Role Stress, Coping Style, and Mental Health in Late Adolescence and Early Adulthood: An Empirical Analysis of the Age-Linked Effects of Coping Style on Depressed Mood and Anxiety

Jordan C. Burke
University of New Hampshire, Durham

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Abstract
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Keywords
Anxiety, Chronic Stress, Coping Style, Depressed Mood, Late Adolescent, Young Adult, Mental health

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ROLE STRESS, COPING STYLE, AND MENTAL HEALTH IN LATE ADOLESCENCE AND EARLY ADULTHOOD: AN EMPIRICAL ANALYSIS OF THE AGE-LINKED EFFECTS OF COPING STYLE ON DEPRESSED MOOD AND ANXIETY

BY

JORDAN BURKE
English (MA), Rutgers University, 2009
English (BA), LaSalle University, 2004

THESIS

Submitted to the University of New Hampshire in Partial Fulfillment of the Requirements for the Degree of

Master of Arts in Sociology

September, 2017
This thesis has been examined and approved in partial fulfillment of the requirements for the degree of Masters of Arts in Sociology by:

Thesis Director, Karen Van Gundy, Associate Professor of Sociology

Cesar Rebellon, Professor and Chair of Sociology

Heather Turner, Professor of Sociology

8/21/2017
On [Date of Defense]

Original approval signatures are on file with the University of New Hampshire Graduate School.
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DEDICATION

For my family,

with love always and forever
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I wish to thank Karen Van Gundy, my advisor and mentor, for her guidance throughout this process. When the data stubbornly refused to conform to my expectations, your advice—“There’s a story to tell here Jordan, we just need to find it”—gave me the confidence to shift my focus away from substance abuse. I’ll remember those words of encouragement the next time I’m frustrated with the data. I would also like to thank Cesar Rebellon and Heather Turner for critical insights that helped me shape the direction of this paper. In fact, many thanks to all my professors in the Sociology Department at UNH—each of your courses has made unique contributions to my development as a sociologist. For that I am most grateful.
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ABSTRACT

ROLE STRESS, COPING STYLE, AND MENTAL HEALTH IN LATE ADOLESCENCE AND EARLY ADULTHOOD: AN EMPIRICAL ANALYSIS OF THE AGE-LINKED EFFECTS OF COPING STYLE ON DEPRESSED MOOD AND ANXIETY

BY

Jordan Burke
University of New Hampshire, September, 2017

To what extent does age—that is, late adolescence and young adulthood—influence depressed mood or anxiety? To what extent are age differences between late adolescents and emerging adults explained by differences in coping style? To what extent does coping style moderate the effects of age on depressed mood and anxiety while controlling for chronic stress? I examine data from the Coös Youth Study, a longitudinal research project examining the life-course trajectories of two youth cohorts living in rural New England. Significant differences exist between late adolescents and emerging adults in coping style, stress exposure, and mental health. Relative to late adolescents, young adults show higher levels of problem- and emotion-focused coping, and lower levels of avoidant coping, chronic strain, depression, and anxiety. Age differences in depression and anxiety are not explained by coping style type. However, the data indicate that coping styles interact with age, influencing levels of both depressed mood and anxiety. More specifically, problem-focused coping has a stronger negative effect on depressed mood and anxiety levels during emerging adulthood than in adolescence. Results also indicate that emotion-focused coping is not universally adaptive or maladaptive—findings suggest that emotion-focused coping is associated with higher levels of depressed mood and anxiety in adolescence, but during emerging adulthood, it exerts a buffering influence on these outcomes. I discuss the significance of these findings for the stress process and coping literature.
INTRODUCTION

Anxiety and mood disorders are among the most prevalent mental health concerns today: 32 percent of people will experience some form of anxiety disorder in their lifetime, and nearly 21 percent will endure a mood disorder such as depression (Kessler et al. 2005). Using data from the National Comorbidity Survey Replication study (NCS-R), Kessler and colleagues (2005) show that three quarters of lifetime mental health disorders emerge by 24 years old. Lifetime prevalence and age-of-onset data not only underscore the importance of strengthening research on coping and mental health, but also the significance of examining coping processes in young adulthood. This thesis advances the stress process literature by exploring the association between coping style, chronic stress, and mental health (i.e. depressed mood and anxiety) using a population of rural youth transitioning to adulthood in the wake of the Great Recession. I follow the coping-as-process approach—specifically the Developmental Life-Context Model (LaChapelle and Hadjistavropoulos 2005)—which contends researchers must examine the nature of the stressor and age-related changes in the life-course when analyzing the effect of coping.

Coping is defined as efforts to manage stressors “appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman 1984: 141). I ask whether age influences coping style during this transitional period by comparing two cohorts—late adolescents and emerging adults—separated by only four years in age. Does coping style moderate the effect of age on depressed mood and anxiety, while adjusting for chronic stress? Since age affects role changes, hence influencing stress exposure, and since cognitive development influences the selection or availability of coping strategies in late adolescence (Ahmed et al. 2015), this thesis investigates whether age interacts with coping style to differentially impact mental health. In other words, if coping style does indeed moderate the effect of age on depressive symptomatology and anxiety,
is its influence different in late adolescence (i.e. 17-18 years old) than it is in emerging adulthood (i.e. 21-22 years old)?

Variation in well-being is partially explained by differences in stress exposure, and disparities in stress exposure are structured by social statuses such as gender, race/ethnicity, socioeconomic status (Turner, Wheaton, and Lloyd 1995), or age, the focus of this thesis. Age is a critical variable in examining mental health largely due to changes in role expectations that accompany important age-related transitions (such as graduating high school, as is the case for the younger cohort in this study). Suvisaari and colleagues studied a nationally-representative sample of Finnish young adults (n = 1863); nearly 40 percent had at least one mental health disorder, but as the authors indicate, the odds of a lifetime depressive or anxiety disorder depend on social statuses. Specifically, marriage (or cohabitation), high school graduation, and current employment were all associated with lower odds for lifetime diagnosis of depressive and anxiety disorders (2009: 291-92). Age structures access to social roles—e.g., marriage, education status, and employment—and because age directly affects opportunity, age also significantly affects mental health. As Turner and Lloyd remind us, “society structures both exposure to stressful circumstances and the availability of personal and social resources to cope with them … our social system tends to confer social and psychological resources on some of its members while exposing those same individuals to fewer potentially harmful experiences” (1999:391). This thesis considers a variety of different role stressors—i.e. stress associated with being a student, with being in a relationship, and with one’s job—in an understudied population in the stress literature: Rural youth in late adolescence and young adulthood who are facing critical challenges in a period characterized by uncertainty.
It is critical to strengthen research on mental health in late adolescence and young adulthood precisely because the period’s hallmark is uncertainty—and uncertainty produces stress and anxiety. *Emerging adulthood* is a period characterized by exploration in love and work, by an absence of clearly defined social roles, most notably spouse and parent, and ultimately by change (Arnett 2015, 2000). The possibility for psychological distress is high. Dramatic changes in some social roles—transitioning from school to full-time employment, for example—and delayed onset in other social roles (such as marriage, which, as demonstrated above, is associated with lower levels of psychological distress). Benson and Elder note, “Today social norms guiding the transition to adulthood have weakened considerably, producing greater variability in pathways to adulthood that are often prolonged,” hence “social support and social psychological resources are more important [than they were previously] in facilitating young people’s transition to adulthood” (2011: 1646).

Understanding coping at these periods in the life course is so important because anxiety and depressive symptoms are among the most common mental health concerns in adolescence and emerging adulthood (Costello et al., 2003; Garber et al., 2002; Sterba et al., 2010). In fact, research indicates that between 15 and 20 percent of adolescents experience a psychiatric disorder (Costello et al., 2011). Studies also suggest the importance of studying anxiety and depressed mood separately as outcome variables. Kessler and colleagues (2008), for example, found that the presence of anxiety disorders predicted later onset (and persistence) of depression, but while depression predicted later onset of anxiety, it did not predict persistence. I investigate depressed mood and anxiety as two separate outcome variables in this thesis. This thesis explores coping style and stress exposure by comparing a population of late adolescents—who
are preparing to graduate from high school—with a cohort of young adults four years removed from high school graduation.

