Published in final edited form as:

J Nurs Scholarsh. 2010 June 1; 42(2): 166–185. doi:10.1111/j.1547-5069.2009.01327.x.

Conceptualization and Measurement of Coping During Adolescence: A Review of the Literature

Carolyn Garcia, RN, PhD, MPH [Assistant Professor]¹

¹ Zeta, University of Minnesota School of Nursing, Minneapolis, MN, USA

Abstract

Purpose—The purpose of this review was to examine the conceptualization and measurement of coping in adolescent research.

Design—A review of the literature published and abstracted in four scientific databases was undertaken between July 2008 and June 2009 with the following key words: adolescent(s), cope/coping, stress(ors), and adaptation/psychological.

Methods—A total of 367 articles were initially identified, and review of published abstracts yielded 104 empirical articles to retrieve and examine more closely for inclusion. Criteria for inclusion in the review were that the study (a) measured coping, (b) presented original data, (c) primarily targeted adolescent participants, (d) was reported in English, and (e) was published between 1998 and June 2009. Fifty-nine subsequent articles were organized using a matrix approach that facilitated cross-study comparisons of purpose, sample, and dependent variables.

Findings—Fewer than half of the studies reviewed included a specific statement defining coping. Instead, many authors described coping in the context of stress response by identifying particular types or ways of coping or naming specific coping strategies used. The theoretical frameworks guiding examination of coping varied across studies. A range of measures, congruent with adolescent developmental processes, were used to assess adolescent coping. A wide range of stress-related risks or conditions were examined, including psychological stressors such as eating disorders, suicidal ideation, and depression; physical stressors such as chronic illness, HIV infection, sports participation, violence, or sexual abuse; familial stressors such as domestic violence or interparental conflict; social stressors such as romantic relationships or difficulties in settings such as school, prison, or a homeless shelter; and societal stressors such as discrimination.

Conclusions—Coping is an important construct in understanding how adolescents react to the extensive stressors and adjustments they experience. Coping is a complex construct yet worthy of examination because it can be a critical point of intervention in the health trajectory of adolescents and young people. Research is needed to advance the conceptualization and measurement of adolescent coping such that interpretation of findings across studies is enhanced. In this way, future research, including interventions targeting coping, will work synergistically to advance the science and adolescent well-being.

Clinical Relevance—Nursing and other healthcare providers working with adolescents understand the need for interventions that promote use of healthy coping strategies and minimize unhealthy coping. Findings from this study demonstrate the state of coping conceptualization and measurement in adolescent research and indicate a need for research that will advance the science and improve the usefulness of adolescent coping data.

Keywords

Coping; adolescent; measurement; literature review; instrument

Suicide is a leading cause of death for adolescents, surpassed in occurrence only by unintentional injuries and homicide (National Center for Health Statistics [NCHS], 2009). Depression is a leading risk factor for suicidal ideation and attempts, and approximately 20% of all adolescents will suffer from depression before reaching young adulthood (10% to 15% of adolescents in the United States are estimated to be depressed at any given time). Complex factors contribute to adolescents experiencing depressive symptoms, including developmental stressors (e.g., peer relationships, school accomplishments, physical and emotional changes) and environmental and contextual stressors (e.g., poverty, crime, family separation, discrimination). How adolescents cope, or respond, to these stressors influences their well-being. Some adolescents “cope” and demonstrate resilience in response to overwhelming negative stressors; other adolescents need very little “stress” to plunge into a depressive episode.

Adolescent coping and its relationship with health-risk behaviors has been researched extensively, demonstrating consistent risks when an adolescent lacks adequate coping abilities, including psychological distress and suicidal attempts, smoking/substance use, and high-risk sexual behaviors (Rew, 2005). Growing attention toward adolescent coping is in part the result of increasing awareness of risk and protective factors that can be intervened on to enhance the well-being of adolescents. If an adolescent's coping skills can be improved, it is feasible that she or he may perceive and react to stressors in a different manner yielding more positive health outcomes. This article provides a review of adolescent coping conceptualization and measurement with recommendations to advance adolescent coping science and knowledge.

Overview of Adolescent Development

Adolescent development has been described extensively in numerous theories that are well beyond the scope of this article to summarize in their entirety. However, an overview of this second decade in life is necessary to provide context for why understanding of adolescent stress and coping is important and distinct from adult stress and coping. Adolescence is marked by growth on many levels; holistically, one can appreciate the intertwined development of an adolescent in physical, psychological, social, and spiritual domains (Rew, 2005). The rate at which an adolescent develops in these domains varies, and development in one domain does not imply parallel development in another. In this way, adolescents reflect unique developmental patterns that can be generally categorized into predictable patterns of change. For example, the pubertal development of boys and girls occurs in a relatively sequential manner within a range of time such that there are “early” or “late” developers but very few who have not developed most physical changes by a certain age.

Psychologically, adolescence is a decade of cognitive and moral development. Piaget's theoretical work identified four cognitive developmental phases, namely, sensorimotor, preoperational, concrete operational, and formal operational. He also outlined the three processes an adolescent undertakes to reach a new phase (i.e., assimilation, accommodation, and equilibration; Piaget & Inhelder, 1969). According to Piaget, a preadolescent, at 12 years of age, is capable of the fourth stage, and therefore most adolescents will reach adult-like thinking in their adolescent years. Critical thinking and information processing develop during adolescence, with older adolescents demonstrating greater abilities to remember (short- and long-term memory) and to reason (deductively and inductively). Adolescent moral development has been conceptualized in three phases (i.e., preconventional morality,

conventional morality, and postconventional morality) by Kohlberg (1978). Gilligan (1993) advanced understanding by exploring observed gender differences in how boys and girls approach moral dilemmas, demonstrating that generally, boys seek direct resolution and girls will avoid conflict to maintain a relationship (Rew, 2005). These differences are likely to be reflected in how boys and girls cope with stressors.

Socially, adolescence has been characterized by Erikson (1968) as the developmental period in which “identity” is the primary psychosocial crisis. Indeed, as adolescents migrate toward peer relationships and begin to separate from their parents, their perspectives are broadened and they are faced with the task to form their own identity. Identity development is critical to how the adolescent perceives not only self but also social interaction and the future and is “conferred or constructed” (Marcia, 1980; Rew, 2005, p. 112). A healthy identity is one that is constructed by the adolescent (rather than conferred by others onto the adolescent), as she or he formulates opinions as simple as whom to spend time with and as complex as what to believe (Rew).

Adolescent spiritual development has been explored theoretically despite lacking a consistent definition of what “spiritual” comprises. It is acknowledged that spiritual development should not be overlooked and is integral to holistic adolescent development, as evidenced in the growing research addressing spirituality and newly developed models to explain adolescent spiritual development (e.g., Cole's Model of Spiritual Development; Fowler's Stages of Faith Consciousness Theory; Rew, 2005). For example, Fowler (1991) proposed seven stages of faith consciousness, two of which can occur during adolescence because formal thinking and identity formation are occurring. These stages include synthetic-conventional faith and individuating-reflective faith, the latter occurring after one has a “coherent sense of self-identity” (Rew, p. 68). In these stages, the adolescent establishes a set of beliefs, in the context of identity formation, and then is able to reevaluate the beliefs in order to more clearly explicate those beliefs she or he adheres to.

The complexity of adolescent development, and the variability in which this development occurs, makes obvious the challenges inherent in specifying what stress and coping are for adolescents, and how they should be measured in research. Similar to the spectrums of development, adolescent stress and coping concepts reflect a range of behaviors, experiences, triggers, and actions. And as with theories of development, theories of stress and coping have been developed, refined, and challenged as the field, and understanding, advances.

Stress and Coping Theoretical Development

Lazarus and Folkman (1984) used the term coping to describe the “cognitive and behavioral efforts” a person employs to manage stress, generally categorized as emotion focused or problem focused coping. Not an individual trait, coping is instead conceptualized by Lazarus and Folkman as a process (Rew, 2005). Stress and coping models such as Lazarus' (1990) transactional stress-coping process and Moos' (2002) model of context, coping, and adaptation (transactional model), and the theoretical work of Carver and colleagues (Carver, 1997; Carver, Scheier, & Weintraub, 1989) and Frydenberg and Lewis (1990) have advanced the science regarding stress, coping, and the measurement of these constructs. These theorists have built upon the original work of Selye (1978), who proposed the term stress to explain responses being observed in the general adaptation syndrome, a syndrome identified as an “initial alarm reaction followed by a state of adaptation ... called the stage of resistance” (Rew, 2005, p. 136). Selye was also the first to identify a “stressor,” or cause of subsequent stress. A healthy response to stress resulted in adaptation, according to Selye, whereas an unhealthy or resistant response would lead to exhaustion.

In adolescent stress and coping research, specifically, there are stressors that coincide with this developmental stage. For example, stressors associated with identity development, a process involving growing independence from parent figures while establishing stronger associations with peer groups. Numerous factors influence the extent to which this and the other developmental milestones present stress for an adolescent, including intrapersonal and environmental factors.

