larger scale. Recognition of and building upon the strengths of marginalized populations and communities could even be integrated into efforts to build cultures of health across the globe, especially in settings where western researchers are attempting to “transplant” interventions in new and challenging settings.

Building in structures to ensure sustainability of youth-led community action is also essential—youths can easily become demoralized if their hard work and positive change does not endure. In a recent BaSICS group, the community action project involved arranging a school forum for all middle school students, attended by members of the local police department who listened and responded to children’s concerns about safety and fair treatment in their communities. This opened an ongoing dialogue between police and students that will continue via the installment of a permanent suggestion/comment box in the school and regularly scheduled forums. This project showcased the level of adult support needed to build something important and sustainable, as principals, teachers, and local

police worked together with the students and intervention leaders to pull the event and its sustainability plan together.

Outcomes.

Initial results from evaluations of the 32-hour BaSICS program are promising. The program has been evaluated with 150 very low-income 11–12 year olds living in a small northeastern city. Forty-nine pilot children received the intervention and were evaluated in a pre-post-follow-up within subjects efficacy trial (Tilghman-Osborne, Perzow, McDonald, & Wadsworth, 2015)—children in this pilot trial showed significant reductions in internalizing problems that were associated with acquisition of problem solving skills and improved HPA stress reactivity over time. An additional 91 children have been enrolled in a randomized control trial in the same city, with 47 assigned to intervention and 44 to control. As reported in Wadsworth, McDonald et al. (2018), children randomized to receive BaSICS show significant improvements over time on coping skills, HPA reactivity, and both anxiety and depressive problems in comparison to control youths. Continued evaluation and long-term follow-up are in progress.

Future Directions for Research

As described below, basic research unpacking each of the elements in the logic model is needed.

Inputs

Meet children where they are.—Our view echoes that of Ellis et al. (2017), who asked “How can we work with, rather than against, these strengths to promote better intervention outcomes?” (p. 578). We propose that to most effectively promote positive development and prevent educational, physical, and mental health problems in poverty-affected youth, we need to view them contextually as stress-adapted rather than “deficient” individuals. Interventions should build on the basic research discussed briefly above which identifies what children in poverty are good at and creatively builds on those to promote new skill development. Building on existing skills is easier than trying to have children “unlearn” their adapted skillsets and re-learn skills tailored for a different ecological niche.

For most people, learning generally proceeds best when relevant metaphors and contexts are used to illustrate key concepts. Hence, to optimize the socioemotional learning of children in poverty, culturally relevant stimuli, ideas, and materials are needed. Children can be collaborative players in this process, bringing critical content to the fore upon which learning of core ideas, principles, and skills can be built. Tan and Barton (2010) illustrate the positive outcomes that stem from this dance between pedagogical strategies that “recruit nontraditional funds of knowledge of racial minority and low-income students,” and the resulting authority students obtain to participate in their own learning (p.38).

Trained Facilitators.—Diverting even one child from a lifetime of incarceration via an intervention such as BaSICS can save countless dollars. As an intensive secondary prevention program, BaSICS is labor-intensive, requiring clinically trained leaders and

ongoing clinical supervision. Leaders of an intervention such as BaSICS must be able to name inequality, marginalization, and injustice for what they are. Pretending that these social ills do not exist in a child's life or affect them invalidates their experiences. Expecting children to ignore their unfair treatment, to stay calm and in control, without attending to the hurt, confusion, anger, and outrage that injustice creates is clinically inadvisable. Yet, responding to such deep hurts and entrenched societal problems is difficult work, even for experienced clinicians. This raises important issues related to the type of service delivery, the training of interventionists, and level of intensity required to address the needs of children in poverty.

Because the BaSICS program uses a social justice education approach, where children bring their lived experiences into the intervention room, lead facilitators must be capable of responding in the moment to challenging content raised by the children using clinical dialectics. Hence, it is essential that lead facilitators receive both clinical and cultural competency training and receive supervision and feedback while learning to implement with both sensitivity and fidelity. The model used by Lochman and Wells (2004) to disseminate the Coping Power program—where program staff train leaders and provide ongoing review of trainee session videos—would be appropriate to ensure both fidelity and clinical sensitivity. In addition, a program designed for delivery in a group format in order to capitalize on the benefits of community building, creates additional need for community connections to assist the youths in enacting a sustainable community project. All of this of course, makes the up-front cost of such an intervention higher than a general skill-building program, but the cost savings of preventing juvenile justice involvement, school drop-out, and suicidality, for example, have the potential to be much higher. Careful cost-benefit analysis will need to accompany evaluation of ambitious intervention programs like BaSICS in order to justify its price tag (Crowley, Hall, Kuklinski, & Jones, 2014).

