

Understanding the Role of Intervening Variables/Risk and Protective Factors



In implementing evidence-informed strategies to support substance misuse prevention in early childhood settings, understanding the role of intervening variables—that is, those risk and protective factors that affect the likelihood that a child will misuse substances in the future—is critical. Intervening variables are factors that have been identified through research as being strongly related to and influencing the future occurrence and magnitude of substance use and related risk behaviors. These variables are the focus of prevention interventions.

According to the National Institute on Drug Abuse (NIDA):

*“All children will have some mix of risk and protective factors. An important goal of prevention is to change the balance between these so that the effects of protective factors outweigh those of risk factors. Both risk and protective factors may be **internal** to the child (such as genetic or personality traits or specific behaviors) or **external** (that is, arising from the child’s environment or context). They may also arise from the interaction between internal and external influences.”¹*

Effective prevention strategies can address either internal or external factors. Internal factors are typically (though not always) addressed through interventions that target the individual. External factors are addressed through strategies that shape the environment (e.g., through policy change or influencing norms). Communities receiving State Opioid Response-Prevention in Early Childhood funds may choose to direct their prevention efforts toward either internal or external factors. However, **grantees are encouraged to select policy, practice, and environmental approaches, rather than individual-level interventions, to address them.**

The table below presents substance misuse-related factors that are present at different stages of a child’s development. This list is largely adapted from NIDA’s [Principles of Substance Abuse Prevention for Early Childhood: A Research-based Guide](#). Please note that the research on which this list is based was often conducted by analyzing survey data on large groups of people from national samples and may not always adequately represent the real challenges that parents with fewer resources face. So, while it may be helpful to use this list as a starting point, it is important to follow up with conversations with community members to better understand how these factors play out in real life/the context within which they exist.

Age	Risk Factors	Protective Factors
Prenatal	Maternal smoking and drinking can affect a developing fetus and may result in altered growth and physical development and cognitive	Good maternal nutrition is important for the developing fetus as it can reduce the chances of nutrient-related

¹ From [Principles of Substance Abuse Prevention for Early Childhood: A Research-based Guide](#). Downloaded October 1, 2021.

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	<p>impairments in the child. See: Pregnancy Matters: Use of Substances and Their Effects During Pregnancy (<i>scroll down the page and click on Attachment</i>)</p>	<p>birth defects (such as spina bifida) and increase the likelihood that the child will have a normal birth weight.</p>
<p>Infant/Toddler (1-3 years)</p>	<p>Having a difficult temperament in infancy may set the stage for the child having trouble with self-regulation later, as well as create challenges for the parent-child relationship.</p> <p>Insecure attachment during the child’s first year of life can cause a child to be aggressive or withdrawn, fail to master school readiness skills, and have difficulty interacting with adults or other children. See: A Child's Temperament (<i>scroll down the page and click on Attachment</i>)</p> <p>Uncontrolled aggression when a child is a toddler (2 to 3 years) can lead to problems when he or she enters preschool, such as being rejected by peers, being punished by teachers, and failing academically.</p>	<p>Parents who are highly responsive to their infant set the stage for strong parent-child attachment.</p>
<p>Preschool (3-5 years)</p>	<p>Lack of school readiness skills, such as failure to have learned colors, numbers, and counting, will put a child at a disadvantage in a classroom environment, setting the stage for poor academic achievement.</p>	<p>Increasing behavioral control in the preschool years improves social competence across the transition to elementary school.</p>
<p>School age</p>	<p>Poor self-regulation can lead to frustration and constant negative attention on the child by peers and teachers at school.</p> <p>Lack of classroom structure in the school environment can lead to additional social and behavioral problems in children who have trouble switching from one activity to another.</p>	<p>School readiness supports mastery of basic concepts (colors, numbers, letters, pre-reading) during kindergarten, setting the stage for academic success throughout the school years.</p>

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There are also many risk and protective factors that can affect a child in any developmental period. As noted above, many of these findings may not fully acknowledge the daily challenges of parenting, including the lack of systemic support many parents and caretakers experience. So please consume the information below through a lens of cultural humility, and recognize that the identified risk factors, in particular, can manifest in all kinds of ways.

