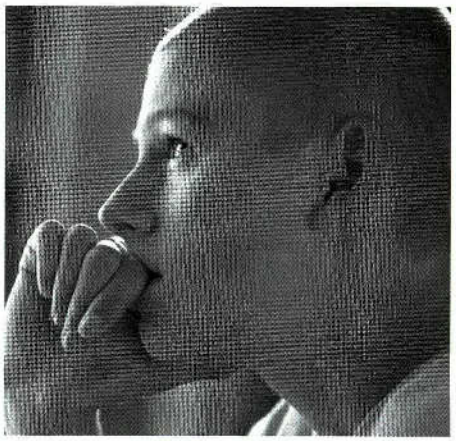
Coping with Stress: Implications for Preventive Interventions with Adolescents



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Considerable evidence suggests that exposure to stress and the ways that individuals cope with stress are of central importance for the prevention of psychopathology and other problems of adjustment during childhood and adolescence. Careful consideration of theory and research on stress and coping during adolescence is of potentially great importance for the development of preventive interventions for young people. In this article we first summarize the relationship between stress and psychopathology in children and adolescents, then discuss current research on coping. We conclude by discussing stress and coping approaches to preventive interventions, using an example from our current research with families of depressed parents.

Stress and Psychopathology

Traumatic events, stressful life events, and chronic stressful conditions affect the lives of millions of youth. Examples of these stressful experiences include natural and human disasters, neighborhood violence, economic hardship, personal or parental chronic illness, and minor events or hassles. Moreover, there is strong evidence that stress plays a clear role in the etiology and maintenance of psychopathology (Cicchetti & Toth, 1997; Haggerty et al., 1994). Research shows that stressors can be acute incidents (i.e., natural disaster, loss of a loved one) or more stable, chronic conditions (i.e., poverty, chronic illness) and that both types of stressors are associated with an increased risk for psychopathology in children and adolescents (Grant et al., 2003). Despite frequent exposure to acute or chronic stress, the vast majority of youth navigate adolescence without developing any form of psychopathology. For those who do develop psychological disorders, however, adolescence marks a period of significant increase in psychopathology across a wide range of disorders, including, for example, eating disorders, conduct disorder, and depression (Compas, 2004).

Research on child and adolescent stress has improved considerably over the past two decades (see Grant et al., 2003, 2004; McMahon et al., 2003). However, there is still considerable inconsistency in the field in the way stress is defined and measured. There is also much more to be learned about the impact that stress has on psychological outcomes in children and adolescents, and the implications that this has for prevention and intervention. There is strong evidence, though, that exposure to stressful events at one point in time predicts increases in internalizing and externalizing symptoms in adolescents above and beyond initial symptoms. However, the specific relationship between stress and outcome, as well as the mediators and moderators that affect this relationship are not yet well understood (Grant et al., 2004).

Current evidence shows that stressors are a general non-specific risk for psychopathology; however, the exact relationship between the two is yet to be defined. In their comprehensive review, McMahon and colleagues (2003) found that there is currently little evidence to support the specificity hypothesis in the relationship between stressors and outcome. An example of specificity would occur when a specific stressor (e.g., poverty) leads to a specific outcome (e.g., conduct disorder). Instead, there is more evidence to support the hypotheses of equifinality, where multiple stressors (e.g., poverty or loss of a loved one) lead to a specific outcome (e.g., conduct disorder), and multifinality, where a specific stressor (e.g., poverty) leads to multiple outcomes (e.g., conduct disorder or depression). Thus, exposure to stress appears to function as a non-specific risk factor for psychopathology. Recent research also shows that there is a reciprocal and dynamic relationship between stressors and psychological outcomes—stress leads to psychopathology but psychopathology also leads to the generation of stressful events in the lives of affected individuals (Grant et al., 2004).

Some children and adolescents exhibit a vulnerability to developing psychopathology. That is, these individuals when exposed to risk, in this case stress, are more likely to develop a negative outcome as compared to peers who do not have such vulnerability (Wolchik et al., 2000). Therefore, even when faced with similar levels of stress some youth may have risk factors, characteristics that are related to an increased probability of developing a negative outcome (Kraemer et al., 1997), whereas other youth may have protective factors, characteristics that are related to positive outcomes in the face of risk, and show resilience (Luthar & Cicchetti, 2000).

