

Flourishing From the Start: What Is It and How Can It Be Measured?

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Introduction

Every parent wants their child to flourish, and every community wants its children to thrive. It is not sufficient for children to avoid negative outcomes. Rather, from their earliest years, we should foster positive outcomes for children. Substantial evidence indicates that early investments to foster positive child development can reap large and lasting gains.¹ But in order to implement and sustain policies and programs that help children flourish, we need to accurately define, measure, and then monitor, “flourishing.”^a

By comparing the available child development research literature with the data currently being collected by health researchers and other practitioners, we have identified important gaps in our definition of flourishing.² In particular, the field lacks a set of brief, robust, and culturally sensitive measures of “thriving” constructs critical for young children.³ This is also true for measures of the promotive and protective factors that contribute to thriving. Even when measures do exist, there are serious concerns regarding their validity and utility.

We instead recommend these high-priority measures of flourishing be developed:

- **Self-regulation:** A child’s ability to recognize and control impulses, manage stress and emotions, and exert self-control
- **Attachment:** A child’s positive relationship to, feelings of safety with, and trust in a parent or caregiver; co-regulation
- **Engagement/approaches to learning:** Cognitive, emotional, and behavioral engagement; interest, curiosity
- **Communication:** The child’s ability to verbally and non-verbally express needs, preferences, and emotions, and to listen and respond to the communications of others

^a Throughout this brief, we use the terms *flourishing*, *thriving*, and *well-being* interchangeably to mean that children are doing well across developmental domains—health, social, emotional, cognitive development, and relationships.

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In addition, we identify the following high-priority measures of risk and protective factors:

- **Positive parenting skills:** Authoritative parenting
- **Conflict-resolution skills within families:** Non-violent strategies to recognize and resolve differences
- **Social support for parents:** Parents' abilities to form relationships with other adults
- **Community cohesion:** Helps parents meet basic needs and form social bonds

Together, these measures can be used to set goals, monitor trends, conduct useful research, and evaluate programs and policies related to flourishing. If they are used at the local, state, and national levels, we can monitor trends over time for individual children, for communities, and for the nation. Common metrics also help to grow the knowledge base, and to thereby promote positive health across communities, interventions, and initiatives.

This brief distills key findings and recommendations from two more extensive papers by Child Trends and the Child and Adolescent Health Measurement Initiative (CAHMI) at the Johns Hopkins Bloomberg School of Public Health.^{4,5} It makes the case for establishing an applied conceptual framework and measurement methods that are feasible for assessing flourishing in a variety of settings and for different purposes, including in social services and child welfare, community-based programs and initiatives, and in health care systems and schools.

Specifically, in this brief we:

- offer a conceptual model for defining and achieving flourishing, or child well-being;
- share the findings of a scan of measures currently available and applied across key constructs reflected in this model, and across a number of maternal and child health initiatives in the United States;
- recommend a small set of critical constructs that, if measured for children up through age 8, would tip the scale toward a more balanced view of children, one that highlights flourishing, as well as promotive and protective factors; and
- recommend next steps and considerations for developing and using measures of flourishing across varied systems of care that address children's needs, such as health care and child welfare.