Life-course theory is unified by a central premise: “the notion that changing lives alter developmental trajectories” (Elder 1998: 1; emphasis in original). Historical forces shape social trajectories, and for individuals embedded within distinct social contexts, “life choices are contingent on the opportunities and constraints of social structure and culture” (Elder 1998: 2). Pearlin has long called for a “Paradigmatic Alliance” (1996) of stress process and life-course theories (Pearlin & Skaff, 1996; Pearl et al. 2005; Pearl, 2010); he argues that the principal concept of life-course theory is the notion of transitions, more specifically the timing and sequencing of transitions in the life course, transitions that ultimately shape patterns of change (or continuity) in people’s lives (Pearlin 2010). Agency is another critical concept in the life-course framework (i.e. the notion that individuals have the capacity to steer their lives toward achieving specific goals), but decisions are not made in a social vacuum; individuals are embedded in social networks and their relationships may initiate new life-course trajectories (Pearlin 2010). The life-course perspective emphasizes how life opportunities may produce role changes and how chronic stressors are associated with the specific roles individuals take (Wheaton 1994); thus it is important to merge stress process theory with life-course perspectives. This thesis draws upon both life-course theory and the stress process literature to examine stress, coping, and mental health. I ask whether the social roles associated with emerging adulthood engender significant differences in stress exposure, as well as differences in the mental-health-related effectiveness of coping with stress, when compared to late adolescents.

1 Note: In reviewing life-course and the stress process frameworks, Pearlin writes, “Among those making a transition, not everyone makes it at the same age or point in the life course, and variations in the timing of transitions may be relevant to the directions they impose on the life course. The same is true of the sequencing of the transition, which refers to whether it precedes or follows others transitions” (2010: 208).
Since 1970, young adults have delayed assuming the role responsibilities associated with marriage and parenthood, largely in response to “revolutionary” changes in technology, sexual norms, women’s rights, and youth culture (Arnett 2000, 2015). Arnett conceptualizes emerging adulthood as a unique phase in the life course distinguished by five features: identity exploration, instability, self-focus, feeling in-between, and possibilities/optimism. It is a period characterized by extraordinary excitement and anxiety, an unsettling time of transition. In other words, historical and social change has cleared new pathways and new pathways have led to the development of a distinct period in the life course. This thesis is theoretically grounded in the life-course perspective and the concept of emerging adulthood. It examines differences in coping style among late adolescents and emerging adults, and it does so during a significant time of transition—for both cohorts of the study population and the rural county they call home.

The population under study includes young people from Coös County, a rural section of New Hampshire’s North Country, who are transitioning to adulthood in the aftermath of economic downturn. As other parts of New Hampshire rebound and excel following the recession, Coös County has not. In 2014, for example, New Hampshire ranked 7th nationally with a median household income of $66,469 (compared to $53,657 in the United States); the median household income for Coös, however, was $42,491, the lowest in the state. In 2015, Coös County had a poverty rate of 16.1 percent, again the first in the state (New Hampshire had an overall rate of 8.4 percent). The findings on educational attainment are also striking: 13.4 percent of Coös County residents did not receive a high school degree or its equivalency, again, the first in the state; only 17.8 percent of residents had earned a bachelor or graduate degree, the lowest in the state by nearly 10 percent². Coös County youth are entering emerging adulthood in

---
² Note: Sullivan County is next lowest county in the state, registering at 27.4 percent.
a time of economic decline and labor change, and simultaneously, these young people are presented with significant role changes. Many will go from student to employee, for example, or from living with parents to experiencing a sense of domestic independence for the first time. The emerging adults in this population are likely to encounter a level of stress exposure very different from the late adolescents, even though they are separated by only four years; indeed, the nature of the stressors will also vary by the roles performed in these two distinct periods in the life course. The population under study provides a unique research opportunity: Do significant age-related differences in stress exposure exist between late adolescents and emerging adults, particularly in rural settings suffering from economic decline and outmigration (Van Gundy & Mills 2013)? Do significant age-related differences in coping styles exist? To what extent does variation in stress exposure and coping style affect levels of depressed mood and anxiety in these cohorts?

The North Country context is critical for two reasons: First, poverty is associated with higher levels (and different types) of strain (Turner & Avison 2003; Turner, Wheaton, and Lloyd 1995), and though the median household income is well over poverty threshold, Coös County has a poverty rate of 16%, nearly double New Hampshire’s rate. Second, social context influences the extent to which psychosocial resources are available to assuage the deleterious impact of environmental stressors. Research shows that health-promoting resources—e.g. social support, self-esteem, and mastery—tend to be lower among disadvantaged groups (Thoits 1995; Turner, Taylor, and Van Gundy 2004; Van Gundy & Mills 2013). Social context also influences the types of job opportunities available, which is particularly salient considering that many in the study population are completing their education, whether high school or college. Ultimately, this thesis is important because it examines an understudied population (i.e.
emerging adults) navigating a unique period (i.e. stress-inducing and characterized by experimentation) period in the life course in an understudied context (i.e., the rural Northeast).

SPECIFIC AIMS

Research on coping strategies in emerging adulthood has not received the same attention as research on coping in adolescence, perhaps due to the brief academic existence of emerging adulthood as a concept (Arnett first published on the subject in 2000). Yet, as Schulenberg and colleagues note, young adults undergo “extensive changes in nearly all aspects of life within a few short years” (2004: 804); thus, understanding differences in coping styles and their effectiveness among adolescents compared to emerging adults could help shed light on the stress process in these early stages of life course. Despite its developmental significance, we know surprisingly little about how emerging adults cope with stress; indeed, as Syed and Seiffge-Krenke recently pointed out, “we lack studies reporting continuity or change in coping behavior during the transition period” from adolescence to emerging adulthood (2015: 117).

Strengthening research on coping styles and stress exposure during the transition to adulthood is important because it is a time period characterized by both internal developmental transitions—Schulenberg and colleagues (2004: 801) emphasize the “biological, physical, cognitive, emotional, and identity related” changes that transpire—and external developmental transitions resulting from changes in social roles and contexts. This thesis investigates age-related effects on coping style, stress exposure, and depressed mood and anxiety because the transition to adulthood involves “a series of changes involving perspective taking, emotional regulation, identity, independence, affiliation (e.g., transitions in parental, peer, and romantic involvements)
and achievement (e.g., transitions from school to work)” (Schulenberg et al. 2004: 801). The thesis is framed by four research questions (see Figure 1 below for the causal model):

1. To what extent does age (late adolescence vs. emerging adulthood) influence depressed mood or anxiety?
2. To what extent are age differences (late adolescent vs. emerging adulthood) in depressed mood or anxiety explained by age differences in three coping style types: problem-focused, emotion-focused, and avoidant?
3. To what extent does coping style moderate the effects of age on depressed mood and anxiety?
4. To what extent do observed patterns hold with statistical adjustment for chronic stress?

**Figure 1: Causal Model**

![Causal Model Diagram]

*Figure 1 depicts how coping style mediates and/or moderates the age-mental health relationship*

**LITERATURE REVIEW**

*Age and Mental Health*

The period of late adolescence—generally 15 to 18 years old—is characterized by dramatic shifts in independence. New stressors emerge from a variety of sources during this period. Geographic mobility is enhanced as youth gain driver’s licenses, begin to work part-time, and start to date socially. Emerging adulthood occurs between 19 and 30 years old, but in some contexts—urban professionals in particular—the period even continues into the early thirties (Arnett 2015). Arnett (2000, 2015) argues that demographic changes—primarily trends in the
delayed onset of marriage and parenting during the last several decades—has created a new phase in the life-course that is distinct from late adolescence or even young adulthood: “It is only in the transition from emerging adulthood to young adulthood in the late twenties that the diversity [i.e. in life path choices] narrows and the instability eases, as young people make more enduring choices in love and work” (Arnett 2000: 471). The older cohort investigated in this thesis is comprised of 21 and 22-year-olds exploring college, full-time work, cohabitation, and other new challenges. I compare late adolescents and young adults (I refer to the older cohort as young adults rather than emerging adults throughout this paper) to investigate whether disparate transitional contexts affect stress exposure. Cohorts are also compared to examine whether age-related changes affect coping style, and thus, levels of depressed mood and anxiety.

