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Adolescents Coping with Stress: Development and Diversity
By Melanie J. Zimmer-Gembeck and Ellen A. Skinner

Interventions for adolescents are often aimed at helping them deal constructively with the stressors in their daily lives. Achieving positive outcomes depends on understanding the actual stressors faced by adolescents, the ways they make sense of stressful events, and how adolescents react to and cope with problems. In this article, we summarize some of what is known about stress, stress reactions, and coping among adolescents. Throughout, we focus on typical developmental patterns by highlighting the emerging experiences of adolescents and how they differ from children and adults. We also briefly draw attention to differences between individuals, boys and girls, and racial/ethnic or other diverse groups. Finally, because social partners are sources of stress as well as coping resources, we weave information about the social context and social development throughout this paper.

Common Stressors

Stressful life experiences, including major events and common hassles, threaten the well-being of adolescents. Approximately 25% will experience at least one significant stressor, including the death of a loved one or witnessing a traumatic event. An even greater number of adolescents experience chronic stressors and daily hassles. The most common of these are related to school (e.g., bullying by peers, problems with teachers, and academic difficulties) and interpersonal relationships (e.g., conflicts or problems with parents, siblings, and peers; Donaldson, Prinstein, Danovsky, & Spirito, 2000; Williamson et al., 2003). Of the many stressors, problems with other people are the most commonly reported and can be significant sources of distress for many adolescents. Compared to children, adolescents encounter many new, potentially threatening or challenging social experiences. These escalate all the way through later adolescence (about ages 20 to 22) when there may be significant social transitions, such as leaving home, finding satisfying educational or career paths, and forming intimate partner relationships.

Outcomes of Stressful Experiences

It is probably not surprising that significant life events and many of the common stressors of adolescence have been linked to mental health and behavioral problems. These problems include depression and anxiety, as well as externalizing behaviors, such as aggression and antisocial acts (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). For example, the formation, maintenance, and dissolution of close relationships have been associated with negative affect, sleeplessness, and many other symptoms of depression via experiences of negative interpersonal interactions, rejection, conflict, and related stressors (Monroe, Rohde, Seeley, & Lewinsohn, 1999). Romantic relationships can be one major source of stress, when conflict, jealousy, aggression, and infidelity occur (Gallaty & Zimmer-Gembeck, 2008). Moreover, the dissolution of a romantic relationship can have a significant impact on mental health; breakups have even been linked to the first onset of adolescent clinical depression (Monroe et al., 1999).

Few studies have directly examined the *positive* outcomes of coping with stressful events for adolescents. However, related research has demonstrated that experiences of dealing with just manageable challenge are important to the development of a wide variety of capacities and skills. Researchers point out that mistakes, setbacks, and failures are potential springboards for discovery and learning, offering adolescents the opportunity to build resources for coping with future negative events (Aldwin, 1994). Most researchers also agree that the outcomes of stressful life events and daily hassles will be positive or negative depending on how adolescents respond to them.

Stress Reactions and Appraisals

The impact of stressful events is dependent not only on the objective stressors themselves, but also on adolescents' subjective *appraisals*, defined as an evaluation of an event's potential impact or threat to well-being (Lazarus, 1991). For example, a stressful event can be appraised as a loss, threat or challenge (Lazarus & Folkman, 1984; Skinner & Wellborn, 1994). Appraisal of loss implies a harm that has already transpired, whereas appraisal of threat implies an anticipation of harm in the future. An appraisal of challenge identifies a stressful event that can potentially result in some positive outcome. These appraisals are linked with emotional reactions to stressors and coping responses. Situations perceived as more threatening prompt certain emotions and coping strategies, such as more fear and more use of escape, withdrawal and

support seeking. Situations perceived as more challenging prompt different emotions and coping strategies, such as more interest and problem solving (Irion & Blanchard-Fields, 1987; Skinner, Edge, Altman, & Sherwood, 2003; Zimmer-Gembeck, Lees, Skinner, & Bradley, under review).