Bronfenbrenner's (1979) ecological model demonstrates the complex and numerous sources of potential stress or security in the life adolescents, influences that may be protective or harmful. Family, school, and peers are examples of microsystem level factors that present direct influences, while macrosystem level factors (e.g., societal values, economic circumstances) are distal influences. These external forces are particularly recognized in Moos' (2002) model of context, coping, and adaptation in adolescence, in that Moos emphasizes the necessity of understanding them (e.g., family, social context) in order to realize how an adolescent adapts and subsequently copes. One can see how an adolescent's appraisal of a stressor involves both subtle and obvious factors that contribute to how an adolescent acts, or copes, with the stressor. It becomes clear, as well, that assessment of one's coping, resources, and responses is complex and challenging. However, with gained insights about adolescent coping, interventions such as school- or clinic-based programs can be structured to strategically reinforce environmental factors that promote healthy coping. This is an ideal but challenged scenario, given the complexity of the existing science specific to coping conceptualization and measurement.

State of the Science: Relevant Reviews of Coping Measurement

Over 15 years ago, Parker and Endler (1992) conducted a critical review of coping assessment and concluded that the empirical weaknesses in coping assessment significantly challenged and limited the applicability and relevance of coping data. In 2001, Compas, Connor-Smith, Saltzman, Thomsen, and Wadsworth completed a critical review of coping with specific attention to the coping of children and adolescents. Similar to Parker and Endler, Compas et al. concluded that a gap continues to exist between the acknowledged need for identifying ways individuals cope or subtypes of coping behaviors and the development of measures that can distinguish these subtypes for children and adolescents. More recently, Skinner, Edge, Altman, and Sherwood (2003) completed an evaluation of 100 coping assessment tools used with young people and adults. They identified over 400 ways of coping that were measured in these tools, demonstrating the breadth and depth of coping measurement and the resultant challenges in interpreting, generalizing, and acting on coping data. And in 2007, Nicholls and Polman conducted a systematic review of the coping literature on sports and athletes. The review confirmed a variety of coping strategies were used, as well as age and sex differences in coping. None of these existing reviews specifically focuses on measurement of coping in adolescent research, nor do they address the relevance of coping measurement for vulnerable subgroups of adolescents such as those who are not fluent in the primary language of a country or region.

Therefore, the main goals of this review were to summarize how coping is being conceptualized and measured in adolescent research and to synthesize coping measurement in adolescent research published in the past decade. Findings from this review will contribute useful insights for both observational and intervention research. Whether observing coping over time during adolescence, developing interventions to influence coping behaviors, or evaluating interventions aimed at modifying coping behaviors, researchers will benefit from clarity regarding the conceptualization and measurement of coping in adolescent health research.

Methods

Search Strategy

This search was conducted between July 2008 and June 2009. The main search strategy employed four scientific databases: Medline, CINAHL, HAPI, and PsychInfo. The key words used, purposefully broad, included adolescent(s), cope/coping, stress(ors), and adaptation/psychological (as alternative wording for stress in some of the databases). Reference lists of identified articles were also examined in order to identify relevant work that may not have surfaced in the database search. Finally, published reviews addressing adolescent coping and coping measurement were examined to identify additional relevant publications.

Inclusion Criteria

A total of 371 articles were initially identified using the search strategy outlined above. Review of published abstracts yielded 108 empirical articles to retrieve and examine more closely for inclusion. Criteria for inclusion in the review were that the study (a) measured coping, (b) presented original data, (c) primarily targeted adolescent participants between the ages of 12 and 18 years, (d) was reported in English, and (e) was published between 1998 and June 2009. Purposefully, articles describing research outside the United States were included if the above criteria were met. These criteria resulted in 58 articles included in the review (Table 1).

Organization

Articles were organized using a matrix approach (Garrard, 2007) that facilitated cross-study examination of purpose, sample, and dependent variables (see Table 1). Specifically, Table 1 provides an overview of the articles reviewed so that at a glance, the reader understands why the original study was conducted, why coping was measured (was it a primary study focus), who participated in the study (age, sex), and what the main study findings were, specific to coping. Although this review is not focused on study results, providing the results facilitates additional reflection on specific coping measures, which might be useful to a researcher undecided about which adolescent coping measure to use. Additionally, to support the aim of the review to summarize the state of coping measurement and conceptualization, the matrix identified coping definitions, measures used, and theories used (Table 2). Instrument details, including number of items and coefficient reliability data are also provided in Table 2, as a resource to those specifically exploring use of coping measures.

Findings

Coping Conceptualization ... the What

Definition versus description—Fewer than half of the studies reviewed included a specific statement defining coping ($n=22$; 38%). For example, Yi, Smith and Vitaliano (2005) defined coping as follows: “Coping involves cognitive and behavioral measures designed to master, tolerate, or reduce external and internal demands and conflicts” (p. 258). de Anda and colleagues (de Anda 1998; de Anda et al. 1997) defined coping simply as those strategies that are used to deal with stress, or stressors. Thirteen of the articles referenced Lazarus and Folkman when defining or describing coping (22%).

Rather than providing a definition of coping, many authors described coping in the context of stress response by identifying particular types or ways of coping or naming specific coping strategies used ($n=20$; 34%). Ways of coping have been defined by Skinner et al. (2003) as “the basic categories used to classify how people cope” (p. 216) such as problem-solving or help-seeking. These mechanisms vary across individuals and influence not only the coping response to an acute stressor but also the longitudinal health and well-being of the individual. Among the studies describing rather than defining coping, 10 (50%) defined coping by

highlighting ways of coping such as avoidant or active coping strategies and the subsequent outcomes when adolescents employed one type of strategy rather than the other. For example, Puskas, Sereika, and Tusaie-Mumford (2003) state,

Although coping is a process, and there is no “right or wrong” manner of coping, adolescents who used more approach and problem solving than avoidance strategies and who appraised the stressor to be a challenge were more often associated with an adaptive outcome. (p. 72)

Many utilized the popular dichotomy for ways of coping, namely problem-focused or emotion-focused coping strategies (Li, DiGiuseppe, & Froh, 2006; Meijer, Sinnema, Bijstra, Mellenbergh, & Wolters, 2002; Vaughn & Roesch, 2003). For example, Vaughn and Roesch provide this description of coping in reviewing existing literature: “Some coping strategies (e.g. problem-focused) have been associated with positive outcomes such as higher levels of self-esteem and resiliency, whereas other coping strategies (e.g. denial) have been associated with negative outcomes such as alcohol abuse, depression and delinquency” (p. 672). Sixteen articles (28%) did not include either a description or definition of coping.

The existing literature is silent with respect to how coping conceptualization or definition might change with varying adolescent developmental stages. This could, in part, be due to general recognition that adolescent coping, as conceptualized and defined, remains broad enough to encompass the various stages of development adolescents' experience.

The theoretical frameworks guiding examination of coping varied across studies. Among those who identified the study's theoretical conceptualizations ($n=43$; 73%), most described a stress and coping theoretical foundation, citing Lazarus and Folkman, Moos, and Frydenberg and Lewis. Others employed theories of development (e.g., Loevinger's model of ego development) or self-regulation, and models such as the cognitive-behavioral model.

Coping Measurement ... the How

Study designs—Eight articles reported findings from intervention studies (14%), while the remaining articles were based on descriptive studies (86%; see Table 1). Of the intervention studies, four assessed the effects of a cognitive-behavioral therapy intervention on coping and the remaining four described other intervention strategies designed to improve coping skills such as school-based stress management programs. Fifty-five (93%) of the studies employed a cross-sectional design (eight of these had pre-post measurement); five were longitudinal, including 3-year and 10-year follow-up studies.

Coping measures—A range of measures were used among the studies to assess adolescent coping, as conceptualized by the researcher (e.g. available coping strategies versus actual coping behaviors). These are summarized in Table 2. Instruments most commonly used include the Adolescent Coping Orientation for Problem Strategies Questionnaire (A-COPE), the Adolescent Coping Scale (ACS), the Coping Response Inventory (CRI), the Stress and Coping Questionnaire for Children (SCQ-C), and the Ways of Coping Checklist (WOCC). Reliability coefficients of internal consistency were reported for most, but not all, measures for the samples studied. These measures each uniquely assess coping, yet all of them reflect theoretically sound and congruent conceptualizations of adolescent coping. Many of the measures are theoretically congruent with Lazarus and Folkman's theory of cognitive appraisal and coping, including A-COPE, ACS, WOCC, and the Jalowiec Coping Scale (JCS; Rew, 2005). Many measures include a wide range of ways in which an adolescent might cope, and the assessment/categorization of whether the coping is healthy or unhealthy is, in part, based on knowledge of adolescent growth and development.

Measurement modalities—Most studies relied on retrospective, self-report data collection using a survey instrument ($n=43$; 73%). Four utilized computer-assisted technology to administer a survey, typically in the participant's home, which included questions regarding coping. Two studies included parent data collection via survey and interview. Six studies employed a qualitative, face-to-face interview format; these were distinct from four studies that included diagnostic interviewing and did not specifically indicate coping had been assessed. Additional measurement of coping included data collected from observation (three studies) and participant-completed diaries (two studies).

Coping Study Context ... the Why and Who

Study purposes—A high proportion of the articles reviewed indicated that a primary reason for conducting the research was to examine adolescent coping strategies or behaviors ($n=52$; 88%). Five articles reported on the measurement properties of a particular coping measure. The remaining studies measured coping as a secondary outcome, a moderator or a mediator.