I analyze two mental health outcomes—depressed mood and anxiety—to explore the coping styles of late adolescents and young adults. The DSM-V defines Generalized Anxiety Disorder as “Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least six months, about a number of events or activities (such as work or school performance). The individual finds it difficult to control the worry” (American Psychiatric Association 2015). Beesdo and colleagues distinguish adaptive and maladaptive anxiety:

*Anxiety* refers to the brain response to danger, stimuli that an organism will actively attempt to avoid. This brain response is a basic emotion already present in infancy and childhood, with expressions falling on a continuum from mild to severe … anxiety becomes maladaptive when it interferes with functioning, for example when associated with avoidance behavior, most likely to occur when anxiety becomes overly frequent, severe, and persistent. Thus, pathological anxiety at any age can be characterized by persisting or extensive degrees of anxiety and avoidance associated with subjective distress or impairment. (2011: 484)

In adults, three or more of the following six symptoms must be present for a diagnosis of GAD: restlessness, easily fatigued, difficulty concentrating, irritability, muscle tension, and sleep disturbance. Depressed mood underwent a subtle classification change in the recent DSM-V (2013); it is now described as “sad, empty, or hopeless” whereas in the DSM-IV the phrase was
“sad or empty,” thus hopelessness—a widely recognized risk factor for suicide—is alone sufficient to diagnose depressed mood (Parker 2014).

Salzman (1991) argues that generalized anxiety and other anxiety-related disorders (e.g. phobias, panic attacks, obsessive-compulsive disorders) are more prevalent in young adults than in older individuals. Krasucki and colleagues, however, challenge this perception: “The lowest prevalence … was found for the age group 15-24 years … suggesting that generalized anxiety disorder is rare in adolescence and early adulthood and is more common among older adults, especially women” (1998: 87). Krasucki and colleagues do find that anxiety-related disorders “have their greatest prevalence in younger life,” thus findings on the age-anxiety relationship are somewhat mixed—while the prevalence of generalized anxiety disorder appears to increase with age, anxiety-related disorders are more common in adolescence and young adulthood (1998: 88).

Studies suggest that social anxiety and future performance concerns are predominant during middle-to-late adolescence (Weems, 2008; Westenberg, 2004), and it is during this period in the life course that generalized anxiety disorder begins to emerge (Ohannessian et al., 2017). Studies show that older adults typically have fewer worries than younger adults, but the content of worries is distinctive (Miloyan et al. 2014). Goncalves and Byrne (2013) report that older adults tend to worry about health concerns and their loved ones more frequently, while younger adults are more preoccupied in worrying about their occupation and relationships. Gould and Edelstein (2010) note another important distinction: younger adults report feeling less control over anxiety symptoms than do older adults. Developmental theories contend that “normative developmental periods and tasks” help account for age differences in anxiety symptoms (Ohannessian et al., 2017: 827), but most of this research is conducted during childhood and adolescence (Beesdo-Baum and Knappe, 2012; Burstein et al., 2012).
Sociological research generally finds evidence of a J- or U-shaped relationship between depressed mood and age (Kessler et al., 1992; Mirowsky & Ross, 1992; Ross & Mirowsky, 2008; Schieman, Van Gundy, and Taylor, 2001). Ferraro and Wilkinson (2012) note, however, that some studies have found negative linear relationship (e.g. Schieman, Van Gundy, & Taylor, 2002). Most studies report that depressive symptomatology is high during young adulthood, reaches its lowest point during middle age, and is highest among the oldest of individuals (Ferraro & Wilkinson 2012). Sociological research suggests that the relationship between age and depressive symptoms is shaped by life-course transitions, especially marriage, status changes in employment, and financial status (Mirowsky & Ross, 1992; Ferraro & Wilkinson, 2012).

Turner and Lloyd (1999) find a significant age effect on levels of depressed mood and argue that age mediates through emotional reliance and social support, of which emotional reliance is most important. Avison and Turner (2003) demonstrate chronic strains have a more significant impact on depressive symptoms than eventful stressors because these types of strain represent “enduring difficulties” that occurred recently; thus, the strong association between chronic strain and depressive symptoms is logical. This thesis asks whether age differences in depressed mood exist between late adolescent and young adult cohorts and whether differences in coping style help to explain the association between age and mental health.

Scholars have debated whether generalized anxiety disorder (GAD) and major depressive disorder (MDD) should be collapsed in the same category for DSM-V, particularly since empirical observations suggest a close relationship between the two disorders (Moffitt et al. 2007). GAD and MDD “co-occur beyond chance expectations,” for example (Mineka et al. 1998; Angold et al., 1999; Moffitt et al. 2007). Among all anxiety-related disorders, comorbidity is highest for GAD and MDD (Kessler et al. 1996). Despite these similarities, Moffitt and
colleagues find that “MDD and GAD share some, but not all, antecedent risk factors” (2007: 448). They find GAD is associated with childhood adversity and behavior, whereas MDD is associated with quite different risk factors (i.e. predisposing family history and personality), leading them to the following conclusion: “differential risk factors point to partly different etiologies, which would not be consistent with collapsing the two into one disorder” (2007: 449).

Though this thesis is not based on data used to clinically diagnose GAD and MDD, I consider general anxiety symptoms and depressed mood separately based upon the above findings.

*Coping & The Stress Process*

As stated above, age differences in mental health are arguably attributable to age differences in stress exposure or coping style. Pearlin and colleagues first conceptualized of stress as a process, one in which negative life events and chronic role strains have the capacity to “wear away desired elements of self-concept,” particularly the individual’s sense of personal mastery and self-esteem (1981: 342). Coping and social supports can intervene during this process, thereby attenuating the deleterious impact of stress, but stress is aroused when these psychosocial resources are unavailable. The “stress process” framework (Pearlin 1989, 1999, 2010) contends that well-being is socially patterned by a complex interaction of environmental stressors, social statuses, and psychosocial resources (such as coping strategies and social support). Social statuses—race and ethnicity, gender, occupation, economic status, and even age—structure the experience of stress because they influence the context of daily life. Since social status directly influences the environment, it also bears on the individual’s ability to mobilize moderating resources in coping with stress.

Holmes and Rahe (1967) initially conceived of stress or stressors as “socially undesirable” life events that change the individual’s behavioral patterns, thereby causing social
readjustment. More recently, Wheaton and colleagues distinguished between stressors, stress, and distress. Stressors are defined as “conditions of threat, challenge, demands, or structural constraints that, by the very fact of their occurrence or existence, call into question the operating integrity of the organism;” stressors precipitate stress depending on the circumstances and social context in which the stressor is experienced (e.g., present role demands, work and home environments, or even past experiences with trauma; 2012: 301; emphasis in original).

Thoits (1995) identifies three major forms of stressors commonly investigated in the mental health literature: life events, chronic strains, and daily hassles. Life events are transformative (e.g. divorce or loss of a loved one), hence they require major behavioral readjustments. Daily hassles, though often mistaken for chronic stress, refer to strains associated with the routines of everyday life: “the irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment” (Kanner et al. 1981: 3). The critical distinction is that while daily hassles are associated with occurrences that may produce distress if experienced over extended periods, they are not generally associated with issues such as social position and inequality (Wheaton et al. 2012).