Another important appraisal is the *controllability* of a stressor (Rudolf, Dennig, & Weisz, 1995; Skinner, 1995). Some stressors, such as academic difficulties, are perceived as more open to influence through effort. As a result, adolescents respond to them more instrumentally, using active strategies, persistence, exertion, and problem-solving. When stressors are appraised as lower in controllability or as inescapable, such as for parental conflict or medical events, they are more likely to prompt withdrawal, the use of cognitive distraction, seeking social support, or responses aimed at reducing emotional distress. As would be expected, adolescents' stress appraisals are important correlates of their mental health (Compas et al. 2001). For example, the appraisal of a stressful event as more threatening has been associated with self-reported symptoms of anxiety, depression, and conduct-related problems following parental divorce (Sandler, Kim-Bae, & MacKinnon, 2000).

In our own work, we have focused on how stressful experiences cause distress because they threaten or challenge perceived competence and control, sense of belonging, and autonomy (Skinner & Wellborn, 1994). These are particularly important considerations during adolescence, because these threats parallel three of the major developments during this time of life: the development of self and identity; involvement in groups and the development of close relationships outside the family; and emotional and behavioral autonomy development (Zimmer-Gembeck & Collins, 2003). This implies that adolescence may be a particularly stressful time of life as well as an important time to practice personal coping skills. Although such events are stressful throughout life, a developmental shift occurs between late childhood and early adolescence in stress reactions and coping, based on major biological, cognitive, and social developments. Many younger adolescents are in the midst of the neurochemical changes of puberty and both younger and older adolescents experience structural brain changes; these have been associated with greater stress reactivity and challenges in displaying and interpreting emotional responses when compared to adults (Spear, 2000).

Coping Responses

Coping describes the transactional processes through which people deal with actual problems in their everyday lives (Aldwin, 1994; Skinner & Zimmer-Gembeck, 2007, in press). Coping encompasses a range of emotional regulation strategies, thought processes, and behaviors. This means that coping is founded in an individual's physiological responses to stress, their appraisals of events, their attention, and their goals or the outcomes they desire. Coping also depends on social contexts and interpersonal relationships. Recent conceptualizations of coping have highlighted the importance of two processes: *stress reactions*, which are largely involuntary and might include behavioral and emotional impulses, and *action regulation*, which are purposeful and serve to modulate or boost reactivity to stressful events (Skinner & Zimmer-Gembeck, 2007, in press). Most interventions target intentional ways of coping, but the ability to cope well depends on coordinating all of these systems under conditions of threat, challenge, or loss (Lazarus & Folkman, 1984; Skinner & Zimmer-Gembeck, 2007).

Categories of coping responses

In order to describe how people cope in response to different stressors and to identify adaptive means of relieving stress and building resilience, researchers and practitioners need some way of organizing the multitude of coping responses. Yet, there is little consensus about how to do this. In one organizational scheme, coping behaviors have been grouped into those that 1) are more engaged and approach oriented, 2) serve to avoid or minimize stress, 3) depend on seeking others for support, and 4) involve withdrawal or helplessness (Ayers, Sandler, West, & Roosa, 1996; Seiffge-Krenke, 1995; Zimmer-Gembeck & Locke, 2007). The first category, approach-oriented coping, has included direct problem-solving and actions taken to increase understanding of the problem. The second category includes coping strategies that have a common function of avoiding or minimizing the stress, such as trying not to think about the event or distracting oneself. The third category of coping involves other people as resources, either for emotional support or for direct assistance. Finally, the fourth set of strategies includes escaping or becoming helpless and doing nothing.

In our recent work, we have found it helpful to identify more fine-grained "families" of coping. "Families" are multiple ways of coping grouped together because they serve the same core

functions (Skinner et al., 2003; Skinner & Zimmer-Gembeck, 2007). For example, ways of coping such as acceptance, distraction, and cognitive restructuring all serve the function of "accommodation" or "going with the flow," that is, fitting in with and adjusting to environmental demands. The idea of "families" helps combine ways of coping which have often been considered separately. At the same time, families identify ways of coping, such as problem solving and support seeking; these are often combined in research studies, but should be considered separately because they serve different sets of functions. We have identified about a dozen families of coping (see Table 1). These reflect the main categories of coping that should be considered in research and interventions for adolescents.