A wide range of stress-related risks or conditions were examined in these studies, representing many of the ecological systems represented in Bronfenbrenner's model. These included psychological stressors such as eating disorders, suicidal ideation, and depression; physical stressors such as chronic illness, HIV infection, sports participation, violence, or sexual abuse; familial stressors such as domestic violence or interparental conflict; social stressors such as romantic relationships or difficulties in settings such as school, prison, or a homeless shelter; and societal stressors such as racial discrimination. A few used a strength-based approach to examine coping as it relates to adaptive functioning, resilience, and emotional well-being.

Adolescent samples—Although 41 articles included males and females, only 6 highlighted differences in coping strategies by sex of the participants. Female-only studies ($n=11$; 19%) occurred more often than male-only ($n=5$). Of the male-only studies, one was a case study of an adolescent male golfer, another two focused on athletes, the sample of the third were incarcerated males, and the fourth focused on adolescent males with eating disorders. Only one study reported on differences by where the adolescents resided, in rural or urban settings, and three highlighted differences in coping strategies by ethnicity and acculturation.

What the Data Mean

Herein lay the challenges with synthesizing coping research among adolescents. Indeed, independently the studies provide data that are informative and contribute to our understanding of the adolescents represented in the particular investigations. However, when examining data across studies, the differential measures of coping make synthesis extremely challenging. For example, coping outcomes were reported in many of the descriptive studies by using the terms from the selected study measures, which limits meaningful interpretations across the studies unless one has the time needed to manually synthesize different terms/similar concepts (e.g., terminology such as avoidance, problem-focused, ruminative, self-blame, approach, seeking social support, engagement, disengagement, emotion-based, negative, thriving, and despairing).

Recommendations for Measurement of Adolescent Coping

The most consistent feature of the measurement of coping in adolescent health research is how inconsistent it has been, including lack of uniformity in choice of measures to assess how adolescents cope with stressful situations. While research over the past two decades has solidified the importance of healthy coping strategies in stress response, substantial progress has yet to be made in consistently using coping measures that are meaningful, representative, and interpretable across studies.

Advances in the science regarding adolescent coping will be enhanced as researchers consistently use measures that have been developed specifically for adolescents which have reliable and valid measurement properties. Rather than developing new measures, researchers might benefit from time committed to modifying and adapting those that already exist. For example, if a particular subscale does not demonstrate adequate reliability with a particular group of adolescents, the researcher might explore adapting the instrument (e.g., cultural expectations may preclude certain coping behaviors that are measured in a tool created using a different cultural group/adolescent population). In addition, nursing researchers might consider identifying coping measures that are congruent with leading coping theories broadly, and nursing coping theories specifically (e.g., Roy's adaptation model; Yeh, 2003). Also, researchers using standardized adolescent coping measures might consider additional open-ended queries of perceived stressors and actual coping strategies identified by the adolescents. These data will offer insights about how adolescents in a specific location, context, and time frame are coping with common stressors, and will clarify the extent to which their preferred coping strategies are represented in the quantitative coping measures.

Finally, the breadth of research addressing adolescent coping demonstrates the importance of this concept as a point of understanding and intervention. Beyond the scope of this literature review there are much data that, if published in peer-reviewed journals, will contribute to advancing understanding about adolescent coping and measurement. For example, in the past 10 years, over 100 dissertations have been completed that focus on aspects of adolescent stress and coping (e.g., Finkelstein, 2005; Fisher, 2006; Toliver Powell, 2008). Some of these scholars have summarized their work in peer-reviewed journal articles (e.g., Finkelstein, Kubzansky, Capitman, & Goodman, 2007, yet many more should be encouraged to present and publish their research via mechanisms that will promote scholarly critique and thought, beyond the successful completion of a dissertation.

Recommendation for studies validating coping measures with diverse adolescent populations—Additional efforts are needed to ensure that the ways in which coping is measured are meaningful and valid for adolescents at various developmental stages as well as for those from a broad range of cultural backgrounds. Continued examination of theoretical development, content validity, and language appropriateness will facilitate advancement in understanding coping processes for diverse adolescents. It is promising that over half of the identified studies involved adolescents from a range of countries (e.g., Australia, England, Netherlands, Spain, Uganda) and languages beyond English. Growing awareness of the health and social disparities experienced by ethnic minority youth necessitates examination of and intervention toward building protective factors, including healthy coping. Advancement in culturally and linguistically relevant coping measures will encourage researchers not only to describe coping among these youth but also to conduct interventions that seek to promote healthier coping behaviors.

Recommendation for longitudinal studies examining coping trajectories over time—Likewise, longitudinal studies that examine patterns of change and continuity in coping processes over time will advance our understanding and measurement of adolescent coping. Existing studies, the majority of which are cross-sectional or include information from two points in time, do not adequately capture the variability in coping behaviors with time, experience, and social context. Longitudinal studies will assist in refining coping measurement as trends can be observed within and across participants over several points in time.

Recommendation for intervention studies examining coping as a primary outcome—The lack of intervention studies promoting health coping processes among adolescents is problematic given concerning mental health trends and the potential for healthy coping to positively influence mental health status. Despite recognizing the importance of

coping, researchers may be hesitant to measure healthy coping because of measurement incongruity aforementioned in this review. However, thoughtfully designed intervention studies that take into account challenges in studying coping are reasonable and needed to advance the state of the science respective to adolescent coping processes. Importantly, longitudinal intervention studies that include measures of coping are needed. Such research will aid the understanding of how coping impacts other health outcomes and can be impacted by changes in other factors.

Coping processes have been recognized as critical protective or risk factors for adolescents (Li et al., 2006; Lubell & Vetter, 2006; Zimmer-Gembeck & Skinner, 2008). Because coping is a process linked to many health outcomes of interest, such as depression, sexual risk taking, or substance use, it is a commonly measured mediator or moderator of other relationships (Franko, Thompson, Affenito, Barton, & Striegel-Moore, 2008; Rodrigues & Kitzmann, 2007). While data gained from these mediator/moderator analyses are important and useful, studies that conceptualize and measure coping as an independent or dependent variable are needed to advance the field. As the measurement of coping becomes more sophisticated, so might our efforts to intervene in ways that build adolescents' protective coping behaviors.

Conclusions

Coping is an important construct in understanding how adolescents react to the stressors and adjustments they experience in their lives. Coping is a complex construct yet worthy of examination because it is a critical point of intervention in the health trajectory of adolescents and young people. Research is needed that contributes to clarity in how coping processes are conceptualized and measured. With these advances, intervention studies that target adolescent coping processes will generate valuable, actionable findings.

Clinical Resources

- Relevant book resource: Frydenberg, E. (2008). Adolescent coping. Advances in theory, research and practice (2nd ed.). New York: Routledge.
- Group cognitive-behavioral intervention resources online from Kaiser Permanente Center for Health Research: <http://www.kpchr.org/public/acwd/acwd.html>
- Web sites addressing adolescent mental health: <http://www.teenscreen.org/>
<http://mentalhealth.samhsa.gov/publications/allpubs/CA-0004/default.asp>
- Web site from Centers for Disease Control and Prevention (CDC) addressing healthy adolescents and school: <http://www.cdc.gov/HealthyYouth/>

Acknowledgments

Thank you to the following individuals who assisted in compiling the articles reviewed: Christie Martin, Eve Shapiro, and Jessie Kemmick Pintor. Thank you to my colleague, Dr. Renee Sieving, for thoughtful editing of manuscript drafts. Effort on this review was supported by a Building Interdisciplinary Research Careers in Women's Health Grant administered by the Deborah E. Powell Center for Women's Health at the University of Minnesota, Grant K12HD055887 from the National Institutes of Child Health and Human Development. The content is solely the responsibility of the author and does not necessarily represent the official views of the National Institute of Child Health and Human Development, or the National Institutes of Health.

References

- Bolgar MR, Janelle C, Giacobbi PJ. Trait anger, appraisal, and coping differences among adolescent tennis players. *Journal of Applied Sport Psychology* 2008;20(1):73–87.