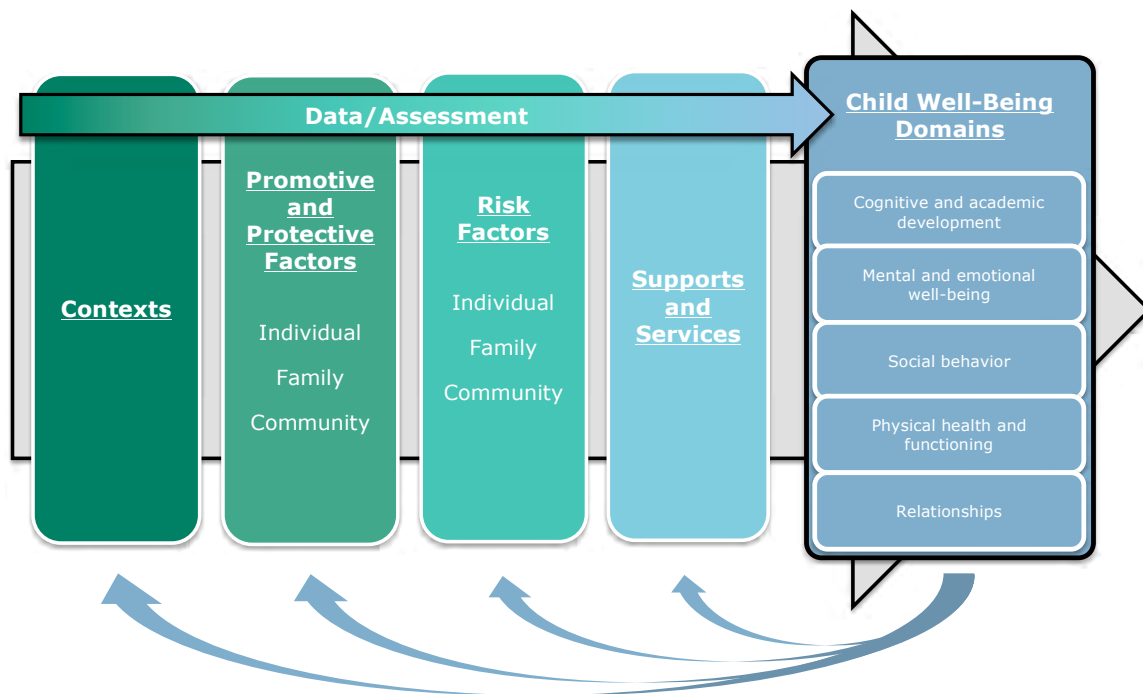
Defining “flourishing”

The conceptual model guiding our work is shown below, in Figure 1.^{6,7} It illustrates, in broad strokes, how child well-being is defined and achieved. On the far right, we highlight five domains of well-being. By our definition, flourishing, or “thriving,” encompasses positive development across all five of these domains:

- Physical health and functioning
- Mental and emotional well-being
- Social behavior
- Cognitive and academic development
- Relationships

Well-being implies positive development that is holistic. It is not sufficient, for example, for a child to excel academically, yet struggle in other domains.⁸

Figure 1: Conceptual model for child well-being



The model is embedded in a large arrow reflecting a *life-course perspective*.⁹ Children's development unfolds over time, and outcomes at a younger age affect those later in life.

Going from left to right, the model recognizes that multiple contexts, such as the neighborhood and early care and education settings, affect how children learn and grow. Flourishing is assisted by promotive and protective factors. While risk factors generally receive more attention from researchers and policymakers, enhancing factors that promote flourishing and protect against risk factors may be of equal or greater importance. Both risk and protective factors can be identified at an individual child level, in the child's family, and in the community. In addition, supports and services, such as Head Start, the

Promotive factors are those directly linked to positive well-being, while according to the Institute of Medicine and National Research Council,^a "**protective factors** are defined as characteristics at the individual, family, or community level that are associated with a lower likelihood of problem outcomes" (p. 82). In this brief, we take a broad view of promotive/protective factors that also includes factors that promote healthy child development and positive outcomes.

As described by the Institute of Medicine and National Research Council,^a a **risk factor** is "a measurable characteristic of a subject that precedes and is associated with a negative outcome. Risk factors can occur at multiple levels, including biological, psychological, family, community, and cultural levels" (pp. 81-82).

^a IOM (Institute of Medicine), & NRC (National Research Council). (2009). Using a developmental framework to guide prevention and promotion. In M. E. O'Connell, T. Boat, & K. E. Warner (Eds.), *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities*. Washington, DC: The National Academies Press.

Special Supplemental Nutrition Program for Women, Infants and Children (WIC), home visiting, and health care settings, play important roles in fostering children's flourishing. Promotion and prevention are the primary goals of these efforts. However, given the high rates of risk factors and health problems present among many U.S. children today, treatment programs are also important.

Research has made it clear that well-being is dynamic and in-progress and sensitive to children's social and emotional experiences. As illustrated by the arrows at the bottom of Figure 1, children's outcomes can affect their contexts, as well as the risk and promotive/protective factors and supports they receive. For example, a family with a child who develops a chronic health condition may be more likely to move or change child care providers. Early success helps protect against later risk, but even children exposed to adverse circumstances can recover, given sufficient positive relationships and supports at a later stage.

- **Domain:** The broadest category of child well-being sub-areas.
- **Constructs:** The elements of child well-being that comprise a domain.
- **Measures:** The actual metrics used to assess a construct; this includes specific tools and methods for data collection and reporting, such as use of scales, indices, observational codes, etc.
- **Items:** The individual data fields, questions, or checklist codes that compose the measure.