Coping strategies and mental health
Some coping families have been found to contribute to healthier functioning, such as problem-solving, taking action to solve the problem, and information-seeking. These active coping behaviors have been most often associated with higher competence, positive functioning, and good health. Other families of coping strategies, such as helplessness, passivity, escape and opposition, have been found to be associated with poorer functioning -- less competence and poorer adaptation (see Compas et al., 2001 for a review). Nevertheless, it is difficult to argue that some coping strategies are always preferable and that others should always be avoided. Instead, it may be most important to have access to a sufficient range of strategies and to be able to flexibly employ them when needed. Individuals who use more active coping also tend to use more avoidant strategies (Zimmer-Gembeck & Locke, 2007). Overall, adolescents use a wider range of coping strategies than children, and it is this increasing flexibility and organization of their responses that is likely to be most adaptive (Skinner & Zimmer-Gembeck, 2007). Rigid reliance on a few coping strategies (or a restricted range of strategies) should not be typical during adolescence and is likely to indicate maladaptation and problems in managing stress.

The development of commonly used coping strategies during adolescence
It is clear that there are individual differences in how adolescents respond to stress, but there are also typical patterns of change. Coping experts have concluded that attempts and behaviors aimed at changing the stressful situation (i.e., instrumental coping) are very common, but decrease in use during adolescence, whereas coping that is focused on managing emotions and

reducing tension increases (Frydenberg & Lewis, 2000). In a recent review, we focused on specific families of coping and summarized what is known about three families used most often by adolescents –support seeking, problem-solving, and distraction (Skinner & Zimmer-Gembeck, 2007).

Support seeking. Support seeking includes seeking information, emotional support, and instrumental help. Adolescents' patterns of support seeking differ from those of both children and adults. Compared to children, adolescents are more likely to go to peers for emotional support and help with daily hassles. At the same time there are declines in seeking support from adults. However, these changes are dependent on the type of stressor. When in situations that are appraised as uncontrollable or in which adults are known to have authority, adolescents typically seek support from adults *more* often as they get older. Hence, adolescents, especially those between 10 to 16 years old, still benefit from adult guidance and they typically become better able to identify the best source of support for particular problem domains. At the same time, adults often find it challenging to provide adolescents with developmentally-attuned support. Adolescents benefit most from support and guidance when it fits with their needs for autonomy and increasing skills at self-regulation (Zimmer-Gembeck & Locke, 2007).

Problem-solving. When assessed as cognitive rather than behavioral activity to guide mastery over a problem, attempts at problem-solving increase with age. These increases are found throughout adolescence, and between adolescence and young adulthood. This is particularly true for self-reliance in decision-making and use of cognitive decision-making strategies to deal with stress. These increases continue even into early adulthood. As would be expected from recent research on brain development (Spear, 2000), the use of particular cognitive strategies such as strategizing, decision-making, planning, and reflection does not seem to be widespread until late adolescence or even early adulthood. In fact, the pubertal transition marks a time of *less* extensive use of problem-solving than in late childhood. This time-limited decline in problem-solving may correspond to a particular time of heightened stress reactivity that limits a young person's capacity to direct attention to problem-solving coping strategies. At the same time, increases in distraction, rumination, aggression, and avoidance are apparent.

Distraction. Most people, regardless of their age, rely on distraction to cope with stress as much or more than support seeking and problem-solving. Young children rely on coping strategies like playing with toys, reading or other behavioral distractions. Adolescents continue to rely on behavioral distraction, but the use of cognitive distraction (such as thinking about something positive) is increasingly used. Following a pattern similar to advances in cognitive ability, there are increases in the use of cognitive distraction strategies beginning at about age 6 and continuing to about age 14. Distraction is often used to supplement other coping strategies, and the ability to shift between strategies, for example using both problem-solving and distraction to full advantage, becomes more advanced throughout adolescence and into early adulthood (Skinner & Zimmer-Gembeck, 2007).