Coping with Stress

Conclusions regarding the association between stress and symptoms are insufficient without taking into account the ways that individuals cope with stress. Coping refers to self-regulatory processes enacted when faced with stress (Compas et al., 2001). The most widely cited definition of coping is given by Lazarus and Folkman (1984) as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). More specifically, coping involves conscious volitional efforts to regulate one's own behavior, emotions, thoughts, physiology, and the environment in response to a stressor (Compas et al., 2001).

Coping is one subset of a broader domain of self-regulation. It includes only regulatory efforts that are volitional and intentional responses to a stressful event or circumstance (Compas et al., 1999, 2001). These regulatory processes are influenced by the cognitive, behavioral, and emotional capacity of the individual as well as the social environment. Ways of reacting to stress that are involuntary

or automatic are grouped into a more general classification of self-regulatory processes enacted in response to stress and are not considered coping (Compas et al., 2001). Furthermore, coping is situation specific—the ways in which an individual responds to a stressor is affected by the demands of the situation.

Stress responses can be broken down along two broad dimensions: voluntary (controlled) versus involuntary (automatic), and engagement versus disengagement. It is the distinction between voluntary and involuntary responses that distinguishes coping within the broader classification of stress responses; that is, coping refers to voluntary, controlled responses to stress. Both voluntary and automatic responses to stress can be further broken down into efforts to engage or disengage from the stressor and one's responses. Engagement coping strategies are characterized by direct attempts to influence either the stressor itself or one's emotions in response to the stressor (primary control coping), or efforts to adapt to the stress by regulating one's cognitions (secondary control coping). See Figure 5.1.

Primary control coping (also referred to as active coping in other theoretical models) includes strategies that are directed at actively changing the situation or one's emotional responses, such as problem solving (e.g., I try to think of different ways to change the problem or fix the situation), emotional expression (e.g., I let my feelings out by writing or talking with someone), and emotional regulation (e.g., I do things to calm myself down). Secondary control coping, on the other hand, involves adaptation to the stressor through acceptance (e.g., I realize I just have to live with things the way they are), distraction (e.g., I think about positive things to take my mind off the problem), cognitive restructuring (e.g., I try to see the good that will come from the situation or what I will learn from it), and positive thinking (e.g., I tell myself everything's going to be all right). Unlike engagement coping behaviors which are focused on dealing with the stressful situation or one's emotions, disengagement coping refers to efforts to distance oneself emotionally, cognitively, and physically from the stressor. Such coping includes behaviors such as avoidance (e.g., I try to stay away from things that remind me of the problem), denial (e.g., I tell myself that this isn't happening to me), and wishful thinking (e.g., I wish someone would come get me out of this problem).

Involuntary responses to stress can also be distinguished along the dimension of engagement and disengagement responses. Involuntary engagement refers to automatic responses oriented towards the stressor and is comprised of rumination, intrusive thoughts, and emotional and physiological arousal. Involuntary disengagement responses include uncontrolled behaviors focused away from the source of stress, such as emotional numbing, cognitive interference, inaction, and escape (Connor-Smith et al., 2000).

Over 60 studies have established that coping is associated with symptoms of psychopathology in children and adolescents (Compas et al., 2001). More specifically, primary and secondary control coping efforts have both been found to be related to fewer internalizing and externalizing symptoms in various populations. Because coping is situation specific, the most effective coping behaviors are dependent on the characteristics surrounding the stressor. Primary control coping has been found to be most successful when dealing with stressors that are perceived as controllable, whereas secondary control coping efforts may be more adaptive with uncontrollable stressors (Compas et al., 2001). In contrast to the positive outcomes associated with engagement coping, disengagement coping is typically associated with increased levels of internalizing and externalizing symptoms.

The pattern of relations between coping and symptoms has been investigated across various populations. For example, in a sample of adolescents reporting on economic strain and family conflict, primary and secondary control coping were both related to fewer internalizing and externalizing symptoms (Wadsworth & Compas, 2002). Similarly, youth dealing with recurrent abdominal pain reported fewer somatic and anxiety-depression symptoms with higher levels of primary and secondary control coping (Thomsen et al., 2002).