The shortage of positive measures of health and well-being in existing maternal and child health programs and initiatives in the United States: A research review

To identify priorities for measures of flourishing, we reviewed research and evaluation studies and identified numerous constructs that researchers have found are associated with children's positive development. Some of these constructs have been extensively researched and some are included in national surveys, like the National Survey of Children's Health. Others have been relatively overlooked in research and evaluation studies, or they are assessed with long, unwieldy, or proprietary measures. But very few are understood by community-based practitioners and/or are feasible for use in settings that focus on children. In particular, as noted, the field lacks a set of brief, valid, robust, actionable, and culturally sensitive measures of "thriving" constructs, with notable gaps especially for young children. This is also true for measures of the promotive and protective factors that contribute to thriving. Even when measures do exist, there are serious concerns regarding their validity, application, and use across settings and purposes. This may reflect a lack of technical specifications and other support that would advance consistency across the settings where such measures are used.

To illustrate the lack of measures, we summarize below the results of a strategic review of measures currently used in the field of maternal and child health that we would recommend include measures of flourishing. The Child and Adolescent Health Initiative (CAHMI) employed a four-stage methodology to procure, characterize, compare, and synthesize categories and gaps in existing measures in the field. A primary goal was to assess current levels of common or distinct measurement where alignment across programs might be expedited to advance shared accountability for promoting child well-being.¹⁰

At birth, basic demographic and health data are collected. After that, there is no comprehensive system for regularly collecting information on the well-being and flourishing of young children. Community-based programs, like Early Head Start/Head Start, home visiting programs (MIECHV), child welfare (Title IV), MCH (Title V and the Association of Maternal and Child

Health Programs), and the Medicaid/Child Health Insurance Program, are most likely to regularly interact with young children and their families and to collect associated data. Some national measurement initiatives, such as Healthy People 2020, the Child Health Insurance Program's Pediatric Quality Measures Program, the National Committee on Quality Assurance, the National Quality Forum, and NIH-funded efforts to specify pediatric outcomes measures, also include measures of children's well-being.

Across the 11 efforts noted above, CAHMI identified 821 individual measures. These were then classified using a three-level system, identifying six overarching high-level conceptual domains, 40 specific topical areas, and 205 specific health and well-being topics. In addition to a more extensive paper, a searchable online compendium is available for learning about these measures and associated programs.¹¹ As a part of this process, CAHMI noted a "lack of coherence in the conceptualization and rationale" for many of the measures. Although some were classified into more than one domain, CAHMI found that 37 percent of the measures addressed access to health care and related services, and 35 percent addressed social and behavioral determinants of health. Other high-level domains included Medical Condition Prevalence and Health Status; Mortality; Pregnancy, Birth, and Sexual Health; and Mental, Emotional, and Behavioral Health. Some measures aligned with each of the child well-being framework domains noted above were identified; however, few emphasized positive health over negative outcomes and risks for poor outcomes. For example, while child welfare programs identify well-being as a critical area, they have not yet specified and used measures of this construct.

While there is limited measurement coverage of positive indicators of child well-being, a number of national and state data collection systems have recently begun to assess measures of flourishing. For example, the National Survey of Children's Health includes many discrete positive indicators, although the measures from the NSCH may not be advanced for formal use by MCH programs without further validation and infrastructure to support effective use.¹² In addition, there are many robust proprietary and publicly available measurement instruments available for relevant concepts that are not yet routinely assessed. The more extensive Child Trends and CAHMI papers informing this brief both point to a number of models and instruments relevant for assessing child flourishing.^{13,14} Nevertheless, gaps remain.

CAHMI reports especially critical gaps in several important areas of subjective experience, such as assessment of the subjective experience of well-being (life satisfaction); subjective and objective measures of positive health; factors that are protective for family relationships; and socio-emotional functioning. Several other topics or sub-populations are also poorly addressed, including middle childhood, pre-conception care, families as a whole, and families during important life transitions. Clearly, there is a need to expand the breadth of information collected.

Recommended constructs for measurement of child well-being and flourishing

Below, we highlight eight critical constructs for child well-being and flourishing among young children, for which brief, rigorous, and culturally-sensitive measures are of value for use across multiple settings. Ideally, measures that are useful in these contexts would also be useful for research purposes, including indicators for monitoring and evaluation studies as well as in community and service settings.