Gender

Stressors and emotional responses to stress

Starting at puberty, girls report more stressors in their lives than boys do. These stressors include concerns about physical appearance and body dissatisfaction, interpersonal relationships, school problems, and higher rates of sexual abuse and harassment (Nolen-Hoeksema & Girgus, 1994). One concern that is greater for boys than girls is related to achievement or failure in sports. Moreover, girls show greater general distress, sadness and fear in response to stress as early as the first years of school and this continues well into adulthood. However, boys report just as much *anger* as girls, especially in response to interpersonal stressors that involve conflict, rejection, or coercion (Zimmer-Gembeck et al., under review).

Rumination and distraction

The possibility that stressful events will result in mental health problems seems to be compounded when adolescents' ruminate about stressors. Rumination involves focusing on the negative and anxiety-provoking aspects of stressful events, which draws attention to and magnifies negative emotions. This is more common among adolescents as compared to preadolescents, and for some adolescents rumination escalates across the teen years (José & Brown, 2008). Although there are groups of girls *and* boys who ruminate more than other adolescents, girls are slightly more likely to ruminate than boys. In contrast, boys are somewhat more likely to use distraction to cope. When asked, even adolescents can describe these

differences in the use of rumination and distraction between girls and boys (Broderick & Korteland, 2002).

Consistent with the idea that these differences are linked to gender role socialization, both girls and those who ascribe to a feminine gender role engage in more rumination. Unfortunately, rumination has negative implications for the onset and stability of mental health and behavioral problems; it is most strongly linked to depressive symptoms for both girls and boys (Nolen-Hoeksema & Girgus, 1994). Not only does the direct focus on negative feelings exacerbate them, but rumination also increases recall of negative experiences, interferes with direct action to solve problems, and impedes the use of cognitive distraction to relieve distress.

Social support and self-reliance

Another consistent gender difference during childhood and adolescence is girls' greater use of social support to cope with stress. Because girls also use problem-solving and distraction when facing stress, this means that they sometimes use a wider range of coping strategies than boys use. This also implies that boys prefer direct problem-solving, distraction, avoidance or disengaging to seeking social support. Social support can be a positive and adaptive response to stress and should be encouraged among both girls and boys. Yet, it can be maladaptive when used to focus on emotional distress, such as when adolescents co-ruminate with friends about their problems (Rose & Rudolph, 2006).

Contextual Moderators: Poverty and Race/Ethnicity

Many levels of contextual factors can enhance or degrade individuals' coping responses, as well as add to or reduce their experiences of stress. For example, poverty and associated threats may elevate stress in adolescents' lives while undermining their capacities to cope with stress (Tolan, Sherrod, Gorman-Smith, & Henry, 2003). Adolescents living in poverty are more likely to experience severe, chronic, and uncontrollable stressors, to receive less social support, and to have more difficulties coping with such a high number of simultaneous stressful events. Even more challenging to interventionists is the likelihood that the stressors associated with poverty may be particularly uncontrollable or may occur too rapidly to provide adolescents with the time to cope before another is on the horizon. Hence, the multiple disadvantages of poverty may limit

opportunities to develop strategies that are needed to successfully overcome stressful events and to build up factors that can assist in resilience (Wyman, Sandler, Wolchik, & Nelson, 2000). For example, in some studies, chronic exposure to uncontrollable stress has been shown to undermine the development of positive expectations of the future, perceptions of competence, and social support (see Tolan & Grant, in press, for a review).

Adolescents living in poverty and those with minority status face many common challenges. However, each deserves an extensive discussion on its own (see papers in this volume). At the same time, when taken together, studies of those living in poverty and of racial/ethnic minorities alert us to the real possibility that there are circumstances when coping strategies that are typically viewed as "adaptive" may not be available or be the best responses. For example, although in general, direct instrumental action to change external events has been found to be an adaptive coping strategy, adolescents who use this strategy to deal with high levels of neighborhood or school violence and aggression may increase their chances of future victimization. Overall, it is important to emphasize that contextual factors at many levels shape coping strategies and inform considerations of what can be considered *adaptive* coping.

