An Agenda for Coping Research and Theory: Basic and Applied Developmental Issues

Bruce E. Compas *University of Vermont, USA*

The process of coping with stress in childhood and adolescence is a central area of interest for behavioural scientists who are concerned with both basic and applied issues in development. With regard to basic developmental processes, coping research offers the opportunity to understand fundamental aspects of the regulation of emotion, behaviour, and cognition. The knowledge gained from coping research is also important from an applied perspective through the identification of skills and competencies that can be enhanced as part of interventions to facilitate adaptation in young people who are at risk for psychological and health problems as a result of exposure to significant stress and adversity.

Despite the potential significance of research on child and adolescent coping, both theory construction and empirical findings in this area have been somewhat disappointing (Compas, Connor, Harding, Saltzman, & Wadsworth, in press). There have been relatively few advances in the conceptualisation of the coping process in young people, as most coping research continues to be guided by models of coping in adulthood that have been extended down to adolescents and children. Basic research has left most of the key questions about the development of coping unanswered, and applied research has generated only initial findings to document the importance of intervening to enhance coping skills as a means of improving psychological functioning or health.

The status of research in this area is reflected in four as yet unanswered questions that are central to research and theory in child/adolescent coping. First, what are the fundamental dimensions or characteristics of coping, and how do these dimensions change and/or remain stable with development? Second, what aspects of biological, cognitive, and social development, as well as the social context, influence the acquisition and use of coping

Requests for reprints should be sent to Dr Bruce E. Compas, Department of Psychology, University of Vermont, USA.

responses? Third, what constitutes effective and ineffective coping, and how is effectiveness related to social contextual factors and individual differences? And fourth, what aspects of coping are changeable through intervention, and what aspects of the coping process are less amenable to change? A brief examination of the evidence that is available to answer these four questions provides an overview of the status of research on child/adolescent coping and highlights areas currently in need of research.

DIMENSIONS OF COPING

There is no clear consensus regarding the basic dimensions on which coping responses of children and adolescents can be distinguished. Several candidates have been proposed, including the function of the response (problem- vs. emotion-focused; Compas, Malcarne, & Fondacaro, 1988; Compas, Worsham, Ey, & Howell, 1996), the goals of the individual (primary vs. secondary control; Weisz, McCabe, & Dennig, 1994), the method (cognitive vs. behavioural; Ebata & Moos, 1991), the orientation of the response (engagement vs. disengagement; Tobin, Holroyd, Reynolds, & Wigal, 1989), and the nature of the regulatory process involved (behavioural-, emotional- and orientation-regulation; Skinner, 1995). The level of disagreement and confusion about the basic dimensions of coping is in part the result of the absence of a clear definition of coping in young people, as efforts to distinguish the dimensions of coping have in many instances begged the question of how to define "coping".

Progress in understanding of the basic features of child/adolescent coping is dependent on two factors. First, it is essential to recognise that coping is a subset of a broader domain of the ways that individuals respond to stress (Compas et al., in press). This includes both the effortful and volitional responses generated by the individual that represent coping, as well as involuntary responses to stress that are closely related to but not part of the coping process. Involuntary responses include those that are based in individual differences in temperament, and those that are overlearned as a result of repeated practice and no longer require conscious, volitional control.

Second, it will be important to understand how the relationship between effortful coping and involuntary responses to stress may change with development. Individual differences in temperament are assumed to be at least in part genetically based and to be present from birth (e.g. Gray, 1991; Rothbart, 1991). Temperamental characteristics are likely to influence the types of coping responses that can be acquired by the individual. For example, behaviourally inhibited children (Kagan, Snidman, & Arcus, 1995) may have greater difficulty in acquiring engagement coping responses such as information seeking and instrumental problem-solving skills. Conversely,

children low in inhibition may encounter challenges in developing coping responses that involve the regulation of emotion and behaviour, such as distraction and delay. Despite of the potential significance of examining the relation between temperament and coping, few studies have addressed this important issue (see Lengua & Sandler, 1996, for an exception). Furthermore, the relationship between temperament and coping is likely to change as children develop greater capacities for self-regulation of cognition, behaviour, and emotion in response to stress.

FACTORS INFLUENCING THE DEVELOPMENT OF COPING

One of the most pressing questions for coping researchers and theorists involves the way in which coping emerges and evolves across the lifespan. How are new coping responses acquired, and what are the characteristics of both the individual and the social context that influence the acquisition of coping responses? Our understanding of the evolution of coping responses depends on data linking the use of different coping strategies with fundamental aspects of development. For example, the emergence of cognitive skills for abstract and hypothetical thinking from late childhood through adolescence and into adulthood is likely to be related to the use of more complex cognitive coping strategies during these developmental periods. Similarly, the use of social relationships as sources of information and emotional consolation is most likely related to the changing nature of social relationships with parents, siblings, and friends during childhood and adolescence. These basic links between coping and development have not been addressed; studies have typically examined age rather than more direct indices of developmental processes (see Band & Weisz, 1988, for an exception).