We consider the first four constructs in the list below to be the most critical, requiring brief, robust measures that can be used across settings and purposes.

- **Self-regulation:** A child's ability to recognize and control impulses, manage stress and emotions, and exert self-control

- **Attachment:** A child's positive relationship to, feelings of safety with, and trust in a parent or caregiver; co-regulation
- **Engagement/approaches to learning:** Cognitive, emotional, and behavioral engagement; interest, curiosity
- **Communication:** The child's ability to verbally and non-verbally express needs, preferences, and emotions, and to listen and respond to the communications of others
- **Positive relationships with siblings and peers:** Empathic, open, warm, giving, and supportive interactions with other children
- **Executive functioning:** Cognitive processes that underlie planning, goal-directed activity, and problem-solving, including attention, working memory, and inhibitory control
- **Positive self-concept and orientation to life:** Compassion for self, optimism, meaning, and hope for life
- **Age-appropriate self-care:** The child's ability and motivation to do things for him/herself that are within his/her capacity

The need to measure and foster protective and promotive factors

While it is important to understand how children's development may be interrupted by risk factors (the Appendix includes a list of critical risk constructs), risk factors are already widely studied and well measured, and have received considerable attention from intervention programs.^b Our goal is to widen the measurement lens beyond the presence or absence of problems to include the aspirations we have for children. Positive physical, academic, health, behavioral, and emotional outcomes are appropriate for *all* children, including children conventionally considered to be at risk of failing to achieve their potential because of family, community, or health factors. Fostering resilience cannot be limited to minimizing negative outcomes for children; it must also promote positive well-being.

To support positive development, policymakers, practitioners, and service providers need to devote attention to promotive and protective factors, along with reducing risk factors, such as violence, poverty, child maltreatment, unplanned pregnancy, family social isolation, and parental substance use, among others. Increasing access to protective factors fosters positive child development, yet far less attention has focused here.

Drawing from our review of the research, we highlight 10 factors that are particularly important to promoting flourishing and protecting against risks and adversity to enable flourishing. We further suggest that priority for measures development be given to the first four below, so as to improve their utility at community and practice levels, and for evaluations and surveys.

- **Positive parenting skills:** Authoritative parenting
- **Conflict-resolution skills within families:** Non-violent strategies to recognize and resolve differences
- **Social support for parents:** Parents' abilities to form relationships with other adults
- **Community cohesion:** Helps parents meet basic needs and form social bonds

^b Such outcomes include, among others, trauma, behavior problems, bullying, depression, anxiety, low self-esteem, an inability to focus, cognitive achievement not in accord with ability, poor peer relations, cruelty to children and animals, chronic health conditions, hygiene and elimination disorders, and attribution of hostile intentions to others.

- **Control over the number and timing of children:** Helping families reduce unintended pregnancies by providing relevant information, services, and effective forms of contraception
- **Family routines:** Routines and rituals that foster family health, flourishing, and resilience
- **Community safety:** Physically safe, as well as nurturing and supportive, communities
- **Availability of high-quality early care and education:** Safe, nurturing, and affordable programs that foster children's school readiness
- **Relevant, high-quality, culturally appropriate, and available local services, including transportation**
- **Jobs that pay a living wage:** Supportive skills training for employment in fields with benefits and opportunities for advancement

Recommendations and challenges

Community practitioners and program and policy leaders particularly value measures that are brief and can be administered using standardized protocols and without extensive training. The Apgar score given to infants at birth is an example of a straightforward summary measure of children's physiologic functioning, but comparable information is not available later in childhood. Similarly, growth charts (height and weight measures) provide a clear summary of physical development. Specification of brief measures that describe other important domains of development in a "growth chart" format would facilitate understanding by parents, caregivers, practitioners, and community members of how children are developing. In particular, measures of normative positive outcomes, by age and over time, would fill existing gaps.

Many practical challenges remain in specifying such measures, and in gaining widespread agreement on their use. Nevertheless, culturally responsive, brief, clear, and reliable measures that could replace those that traditionally have required lengthy surveys, observational assessments, and specialized training would be welcome. Even so, nearly all constructs require that data be collected directly from children and families, rather than from administrative data systems, since these typically document only basic demographic and service use information. Moreover, the information in such systems generally focuses on problems, e.g., poverty, food insecurity, maltreatment, and developmental delays/disabilities. Accordingly, other approaches are needed to collect data on flourishing.