Conclusion

Adolescence is a time when youth face a variety of new potentially stressful experiences, but also have strong desires to deal with life events independently. The very events they seek, such as romantic relationships, friendships, and academic challenges, bring new sources of stress. Adolescents increasingly turn to peers for support, but peers are also just developing the skills to provide good advice and help. Youth benefit from adult guidance, but it can be a challenge for adults to adapt their support to adolescent needs for autonomy and self-reliance. At the same time that cognitive strategies for coping are improving, puberty brings biological and neurological changes that can boost reactivity to stress and also interfere with rational problem-solving. Understanding how adolescents experience, react to, think about, and cope with stressful events provides a foundation for preventive intervention services, whether they are aimed at helping adolescents avoid stressful situations, change their appraisals of stress, locate social resources, or improve their own capacity to cope adaptively.

References

Aldwin, C. M. (1994). *Stress, coping, and development: An integrative perspective.* New York: Guilford Press.

Ayers, T. S., Sandler, I. N., West, S. G., & Roosa, M. W. (1996). A dispositional and situational assessment of children's coping: Testing alternative models of coping. *Journal of Personality, 64*, 923-958.

Broderick, P. C., & Korteland, C. (2002). Coping style and depression in early adolescence: Relationships to gender, gender role, and implicit beliefs. *Sex Roles, 46*, 201-213.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127*, 87-127.

Donaldson, D., Prinstein, M. J., Danovsky, M., & Spirito, A. (2000). Patterns of children's coping with life stress: Implications for clinicians. *American Journal of Orthopsychiatry, 70*, 351-359.

Frydenberg, E., & Lewis, R. (2000). Teaching coping to adolescents: When and to whom? *American Educational Research Journal, 37*, 727-745.

Gallaty, K., & Zimmer-Gembeck, M. J. (2008). The social and emotional worlds of adolescents who are psychologically maltreated by their partners, *Journal of Youth and Adolescence*, 37, 310-323.

Irion, J. C., & Blanchard-Fields, F. (1987). A cross-sectional comparison of adaptive coping in adulthood. *Journal of Gerontology, 42*, 502-504

José, P., & Brown, I. (2008). When does the gender difference in rumination begin? Gender and age differences in the use of rumination by adolescents. *Journal of Youth and Adolescence*, 37, 180-192.

Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist, 46*, 352-367.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Monroe, S. M., Rohde, P.*,* Seeley, J. R.*,* & Lewinsohn, P. M. (1999). Life events in adolescence: Relationship loss as a prospective risk factor for first onset of major depressive disorder. *Journal of Abnormal Psychology, 108,* 606-614.

Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin, 115*, 424-443.

Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin, 132*, 98-131.

Rudolph, K. D., Dennig, M. D., & Weisz**,** J. R. (1995). Determinants and consequences of children's coping in the medical setting: Conceptualization, review, and critique. *Psychological Bulletin, 118*, 328-357.

Sandler, I. N., Kim-Bae, L. S., & MacKinnon, D. (2000). Coping and negative appraisal as mediators between control beliefs and psychological symptoms in children of divorce. *Journal of Clinical Child Psychology, 29*, 336-347.

Seiffge-Krenke, I. (1995). *Stress, coping, and relationships in adolescence***.** Hillsdale, NJ: Erlbaum.

Skinner, E. A. (1995). *Perceived control, motivation and coping*. Thousand Oaks, CA: Sage.

Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, 129, 216-269.

Skinner, E. A., & Wellborn, J. G. (1994). Coping during childhood and adolescence: A motivational perspective. In D. Featherman, R. Lerner, & M. Perlmutter (Eds.) *Life-span development and behavior* (Vol. 12, pp. 91-133). Hillsdale, NJ: Erlbaum.

Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psycholog*y, *58*, 119-144.

Skinner, E. A., & Zimmer-Gembeck, M. J. (Eds.). (in press). *Perspective on children's coping with stress as regulation of emotion, cognition and behavior. New directions in child and adolescent development series*. San Francisco: Jossey-Bass.