- Braun-Lewensohn O, Celestin-Westreich S, Celestin L, Verleye G, Verté D, Ponjaert-Kristoffersen I. Coping styles as moderating the relationships between terrorist attacks and well-being outcomes. *Journal of Adolescence* 2009;32(3):585–599. [PubMed: 18775563]
- Bronfenbrenner, U. The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press; 1979.
- Brown SL, Ireland CA. Coping style and distress in newly incarcerated male adolescents. *Journal of Adolescent Health* 2006;38(6):656–661. [PubMed: 16730592]
- Callaghan EE. Achieving balance: A case study examination of an adolescent coping with life-limiting cancer. *Journal of Pediatric Oncology Nursing* 2007;24(6):334–339. [PubMed: 18003593]
- Carver CS. You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine* 1997;4(1):92–100. [PubMed: 16250744]
- Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: A theoretically based approach. *Journal of Personality & Social Psychology* 1989;56(2):267–283. [PubMed: 2926629]
- Compas BE, Connor-Smith JK, Saltzman H, Thomsen AH, Wadsworth ME. Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin* 2001;127(1):97–127.
- Connor-Smith J, Compas B, Wadsworth M, Thomsen A, Saltzman H. Responses to stress in adolescence: Measurement of coping and involuntary stress responses. *Journal of Consulting and Clinical Psychology* 2000;68(6):976–992. [PubMed: 11142550]
- Dalton MM, Pakenham KI. Adjustment of homeless adolescents to a crisis shelter: Application of a stress and coping model. *Journal of Youth and Adolescence* 2002;31(1):79–89.
- de Anda D. The evaluation of a stress management program for middle school adolescents. *Child & Adolescent Social Work Journal* 1998;15(1):73–85.
- de Anda D, Baroni S, Boskin L, Buchwald L, Morgan J, Ow J, et al. Stress, stressors, and coping among high school students. *Children and Youth Services Review* 2000;22(6):441–463.
- de Anda D, Bradley M, Collada C, Dunn L, Kubota J, Hollister V, et al. A study of stress, stressors, and coping strategies among middle school adolescents. *Social Work in Education* 1997;19(2):87–98.
- Dickinson P, Coggan C, Bennett S. TRAVELLERS: A school-based early intervention programme helping young people manage and process change, loss and transition. Pilot phase findings. *Australian & New Zealand Journal of Psychiatry* 2003;37(3):299–306. [PubMed: 12780468]
- Dumont M, Provost MA. Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence* 1999;28(3):343–363.
- Erikson, E. Identity, youth, and crisis. New York: W. W. Norton; 1998.
- Feagans Gould L, Hussong AM, Keeley ML. The adolescent coping process interview: Measuring temporal and affective components of adolescent responses to peer stress. *Journal of Adolescence* 2008;31(5):641–657. [PubMed: 18022684]
- Finkelstein, DM. Doctoral dissertation. The Heller School for Social Policy and Management, Brandeis University; Waltham, MA: 2005. Understanding the influence of socioeconomic status on teen health: The role of psychological resources and stress. Publication No. AAT 3201375. Retrieved August 17, 2009 from <http://proquest.umi.com/pqdweb?did=1068246481&sid=3&Fmt=2&clientId=2256&RQT=309&VName=PQD>
- Finkelstein DM, Kubzansky LD, Capitman J, Goodman E. Socioeconomic differences in adolescent stress: The role of psychological resources. *Journal of Adolescent Health* 2007;40(2):127–134. [PubMed: 17259052]
- Fisher, R. Psy D dissertation. Fairleigh Dickinson University; Madison, NJ: 2006. Evaluating the effects of the Best of Coping (BOC) curriculum on enhancing coping skills in at-risk adolescent girls. Publication No. AAT 3212511. Retrieved August 17, 2009, from <http://proquest.umi.com/pqdweb?did=1140201161&sid=4&Fmt=2&clientId=2256&RQT=309&VName=PQD>
- Forns M, Amador JA, Kirchner T, Gomez J, Muro P, Martorell B. Psychometric properties of the Spanish version of the moos coping response inventory for youth. *Psychological Reports* 2005;97(3):777–789. [PubMed: 16512295]

- Fowler, J. Stages in faith consciousness. In: Oser, FK.; Scarlett, WG., editors. *New directions for child development: Religious development in childhood and adolescence*. New York: Jossey-Bass; 1991. p. 27-45.
- Franko DL, Thompson D, Affenito SG, Barton BA, Striegel-Moore R. What mediates the relationship between family meals and adolescent health issues? *Health Psychology* 2008;27(2):S109-S117. [PubMed: 18377152]
- Frydenberg E, Lewis R. How adolescents cope with different concerns: The development of the adolescent coping checklist (ACC). *Psychological Test Bulletin* 1990;3(2):63-73.
- Führ M. Coping humor in early adolescence. *Humor: International Journal of Humor Research* 2002;15(3):283.
- Garcia-Grau E, Fuste A, Miro A, Saldana C, Bados A. Coping style and disturbed eating attitudes in adolescent girls. *International Journal of Eating Disorders* 2002;32(1):116-120. [PubMed: 12183940]
- Garcia-Grau E, Fuste A, Miro A, Saldana C, Bados A. Coping style and vulnerability to eating disorders in adolescent boys. *European Eating Disorders Review* 2004;12(1):61-67.
- Garrard, J. *Health sciences literature review made easy: The matrix method*. Sudbury, MA: Jones & Bartlett; 2007.
- Gilligan, C. *In a different voice*. Cambridge, MA: Harvard University Press; 1993.
- Israelashvili M, Gilad-Osovitzki S, Asherov J. Female adolescents' suicidal behavior and mothers' ways of coping. *Journal of Mental Health* 2006;15(5):533-542.
- Kaye DK. Negotiating the transition from adolescence to motherhood: Coping with prenatal and parenting stress in teenage mothers in Mulago hospital, Uganda. *BMC Public Health* 2008;8:83-83. [PubMed: 18318894]
- Kaye DK, Ekström AM, Johansson A, Bantebya G, Mirembe FM. Escaping the triple trap: Coping strategies of pregnant adolescent survivors of domestic violence in Mulago hospital, Uganda. *Scandinavian Journal of Public Health* 2007;35(2):180-186. [PubMed: 17454922]
- Kendall PC, Safford S, Flannery-Schroeder E, Webb A. Child anxiety treatment: Outcomes in adolescence and impact on substance use and depression at 7.4-year follow-up. *Journal of Consulting and Clinical Psychology* 2004;72(2):276-287. [PubMed: 15065961]
- Kohlberg L. Revisions in the theory and practice of moral development. *New Directions for Child Development* 1978;2:83-88.
- Kuo BCH, Roysircar G, Newby-Clark IR. Development of the cross-cultural coping scale: Collective, avoidance, and engagement coping. *Measurement & Evaluation in Counseling & Development* 2006;39(3):161-181.
- Lazarus RS. Theory-based stress measurement. *Psychological Inquiry* 1990;1(1):3-13.
- Lazarus, RS.; Folkman, S. *Stress, appraisal, and coping*. New York: Springer; 1984.
- Lengua LJ, Sandler IN, West SG, Wolchik SA, Curran PJ. Emotionality and self-regulation, threat appraisal, and coping in children of divorce. *Development and Psychopathology* 1999;11:15-37. [PubMed: 10208354]
- Lewis CL, Brown SC. Coping strategies of female adolescents with HIV/AIDS. *ABNF Journal* 2002;13(4):72-77. [PubMed: 12244842]
- Lewis R, Frydenberg E. Concomitants of failure to cope: What we should teach adolescents about coping. *British Journal of Educational Psychology* 2002;72(Pt 3):419-431. [PubMed: 12396314]
- Li CE, DiGiuseppe R, Froh J. The roles of sex, gender, and coping in adolescent depression. *Adolescence* 2006;41(163):409-415. [PubMed: 17225659]
- Lubell KM, Vetter JB. Suicide and youth violence prevention: The promise of an integrated approach. *Aggression and Violent Behavior* 2006;11(2):167-175.
- Marcia, JE. Identity in adolescence. In: Adelson, J., editor. *Handbook of adolescent psychology*. New York: John Wiley; 1980. p. 159-187.
- Martyn-Nemeth P, Penckofer S, Gulanick M, Velsor-Friedrich B, Bryant FB. The relationships among self-esteem, stress, coping, eating behavior, and depressive mood in adolescents. *Research in Nursing & Health* 2009;32(1):96-109. [PubMed: 18825731]