One focus of our current research is the significant risk for adolescents associated with living with a depressed parent. When examining the relationship between coping and psychological functioning in children of depressed parents, adolescents' use of primary control coping to deal with their parent's depression was associated with fewer aggressive symptoms, while secondary control coping was found to be related to lower levels of both anxiety-depression and aggression (Langrock et al., 2002). Although primary control coping

Figure 5.1

Stress Responses

Voluntary/Controlled Responses (Coping)		Involuntary/Automatic Responses	
Voluntary Engagement Coping: Dealing with the stressful situation or one's emotions	**Voluntary Disengagement Coping:** Efforts to distance oneself emotionally, cognitively and physically from the stressor	**Involuntary Engagement:** Automatic responses oriented toward the stressor	**Involuntary Disengagement:** Uncontrolled behaviors focused away from the source of stress
Primary Control Coping: Direct attempts to influence the stressor or one's emotions in response to the stressor. Examples include: • Problem solving • Emotional expression • Emotional regulation **Secondary Control Coping:** Adaptation to the stressor. Examples include: • Acceptance • Distraction • Positive thinking	Examples include: • Avoidance • Denial • Wishful thinking	Examples include: • Rumination • Intrusive thoughts • Emotional & physiological arousal	Examples include: • Emotional numbing • Cognitive interference • Inaction

was associated with fewer symptoms, due to the context-dependent nature of coping and the uncontrollability of the stressor (as children of depressed parents can't relieve their parent's depression and thus aren't capable of changing their situations), secondary control coping behaviors appear to be most adaptive in this population. Involuntary engagement, conversely, showed significant increases in both internalizing and externalizing symptoms. These findings were further supported by a study conducted by Jaser et al. (2005), who compared adolescent reports of coping strategies in response to the stress of parental depression with parental reports of adolescent adjustment. In this research, secondary control coping was related to fewer symptoms of depression/anxiety, while involuntary engagement was associated with increased levels of these symptoms.

To fully understand the relation between coping and symptoms, however, it is important and necessary to consider the nature of the stressor and the role of coping as a mediator or moderator in the relation between a stressor and psychopathology. As a potential moderator or mediator in the link between stress and symptoms, coping may serve to influence or explain the relation between the two (e.g., Connor-Smith & Compas, 2002). A moderator may be conceptualized as a protective factor, meaning a pre-existing characteristic that increases or decreases the probability of developing symptoms of psychopathology in response to a stressor. Coping may perform in such a manner, with some individuals possessing a tendency to use more adaptive coping strategies when dealing with stress, while others cope in a less effective way that increases the likelihood of developing psychopathology regardless of the stressor. The role of coping as a moderator may also serve to explain the issue raised earlier regarding why a single stressor may lead to various symptoms or why various stressors may result in the same outcome.

Coping may also function as a mediator, which means that it is set off by the stressor and accounts for the resulting symptoms (e.g., Jaser et al., 2005). In this case, coping behaviors would serve as a direct cause of the preceding stressor and produce certain symptoms. When looking at the relationship between stress, coping, and outcome in children of depressed parents, adolescents' reports of secondary control engagement coping and involuntary engagement stress responses were found to mediate the relation between adolescents' reports of parental stress and parents' reports of adolescents' anxiety/depression symptoms (Jaser et al., 2005). This finding emphasizes the potential benefits for preventive interventions to increase adaptive coping skills by teaching secondary control coping strategies and reducing involuntary stress reaction in order to decrease symptoms and promote better adjustment.

Preventive Interventions

Given the significant role of stress as risk factor for child and adolescent psychopathology and the potential for coping to serve as a protective factor against the adverse effects of stress, it is logical that stress and coping processes are potential targets for preventive interventions. In simplest terms, prevention efforts could be designed to reduce stress and enhance adaptive coping in young people. However, this seemingly simple principle belies a much more complicated set of issues in prevention programs to reduce the adverse effects of stress.

Reducing stress. One target for preventive interventions could certainly be to reduce the burden on children by decreasing their exposure to stress. There are a number of significant sources of stress in the lives of young people that could be reduced, or exposure to these stressors could be reduced or altered. For example, stressors that arise within family environments are potentially reduced through interventions aimed at parents. These include interventions to reduce the incidence of physical and sexual abuse, family conflict, and parental psychiatric disorders. Stressors that arise in schools can also be reduced by restructuring school environments or school demands. For example, the timing of the transition from primary education to middle school can be adjusted to reduce the likelihood that this transition coincides with other developmental changes and challenges. Moreover, to the extent that dependent stressful events are associated with child characteristics, their incidence may be reduced by interventions that change relevant aspects of children's behavior or cognition.