Indeed, chronic stressors represent a different class: First, they “do not necessarily start as an event, but develop slowly and insidiously as continuing and problematic conditions in our social environments or roles”; second, they “typically have a longer time course than life events, from onset to resolution”; and third, chronic stressors are “naturally less self-limiting than life events” (Wheaton et al. 2012: 304). This thesis measures chronic stress using a 51-item inventory developed by Wheaton (1991, 1994) and modified to examine young adult stress exposure (see Turner et al 2004). Stress is captured using nine domains: financial issues, general problems, work, marriage and relationship, parental, family, social life, residence, and
health (Turner, Wheaton, and Lloyd 1995). In this thesis, I ask whether stress exposure is structured by age; more specifically, I ask whether age differences (in late adolescence vs. young adulthood) in stress exposure influence the experience of depressive symptomatology and anxiety. Since chronic stressors are “naturally less self-limiting,” I control for chronic stress to see if patterns of coping by age are attributable to age differences in chronic strain—that is, to see if the findings “hold” when controlling for chronic stress.

Coping Style

Coping has historically been viewed as a response to emotion (Folkman and Lazarus 1988). In the psychological model, coping includes cognitive processes—e.g. repression, suppression, denial, intellectualization, etc.—and problem-solving behaviors aimed at managing distress (Folkman and Lazarus 1988; Vaillant 1977). Folkman and Lazarus emphasize the complexity of emotion and coping responses:

[T]he relationship between emotion and coping is bidirectional, with each affecting the other. The behavioral flow begins with a transaction that is appraised as harmful, beneficial, threatening, or challenging. The appraisal process generates emotion. The appraisal and its attendant emotions influence coping processes, which in turn change the person-environment relationship. The altered person-environment relationship is reappraised, and the reappraisal leads to a change in emotion quality and intensity. Viewed in this way, coping is a mediator of the emotion response. (1987: 466-67)

Pearlin and Schooler first conceptualized coping responses as “things that people do, their concrete efforts to deal with the life strains they encounter in their different roles” (1978: 5). They identify three styles of coping with protective functions: Individuals (1) reduce or altogether remove stressful conditions they find troubling, (2) control the meaning of the experience so that its effects are neutralized, and (3) strive to keep the emotional consequences of stress tractable.

Lazarus and Folkman (1984) extended this conceptualization with a theoretical binary.

Problem-focused coping includes both reflective and behavioral mechanisms, such as defining
the problem, conducting cost-benefit analyses, weighing alternatives, and ultimately, acting (1984: 152)—this conceptualization resembles Pearlin and Schooler’s (1978) first coping response (above). *Emotion-focused coping* includes cognitive processes (i.e., minimization and avoidance) directed at lessening psychological distress; processes geared toward diminishing a threat by “changing the meaning of the situation”; and cognitive strategies directed at increasing emotional distress, such as self-blame (Lazarus and Folkman, 1984: 150). This ideal type subsumes the second and third coping responses identified by Pearlin and Schooler (1978). Roth and Cohen (1986) further deepened the sociological conceptualization of coping. They borrow from the anticipatory threat literature to distinguish an *approach-avoidance model*: “Repression involves an avoidance of anxiety-arousing stimuli and their consequences and is a general orientation away from threat. Sensitization, on the other hand, is the approach toward anxiety-arousing stimuli and their consequences and is an orientation toward threat” (1986: 813). Either strategy may be useful depending on context and type of stressor. In general, as Hampel and Petermann (2005) note, problem-focused and approach forms of coping include strategies aimed at modifying the stressor or stressful situation; emotion-focused and avoidant coping represent strategies that attempt to regulate negative emotions emanating from stressful encounters.

Lazarus and Folkman define coping as efforts to manage stressors “appraised as taxing or exceeding the resources of the person” (1984: 141). Their *transactional perspective* focuses on coping as process-oriented rather than trait-oriented; for Lazarus and Folkman, the *person-environment relationship* is constantly shifting—coping responses may be directed inward and/or outward as changes occur. Coping *behaviors* generally impact the individual’s environment, while internal coping mechanisms may reframe a situation’s “meaning” or produce new “understanding” of the stressful situation (1984: 142). Folkman and Lazarus (1980) find that
problem-focused coping is more prevalent when individuals believe the stressful situation is manageable; conversely, the likelihood of emotion-focused coping increases when the person believes the stressor is beyond his/her control. Gamble (1993) adds to this thread of coping research with the idea of controllability in appraisal. She finds perceptions of control are significant predictors for young adolescents (albeit less so than other personal/situational factors), while concerns about other people are predictive for young adults (1993: 81). In this study, I investigate whether differences in coping exist between the two cohorts. If age-related differences in coping exist, do they help explain age differences in mental health?

Susan Folkman and colleagues (1987) identify two interpretations of coping as a process. The developmental interpretation argues for the existence of “inherent changes” in coping style across the life course that are “stage-related rather than environmentally determined” (Folkman et al., 1987: 171). Folkman and colleagues note three variations on the developmental approach (see note below for brief discussion). The contextual interpretation, on the other hand, posits an environment-centered approach: Individuals encounter different stressor types depending on their stage in the life course, and the context of the stressful event dictates coping response. More recently, LaChapelle and Hadjistavropoulos (2005) argue that researchers must adopt an integrated approach—i.e. the Developmental Life-Context Model—that accounts for the nature of the stressor and age-related changes in the life course. Age-related differences can limit available coping resources, may influence how the individual experiences the stressor (which in

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3 Note: Pfeiffer (1977) proposes that people “regress or become more primitive in their coping behaviors as they grow older,” a process McRae (1982) calls the “Regression Hypothesis” (Folkman et al., 1987: 171). Vaillant (1977) contends that people acquire and develop new coping strategies as they age—part of development is refining one’s use of coping mechanisms based upon experience and continued adaptation to stressful contexts (McCrae calls this the “Growth Hypothesis”). Finally, Jung (1933, 1953) posited that gender differences become more pronounced with age – men become more mild and passive, whereas women tend to become more assertive or even aggressive.
turn may influence coping style), and may contribute to differences in perceptions of controllability (LaChapelle and Hadjistavropoulos 2005: 132). In this thesis, I follow the developmental life context approach to investigate whether age-related differences exist between late adolescents and emerging adults in utilizing problem-, emotion-, and avoidance-focused coping strategies with statistical adjustments for chronic stress.

In “Coping: Pitfalls and Promise,” Folkman and Moskowitz (2004) review thirty-five years of coping scholarship; their conclusions stress the significance of both coping in context and coping as a process. First, the academic literature suggests coping involves appraisal in context: “The coping process is initiated in response to the individual’s appraisal that important goals have been harmed, loss, or threatened. These appraisals are characterized by negative emotions that are often intense. Coping responses are thus initiated in an emotional environment” (Folkman and Moskowitz 2004: 747). Coping responses also unfold in dynamic contexts (Folkman and Lazarus 1985), hence a coping style that works in one stressful situation may be ineffective in managing a different stressor in a different context. Finally, coping involves a complex process (Folkman and Lazarus 1985) and coping responses cannot be considered universally positive or maladaptive (Lazarus and Folkman 1984; Wrosch et al. 2003); instead, “the adaptive qualities of coping processes need to be evaluated in the specific stressful context in which they occur” (Folkman and Moskowitz 2004: 753). Active coping strategies, like problem solving and seeking guidance, have been shown to predict better mental health outcomes (Lazarus 1993; Seiffge-Krenke 2001), while withdrawal coping has been shown to be maladaptive, both in the short and long term (Schulenberg et al. 2004; Seiffge-Krenke 2011; Syed and Seiffge-Krenke 2015). Studies show that avoidance coping, especially over extended periods, is associated with depressive symptoms (Herman-Stahl et al. 1995; Lazarus 1998;
Seiffge-Krenke and Klessingers 2000). This thesis examines coping in a specific context—rural New England youth entering emerging adulthood in a county struggling to revive economically—and as a complex process. It asks whether age-related differences in coping style mediate or moderate the effect of age on mental health. I investigate whether problem-focused, emotion-focused, and avoidance-focused coping styles explain or condition the impact of age on depressed mood and anxiety.