Spear, L. P. (2000). Neurobehavioral changes in adolescence. *Current Directions in Psychological Science, 9, 111-114*.

Tolan, P., & Grant, K. (in press). How social and cultural contexts shape the development of coping: Youth in the inner-city as an example. In E. A. Skinner & M. J. Zimmer-Gembeck (Eds.), *Perspective on children's coping with stress as regulation of emotion, cognition and behavior. New directions in child and adolescent development series*. San Francisco: Jossey-Bass.

Tolan, P.H., Sherrod, L., Gorman-Smith, D., & Henry, D. (2003). Building protection, support, and opportunity for inner youth and their families. In K. Maton, C. Schellenbach, B. Leadbeater, & A Solarz (Eds.), Investing in children, youth, families, and communities: Strengths-based research and policy (pp. 193-211). Washington, DC: APA.

Williamson, D. E., Birmaher, B., Ryan, N. D., Shiffrin, T. P., Lusky, J. A., Protopapa, J., et al. (2003). The stressful life events schedule for children and adolescents: Development and validation. *Psychiatry Research, 119*, 225-241.

Wyman, P. A., Sandler, I., Wolchik, S., & Nelson, K. (2000). Resilience as cumulative competence promotion and stress protection: Theory and intervention. In D. Cicchetti, J. Rappaport, I. Sandler, & R. P. Weissberg (Eds.), *The promotion of wellness in children and adolescents* (pp. 133-184)

Zimmer-Gembeck, M. J., & Collins, W. A. (2003). Autonomy development during adolescence. In G. R. Adams & M. Berzonsky (Eds.), *Blackwell Handbook of adolescence* (pp. 175-204). Oxford: Blackwell Publishers.

Zimmer-Gembeck, M. J., & Locke, E. M. (2007). The socialization of adolescent coping: Relationships at home and school. *Journal of Adolescence, 30*, 1-16.

Zimmer-Gembeck, M. J., Lees, D., Skinner, E. A., & Bradley, G. (under review). *Use of an analogue method to examine children's appraisals of threat and emotion in response to stressful events*, manuscript submitted for publication.

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Adolescents' Coping with Stress: Development and Diversity

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Table 1
Twelve Families of Coping, Associated Coping Strategies, and Links to Adaptive Processes and Other Behaviors
(see Skinner et al, 2003; Skinner & Zimmer-Gembeck, 2007 for more details)

Family of Coping	Example Coping Strategies	Function in Adaptive Process	Related behaviors
1. Problem solving	Strategizing Instrumental action Planning	Adjust thoughts and actions to be effective	Watch and learn Mastery Efficacy
2. Information Seeking	Reading Observation Asking others	Find additional contingencies	Curiosity Interest
3. Helplessness	Confusion Cognitive interference Cognitive exhaustion	Find limits of actions	Guilt Helplessness
4. Escape	Behavioral avoidance Mental withdrawal Denial Wishful thinking	Escape noncontingent environment	Drop and roll Flight Fear
5. Self-reliance	Emotion regulation Behavior regulation Emotional expression Emotion approach	Protect available social resources and attend to goals	Tend and befriend Pride
6. Support Seeking	Contact seeking Comfort seeking Instrumental aid Social referencing	Make use of available social resources	Proximity-seeking Yearning Other alliance
7. Delegation	Maladaptive help-seeking Complaining Whining Self-pity	Find limits of resources	Self-pity Shame
8. Social Isolation	Social withdrawal Concealment Avoiding others	Withdraw from unsupportive context	Duck and cover Freeze Sadness
9. Accommodation	Distraction Cognitive restructuring Minimization Acceptance	Flexibly adjust preferences or goals to options	Pick and choose Secondary Control
10. Negotiation	Bargaining Persuasion Priority-setting	Find new options or select goals	Compromise
11. Submission	Rumination Rigid perseveration Intrusive thoughts	Give up preferences or goals	Disgust Rigid perseverance
12. Opposition	Other-blame Projection Aggression	Remove perceived constraints	Stand and fight Anger Defiance