In addition to the association of changes in coping with changes in other aspects of development, the mechanisms that are responsible for learning new ways of coping need to be elucidated. What aspects of coping can be acquired through observational learning, as compared to coping that requires direction instruction, coaching, and guided practice? Are parents most salient in the development of their children's coping, or do peers, teachers, and other adults play important roles in how children learn to cope? Recent studies have established an association between parental characteristics, including parenting style and parents' ways of coping, and children's coping (e.g. Gil, Williams, Thompson, & Kinney, 1991; Kliewer & Lewis, 1995). This represents an important and exciting avenue for continued research.

Full appreciation of the changing nature of the coping process will require a lifespan developmental perspective, as there is emerging evidence that changes occur in coping responses in adulthood and old age. For example, the use of emotional ventilation and seeking of social support decrease in late adulthood (e.g. Compas et al., 1997). These changes are in part a result of changes in social motivation among older adults, and may in part reflect cohort differences in attitudes toward the release of emotions as a way of managing stress (Carstensen, Gross, & Fung, 1997). It appears, however, that changes in preferred ways of coping, and in the efficacy of different coping strategies, continue to occur throughout life.

COPING EFFICACY

The efficacy of various coping responses is of both basic and applied significance. From the perspective of basic research, the outcomes of coping responses during infancy, childhood, adolescence, and adulthood provide information about the relationship of the individual to the environment during these different points in development. For example, if the efficacy of certain methods of emotional regulation (ventilation of emotions through crying, seeking solace, and support from parents) changes from early childhood to adolescence, this would provide information about the changing relationship between the child and his/her social environment. From an applied standpoint, interventions will be informed by data on the relative efficacy of different coping strategies, as this has direct bearing on the types of strategies that interventions will need to promote and those that should be reduced. For example, evidence indicates that avoidant coping is relatively ineffective in managing emotional distress and may be related to poor health outcomes as well (e.g. Epping-Jordan, Compas, & Howell, 1994). Therefore, interventions can include components to reduce the use of avoidance coping and teach alternative ways of coping.

The identification of individual strategies as effective or ineffective will, for the most part, prove to be fruitless, however. The efficacy of coping responses depends on the nature of the response and the context in which it is used. For example, it is well established that coping efficacy is a function of the interaction between the function of the response (problem- vs. emotion-focused) and the actual or perceived controllability of the situation (e.g. Compas et al., 1988; Osowiecki & Compas, in press). Problem-focused coping efforts (e.g. trying to change something about a stressful relationship with another person or between others in one's social environment) are associated with lower levels of emotional distress in response to stressful events that are perceived as controllable. Conversely, the use of secondary-control oriented responses (e.g. acceptance or generating a sense of vicarious control) are related to lower distress in response to events that are experienced as beyond personal control (Weisz et al., 1994). It is likely that the interaction of coping function and control is but one of several important

ways in which the efficacy of coping responses are moderated by cognitive appraisals and stressor characteristics.

COPING INTERVENTIONS

Interventions to enhance coping play an important role in both the prevention and treatment of psychopathology. Examples include interventions to enhance coping with parental divorce by increasing children's skills in coping with divorce-related stressors (e.g. Pedro-Carroll & Cowen, 1985), programmes to prevent depression in young people by facilitating more effective cognitive and behavioural strategies to cope with stress (e.g. Jaycox, Reivich, Gillham, & Seligman, 1994), and interventions for the treatment of childhood anxiety disorders (e.g. Kendall et al., 1997). These interventions all teach children problem-solving and emotion management skills in order to facilitate adaptation to stress.

Although initial findings have been promising, the efficacy of these interventions will be enhanced by greater attention to the developmental timing of interventions and to the relative malleability of different responses to stress. With regard to developmental timing, it may be counterproductive to teach some coping strategies to children at certain ages if children have not yet developed the resources and capacities to implement these strategies on their own. For example, the use of some methods of cognitive restructuring that involve the ability to take alternative perspectives and use hypothetical thought may exceed the cognitive capacities of young children. Similarly, the relatively complex process of matching coping strategies to controllable and uncontrollable stress may be a process that exceeds the capacities of younger children. The degree to which specific coping responses can be either fostered or reduced may vary considerably as a function of individual differences. As noted earlier, differences in temperament may constrain or limit the ability of some individuals to use certain coping responses.

SUMMARY

One of the major impediments in moving coping research forward has been the lack of a model of coping that reflects the central developmental processes that influence coping responses and the ways in which coping may in turn influence development. The four questions raised can only be addressed within the framework of a developmental model of the coping process. A developmental perspective on coping will allow researchers and theorists to set normative expectations for coping capacities of children at different developmental levels, generate more precise predictions about successful adaptation to stress at different points in development, and

deliver interventions to facilitate effective coping that take into account the adaptive capacities of children at varying points in development.