*Problem-Focused Coping in Late Adolescence and Young Adulthood*

While research on problem-focused coping is mixed, studies indicate that it develops with age, but not necessarily in a linear fashion. Studies find that cognitive coping strategies increase more during primary school than middle school (Roecker et al. 1996; Wertlieb et al. 1987). From late childhood to early adolescence, studies show that problem-focused coping is relatively stable (Compas et al. 1988; Donaldson et al. 2000; Hampel and Petermann 2005; Seiffge-Krenke 1993; Wertlieb et al. 1987). Problem-focused coping levels also appear to remain stable during adolescence, regardless of whether the coping style is active or internal (Seiffge-Krenke 1993). Donaldson and colleagues, however, demonstrate that *late adolescents* “report a significantly different pattern of coping” than early and middle adolescents (2000: 355). That is, late adolescents indicate “greater frequency of use for many more strategies than did early and middle adolescents” (2000: 357); this suggests that as stress becomes more diversified and prohibitive, late adolescents expand their coping repertoire. In this thesis, I ask whether significant age-related differences exist in the use of problem-focused coping during the transition from late adolescence to emerging adulthood. If indeed differences do exist, what impact does an increase in problem-focused coping have on depressive symptomatology and anxiety?
Problem-focused coping has been studied in a variety of contexts using samples across the life course. Markstrom and colleagues (2000), for example, studied resiliency among adolescents in rural West Virginia. They conclude that problem-focused coping is a “strong predictor” of resiliency, regardless of gender or race, while avoidance predicted lower resiliency for females but not for males. Trouillet and colleagues (2009) examined a sample of community residents in Canada ranging in age from twenty to ninety. They find that age influences whether problem-focused or emotional focused forms of coping are used: that is, as people get older, they tended to use problem-focused coping less frequently, perhaps due to declines in self-efficacy or perceptions of controllability. Similarly, Folkman and colleagues find that younger people rely on problem-focused forms of coping (e.g., “confrontive coping, seeking of social support, planful problem solving”) more than older individuals (1987: 182). More recently, LaChapelle and Hadjistavropoulos found that increases in age are not associated with increases in problem-focused forms of coping; in fact, in some cases increasing age was associated with a decrease in the use of problem-focused coping (2011: 132).

This thesis examines whether problem-focused coping strategies are more frequently employed in emerging adulthood relative to late adolescence. I hypothesize that young adults will report utilizing problem-focused coping strategies more frequently than late adolescents due to increases in personal autonomy and continued cognitive development. If indeed significant age-related differences in problem-focused coping are found, does this affect mental health (i.e. levels of depressed mood and anxiety)? I also investigate whether problem-focused coping interacts with age to differentially influence mental health outcomes. In other words, does problem-focused coping—that is, identical rates of problem-focused coping—have a different moderating effect on anxiety and depressed mood at 22 years old than at 18?
I hypothesize that problem-focused coping will interact with age due to differences in neurobiological development\(^4\) (Schulenberg et al. 2004) and differences in context, more specifically role transitions (Pearlin 2010). As noted earlier, Pearlin emphasizes the importance of timing and sequencing of life course transitions, not only in life-course theories but for the stress process framework as well. I argue that life-course timing (i.e. neurobiological change) and the sequencing of role transitions (i.e. high school to college and/or work) provide a convincing rationale to test for the existence of an age by problem-focused coping interaction. Furthermore, the chronic stressors (Wheaton 2012) resulting from role transitions will partially account for the interaction.

*Emotion-Focused Coping in Late Adolescence and Young Adulthood*

Based upon a meta-analytic review of emotion regulation and the mental health literature, Özlem Schäfer and colleagues conclude, “the role of emotion regulation in subclinical symptoms of mental disorders in adolescence is not yet well understood” (2017: 261). Since depressive and anxiety disorders are among the most prevalent mental health concerns in adolescence (Polanczyk et al. 2015), it is important to understand how emotion regulation affects these mental health concerns, yet research on emotion-focused coping and life-course development is mixed. Some studies suggest emotion-focused coping strategies begin to develop in childhood, with age-dependent increases found among adolescents (Compas et al. 1988; Frydenberg and Lewis 1993). Conversely, Hampel and Petermann (2005) find that “distraction/recreation,” an emotion-focused coping strategy, decreased with age; age differences were not found in the use

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\(^4\) Schulenberg and colleagues note, “there are normal neurobiological changes that take place during the transition from adolescence to early adulthood, including synaptic pruning of the prefrontal cortex, developmental transformations in prefrontal cortex and limbic brain regions, and continued myelination of intracortical and mesolimbic dopamine systems” (2012: 801).
of “minimization” (2005: 80)—findings that conflict with the work of Compas and colleagues (1993), who found that emotional regulation coping increased with age.

It is important to note that conflicting findings in the literature may result, in part, from differences in conceptualization. Trouillet and colleagues, for example, find that emotion-focused coping was not significantly predicted by age (2011: 546), but their measure includes items commonly associated with avoidance (e.g. “I tried to forget everything”). Thus, confounding may be problematic. In an earlier study, for example, Trouillet and colleagues found “age promotes a greater tendency to use emotion-focused coping as a response to changes in coping resources throughout [the] lifespan” (2009: 364). I therefore differentiate between emotion-focused coping strategies and those associated with avoidance. The measure for emotion-focused coping contains three items characterized as support-seeking strategies (i.e., seeking advice or emotional support from similar others) and two items considered emotion-regulation strategies (i.e. feeling intense emotions and venting those feelings).\(^5\) I explore whether significant age-related differences exist between late adolescents and young adults in utilizing support-seeking strategies and emotion-regulation coping strategies. In other words, are differences found between late adolescents and emerging adults, even within the emotion-focused style of coping?

This thesis compares levels of emotion-focused coping between late adolescents and young adults, which is important because young adulthood—and especially its “emerging” phase in the early twenties (Arnett 2015)—is studied far less frequently than adolescence. Adolescence is characterized by cognitive growth; executive functions and social cognition are not yet fully

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\(^5\) Note: See Aldao and colleagues (2010). They use the term “problem-solving” to describe some of the skills associated with emotion-focused coping. I utilize the term “support-seeking” for two reasons: First, it provides a better description of the type of action associated with the emotion-focused style under investigation in this thesis, and second, using this term avoids confusion with problem-focused coping.
developed (Ahmed et al. 2015). Cognitive development continues in young adulthood (Özlem Schäfer et al. 2017), and since the emotion style of coping includes cognitive elements, it is reasonable to expect developmental changes associated with the use of emotion-focused coping strategies during the transition to adulthood. *Cognitive reappraisal*, for example, is an emotion-focused strategy where an individual seeks to alter the meaning of a situation; it is often associated with lower levels of anxiety and depressed mood in youth (Betts et al., 2009; Easterbrook et al., 2014; Lanteigne et al., 2014). Increased use of *cognitive reappraisal* may help reduce, or protect against, the development of depressive and anxiety symptoms (Özlem Schäfer et al. 2017), so if cognitive strategies continue to develop in the emerging adults in the population under study, will young adults report higher rates of emotion-focused coping strategies than late adolescents? Does emotion-focused coping moderate the relationship between age and depressed mood and anxiety? Does the effect of emotion-focused coping on mental health vary depending on age?

I hypothesize that emotion-focused coping will interact with age in the population under study, largely because continued cognitive development will be associated with increased rates of *support-seeking* behavior in response to stress. Three of five items used to assess emotion-focused coping in this thesis can be classified as support-seeking responses: (1) “You try to get advice from someone about what to do,” (2) “You try to get emotional support from friends or relatives,” and (3) “You ask people with similar experiences what they did.” Each represents a conscious attempt to solve a problem, even if gaining advice and emotional support is the first step toward solving the problem. As with problem-focused coping, neurobiological development and the contexts associated with transitioning roles are expected to account for the age-emotion-focused coping interaction. Cognitive processes are critical in the development of emotion
regulation during the transition to adulthood. Özlem Schäfer and colleagues note that during adolescence, the “domain of high-level executive functions and social processes (e.g., working memory, inhibitory control, abstract thought, decision making, and perspective taking), are subject to significant development” (2017: 262). I predict that this developmental trajectory continues into emerging adulthood. Increases in emotional development (perhaps accompanied by increases in interpersonal confidence and better support sources) will strengthen the ameliorative benefit of the emotion-focused coping style in emerging adulthood: emotion-focused coping will have a stronger moderating effect on depressed mood and anxiety in young adults than in late adolescents.