- McCarty CA, Weisz JR, Wanitromanee K, Eastman K, Suwanlert S, Chaityasit W, Brotman Band E. Culture, coping, and context: Primary and secondary control among Thai and American youth. *Journal of Child Psychology & Psychiatry & Allied Disciplines* 1999;40(5):809.
- Meijer SA, Sinnema G, Bijstra JO, Mellenbergh GJ, Wolters WH. Coping styles and locus of control as predictors for psychological adjustment of adolescents with a chronic illness. *Social Science & Medicine* 2002;54(9):1453–1461. [PubMed: 12058860]
- Moos RH. Life stressors, social resources, and coping skills in youth: Applications to adolescents with chronic disorders. *Journal of Adolescent Health* 2002;30(4 Suppl):22–29. [PubMed: 11943571]
- Muris P, Schmidt H, Lambrichs R, Meesters C. Protective and vulnerability factors of depression in normal adolescents. *Behaviour Research and Therapy* 2001;39(5):555–565. [PubMed: 11341252]
- Murphy DA, Moscicki AB, Vermund SH, Muenz LR. Psychological distress among HIV+ adolescents in the REACH study: Effects of life stress, social support, and coping. *Journal of Adolescent Health* 2000;27(6):391–398. [PubMed: 11090741]
- National Center for Health Statistics. Health, United States, 2008 with chartbook. Hyattsville, MD: U.S. Public Health Service; 2009.
- Nicholls AR. Can an athlete be taught to cope more effectively? The experiences of an international-level adolescent golfer during a training program for coping. *Perceptual & Motor Skills* 2007;104(2):494–500. [PubMed: 17566439]
- Nicholls AR, Jones CR, Polman RC, Borkoles E. Acute sport-related stressors, coping, and emotion among professional rugby union players during training and matches. *Scandinavian Journal of Medicine & Science in Sports* 2009;19(1):113–120. [PubMed: 18282223]
- Nicholls AR, Polman R, Levy AR, Taylor J, Cobley S. Stressors, coping, and coping effectiveness: Gender, type of sport, and skill differences. *Journal of Sports Sciences* 2007;25(13):1521–1530. [PubMed: 17852669]
- Nicholls AR, Polman RC. Think aloud: Acute stress and coping strategies during golf performances. *Anxiety, Stress, & Coping* 2008;21(3):283–294.
- Nicholls AR, Polman RCJ. Coping in sport: A systematic review. *Journal of Sports Sciences* 2007;25(1):11–31. [PubMed: 17127578]
- Parker JD, Endler NS. Coping with coping assessment: A critical review. *European Journal of Personality* 1992;6(5):321–344.
- Piaget, J.; Inhelder, B. *The psychology of the child*. New York: Basic Books; 1969.
- Puskar K, Sereika S, Tusaie-Mumford K. Effect of the teaching kids to cope (TKC) program on outcomes of depression and coping among rural adolescents. *Journal of Child & Adolescent Psychiatric Nursing* 2003;16(2):71–80. [PubMed: 12873069]
- Puskar KR, Grabiak BR. Rural adolescents' coping responses: Implications for behavioral health nurses. *Issues in Mental Health Nursing* 2008;29(5):523–535. [PubMed: 18437610]
- Recklitis CJ, Noam GG. Clinical and developmental perspectives on adolescent coping. *Child Psychiatry & Human Development* 1999;30(2):87–101. [PubMed: 10668305]
- Reeves CW, Nicholls AR, McKenna J. Stressors and coping strategies among early and middle adolescent premier league academy soccer players: Differences according to age. *Journal of Applied Sport Psychology* 2009;21(1):31–48.
- Rew, L. *Adolescent health A multidisciplinary approach to theory, research, and intervention*. Thousand Oaks, CA: Sage; 2005.
- Roder I, Boekaerts M, Kroonenberg PM. The stress and coping questionnaire for children (school version and asthma version): Construction, factor structure, and psychometric properties. *Psychological Reports* 2002;91(1):29–36. [PubMed: 12353795]
- Rodrigues LN, Kitzmann KM. Coping as a mediator between interparental conflict and adolescents' romantic attachment. *Journal of Social and Personal Relationships* 2007;24(3):423–439.
- Ruffolo M, Sarri R, Goodkind S. Study of delinquent, diverted, and high-risk adolescent girls: Implications for mental health intervention. *Social Work Research* 2004;28(4):237–245.
- Schraedley PK, Gotlib IH, Hayward C. Gender differences in correlates of depressive symptoms in adolescents. *Journal of Adolescent Health* 1999;25(2):98–108. [PubMed: 10447037]

- Scott LD Jr, House LE. Relationship of distress and perceived control to coping with perceived racial discrimination among black youth. *Journal of Black Psychology* 2005;31(3):254–272.
- Selye, H. *The stress of life*. rev. New York: McGraw-Hill; 1978.
- Siqueira L, Diab M, Bodian C, Rolnitzky L. Adolescents becoming smokers: The roles of stress and coping methods. *Journal of Adolescent Health* 2000;27(6):399–408. [PubMed: 11090742]
- Skinner EA, Edge K, Altman J, Sherwood H. Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin* 2003;129(2):216–269. [PubMed: 12696840]
- Steele R, Forehand R, Armistead L, Morse E, Simon P, Clark L. Coping strategies and behavior problems of urban African-American children: Concurrent and longitudinal relationships. *American Journal of Orthopsychiatry* 1999;69(2):182–193. [PubMed: 10234384]
- Steiner H, Erickson SJ, Hernandez NL, Pavelski R. Coping styles as correlates of health in high school students. *Journal of Adolescent Health* 2002;30(5):326–335. [PubMed: 11996781]
- Sung KM, Puskar KR, Sereika S. Psychosocial factors and coping strategies of adolescents in a rural Pennsylvania high school. *Public Health Nursing* 2006;23(6):523–530. [PubMed: 17096777]
- Toliver Powell, E. Doctoral dissertation. The Catholic University of America; Washington, DC: 2008. Coping strategies, perceptions of family support, and self-care management of adolescents with insulin dependent diabetes mellitus. Publication No. AAT 3294709. Retrieved August 17, 2009, from <http://proquest.umi.com/pqdweb?did=1453218111&sid=6&Fmt=2&clientId=2256&RQT=309&VName=PQD>
- Tourigny M, Hébert M, Daigneault I, Simoneau AC. Efficacy of a group therapy for sexually abused adolescent girls. *Journal of Child Sexual Abuse* 2005;14(4):71–93. [PubMed: 16354649]
- Turner SG, Kaplan CP, Badger LW. Adolescent Latinas' adaptive functioning and sense of well-being. *Journal of Women and Social Work* 2006;21(3):272–281.
- Vaughn AA, Roesch SC. Psychological and physical health correlates of coping in minority adolescents. *Journal of Health Psychology* 2003;8(6):671–683. [PubMed: 14670202]
- Wadsworth ME, Compas BE. Coping with family conflict and economic strain: The adolescent perspective. *Journal of Research on Adolescence* 2002;12(2):243–274.
- Wills TA, Sandy JM, Yaeger AM. Moderators of the relation between substance use level and problems: Test of a self-regulation model in middle adolescence. *Journal of Abnormal Psychology* 2002;111(1):3–21. [PubMed: 11866177]
- Wilson GS, Pritchard ME, Revallee B. Individual differences in adolescent health symptoms: The effects of gender and coping. *Journal of Adolescence* 2005;28(3):369–379. [PubMed: 15925688]
- Yahav R, Cohen M. Evaluation of a cognitive-behavioral intervention for adolescents. *International Journal of Stress Management* 2008;15(2):173–188.
- Yeh C. Psychological distress: Testing hypotheses based on Roy's Adaptation Model. *Nursing Science Quarterly* 2003;16(3):255–263. [PubMed: 12876884]
- Yi JP, Smith RE, Vitaliano PP. Stress-resilience, illness, and coping: A person-focused investigation of young women athletes. *Journal of Behavioral Medicine* 2005;28(3):257–265. [PubMed: 16015460]
- Zaff J, Blount R, Phillips L, Cohen P. The role of ethnic identity and self-construal in coping among African American and Caucasian American seventh graders: An exploratory analysis of within-group variance. *Adolescence* 2002;37(148):751. [PubMed: 12564827]
- Zanini DS, Forns M, Kirchner T. Coping responses and problem appraisal in Spanish adolescents. *Perceptual & Motor Skills* 2005;100(1):153–166. [PubMed: 15773706]
- Zimmer-Gembeck M, Skinner EA. Adolescents coping with stress: Development and diversity. *Prevention Researcher* 2008;15(4):3–7. [PubMed: 19953191]

Table 1

Articles Reviewed: Purpose, Sample, Dependent Variables, and Coping Results

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
Reeves, Nicholls, & McKenna	2009	To describe stressors and coping among adolescent soccer players.	M	12–18	Y	Coping	Problem-focused coping strategies were most commonly observed among these adolescent athletes.
Nicholls, Jones, Polman, & Borkoles	2009	To examine sport-related stressors, coping, and emotion among professional rugby players.	M	$M=27$; $SD=5.7$	Y	Coping, emotional intensity	Blocking was coping strategy most used on match days, while increased concentration was used most on training days. Coping effectiveness was higher during training.
Braun-Lewensohn et al.	2009	To explore the use of coping strategies among adolescents in the context of ongoing terrorism.	F/M	12–18	Y	Coping	Adolescents use a wide variety of coping strategies. The most common are leisure activities, spend time with boyfriend/girlfriend, and think of what is good.
Martyn-Nemeth, Penckofer, Gulanick, Velsor-Friedrich, & Bryant	2009	To examine the relationship of self-esteem, stress, social support, and coping related to unhealthy eating behavior and depressive mood in adolescents.	F/M	14–18	N	Unhealthy eating behavior	Approach coping was endorsed by most participants (70%) followed by avoidant coping (30%). About 25% of the youth using food as a coping mechanism had positive correlation with higher body mass index.
Feagans Gould, Hussong, & Keeley	2008	To evaluate the reliability and validity of the ACPI.	F/M	10th grade $M=14.8$	Y	Coping, mood, anxiety	Support for the ACPI as a promising measure of adolescents' coping responses to peer-related stressors.
Puskar & Grabiak	2008	To identify rural youth coping responses.	F/M	14–17	Y	Coping	Coping responses differed significantly by gender.
Franko, Thompson, Affenito, Burton, & Striegel-Moore	2008	To examine the frequency of family meals in childhood and positive health outcomes in adolescence through the mediating link of increased positive coping skills.	F	9–20	Y	Coping, family cohesion	More frequent family meals predicted greater problem- and emotion-focused coping in Years 7 and 8. Problem-focused coping mediated family meals and both stress and disordered eating-related