However, the practical limits to reducing stress in young people's lives quickly become apparent because many sources of stress in children and adolescents' lives are uncontrollable. Parental divorce, parental death, neighborhood violence and other chronic stressors that emanate from poverty, and some forms of chronic illness are themselves not preventable. Thus, there will naturally be limits in the degree to which stress can be reduced.

Enhancing coping. Given the limited control that can be gained over young people's exposure to many forms of stress, a second important target for preventive interventions is to increase children's abilities to cope with stress. Improved skills in problem solving, emotion regulation, and access to adequate social support may increase children's resilience in the face of stress. The cognitive and behavioral skills that characterize effective coping with stress are malleable and there is promising evidence that these skills can reduce the adverse outcomes of stress in the lives of children. Several examples of preventive interventions that reflect a stress and coping framework can be found in the literature, including interventions for children of divorce and bereaved children (e.g., Wolchik et al., 2000). Our focus here is on a relatively new program that our research group has developed for children of depressed parents.

Preventive intervention for children exposed to parental depression: An example of stress and coping in prevention. The risk for psychopathology and other adjustment problems in children of parents who suffer from major depressive disorder is substantial. Estimates are that as many as 70% of children of depressed parents will develop a psychiatric disorder, including but certainly not limited to, depression. Several mechanisms are implicated in the transmission of risk from depressed parents to their offspring, including genes, innate disruption of biological regulatory processes, and stressful parent-child interactions. Clarke and colleagues (2001) have shown preventive effects for a group cognitive-behavioral intervention for adolescents of parents with a history of depression. Our current research builds on this research by intervening with parents and children to address both the sources of stress and ways of coping in families of depressed parents.

Sources of stress within families of depressed parents and the ways that youth cope with these stressors represent two possible targets for preventive interventions. Stressful interactions between depressed parents and their children that are the result of parental withdrawal and parental irritability/intrusiveness are associated with higher levels of both internalizing and externalizing problems in children (Jaser et al., 2005; Langrock et al., 2002). Further, the effects of these parental stressors on children's problems are mediated by the ways that children react to and cope with parent-child stress. Specifically, children who are more stress reactive (i.e., respond to stress with higher levels of emotional and physiological arousal, intrusive thoughts) are higher in internalizing and externalizing problems. In contrast, children who are able to enlist secondary control coping strategies in response to these parental stressors are lower in internalizing and externalizing difficulties.

Based on the identification of these risk and protective factors, we have developed a family-based preventive intervention to enhance

the ability of depressed parents to more effectively parent their children (and as a result, reduce parental withdrawal and irritability/intrusiveness) and children's ability to use secondary control coping strategies in response to parental stressors (Compas et al., 2002). The intervention is comprised of eight weekly sessions and four monthly follow-up sessions delivered to four families at a time. Through didactic presentations and role plays during the sessions and extensive homework between sessions, the emphasis is on the development of skills that will lead to reductions in parent-child stress and the increased ability of children to cope with these stressors when they do occur.

Initial findings from an open trial with 30 families are promising. Risk factors were reduced from pre- to post-intervention, as reflected in significant reductions in parental depressive symptoms and parental withdrawal. Concomitantly, children's use of secondary control coping increased significantly from before to after the intervention. And most importantly, there were significant declines in both internalizing and externalizing problems from pre- to post-intervention. Effect sizes were generally moderate in magnitude. The intervention is now being tested in a clinical trial in which families are randomized to receive the group intervention or an information-only control condition. These preliminary data suggest that teaching parenting skills may contribute to reductions in parents' depressive symptoms, perhaps by helping parents interact with their children in ways that help them to feel competent. Enhanced parenting skills are also associated with decreased withdrawal by depressed parents, making them more physically and emotionally available to their children and thus reducing a significant source of stress for children.

Conclusion

Sources of stress in the lives of adolescents serve as a significant source of risk for psychopathology. However, the effects of stress are mediated and moderated by the ways that children and adolescents react to and cope with stress. As a consequence, interventions that aim to reduce sources of stress and enhance effective coping provide a promising avenue for preventive interventions aimed at improving the lives of children and adolescents who are at-risk for psychopathology. Interventions aimed at stress and coping processes within families may be a particularly fruitful direction for such work, as interventionists may be able to simultaneously reduce levels of stress within families and improve the coping abilities of children and adolescents.

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