Avoidance Coping in Late Adolescence and Young Adulthood

Studies on adolescents consistently demonstrate that maladaptive forms of emotion regulation (e.g. avoidance, suppression, and rumination) “may result in prolonged and intensified experiences of negative emotions” (Özlem Schäfer et al. 2017: 269; see also Gross and John 2003; Werner and Gross 2010). Conversely, adaptive forms (e.g. cognitive reappraisal, problem solving, and acceptance) assist adolescents in coping with emotionally challenging situations, hence they can be “particularly protective against psychological symptoms” (Özlem Schäfer et al. 2017: 269; see also McLaughlin et al. 2011). This thesis adds to the literature by exploring the association between age and avoidance-focused coping in emerging adulthood—a developmental period studied less frequently than adolescence.

Studies demonstrate a clear relationship between avoidant coping styles and depressive symptoms (Chan 1995; Gomez 1998; Seiffge-Krenke 2000; Seiffge-Krenke and Klessinger 2000). Seiffge-Krenke (2000) demonstrates that all forms of avoidance coping are associated with higher levels of depressive symptoms in mid and late adolescence. Perhaps more
importantly, she finds evidence of a reciprocal process developing between avoidance coping and depressive symptomatology: “a dysfunctional coping style increases concurrent symptomatology, and high scores of symptomatology lead to an increase in withdrawal at the following year. Hence, a vicious cycle is indicated” (2000: 687). Seiffge-Krenke and Klessinger provide “clear evidence that any kind of avoidant coping, irrespective of whether it is stable or emerges later, leads to a contemporaneous increase of depressive symptoms and even influences later depressive outcome” (2000: 627). Based upon the results of their meta-analysis, Özlem Schäfer and colleagues conclude that avoidance coping is related to negative mental health outcomes in adolescence: “we found a large effect size for the overall [i.e. well-being variable] and the depressive symptoms outcome and a medium effect size for anxiety symptoms, which suggests that the more frequent use of avoidance may be associated with more depressive and anxiety symptoms” (2017: 270). This study adds to the coping literature by examining the association between age, avoidance-focused coping, and depressed mood and anxiety.

Studies show that avoidance—both experiential avoidance and behavioral avoidance—is maladaptive and is a risk factor for psychopathology (Aldao et al. 2010). Both types of avoidance are assessed in this thesis: Behavioral avoidance is measured by the item “You admit you can’t deal with it and quit trying,” while experiential avoidance is measured by the items “You say to yourself ‘this isn’t real’” and “You refuse to believe it has happened.” Unlike problem- and emotion-focused coping styles, none of the avoidance-focused strategies is associated with increased cognitive development; in fact, one might argue that the fantasy element inherent in experiential avoidance dissipates with cognitive development during late adolescence. Thus, I hypothesize that while avoidance-focused coping strategies will certainly prove deleterious for mental health, they will not interact with age.
DATA & CONTEXT

New Hampshire is one of the most rural states in the U.S. (Van Gundy 2006; Van Gundy et al 2011). Coös, New Hampshire’s most rural county located in the northern tip of the state, is undergoing economic decline and job loss—especially in manufacturing—like many rural areas throughout the United States (Colocousis 2008; Osterman 1999). From 1997 to 2003, 1.5 million rural workers lost jobs across the United States, and the manufacturing sector in the northeast experienced job loss at higher rates than the rest of rural America (Glasmeier and Salant 2006). Child poverty rates are also higher in rural areas than urban areas, with the highest rates occurring in the most rural regions (O’Hare and Johnson 2004). The population under study in this thesis is drawn from a struggling county in the midst of economic transition.

This thesis examines data from the Coös Youth Study, a longitudinal research project sponsored with support from the Neil and Louise Tillotson Fund and the National Science Foundation (NSF). The study began in 2008 with a survey of 7th and 11th grade students attending public school in Coös County. Respondents were recruited from all five public school districts in the county; moreover, students from all 16 of the county’s public schools participated (see Van Gundy et al. 2011 for participant recruitment information). The data are therefore representative of an entire population rather than a sample—I investigate the transition to young adulthood using the young population of an entire county in rural New Hampshire. Project participants were asked about academic and career aspirations; attachment to their school, their local community, and the county at large; substance use and instances of depressed mood; stress and mental health; and prosocial (i.e. volunteer work) and deviant behavior.

The Coös Youth Study followed the same respondents for a 10-year period, thus the population of late adolescents and young adults were surveyed again in 2009 (Wave II), when
the older cohort was seniors in high school and the younger cohort became 8th graders. The response rate for Wave I was 83 percent (n=657); for Wave II the follow-up rate was 86 percent (n=565; Van Gundy et al. 2015). Both cohorts were surveyed a third time in 2011, a fourth in 2013, and a fifth time 2015-16. The survey will conclude during the 2017-2018 academic year. This thesis examines Wave IV data (2013; n=514; 62% response rate).

The younger cohort (YC; n = 230) includes 17-year-olds (n = 114) and 18-year-olds (n=111); these individuals comprise the late adolescents under study in this thesis. 53 percent are women (n = 123), and consistent with Arnett’s finding on emerging adulthood and education, more than 75 percent of the YC (n=175) plan to attend college. The older cohort (OC; n = 202) ranges in age from 21 (n = 69) to 24 (n = 1), but a majority is 22 years old (n = 124). 62 percent are women. The OC data are also consistent with Arnett’s conceptualization of emerging adulthood: 40 percent (n = 80) have completed a college or vocational degree and another 41 percent (n = 83) were enrolled in school full-time. There is considerable variation in employment status and living arrangements, suggesting that these young people are exploring a variety of different pathways toward adulthood. Also consistent with the emerging adulthood conceptualization is the distribution of relationship status: 43 percent (n = 88) reported being single while only 5 percent (n = 11) were married, suggesting the period is a time of exploration rather than commitment for these young adults. The data on parenthood are also consistent with emerging adulthood theory: an overwhelming 84 percent of OC respondents do not yet have

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6 For more information regarding recruitment and survey procedures, see Van Gundy and colleagues (2015). These data have also been utilized in Sharp et al. (2014), Tucker et al. (2013, 2014), and Van Gundy et al (2011).
7 The National Center for Education Statistics data (2013) shows that “an exceptionally high proportion of young Americans, nearly 70%, now continue their education beyond high school” (Arnett, 2015: 4).
8 Note on education and the YC: 54 percent plan to attend either a four-year state college or university (n=72) or a four-year private school (n=43) while another 28 percent (n=60) plan to attend community college.
9 Note: Of those enrolled in school, 51 percent attend a four-year state college (n=50), 23 percent attend a four-year private college (n=23), and 18 percent attend a community college (n=18); 8 percent are enrolled in some other type of school.
children.\textsuperscript{10} The young adults under study in this thesis are clearly in a period of transition, thus it is important to understand patterns in coping style, particularly as they relate to anxiety and depressed mood—perhaps the most common mental health symptoms during this life course stage.

ANALYTIC STRATEGY

To conduct the analysis, I utilized data from two waves of the Coös Youth Study. Research indicates that socioeconomic status affects both the individual’s sense of control over life events (i.e. mastery) and their preferred style of coping (Caplan and Schooler 2007). Individuals of lower socioeconomic status typically engage in problem-focused coping less frequently and are more likely to engage in emotion-focused coping than those of higher status (Caplan and Schooler 2007). I control for SES in this thesis while assessing age-related effects on coping and mental health outcomes. The SES measure is drawn from Wave II of data collection (2009; see “Measures” below and Appendix for items) and is based upon the respondent’s family, not his or her independent financial status; it was used in Wave II of the survey but not in Wave IV. Cases missing data on the SES measure from Wave II were therefore not included in the analysis. Given the significance of SES on both personal resources and utilization of coping strategies, I argue this decision is both necessary and justified. To create the final dataset, then, I include only participants who completed both Wave II and Wave IV of the survey; cases missing data on SES (Wave II) are excluded from analysis.