Manuscript received October 1997 Revised manuscript received December 1997

REFERENCES

- Band, E.B., & Weisz, J.R. (1988). How to feel better when it feels bad: Children's perspectives on coping with everyday stress. *Developmental Psychology*, 24, 247–253.
- Carstensen, L.L., Gross, J.J., & Fung, H.H. (1997). The social context of emotional experience. In K.W. Schaie & M.P. Lawton (Eds.), *Annual review of gerontology and geriatrics* (Vol. 17, pp. 325–352). New York: Springer.
- Compas, B.E., Connor, J., Harding, A., Saltzman, H., & Wadsworth, M. (in press). Getting specific about coping: Effortful and involuntary responses to stress in development. In M. Lewis & D. Ramsey (Eds.), Stress and soothing. Hillsdale, NJ: Erlbaum.
- Compas, B.E., Harding, A., Stoll, M.F., Oppedisano, G., Epping-Jordan, J.E., & Krag, D. (1997). Adjustment to breast cancer: Age-related differences in coping and emotional distress. Manuscript submitted for publication.
- Compas, B.E., Malcarne, V.L., & Fondacaro, K.M. (1988). Coping with stress in older children and young adolescents. *Journal of Consulting and Clinical Psychology*, 56, 405–411.
- Compas, B.E., Worsham, N.L., Ey, S., & Howell, D.C. (1996). When mom or dad has cancer: II. Coping, cognitive appraisals, and psychological distress in children of cancer patients. *Health Psychology*, 15, 167–175.
- Ebata, A.T., & Moos, R.H. (1991). Coping and adjustment in distressed and healthy adolescents. *Journal of Applied Developmental Psychology*, 12, 33–54.
- Epping-Jordan, J.E., Compas, B.E., & Howell, D.C. (1994). Predictors of cancer progression in young adult men and women: Avoidance, intrusive thoughts, and psychological symptoms. *Health Psychology*, *13*, 539–547.
- Gil, K.M., Williams, D.A., Thompson, R.J., & Kinney, T.R. (1991). Sickle cell disease in children and adolescents: The relation of child and parent pain coping strategies to adjustment. *Journal of Pediatric Psychology*, 16, 643–663.
- Gray, J.A. (1991). The neuropsychology of temperament. In J. Strelau and A. Angleitner (Eds.), *Explorations in temperament: International perspectives on theory and measurement* (pp. 105–128). New York: Plenum.
- Jaycox, L.H., Reivich, K.J., Gillham, J., & Seligman, M.E.P. (1994). Prevention of depressive symptoms in school children. *Behavior Research and Therapy*, 32, 801–816.
- Kagan, J., Snidman, N., & Arcus, D. (1995). The role of temperament in social development. In G.P. Chrousos et al. (Eds.), Annals of the New York Academy of Science. Stress: Basic mechanisms and clinical implications (Vol. 771, pp. 485–490). New York: New York Academy of Science.
- Kendall, P.C., Flannery-Schroeder, E., Panichelli-Mindel, S.M., Southam-Gerow, M., Henin, A., & Warman, M. (1997). Therapy for youths with anxiety disorders: A second randomized trial. *Journal of Consulting and Clinical Psychology*, 65, 366–380.
- Kliewer, W., & Lewis, H. (1995). Family influences on coping processes in children and adolescents with sickle cell disease. *Journal of Pediatric Psychology*, 20, 511–525.
- Lengua, L.J., & Sandler, I.N. (1996). Self-regulation as a moderator of the relation between coping and symptomatology in children of divorce. *Journal of Abnormal Child Psychology*, 24, 681–701.
- Osowiecki, D.M., & Compas, B.E. (in press). Psychological adjustment to cancer: Control beliefs and coping in adult cancer patients. *Cognitive Therapy and Research*.

- Pedro-Carroll, J.L., & Cowen, E.L. (1985). The children of Divorce Intervention Program: An investigation of the efficiency of a school-based prevention program. *Journal of Consulting and Clinical Psychology*, 53, 603–611.
- Rothbart, M.K. (1991). Temperament: A developmental framework. In J. Strelau and A. Angleitner (Eds.), *Explorations in temperament: International perspectives on theory and measurement* (pp. 61–74). New York: Plenum.
- Skinner, E.A. (1995). Perceived control, motivation, and coping. Thousand Oaks, CA: Sage. Tobin, D.L., Holroyd, K.A., Reynolds, R.V., & Wigal, J.K. (1989). The hierarchical factor structure of the Coping Strategies Inventory. Cognitive Therapy and Research, 13, 343–361.
- Weisz, J.R., McCabe, M., & Dennig, M.D. (1994). Primary and secondary control among children undergoing medical procedures: Adjustment as a function of coping style. *Journal* of Consulting and Clinical Psychology, 62, 324–332.