Recommended sources of information and approaches to reaching them:

- **Parents, other caregivers, and medical practitioners are likely reporters.** Pediatric well-child care visits will continue to be settings where virtually all young children are seen. Thus, they will remain likely venues for community-level data collection from parents and other caregivers, as well as from medical practitioners. However, additional research is needed to clarify when, how, and from whom to obtain varied types of information, including data on positive outcomes and promotive/protective factors. As documented in recent studies, data collection platforms like CAHMI's Well-Visit Planner hold promise for obtaining information from parents¹⁵ on priority topics. However, having nationally representative data reported by pediatricians seems less likely, due to concerns about cost, confidentiality, and low response rates.

- **School-based sampling frames.** Once children enter school, school-based sampling frames can be used as a basis for surveys of parents, teachers, and—once they can read—with students. Models such as the Early Development Instrument currently used in parts of the United States could be adapted to assess positive well-being.¹⁶
- **Nationally representative groups of parents.** National, state, and local studies and surveys of representative samples of parents are typically conducted in-person, by mail or phone, or on the web. Plummeting response rates related to cell phone usage have undermined the usefulness of telephone surveys, and in-person surveys are extremely costly. Address-based sampling strategies, with data collected as the respondent prefers—via mail, phone, or the internet—have been valuable in addressing the response rate issue. This approach is currently being used for the 2016 National Survey of Children’s Health, following an extensive four-year response rate review and survey design and planning process.¹⁷ Challenges in using multi-mode strategies include requirements that items be appropriate for use across multiple modalities, ranging from a self-administered paper-based survey to an internet-based survey completed on a smart phone. New investments in measurement are needed to ensure measures are valid across the different settings and modes of data collection for which they may be used. Crowdsourcing methods have recently been approved by the National Institutes of Health for use in research and also hold promise, potentially opening up “citizen-science” modalities for real time learning and monitoring of flourishing.
- **Social and cultural sensitivity.** In developing data collection strategies (and measures, for that matter), it is critical to be sensitive to social and cultural differences. These encompass not only the words that people use, but also their feelings about sharing information with non-family members. It seems likely, though, that parents will be more willing to discuss their child’s flourishing than his or her problem behaviors. For example, highlighting family strengths along with challenges, and using language that avoids blaming or shaming families is preferred. On the other hand, assessing positive health may introduce substantial biases, due to parents’ tendency to report optimistically about their child’s well-being. In addition, measures need to reflect cultural diversity in childrearing. Parents’ view of what constitutes a high or low level of risk, for example, can vary across social groups.
- **Age-appropriate items.** Developing items that assess the same construct for children of differing ages represents a significant challenge. For example, self-regulation is minimal among newborns, but greatly increases over time. A series of age-appropriate items across this age span can be accomplished with lengthy measures; identifying a short set of signal indicators is important, but will require time and effort. Producing such measures with the goal of creating a “flourishing” growth chart would be, we think, a useful addition to our toolkit. Considering whether and how to adjust measures for children whose development is not expected to be age-normative represents an additional challenge.
- **Response categories.** Research finds that having an appropriate and sufficient number of response categories is important to obtaining useful data and to assessing change over time. Just asking “Yes” or “No,” for example, does not provide the nuanced kind of information that can guide goal setting or inform monitoring or action. The input of community members through focus groups, cognitive interviews, or advisory meetings can inform the choice of response categories and a synthesis of extensive research on response sets to inform methods is needed.
- **Pilot testing.** Proposed measures should be pilot tested and determined appropriate for use in varied contexts, including in low-income, culturally diverse, and immigrant populations. Piloting should also include robust scenario testing of how to score, combine and report on measures, so that they are useful to their intended audiences.

- **Consistency across levels.** In national surveys, evaluation studies, and community data collection efforts, it would be helpful to have constructs consistently represented, and, to the extent possible, consistent measures. In addition, methods to optimize the use of national and state data (like the NSCH) to produce county- and city-level estimates exist and should be furthered.¹⁸ This would facilitate the field's building of a knowledge base, because knowledge-building activities could occur across different contexts. For basic research and tracking trends, national surveys are important. Evaluation studies can examine how services/supports affect children's outcomes. And community-level studies can identify the promotive, protective, and risks in a community and the factors that should be monitored to assess developmental progress.