Some important **risk factors** to consider include the following:

- **Stress.** All children experience stress at some point. In fact, a certain amount of stress helps young children develop skills for meeting challenges and coping with setbacks that inevitably occur in life. But chronic stressors like family poverty and stress that is intense or prolonged—such as a **parent or caregiver experiencing mental health challenges** or a lingering illness—can diminish a child’s ability to cope. These types of stress can even interfere with proper development, including brain development, and aspects of physical health like proper functioning of the immune system (Brown et al., 2009). This is particularly true of children who have experienced the extreme stress of maltreatment, such as abuse or neglect by parents or caregivers. Some children who experience a lot of stress early in life, even during the prenatal period, are more susceptible to the effects of later stressful life circumstances than other people (Raposa et al., 2014; Shonkoff et al., 2012; Turner & Lloyd, 2003).
- **Parental substance use (direct).** Parental substance use—including smoking, drinking, illicit drug use, and prescription drug abuse—can affect children both directly and indirectly. Substances used by a mother during pregnancy can cross the placenta and directly expose the fetus to drugs, and substances can pass to a nursing infant through breast milk. When parents smoke in the home, it can also expose children to secondhand smoke, putting them at risk for health and behavioral problems, as well as increasing children’s likelihood of smoking when they grow older (Leonardi-Bee et al., 2011).
- **Parental substance use (indirect).** Parental substance use can also impact the family environment by producing family conflict and poor parenting; this can also increase the risk of child abuse and neglect, and involvement with the child welfare system (National Research Council and Institute of Medicine, 2009). Poor family functioning can increase the risk for multiple problem behaviors in children and adolescents, including risk for substance use and abuse (Aarons et al, 2008). Children with a family history of drug misuse also may have increased genetic risk for substance use (Kendler et al., 2003; Young et al., 2006), often manifested in combination with family or other environmental risk factors (Enoch, 2012).

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Children can learn about substance use from a very young age, especially if exposed to parental substance use and abuse (Noll et al, 1990). However, children are less likely to smoke, drink alcohol, or use other drugs when parents are clear that they do not want their children to do so, even if they use substances themselves (Jackson & Dickinson, 2006).

- **Emergent mental illness.** Many mental illnesses have symptoms that can emerge during childhood and can increase risk for later drug abuse and related problems. For example, anxiety disorders and impulse-control disorders (such as ADHD) usually begin their onset prior to 11 years of age, though symptoms may appear in early childhood (Kessler et al., 2005). Symptoms associated with impulse-control disorders, such as aggressive disruptive behavior, as well as those associated with affective and psychotic disorders all increase the risk of substance use disorders and related problems in adolescence (Maslowsky et al, 2014; Gregg et al., 2007). If not successfully addressed when they initially present themselves, early risk factors and associated negative behaviors can lead to greater risks later in childhood and in adolescence, such as academic failure and social and emotional difficulties, all of which put an individual at increased risk for substance use.
- **Child abuse and neglect.** Children who have experienced abuse or neglect by parents or caregivers are at greater risk for substance use and other mental, emotional, and behavioral problems than other children. Moreover, child maltreatment is associated with family-level risk factors, such as poor parenting skills, parental substance abuse and mental illness, and context-specific risks such as poverty (National Research Council and Institute of Medicine, 2009). The most straightforward way to eliminate the negative effects of child abuse and neglect is to prevent its occurrence.

Some important **protective factors** that can affect a child at any developmental period include the following:

- **Easy temperament** (e.g., adapting well to eating and sleeping schedules and to other new experiences, as well as a generally positive mood) (Masten, 2004; Masten, 2001). Children with an easy temperament are able to make positive adaptations to a variety of situations and may thereby relax parents who are stressed. They may be less susceptible to the impact of parents who have other risk factors, such as being highly disorganized, being overly organized and scheduled, or having a negative mood. (The mix of temperaments among family members and how well they “fit” or match onto one another can greatly influence family climate and functioning.)

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- Parenting that includes **warmth, consistency, age-appropriate expectations, praise for accomplishments** (e.g., using the toilet), and **consistent routines and rules**. When providing such an environment does not come naturally to parents, prevention interventions can help them to build the knowledge and skills important for healthy development and the prevention of subsequent problem behaviors such as drug abuse (Masten, 2004; Masten, 2001).
- **Opportunities for social interaction with peers**—as playing with other children promotes healthy socialization—and **opportunities for physical exercise**. Physical activity promotes not only physical health but also cognitive and brain development, including the development of executive control (Hillman et al., 2014; Chaddock-Heyman et al., 2014).

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