I also encountered missing data when generating the coping style variables. Since coping is an intervening variable in this study, I imputed the mean score of the items respondents did

\textsuperscript{10} Note on parenting: Nearly 12 percent of the OC (n=24) have one child.
answer in the series—that is, the respondent’s mean score for the remaining items—to preserve the respondent’s data. This was necessary because if all items were not answered in the series, Stata recorded my final summed coping variable as missing, thus dropping it from analysis. Imputation on coping style was necessary to avoid further loss of data; however, when multiple items from the series were not answered—whether for problem-, emotion-, or avoidance-focused strategies—I did not impute a mean score. Hence, respondents with missing data on two or more items in any of the three coping style items are dropped from the analysis. To summarize, respondents must complete both Wave II and Wave IV of the survey for inclusion in the final dataset. Respondents who did not answer the SES measure in Wave II were removed from analysis. Respondents who did not fully complete the series of items for depressed mood (15 survey questions) were eliminated. Those who did not complete all items used to assess anxiety (6 survey questions) were also eliminated from the dataset. Finally, where appropriate, I imputed the mean for a missing item in a coping style series. These cuts trimmed the final sample size for analysis to 423, a decision that reduced the dataset considerably (from n = 514).

In the first stage of analysis, I examined descriptive statistics and utilized t-tests to assess whether significant statistical differences existed in use of coping style, chronic stress (i.e. stress exposure), anxiety levels, and depressed mood between the late adolescents and young adults under study. In the second stage of analysis, I used ordinary least squares regression (OLS) to determine the unique impact of each coping style on depressed mood while controlling for age, sex, socioeconomic status, and chronic stress (Wheaton 1994; Turner, Wheaton, and Lloyd 1995). In other words, to examine the effects of age on depressed mood, I estimated separate models for each coping style—problem-focused, emotion-focused, and avoidance-focused—while adjusting for sex, socioeconomic status, and chronic stress. Then I control for chronic
stress to test whether the effect of coping style on the relationship between age and mental health is independent of stress exposure. The third stage of data analysis followed the same procedure for anxiety—three separate models were examined and each model controls for theoretically relevant variables.

In the fourth stage of data analysis, I use OLS to determine the impact of coping when all coping styles were entered in the model for both depressed mood and anxiety, in addition to controlling for sex and socioeconomic status. In the fifth stage of analysis, I tested to see what, if anything, changed once chronic stress is entered in each of the models. Essentially, the goal is to determine the impact of coping style on depressed mood and anxiety when all variables, plus chronic stress, are included simultaneously in the model. The final two stages of data analysis involved analyzing age-by-coping style interaction terms. In stage six, I used OLS to determine if there were any interactions between age and coping style: Does age interact with problem-focused coping in moderating the impact of depressed mood? Does emotion-focused coping demonstrate a similar interaction? Does avoidance interact with age to mediate the effect of depressed mood? In the final stage of analysis, I follow the same procedure to determine whether age-coping interactions influence anxiety levels of late adolescents compared to young adults.

MEASURES

*Depressed Mood*

Depressed mood is measured using 12 items from a modified version of Radloff’s (1977) Center for Epidemiology Studies Depression Scale (CES-D). I follow Turner and colleague’s study (2004: 40) in using the last 30 days as the reference period (instead of the last week), which, as
Turner and colleagues argue, “reduces the possible influence on responses of short-term mood variations” (2004:40). The *depressed mood* measure has four response options: “Not at all” (0), “Occasionally” (1), “Frequently” (2), and “Almost all the Time” (3). Responses are summed to create an index measure of depressive symptomatology where higher scores indicate higher levels of depressed mood (see Appendix I for the 12 items). The distribution of depressed mood is heavily skewed, so I used its natural logarithm, \( \ln{\text{depressedmood}} \), in analysis.

**Anxiety**

Anxiety is measured using six items similar to those found in the DSM-5 (i.e., measuring symptoms of restlessness, fatigue, difficulty concentrating, irritability, muscle tension, and sleep disturbance; see Appendix I for items). Response options are identical to those listed above for depressed mood. Scores for the six items are summed to create a composite measure, \( \text{anxiety} \); higher scores indicate more intense experiences with anxiety. As with depressed mood, anxiety levels were also skewed in the distribution—though not as heavily as depressed mood—so I used its natural logarithm, \( \ln{\text{anxiety}} \), for analysis in this thesis.

**Coping Strategies**

There are a variety of methods for measuring coping styles: Ways of Coping (Folkman and Lazarus 1985; Lazarus and Folkman 1984), the Multidimensional Coping Inventory (Endler and Parker 1990), the Coping Strategies Inventory (Tobin, Holroyd, Reynolds, and Wigal 1989), and the COPE inventory (Carver, Scheier, and Weintraub 1989) among others (see Billings and Moos 1981/1984; Pearlin and Schooler 1978; Stone and Neal 1984). Folkman and Lazarus’s original measurement tool—i.e., The Ways of Coping scale—actually contains more than two categories of coping. As Carver, Scheier, and Weintraub assert, “some emotion-focused coping responses involve denial, others involve positive reinterpretation of events, and still others
involve the seeking out of social support. These responses are very different from each other, and they may have very different implications for a person’s success in coping” (1989:268).

Hence Carver and colleagues (1989) created COPE, a coping measure containing 13 conceptually distinct scales. *Active coping, planning, suppression of competing activities, and restraint coping* fall under the problem-focused coping category but have distinct features. Emotion-focused coping is measured using the *seeking social support scales* (for instrumental reasons and for emotional reasons). Seven additional emotion-focused coping mechanisms are identified—*focusing on and venting of emotions, behavioral and mental disengagement, positive reinterpretation and growth, denial, acceptance, and turning to religion*—most of which have maladaptive potential.

In this thesis, coping is measured in three broad dimensions in this thesis: problem-focused, emotion-focused, and avoidance-focused. I use twelve items from Carver’s Brief COPE (1996), which contains fourteen coping scales, each related to the broader conceptualizations of coping identified above. *Problem-focused coping* is measured using four items from the “Active Coping” “Planning” scale (see Appendix I for list of items). Participant responses are then summed, creating a composite measure where higher scores indicate more frequent use of problem-focused coping. *Emotion-focused coping* is measured using five items from the “Emotional Support” and “Instrumental Support” scales; it also draws from Carver’s “Venting” scale” (see Appendix I). As with problem-focused coping, responses to these items are summed to create the measure; higher scores indicate more frequent utilization of emotion-focused coping. *Avoidance-focused coping* is measured using three items drawn from Carver’s “Denial”

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11 See Carver and colleagues (1989: 268-71) for definitions of each of the 14 coping scales—both problem-focused and emotion-focused.
and “Behavioral Disengagement” scales. These items are also summed, forming a composite measure of avoidance where higher scores indicate more frequent use of avoidance.

**Chronic Stress**

Chronic stress is measured utilizing 43 items (of 51) from Wheaton’s (1994) measure (see also Turner, Wheaton, and Lloyd 1995; Turner et al. 2004; items listed in Appendix I). Chronic stress is meant to tap into role-related stressors: general social stress, stressors emanating from relationship with one’s parents, domestic stressors, discrimination, school stress, relationship and marriage stressors, work-related stressors, and stressors associated with parenting. Each item is measured on a 3-point scale: “Not true” (coded 0) \(\rightarrow\) “Somewhat true” (coded 1) \(\rightarrow\) “Very true” (coded 2). Responses are then summed to create *chronic strain* with a scale ranging from 0 to 51. Higher scores indicate more intense experiences with chronic stress. A majority of the sample experiences low-to-moderate levels of stress (e.g., the mean score is 14.8 out of 51); 26 percent (n = 143), however, report experiencing chronic stress at levels 20 and above on the scale.