Next steps in the development and use of “flourishing” measures

As an immediate next step, we recommend a broader review of current measures of child outcomes, as well as measures of promotive and protective factors. This would be a logical follow-up to the work that CAHMI has done, which was intentionally focused on federal maternal and child health measures (so as to anchor measurement proposals to practice and policy). While MCH practice offers nearly universal access to young children and their families, it is important to think about measures of well-being across multiple systems, such as early care and education, and family support systems, such as child welfare, homeless services, systems working with immigrant families, families experiencing parental incarceration, and families headed by teen parents. At the national level, data collection resources should include population-based surveys, such as the National Survey of Child and Adolescent Well-Being, the National Survey of Children's Health, the National Health Interview Survey and Medical Expenditures Panel Survey, and the Early Childhood Longitudinal Study – Birth and Kindergarten Cohorts. At other levels, likely data resources include surveys conducted by and for practitioners and screenings developed for clinical settings.

Several criteria might guide selection of measures. They need to be malleable and rigorous and reflect what the research has identified as critical developmental constructs. Measures also need to be valid and reliable—that is, they need to fairly assess the constructs selected and collect information that is reliable over time. At the same time, measures should also reflect the experiences and wisdom—and the goals—of parents and other community members.

Data are essential in creating common ground for stakeholders who might otherwise fail to recognize their shared responsibility for children's well-being and flourishing. Growing interest and investment in the early years of child development makes this an opportune time to encourage a wide array of stakeholders to embrace a more expansive developmental agenda for young children—one that both promotes flourishing, and prevents and treats problems. Having clear, concise, and consistent measures of flourishing would be an enormous contribution to developing a culture of flourishing for all children, especially if these measures were used at multiple levels and across multiple systems that interact with families. The gap between the potential well-being of children, and the results we now have in the United States, compel that action, informed by good research and monitored with robust measures, be taken now.

Acknowledgments

Work conducted to develop this document was supported by the Doris Duke Foundation via contract to Child Trends (#7610) and by the Health Resources and Services Administration through its Maternal and Child Health Measurement Research Network grant (Number UA6MC30375) to the Child and Adolescent Health Measurement Initiative (CAHMI) at the Johns Hopkins Bloomberg School of Public Health.

We hope that this brief, based on in-depth papers by Child Trends and the Child and Adolescent Health Measurement Initiative, lays the foundation for future work to develop a robust set of measures of flourishing intended to guide policy and practice at national, state, community, and high priority individual levels.

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Appendix

Table 1: Promotive/protective constructs (factors) that affect children’s development, across relational/family and contextual/community levels

| Promotive/Protective factor level | Constructs |
|-----------------------------------|---|
| Relational/family | <ul style="list-style-type: none">• Family support for children’s executive functioning• Caregiver/adult responsiveness• Caregiver/adult warmth• Shared family activities• Parent/caregiver engagement with school and community• Safe and supportive home environment• Family routines• Stimulating home environment• Parenting skills and attributes (e.g., “authoritative” style)• Religious involvement• Enduring presence and positive support of caring adults and kin• Control over the number and timing of children in the family |
| Contextual/community | <ul style="list-style-type: none">• Relevant, high-quality, culturally appropriate available local services• Safe and healthy school environment• Safe and cohesive neighborhoods, safe housing |

Table 2: Risk factors across relational/family and contextual/community levels

| Risk factor level | Constructs |
|--------------------------|---|
| Relational/family | <ul style="list-style-type: none"> • Economic downturns and material hardship • Parental depression/mental health problems • Parental substance abuse • Parental unemployment • Parental social isolation • Parenting rigidity, harshness, or inconsistent discipline • Conflict/domestic violence • Parental history of maltreatment • Family stress • Family instability/turbulence • Toxic trauma, high level of ACEs, accumulation of stresses • Younger child age at maltreatment, type of maltreatment • Removal from caregivers, placement with kin, placement stability • Inconsistent medical care |
| Contextual/ community | <ul style="list-style-type: none"> • Exposure to violence/unsafe environment • Unavailable, inconsistent, poor-quality child care and other services • Negative peers • Unsupportive, negative child welfare service providers • Absence of foster care families • Lack of emergency housing • Inadequate recreational opportunities |