Traditionally, stress has been defined in terms of its source (e.g., internal and external) (Marion, 2003). Internal sources of stress include hunger; pain; sensitivity to noise,
temperature change, and crowding (social density); fatigue; and over- or under-stimulation from one's immediate physical environment. External stressors include separation from family, change in family composition, exposure to arguing and interpersonal conflict, exposure to violence, experiencing the aggression of others (bullying), loss of important personal property or a pet, exposure to excessive expectations for accomplishment, "hurrying," and disorganization in one's daily life events (Bullock, 2002). Although the research literature tends to focus on the impact of single-variable stressors on children's development, in real-life situations, children experience stress from multiple sources. Researchers note that multiple stressors interact with one another and can have cumulative effects (Stansbury & Harris, 2000). This Digest discusses how children experience and adapt to stress, and offers suggestions to teachers and parents on preventing and reducing children's stress.

HOW VULNERABLE ARE YOUNG CHILDREN TO STRESS?

Stress is experienced in many forms and varies by the individual, the child's developmental level, and the child's previous life experience. Adapting or managing stress appears to be highly dependent on a child's developmental capabilities and coping-skill inventory. Researchers suggest that children under the age of 6 are developmentally less capable of (1) thinking about an event in its entirety; (2) selecting from a menu of possible behaviors in response to any new, interesting, or anxiety-inducing event; (3) comprehending an event separate from their own feelings; and (4) modifying their physical reactions in response to change in stimuli (Allen & Marotz, 2003).

Stress can have positive as well as negative influences. The younger the child, the greater the impact of new events, and the more powerful and potentially negative stress becomes. Some stress is a normal part of a child's everyday life and can have positive influences. However, excessive stress can have both immediate and far-reaching effects on children's adaptability to new situations, even events that are seemingly unrelated to the specific stressful event.

Research indicates that the negative impact of stress is more profound on children who are younger than age 10, have a genetic temperament that is "slow-to-warm-up" or "difficult," were born premature, are male, have limited cognitive capacity, or have experienced prenatal stress (Monk et al., 2000). Children who live in poverty, who live in violent communities, or who are bullied in school settings are also subject to more external stress (McLoyd, 1998) than other children. Children who have lower thresholds for external and internal stimuli will find a wider variety of events and conditions to be negatively stressful (Stansbury & Harris, 2000).

HOW DO CHILDREN EXPERIENCE STRESS?
Specialists have identified two categories of stressful experiences. Acute stress is defined as a sudden, intense onset (e.g., short-term parental illness) and then the subsidence of stressful stimuli. Chronic stress (e.g., loss through death or prolonged separation of a significant person in the child's life—grandparent, caregiver, sibling) is, on the other hand, ongoing and has the most significant and detrimental effects on children, including changing brain chemistry and function, and lowering resistance to disease (Gunnar & Barr, 1998; Lombroso & Sapolsky, 1998).

Zegans (1982) theorizes that stress is experienced in four somewhat distinct stages: (1) alarm and physical reaction; (2) appraisal, as a child attempts to make meaning from the event; (3) searching for adaptation and coping strategies; and finally (4) implementation of a strategy or strategies. This implementation stage may be a one-time action or may be extended over hours or days. Children's appraisal of stressful events and their choices of viable coping strategies are different from those used by adults (e.g., leaving a favorite toy at child care overnight may have a negative impact on children who cannot "find" a way to "wait" until they are reunited; this reaction and fear of its recurrence may last for several days). In addition, experts have observed that children's physical responses to stress are also different from adult responses in that they may be more intense and involve the whole body (Zegans, 1982).

HOW DOES STRESS MANIFEST ITSELF IN CHILDREN?

Stress is most often seen as an overt physical reaction: crying, sweating palms, running away, aggressive or defensive outbursts, rocking and self-comforting behaviors, headaches and stomachaches, nervous fine motor behaviors (e.g., hair twirling or pulling, chewing and sucking, biting of skin and fingernails), toileting accidents, and sleep disturbances (Stansbury & Harris, 2000; Fallin, Wallinga, & Coleman, 2001; Marion, 2003). Experts suggest that children may react globally through depression and avoidance; excessive shyness; hyper-vigilance; excessive worrying; "freezing up" in social situations; seemingly obsessive interest in objects, routines, food, and persistent concern about "what comes next"; and excessive clinging (Dacey & Fiore, 2000).

HOW DO CHILDREN ADAPT TO STRESS?

Theorists believe that these behaviors represent children's struggles to manage and react to stressful events. They believe that children generally distance themselves emotionally from stressful situations by behaving in ways to diminish the stress (e.g., crying and being upset in order to show feelings of abandonment when parents go to work) or acting in ways to cover or conceal feelings of vulnerability (e.g., acting out and being aggressive or disruptive when it's time for toys to be put away or play to stop). With age, children increasingly use cognitive problem-solving strategies to cope with negative stress by asking questions about events, circumstances, and expectations for what will happen and clarification of what has happened (Kochenderfer-Ladd & Skinner, 2002).
Prolonged exposure to stress and a child's continued use of coping strategies may result in behavior patterns that are difficult to change if the child perceives the strategy as being effective (Kochenderfer-Ladd & Skinner, 2002; Stansbury & Harris, 2000).

HOW CAN ADULTS RESPOND TO CHILDREN'S STRESS?

Assisting children in understanding and using effective adaptation and coping strategies must be based on the child's developmental level and understanding of the nature of the stress-inducing event. Teachers and parents can prevent and reduce stress for children in many ways:

- Help the child anticipate stressful events, such as a first haircut or the birth of a sibling. Adults can prepare children by increasing their understanding of the upcoming event and reducing its stressful impact (Marion, 2003). Over-preparing children for upcoming stressful events, however, can prove even more stressful than the event itself (Donate-Bartfield & Passman, 2000). Adults can judge the optimal level of
preparation by encouraging the child to ask questions if he or she wants to know more.

* Provide supportive environments where children can play out or use art materials to express their concerns (Gross & Clemens, 2002).

* Help children identify a variety of coping strategies (e.g., "ask for help if someone is teasing you"; "tell them you don't like it"; "walk away"). Coping strategies help children feel more effective in stressful situations (Fallin, Wallinga, & Coleman, 2001).

* Help children recognize, name, accept, and express
their feelings appropriately.

* Teach children relaxation techniques. Consider suggesting to a child such things as "take three deep breaths"; "count backwards"; "tense and release your muscles"; "play with play dough"; "dance"; "imagine a favorite place to be and visit that place in your mind" (use creative imagery) (O'Neill, 1993).

* Practice positive self-talk skills (e.g., "I'll try. I think I can do this.") to help in promoting stress management (O'Neill, 1993).

Other basic strategies include implementing sound positive discipline strategies, following consistent routines, enhancing cooperation, and providing time for children to safely disclose their concerns and stresses privately and in groups.
CONCLUSION

Our increasing knowledge about the importance and impact of stress on young children should be put to good use in reducing stress factors for young children and in assisting children to increase coping strategies and healthy responses to the unavoidable stresses in their lives.

FOR MORE INFORMATION


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