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
Kaye	2008	To describe strategies employed in coping with stress of pregnancy, motherhood.	F	14–19	N	Coping strategies	Participants showed three major themes of coping strategies: thriving, bargaining, surviving, and despairing.
Nicholls & Polman	2008	To develop a way (think aloud) to measure high stress and coping during performance.	M	$M=16.8$; $SD=1.3$	Y	Coping strategies	Coping strategies varied throughout the course. Golfers may experience up to five stressors before reporting a coping strategy. Think aloud is effective data collection.
Yahav & Cohen	2008	To describe the effect of a cognitive-behavioral intervention for coping with stress in nonclinical adolescents.	F/M	14–16	Y	Coping, anxiety, hostility, self-esteem	The intervention was effective in reducing state anxiety, test anxiety, and behavior symptoms in the intervention groups as compared with the control groups.
Bolgar, Janelle, & Giacobbi	2008	To describe the appraisal and coping strategies of high-trait-anger vs. low-trait-anger adolescent athletes.	F/M	11–18	Y	Coping, trait-anger	Athletes with higher anger control scores reported greater use of problem- and emotion-focused coping responses compared with those who scored lower.
Nicholls, Polman, Levy, Taylor, & Copley	2007	To examine stressors, coping, and its effectiveness as a function of gender, sport played, and skill level.	F/M	18–38	Y	Coping, stressors	Males used blocking. Females used planning, technique-oriented coping. Individual sport athletes used emotion-focused coping. Team athletes used communication.
Rodrigues & Kitzmann	2007	To examine the association between interparental conflict and late adolescents' romantic attachment through analyses of mediating and moderating coping effects.	F/M	18–19	N	Coping, stress response	The association between higher conflict and higher levels of anxious attachment in relationships was mediated by involuntary disengagement coping, but not by other coping responses.
Nicholls	2007	To examine the experiences of an internationally ranked golfer during a	M	16	Y	Coping	The participant adhered to effective coping strategies while also reducing his use of ineffective coping behaviors.

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
Finkelstein, Kubzansky, Captman, & Goodman	2007	training program for coping. To investigate whether psychological resources influence the association between parent education and perceived stress.	F/M	12–20	N	Coping, optimism, stress	Higher optimism (beta=.58, $p<.0001$) and engagement coping (beta=.19, $p<.0001$) were associated with less stress and higher disengagement coping was associated with more stress (beta=.09, $p<.01$).
Kaye, Ekström, Johansson, Bantebya, & Mirembe	2007	To describe strategies pregnant adolescents use in coping with domestic violence.	F	Not specified	Y	Coping	Coping strategies adopted by pregnant adolescent survivors of domestic violence range from problem-focused to emotion-focused approaches.
Callaghan	2007	Case study to examine the coping of an adolescent with cancer.	F/M	14	Y	Coping	The adolescent showed positive coping and adaptation through symptom control, hope, denial, peer identity.
Kuo, Roysircar, & Newby- Clark	2006	To report findings from three studies utilizing the CCCS instrument: development, factor analysis, and use.	F/M	Study 1: 12–19; Study 2: $M=22$; Study 3: $M=23$	Y	Coping, Acculturation, and stress	Less acculturated cohorts report higher collective and avoidance coping scores. Coping strategies varied by spiritual/religious affiliation.
Israelashvili, Gilad-Osovitzki, & Asherov	2006	To examine the relationship between female adolescents' suicidal behavior and their mothers' ways of coping.	F	12–18	Y	Coping, mother's coping	Mothers use more problem-focused coping while adolescents endorse more disengagement coping.
Turner, Kaplan, & Badger	2006	To identify factors of adaptive functioning, well-being, roles of maternal mutuality, and after-school programming among outpatient and community Hispanic girls.	F	12–20	N	Factors related to elevated suicide rates	Outpatient Hispanic sample demonstrated fewer coping skills than community sample of adolescent Hispanic females.
Li, DiGiuseppe, & Froh	2006	To examine the roles of coping and masculinity in rates of depressive symptoms	F/M	14–18	Y	Coping, masculinity	Being female, high ruminative coping and low distractible and problem-focused coping increase risk of depression.

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
Brown & Ireland	2006	among girls compared with boys. To describe the relationship between coping style and well-being in adolescent prisoners.	M	16–20	Y	Coping, well-being	Coping style influences levels of depression in incarcerated adolescents. Changes in coping style indicate adaptation to deal with the initial period of incarceration. Prisoners' change from emotion-based coping towards detachment coping was associated with less distress.
Sung, Puskar, & Sereika	2006	To evaluate the coping levels of rural adolescents and gender differences of coping and psychosocial factors.	F/M	14–18	N	Depression, self-esteem, anxiety, anger	Significant relationships were observed between coping strategies and psychosocial factors. Higher levels of avoidance coping were endorsed than normative samples.
Yi, Smith, & Vitaliano	2005	To evaluate how coping correlates with resilience in athletes.	F	$M=15.76$, $SD=1.08$	Y	Coping	Resilient athletes endorsed problem-focused coping and seeking social support; nonresilient used avoidance.
Zanini, Forns, & Kirchner	2005	To examine coping behavior in Spanish adolescents.	F/M	12–16	Y	Coping	Girls endorsed approach, avoidance, and behavioral responses more than boys. Changes in coping preferences with increased age were observed for both sexes.
Scott & House	2005	To examine the use of approach and avoidance strategies for coping with perceived racial discrimination.	F/M	14–18	Y	Coping, stress	Greater self-reports of distress are related to greater use of internalizing and externalizing coping strategies. Greater self-reports of perceived control over discriminatory experiences are related to greater use of seeking social support and problem-solving coping strategies
Forns et al.	2005	To examine the psychometric properties of the	F/M	12–16	N	Psychometric properties of Spanish CRI-Y	The internal consistency was low to moderate (correlations ranging from 0.06 to 0.40),

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
		Spanish version of CRI-Y form.					demonstrating consistency with an approach- avoidance coping categorization strategy.
Wilson, Pritchard, & Revalee	2005	To describe gender differences in health symptoms and coping strategies.	F/M	10–19	Y	Coping, mood states	Females are more likely than males to use emotion- focused, problem-solving strategies, and avoidant coping.
Tourigny, Hébert, Daigneault, & Simoneau	2005	To measure the effects of a group therapy program for teenage girls reporting child sexual abuse.	F	<i>M</i> =14.6	Y	Coping, trauma, attitudes toward parents	Intervention subjects had significant improvements in coping strategies, empowerment, post- traumatic stress, behavior problems, and relationship with mother.
Ruffolo, Sarri, & Goodkind	2004	To identify risk and protective factors for high-risk adolescent girls.	F	<i>M</i> =15.84	N	Depression, coping	Girls in the community- based closed residential settings used more negative coping behaviors.
Garcia-Grau, Fuste, Miro, Saldana, & Bados	2004	To analyze the relationship between coping styles and predisposition to eating disorders in adolescent boys.	M	14–18	N	Predisposition to eating disorders	Self-blame, a strategy within an avoidance dimension, accounted for the most variance in the boys' eating disorders predisposition (18%).
Kendall, Safford, Flannery- Schroeder, & Webb	2004	To evaluate the maintenance of outcomes of children who received a 16- week cognitive behavioral treatment for anxiety.	F/M	15–22	Y	Coping and anxiety	Significant improvements in coping were observed over time, <i>F</i> (2, 68)32.78, <i>p</i> <.001, and improvements in anxiety that were sustained over time.
Vaughn & Roesch	2003	To examine the relationship between coping and psychological/ physical health in minority adolescents.	F/M	14–18	Y	Coping, stress, depression, physical health	Culture-specific socialization may explain differences in preferred coping strategies identified between Mexican-America and Asian youth.
Puskar, Sereika, & Tusaie- Mumford	2003	Test the effectiveness of a group, CB intervention for rural youth.	F/M	14–18	Y	Coping	Some improved coping skills and reduced depressive symptoms in intervention group.
Dickinson, Coggan, & Bennett	2003	Test the feasibility of the TRAVELLERS intervention.	F/M	13–14	N	Self-esteem, distress	Targeted interventions provided within a supportive school environment can contribute to protective

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years); data provided in article	Coping as primary outcome?	Dependent variables	Coping results
Garcia-Grau, Fuste, Miro, Saldana, & Bados	2002	To examine the relationship between coping styles and eating disorders.	F	14–18	Y	Coping, eating disorders	factors such as coping strategies, help-seeking behavior, and self-esteem. Avoidance coping accounted for the most variance (29%) in the girls' eating disorder predisposition.
Wills, Sandy, & Yaeger	2002	To identify factors that moderate therelationship between substance use levels and related problems.	F	10th grade; Study 1: $M=15.4$, $SD=0.8$; Study 2: $M=15.5$, $SD=0.7$	N	Substance use, self-control	Coping motives had a moderating effect on self- control. Additional moderation effects described the correlation of substance use control and conduct problems.
Dalton & Pakenham	2002	To describe the utility of a stress and coping model of adaptation among homeless adolescents.	F/M	13–18	Y	Coping, stress	Healthy adjustment was related to higher levels of coping resources, self- efficacy beliefs, productive coping, and lower levels of threat appraisal and nonproductive coping
Meijer, Sinnema, Bijstra, Mellenbergh, & Wolters	2002	To examine how coping styles and locus of control contribute to predicting psychosocial adjustment in adolescents with a chronic illness.	F/M	13–16	N	Locus of control, coping, psychosocial adjustment	The coping styles "seeking social support" and "confrontation" predicted positive social adjustment. The coping style "depression" was a predictor for low self- esteem and high social anxiety.
Steiner, Erickson, Hernandez, & Pavelski	2002	To examine the relationship of coping and health outcomes.	F/M	$M=15.9$; $SD=1.16$	Y	Coping styles, risk taking behavior	Approach coping correlated negatively with indicators of health problems and health risk behaviors whereas avoidance coping correlated with these outcomes.
Führ	2002	To examine the appearance of humor as a coping tool in early adolescence.	F/M	10–16	Y	Coping, humor	Boys tend to use more aggressive and sexual related coping humor. Girls prefer to get cheered up by humor. This trend increased with age for girls but not for boys.
Zaff, Blount, Phillips, & Cohen	2002	To examine how ethnicity, identity, and self-construal	F/M	7th graders, $M=12.5$, $SD=0.68$	Y	Coping	Ethnicity is not associated with coping, but ethnic identity and self-construal