Outputs

What do poverty-affected youths do well?—In order to build a wide range of skills and abilities to promote positive development in poverty-affected youth, we need a better understanding of exactly what stress-adapted skills and abilities youths bring to the table and upon which various desired outcomes (learning, coping, solving problems) can be built. Ellis and colleagues (2017) recently compiled a list of the social-cognitive skills that children exposed to chronic stress and socioeconomic adversity develop in order to function in those difficult environments. These include enhanced deception detection (Frankenhuis, Roelofs, & de Vries, 2018), better empathic accuracy (Na & Chan, 2016), and enhanced learning and memory, and attention shifting ability under stressful conditions (e.g., Mani, Mullinathan, Shafir, & Zhao, 2013). Ellis et al. view these adaptations as potential strengths exquisitely tailored to function well in harsh, unpredictable environments. The compelling findings resulting from those and related studies suggest that we have only begun to scratch the surface in understanding the social, cognitive, and self-regulatory strengths of stress adapted children. Hence, it is high time that we put research energy toward identifying enhanced skills and abilities rather than deficits—and focusing on what poverty-affected youth do well rather than what they cannot do. It is highly likely that there are multiple ways to build literacy, solve complex problems, and negotiate successful relationships. In the classroom,

for example, children who grow up in noisy, chaotic environments may not learn or test well in a typical classroom environment. As is true with children with ADHD (Hartanto, Krafft, Iosif, & Schweitzer, 2016), children from high-risk backgrounds may learn best when allowed to move around, talk, and connect learning content with their daily life experiences (Ellis et al.). Future research should focus on identifying helpful adaptations that can be harnessed to support the growth of new capabilities, rather than focusing solely on “fixing” skill deficits. That said, it is evident that many skills that child clinical psychologists and prevention psychologists routinely address with clients and in research, such as problem solving and emotion regulation, remain critical to children’s healthy development (Boustani et al., 2015). The problem is not that such skills are unimportant, but rather that: (a) by themselves they are not sufficient to meet the adaptation needs of poverty-affected youths, and (b) we need new ways to foster these skills, taking into account functional adaptations and non-optimal contextual constraints.

Collaborative coping.—BaSICS emphasizes the importance of collaborative coping for addressing issues of inequality and injustice. Collaborative coping entails engaging with like-minded others in collective action to address a need in one’s community *as a means for coping with PRS*. Therefore, in addition to the coping function of collaborative coping, by bringing together people for a shared purpose and valuing each person’s contribution, group community action also meets fundamental human needs of agency, belongingness, and hope—needs often unmet for marginalized youths. As stress is a common conduit by which heterosexism, racism, sexism, ethnocentrism, and poverty cause damage and disease, developing skills to recognize and cope with stress is a common need. Similarly, an essential element in striving for equality is collective social action. Though conceptualized as a way to address stress stemming from economic and racial inequality, collaborative coping may describe a process relevant for youths from a multitude of marginalized groups. Hence, the applicability of collaborative coping increases the potential reach of programs combining coping, identity development, and empowerment.

The collaborative coping construct itself is quite new and in need of research attention. We have defined collaborative coping as engaging with like-minded others in collective action to address a need in one’s community. There is a considerable literature on collective action and social movements involving adults (DeMarrais & Earle, 2017), but scant attention has been paid to the potential power of collective social action for youths. Efforts to better understand collaborative coping and its potential to empower young people will have to grapple with measurement issues, as standard coping measures are not likely to fully capture this construct. In addition, both group and individual level processes and outcomes will need to be defined and measured. Existing measures of group-level coping such as McCubbin’s Family Coping Scale (McCubbin, Larsen, & Olsen, 1982) as well as measures designed to assess civic engagement and group processes involved in collective action may be useful places to begin.

Cultural identity and intersectionality.—To locate sources of strength for young people coping with PRS we drew on the ethnic, racial, and social class identity literatures, since those each have an evidence base supporting their power as protective factors for poor

and minority individuals. As emphasized by intersectionality theory, we could also have turned to the literatures on affirmative gay identity and feminism, for example, to capitalize further on the strengths that develop to cope with marginalized status. Accordingly, we propose viewing these fundamental processes of stress and adaptation through an intersectionality lens that recognizes the strengths that youths develop to cope with marginalized status and makes visible their connection to structural conditions. Research geared toward identifying how youth develop identities along multiple axes of difference is needed in order to learn about the diversity of pathways that promote resilience. For example, as Buckley (2017) recently demonstrated, considering gender roles alongside racial identity reveals that counter-stereotypes of either males or African Americans are protective for Black male adolescents.

Including a wider range of social groups and experiences in research on the role that cultural identity plays in the lives of marginalized youths can help identify context-specific aspects of identity that can be leveraged as assets for promoting resilience and collective action. In the case of poverty in the US, there is a dearth of research on rural populations (Gurley, 2016) and working-class culture as an identity resource, especially for White youths. Cairn's (2013) ethnographic study of how race, place, gender and class intersect in shaping rural youth's subjectivity demonstrates how intersectionality-informed research can help fill this gap. Research on the buffering potential of youths' intersecting identities will likely benefit from attending to qualitative research on working class culture and identity such as Beider, Harwood, and Chahal's (2017) important fieldwork. While identifying and promoting resiliency factors is vital, intersectionality also draws attention to collective action as a form of "resistance" by "actors responding to (and not just passively receiving) experiences of oppression, inequality, and stigma" (Rosenthal, 2016, p.481). Of particular importance is the potential of seemingly different individuals finding common ground upon which to engage in social activism (APA, 2017; Cole, 2009; Warner et al., 2018). Research on the causes and consequences of collective action and coalition building across social identities among marginalized youths can help inform intervention efforts that seek to empower youth. As Case (2017) suggests, there is much to be learned from "intervention by doing" when it comes to empowering youth to navigate "what is," imagine "what can be," and decide "what to do" to make it so.