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
Lewis & Brown	2002	contribute to the use of coping strategies across situations. To describe the coping strategies of female adolescents infected with HIV or AIDS.	F	15–21	Y	Coping	are positively associated with psychological adjustment. Coping strategies included listening to music, thinking about good things, making your own decisions, sleeping, trying to deal with problems on your own, eating, daydreaming, and praying.
Lewis & Frydenberg	2002	To examine the relationship between youth's failure to cope and coping styles.	F/M	11–18	Y	Coping, stress	Young people who coped less successfully used more emotion-focused strategies.
Roder, Boekaerts, & Kroonenberg	2002	To assess and validate the SCQ-C.	F/M	8–12	Y	Coping strategies	Five scales of coping strategies were found to be reliable with school- and asthma-related stressors: Approach, Avoidance, Seeking Social Support, Aggression, Crying.
Wadsworth & Compas	2002	To examine how poor adolescents cope with economic strain and family conflict, and to observe how coping is related to psychological adjustment.	F/M	7th to 12th graders	Y	Coping, responses to stress	Coping mediated the relationship between family conflict and adjustment. Primary and secondary control coping were associated with fewer adjustment problems.
Muris, Schmidt, Lambrichs, & Meesters	2001	To examine the role of protective and vulnerability factors in the development of depressive symptoms.	F/M	13–19	Y	Coping, depression, stress	Coping styles and self-efficacy mediated the relationship of parental rearing behavior and depressive symptoms.
Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman	2000	To describe the psychometric properties of the RSQ.	F/M	11–19	N	Coping, reactivity	Concurrent validity was established through correlations with another measure of coping, heart rate reactivity, and correlations of self- and parent-reports of stress.
de Anda, Baroni, Boskin, Buchwald, Morgan, Ow, et al.	2000	To examine stress and coping among urban 10th and 11th grade high school students	F/M	10th and 11th graders	Y	Coping, stress	Low levels of coping were reported. Coping strategies differed by gender and ethnicity.

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
Siqueira, Diab, Bodian, & Rohnitzky	2000	To examine stress and coping methods by smoking status among an inner-city, clinic-based, adolescent population.	F/M	12–21	N	Coping, smoking status	Current smokers and experimenters were more likely to use negative coping methods and less likely to use positive coping strategies than never-smokers.
Murphy, Moscicki, Vermund, & Muenz	2000	To examine the influence of life events, social support, and coping on anxiety and depression among HIV-infected youth.	F/M	13–19	N	Anxiety, depression	Adaptive coping did not moderate this association among HIV-infected adolescents. Both satisfaction and adaptive coping style were associated with decreased depression.
McCarty et al.	1999	To examine how cultural values and traditions influence the development of coping styles.	F/M	6–14	Y	Coping	Thai children reported more than twice as much covert coping as American children for stressors involving adult authority figures.
Schraedley, Gotlib, & Hayward	1999	To examine the factors associated with elevated levels of depressive symptoms.	F/M	9–20	N	Depression	Coping styles were associated with depressive symptoms.
Steele et al.	1999	To determine if avoidant and emotion-focused coping strategies at one point in time would predict increased frequency of self- and mother-report behavior problems.	F/M	6–11	Y	Coping, depression	There was no observed change in the mean frequency of self-reported coping strategies over the 3-year study period. Child-reported externalizing problems predicted changes in coping strategies over time.
Dumont & Provost	1999	To investigate group differences on self-esteem, social support, different strategies of coping, and social life.	F/M	<i>M</i> =14	Y	Coping, depression, social support	Resilient adolescents had higher scores on problem-solving coping strategies than adolescents in the other groups.
Lengua, Sandler, West, Wolchik, & Curran	1999	To examine the effects of children's temperament on postdivorce threat appraisals, coping, and psychological symptoms.	F/M	9–12	Y	Coping, threat appraisal, depression	Negative emotionality was not related directly to coping. Significant indirect effects of negative emotionality on active and avoidant coping through perceived threat were found in the child-report model.

Authors	Year	Purpose/aim	Sample (males and/or females)	Age range (years; data provided in article)	Coping as primary outcome?	Dependent variables	Coping results
Recklitis & Noam	1999	To describe the psychological development, coping strategies, and symptoms in psychiatrically hospitalized adolescents.	F/M	All over 12 years; $M=14.04$; $SD=1.03$	Y	Coping strategies, psychological development, symptoms	A avoidance and ventilation coping strategies were associated with increased behavior problems and lower levels of ego development. Problem solving and interpersonal strategies were associated with fewer symptoms. Significant gender differences were observed.
de Anda	1998	To evaluate the effectiveness of a 10-week stress management program for middle school students.	F/M	12–14	Y	Coping, stress, anxiety	Intervention participants showed greater degree of improvement in two primary outcomes: cognitive control coping and relaxation methods.
de Anda et al.	1997	To describe the experience of stress, stressors, and coping strategies among middle school adolescents.	F/M	12–14	Y	Stress, coping, anxiety	The adolescents did not perceive their coping strategies to be very effective. Adaptive coping strategies were more effective in reducing stress than maladaptive coping.

Note. ACPI= Adolescent Coping Process Interview; CB= cognitive behavior; CCCS, Cross-Cultural Coping Scale; CRI-Y, Coping Reactions Inventory-Youth Version; RSQ, Responses to Stress Questionnaire; SCQ-C= Stress and Coping Questionnaire for Children; TRAVELLERS.

Table 2
Coping Measurement: Instrument Details, Coping Definitions, and Use of Theory

Authors	Coping measures (number of items; Cronbach's alpha, if provided)	Coping definition	Theory used
Murphy, Mosicki, Vermund, & Muenz (2000)	A coping scale for dealing with illness (.76–.89)	The use of cognitive and behavioral efforts to manage challenging life events.	No theory identified
Lewis & Brown (2002)	Adolescent Coping Orientation for Problem Experiences (A-COPE [.50–.75])	The things people do to master, tolerate, and minimize life strains or demands: a constantly changing process involving cognitive and behavioral efforts deployed to manage specific external and or internal demands that are appraised as stressful.	No theory identified
Recklitis & Noam (1999)	A-COPE (54 items; .60–.75)	A quantitative response to stress, but tied to the ways in which individuals organize and make meaning of themselves and important relationships.	Loevinger's model and measure of ego development
Faggans Gould, Hussong, & Keeley (2008)	A-COPE (> .72 for all scales except "passive avoidance" = .60)	A volitional, goal-oriented behavior aimed at easing negative affect (emotion-focused coping) and/or altering the stressful relationship between the person and the environment (problem-focused coping).	The role of the temporal unfolding of strategy use and co-occurring emotional arousal
Finkelstein, Kubzansky, Capitman, & Goodman (2007)	A-COPE (5 out of 12 scales < .60)	Engagement coping: responses that acknowledge stressful thoughts and emotions; disengagement coping: responses that are oriented away from thoughts and emotions.	Reserve capacity
Li, DiGiuseppe, & Froh (2006)	Adolescent Coping Scale (ACS [79 items; .70–.84])	Problem-focused coping: thoughts/action initiated to deal directly with the stressor; emotion-focused coping: thoughts/actions initiated to deal with one's emotions associated with the stressor.	A model was designed and tested through path analysis
Braun-Lewensohn et al. (2009)	ACS (.56–.91), Youth Self Report (YSR [112 items])	The actual effort that is made in the attempt to render a perceived stressor more tolerable and minimize the distress induced by the situation.	Emotion-focused coping models
Garcia-Grau et al. (2002)	ACS (.54–.80)	No definition provided.	No theory identified
Garcia-Grau et al. (2004)	ACS (.54–.80)	Intropunitive avoidance: a style characterized by avoiding the problem and coping nonadaptively with the motions that the problems generate.	No theory identified
Dalton & Pakenham (2002)	ACS, Coping Reactions Inventory (CRI [60 items])	The ways in which people manage demands that are appraised as taxing one's resources.	Stress and coping model Lazarus and Folkman
Lewis & Frydenberg (2002)	ACS (.56–.86)	[Coping and emotion] are in a reciprocal dynamic relationship.	Multiple resource model