Outcomes

Expand mechanisms.—The enhanced APRS model shown in Figure 1 details the specific skills to be taught, actions to be taken, and outcomes to be affected by an intervention such as BaSICS. It also outlines numerous potential mechanisms by which BaSICS is theorized to bring about positive change. Certainly as a function of learning coping skills, joining with others to address a superordinate goal, and working cooperatively to make social change, children acquire problem solving skills, the capacity for negotiation and compromise, leadership skills, and the ability to cooperate with others. As important as these life skills are, we hypothesize that BaSICS also fulfills some of children's core human needs, such as the need to belong, a sense of agency and purpose, and hope (e.g., Bandura, 2001). These are not the typical mechanisms or outcomes measured in prevention research, but may well be critical to the success of interventions like BaSICS, which propose not to

simply remediate children's deficits but rather to meet children where they are and help them grow in positive ways (Tolan, 2014). Hence, just as we propose to broaden the definition of adaptive coping, we propose that intervention evaluations may benefit from extending measured mechanisms of actions beyond skill acquisition to include a broader range of factors that may be critical to learning, applying, and sustaining the skills and principles that we teach.

Evaluating physiologic change.—Recognizing that functionally adapted brains and bodies evolve to fit the context at hand rather than some idealized context, what change in physiologic systems such as the HPA should interventions aim for? Should we strive to recalibrate them to respond to stress in a manner consistent with living in a safe, predictable environment? Might that be unsafe for some children? Unfortunately, we cannot yet answer this question, as results from the handful of intervention studies designed to “improve” cortisol regulation, for example, show “remarkable inconsistency with regard to how the interventions influenced cortisol” (Slopen, McLaughlin, & Shonkoff, 2014, p. 312). Therefore, this remains a very tricky issue. On the one hand, functionally adapted stress response systems lead to health problems. On the other hand, they may continue to be necessary depending on context. Hence, research is sorely needed to determine when and how, developmentally, a child can be expected to have acquired less physiologically taxing ways to respond to and manage PRS, and the extent to which those responses are teachable. Such research would aid in targeting critical skills and tailoring interventions to optimal developmental periods, without producing new vulnerabilities. As a first step, it would be helpful for interventionists to routinely collect biological data such as cortisol (using established best practices), in order to catalogue the range of typical and atypical responses prior to and following intervention. Such basic descriptive information is needed in order to begin understanding the possibilities that may be realized in interventions for poverty-adapted youth.

Concluding Thoughts

The problems created by structural inequities that affect the health, well-being, and life chances of children in poverty are deeply entrenched in our society. Addressing these problems will require innovative solutions that challenge the status quo and do more than remediate a few skills. Top-down approaches alone are not likely to be sufficient to the task. Workable solutions will come about by taking seriously the lived experiences of children facing inequities. In this paper we have outlined a framework for intervention work that simultaneously listens to children's voices and helps them build critical skills with which to work for change. Not just internal person-specific change, but rather collaborative change for more than just oneself.

Intersectionality theory provides a useful way for describing this dialectic of listening to and validating children's experiences while also fostering social change. Inherent in this theory is also the idea that marginalized groups share many core experiences that stem from a common source—structural inequality—and that core solutions may well be applicable across seemingly different groups. In fact, rather than retreating to siloes based on race, class, gender, or sexual identity, solutions will be maximally powerful if marginalized

groups band together in work for social justice. Therefore, the BaSICS intervention described herein is designed to be applicable for youths who are members of various marginalized segments of the population. At its core, BaSICS is an equality intervention.

Just as there are better ways to solve problems in a classroom than by hitting someone, so too are there better ways to enhance at-risk children's skills and abilities and reduce risk for problems, than by only addressing skill deficits. We seek new and better ways to keep poor youths safe, mentally and physically healthy, and socially and academically successful, and suggest that solutions may be found by identifying and building on child, family, and community strengths that already exist. In addition, we see great potential in learning more about what poor children do well cognitively, emotionally, behaviorally, that might prove useful in scaffolding the development of new more adaptive ways of being. There is value in fostering the unique talents of each child and in hearing the voices of the oppressed as well as the privileged. Solutions to our great challenges of tomorrow are going to require outside of the box thinking. We suspect that many innovative ideas for these solutions will in fact come from people who have lived outside of the box.

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Figure 1:
Logic Model for an APRS-Informed Intervention