Authors	Coping measures (number of items; Cronbach's alpha, if provided)	Coping definition	Theory used
Ruffolo, Sarri, & Goodkind (2004)	Adolescence Interpersonal Competence Questionnaire (AICQ)	No definition provided.	Risk-focused approach
de Anda et al. (1997)	Adolescent Stress and Coping Measure (ASCM [129 items; .90])	Strategies in dealing with stressors.	Theoretical model of stress
de Anda (1998)	ASCM (.87–.95)	Adaptive coping strategies: relaxation, distraction, help-seeking, cognitive control and affective release; maladaptive coping strategies: denial, withdrawal, confrontation, aggressive behavior and substance abuse.	Relational model
Martyn-Nemeth, Penckofer, Gulanic, Velsor-Friedrich, & Bryant (2009)	Coping Across Situations Questionnaire (CASQ [6 items; .94])	Approach: active problem solving; avoidant: passive responses to withdraw.	Self-esteem, stress, and social support were conceptualized as antecedents to the coping process; self-esteem is internal resource, social support is external resource
Lengua, Sandler, West, Wolchik, & Curran (1999)	Children's Coping Strategies Checklist (CCSC [65–88])	Cognitions to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.	Direct and indirect effects of temperament on the threat appraisals, coping, and psychological symptoms
Bolgar, Janelle, & Giacobbi (2008)	Coping Flexibility Questionnaire (CFQ)	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.	Lazarus
Führ (2002)	Coping Humor Scale (CHS [7 items; .60–.70])	Contending with unpleasant aspects of reality ... based on cognitive processes that do not reject or ignore the demands of reality.	Coping humor
Israelashvili, Gilad-Osovitzki, & Asherov (2006)	Coping Orientation for Problem Experiences (COPE [48 items; .65–.90]), Active Coping Test (30 items)	No definition provided.	Maternal model of positive coping behavior
Vaughn & Roesch (2003)	COPE (60 items; .38–.91)	No definition provided.	No theory identified
Wilson, Pritchard, & Revalee (2005)	COPE (28 items)	A set of behavioral and cognitive responses that are designed to minimize the demands of a stressful situation.	Lazarus
Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman (2000)	COPE	Responses that are experienced as voluntary, under the individual's control, and involving conscious effort.	Multidimensional model of responses to stress
Siqueira, Diab, et al.	Coping Measures Scale (47 items)	No definition provided.	No theory identified
Zanini, Forns, & Kirchner (2005)	Coping Reactions Inventory [CRI (48 items) (.71–.77)]	The constantly changing cognitive and behavioral efforts made by the subject to manage ... the specific external or internal demands which arise b/w the person and the environment.	Lazarus and Folkman
Sung, Puskar, & Sereika (2006)	Coping Reactions Inventory-Youth Version (CRI-Y)	No definition provided.	No theory identified

Authors	Coping measures (number of items; Cronbach's alpha, if provided)	Coping definition	Theory used
Steiner, Erickson, Hernandez, & Pavelski (2002)	CRI-Y (.46-.54)	The conscious cognitive and behavioral efforts activated to mediate a challenge given specific demands.	Moos' model
Puskar & Grabiak (2008)	CRI-Y (.69-.79)	Approach coping: cognitive and behavioral efforts to master or resolve problems; avoidance coping: cognitive and behavioral efforts to avoid thinking about a stressor.	No theory identified
Forns et al. (2005)	CRI-Y (.40-.63)	Cognition as a coping method: reflecting or thinking; action or behavioral coping: emotional discharge or seeking alternative rewards.	Moos' Coping Response
Puskar, Sereika, & Tuscia-Mumford (2003)	CRI-Y (.69-.79)	Responses to stress.	No theory identified
Franko, Thompson, Affenito, Barton, & Striegel-Moore (2008)	Coping Strategies Indicator (CSI [.67-.83])	No definition provided.	No theory identified
Brown & Ireland (2006)	Coping Strategies Questionnaire (CSQ [60 items])	Cognitive and behavioral efforts to mitigate the effects of stressors.	Appraisal-based coping models
Kendall, Safford, Flannery-Schroeder, & Webb (2004)	Coping Questionnaire for Children [CQ-C]	No definition provided.	Cognitive behavioral therapy
Turner, Kaplan, & Badger (2006)	KIDCOPE (10 items)	No definition provided.	Mutuality
Zaff, Blount, Phillips, & Cohen (2002)	KIDCOPE (.41-.83)	No definition provided.	Cross-situational
Kuo, Roysircar, & Newby-Clark (2006)	Stress Coping Scale (SCS [24 items; .74]), Cross-Cultural Coping Scale (CCCS [34 items; .88])	No definition provided.	No theory identified
Wadsworth & Compas (2002)	Responses to Stress Questionnaire (RSQ [8 items; .80-.88]), Youth Self Report (YSR [.86-.90])	Conscious volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances.	Coping as a mediator of the stress- psychopathology relationship
Rodrigues & Kitzmann (2007)	Response to Stress: Family Conflict Version (57 items; .76-.91)	Conscious volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances.	Attachment theory
Steele et al. (1999)	Schoolagers Coping Strategies Inventory (SCSI [26 items; .76]), YSR	The cognitive and behavioral skills used by the individual to manage internal or external events appraised as exceeding available resources.	No theory identified
Roder, Boekaerts, & Kroonenberg (2002)	Stress and Coping Questionnaire for Children (SCQ-C; .60-.78)	No definition provided.	Lazarus and Folkman
Scott & House (2005)	Self-Report Coping Scale (SRCS [34 items])	Approach oriented: cognitive attempts to change the manner in which a stressor is understood or perceived and behavioral efforts to directly resolve a stressor or its consequences; Avoidance oriented.	Approach/avoidant

Authors	Coping measures (number of items; Cronbach's alpha, if provided)	Coping definition	Theory used
Meijer, Sinnema, Bijstra, Mellenbergh, & Wolters (2002)	Utrecht Coping List-Adolescent version (UCL-A [47 items; .63-.81])	cognitive attempts to minimize or deny a stressor and behavioral efforts to avoid or withdraw from a stressor. Active coping strategies: making decisions, seeking social support, and talking about problems with friends; avoidance or depressive coping behaviors characterizes people with less effective coping styles.	Risk resistance
Muris, Schmidt, Lambrichts, & Meesters (2001)	UCL-A (44 items; .42-.82)	Some coping styles screen the individual from stressful life events, whereas other coping styles enhance the individual's vulnerability to mental health problems.	Cognitive diathesis-stress model
Yi, Smith, & Vitaliano (2005)	Ways of Coping Checklist (WOCC [45 items])	Cognitive and behavioral measures designed to master, tolerate, or reduce external and internal demands and conflicts.	No theory identified
Tourigny, Hébert, Daigneault, & Simoneau (2005)	Ways of Coping Questionnaire (21 items)	No definition provided.	No theory identified
Dumont & Provost (1999)	Ways of Coping Questionnaire (.76-.85)	The cognitive and behavioral efforts that allow an individual to tolerate, escape, or minimize the effects of stress.	Approach-withdrawal model or Within a problem-emotion focused model
Nicholls, Polman, Levy, Taylor, & Cobley (2007)	Concept map and coping map	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.	The process perspective
Nicholls, Jones, Polman, & Borkoles (2009)	Diary: open-ended coping response section, a Likert-type evaluation of coping effectiveness	No definition provided.	No theory identified
Schraedley, Gotlib, & Hayward (1999)	List of 18 coping strategies and typical use (.63-.76)	No definition provided.	No theory identified
Wills, Sandy, & Yaeger (2002)	Not named (32 items; .78-.92)	Indicators of problem solving and planning, dependability and attention control, and having a future-oriented time perspective.	Study 1: stress-coping model Study 2: self-regulation model
Kaye, Ekström, Johansson, Bantebya, & Mirembe (2007)	Not described	Minimizing damage: minimizing the impact or severity of violence; withdrawal: leaving the relationship, social withdrawal or resignation to fate; retaliation: revenge and fighting back; seeking help or social support.	Escaping the triple trap
Dickinson, Coggan, & Bennett (2003)	Not described	An important mediator between stressful life events and mental and emotional well-being.	Theory involves coping, which has been conceptualized as an important mediator between stressful life events and mental and emotional well-being
Callaghan (2007)	No coping instrument used	The constantly changing cognitive and behavioral efforts to manage specific external and internal demands that are	Lazarus and Folkman

Authors	Coping measures (number of items; Cronbach's alpha, if provided)	Coping definition	Theory used
Nicholls (2007)	No coping instrument used	determined to be taxing or as exceeding the resources of the person. Cognitive: rationalizing, reappraising, blocking, and positive self-talk; behavioral: going through a pre-shot routine; emotional: breathing exercise, physical relaxation, and seeking social support.	Lazarus
Reeves, Nicholls, & McKenna (2009)	No coping instrument used	Problem-focused coping: a person's actions directed at either the self or the environment to change the situation; emotion-focused coping: regulating the emotional responses caused by stress; avoidance: includes behavioral and cognitive efforts to disengage from a stressful situation.	Lazarus' transactional perspective
Nicholls & Polman (2007)	No coping instrument used	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.	Lazarus' cognitive-motivational-relational approach
Kaye (2008)	No coping instrument used	No definition provided.	Stress and coping model in context of domestic violence
Yahav & Cohen (2008)	No coping instrument used	Behavioral and cognitive efforts to deal with stressful encounters.	Cognitive-behavioral model; Stress management model
McCarty & Weisz (1999)	No coping instrument used	No definition provided.	Primary-secondary control model