**Socioeconomic Status**

To assess socioeconomic status, I use a measure that asks respondents to rate their family’s financial security *and* their satisfaction with their family’s income. It is reasonable to assume that most respondents are still dependent on their parents, to varying degrees, between the ages of 17 and 23, hence I rely on data reported during Wave II of data collection. SES is a composite measure based upon (a) parents’ education level and (b) perceived financial strain, both of which were measured at Wave II in 2009 (see Appendix I). The first factor, *parentsedu*, assesses the highest level of education earned by each parent: “less than high school” (1), “high school” (2), “some college” (3), “associate’s degree” (4) “bachelor’s degree” (5) and “graduate or professional degree” (6). *Parentsedu* is obtained by summing respondent scores on these two
items; I then use the z-scores (standardized scores) of parentsedu. For perceived financial strain, respondents were asked to rate how much money their family has on a scale of 0 to 4 where 0 is “very little money available (0) and 4 is “lots of money available.” The second item asks respondents to rate their satisfaction with their family’s financial situation, again on a scale of 0 to 4 where 0 is “not very satisfied” and 4 is “very satisfied.” The financial strain variable, finstrain, is obtained by summing respondents scores on both strain items; higher scores indicate higher socioeconomic status. Finally, I use the z-score (standardized scores) of finstrain. I generate the SES variable by summing the z-scores of parentsedu and finstrain.

Sex & Age

Sex is a dummy variable coded 0 for females (n = 249; 58%) and 1 for males (n = 183; 42%). Respondents were asked to write in their current age (in years). The sample ranges from 17 years old (n = 114) to 24 years old (n = 1). Most respondents in the younger cohort are either 17 or 18 years old (i.e. seniors in high school), while most in the older cohort are either 21 or 22 (eight are 23 years old).

RESULTS

Table 1 (below) displays the mean scores, standard deviation, and range for each coping style, for chronic stress, and for depressed mood and anxiety. The table also compares mean scores for the late adolescents and young adults (far right). Significant differences exist between late adolescents and young adults across all measures—all three coping styles, chronic stress, and both mental health outcomes. Young adults utilize problem-focused and emotion-focused coping more frequently than do late adolescents (p < .001); by contrast, late adolescents resort to avoidance-focused coping strategies more frequently than the emerging adults (p < .05). The
cohorts also have statistically significant differences in stress exposure and mental health: the data indicate that late adolescents endure higher levels of chronic stress than do young adults (p < .001). Late adolescents report higher levels of depressed mood (mean = 10.1) than do the emerging adults (mean = 8.7; p = .03). They also report an anxiety mean of 6.7 while young adults report a mean of 5.1 (p = .0001).

Table 1: Mean, range, and standard deviation for entire sample and older/younger cohort

<table>
<thead>
<tr>
<th></th>
<th>Sample Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>Young Adults Mean</th>
<th>Late Adolescents Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-focused coping</td>
<td>8.3</td>
<td>3.0</td>
<td>0</td>
<td>12</td>
<td>8.8***</td>
<td>7.8***</td>
</tr>
<tr>
<td>Emotion-focused coping</td>
<td>7.9</td>
<td>3.9</td>
<td>0</td>
<td>15</td>
<td>8.7***</td>
<td>7.3***</td>
</tr>
<tr>
<td>Avoidance-focused coping</td>
<td>1.8</td>
<td>2.1</td>
<td>0</td>
<td>9</td>
<td>1.5*</td>
<td>2.0*</td>
</tr>
<tr>
<td>Chronic stress</td>
<td>14.4</td>
<td>9.6</td>
<td>0</td>
<td>46</td>
<td>12.6***</td>
<td>16.0***</td>
</tr>
<tr>
<td>Depressed Mood</td>
<td>9.4</td>
<td>6.5</td>
<td>0</td>
<td>33</td>
<td>8.7*</td>
<td>10.1*</td>
</tr>
<tr>
<td>Anxiety</td>
<td>5.9</td>
<td>4.4</td>
<td>0</td>
<td>18</td>
<td>5.1***</td>
<td>6.7***</td>
</tr>
</tbody>
</table>

Note: *** (p < .001) ** (p < .01) * (p < .05)

A closer examination of differences in stress exposure—specifically, differences in stressor types—suggests that stressors vary dramatically by age cohort. First, late adolescents experience significantly more stress associated with parents and “family life.” They had a mean score of 4.4 (out of 14) in the stress-associated-with-parents domain, and though this figure is modest, it is nearly twice that reported by the older cohort (mean = 2.4). In stress associated with living at home, late adolescents had a mean score of 2.4 (out of 8) while the young adults report nearly a full point less (1.6). More noteworthy is the experience of discrimination and social stress. Stress associated with discrimination is quite low in our sample—not surprising given the racial and ethnic homogeneity of the sample and the lack of diversity across New Hampshire generally—but late adolescents report experiencing this type of stressor at a higher rate: young adults have a mean of 1.65 (on a scale ranging to 18), and the late adolescents more
than double this rate (mean = 3.4). Predictably, strain associated with school is much stronger for the late adolescents still in high school (mean = 2.7) than for the young adults (mean = 1.4). These stressors—parents, home life, and discrimination/social stress—largely account for the higher levels of chronic stress found in late adolescents when compared with emerging adults.

Table 2 (below) displays OLS regression results for the natural logarithm of depressed mood (i.e. ln(depressedmood)). In the first three models, I control for socioeconomic status, sex, and age; coping styles are entered individually (i.e. problem-focused coping in model 1, emotion-focused in model 2, and avoidance in model 3) to determine the unique contribution each coping style makes in the relationship between age and anxiety. The fourth model depicts the OLS regression results when all three coping style types are added simultaneously. Finally, the fifth model controls for chronic stress. Problem-focused coping and avoidance-focused coping are both statistically significant (p < .001) when entered individually in the model. In model 5, when chronic stress is included, problem-focused coping is no longer significant, suggesting its impact is mediated through chronic stress; avoidant coping remains highly significant (p = .000), however. Finally, model 6 controls for past reports of depressed mood, as measured in Wave II (2009). Past depressed mood (i.e. four years prior) is highly significant (p < .001) and has a coefficient of .23; more noteworthy, however, is that avoidance-focused coping (p < .001) and chronic stress (p < .001) remain significant, even after controlling for past experiences with depressed mood.
Table 2: OLS results for the natural log of depressed mood

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past Depressed Mood</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.23***</td>
</tr>
<tr>
<td>Socioeconomic status</td>
<td>-.06**</td>
<td>-.07***</td>
<td>-.04</td>
<td>-.03</td>
<td>-.00</td>
<td>.01</td>
</tr>
<tr>
<td>Sex</td>
<td>-.25***</td>
<td>-.20**</td>
<td>-.18**</td>
<td>-.19**</td>
<td>-.22***</td>
<td>-.15*</td>
</tr>
<tr>
<td>Age</td>
<td>-.04*</td>
<td>-.05**</td>
<td>-.02</td>
<td>-.02</td>
<td>-.01</td>
<td>.01</td>
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<tr>
<td>Problem-focused coping</td>
<td>-.04***</td>
<td>--</td>
<td>--</td>
<td>-.03*</td>
<td>-.02</td>
<td>-.01</td>
</tr>
<tr>
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<td>--</td>
<td>.01</td>
<td>--</td>
<td>.00</td>
<td>-.01</td>
<td>-.01</td>
</tr>
<tr>
<td>Avoidance coping</td>
<td>--</td>
<td>--</td>
<td>.12***</td>
<td>.12***</td>
<td>.07***</td>
<td>.06***</td>
</tr>
<tr>
<td>Chronic stress</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.03***</td>
<td>.03***</td>
</tr>
</tbody>
</table>

Note: *** (p < .001) ** (p < .01) * (p < .05)

Table 3 (below) displays OLS regression results for the natural logarithm of anxiety (each model follows the same procedure outlined above). Anxiety results are similar to those found with depressed mood: problem-focused coping (model 1) and avoidance-focused coping (model 3) are each significant (p < .001) when entered individually. When all three coping styles are incorporated into the model with the control variables (model 4), problem-focused coping and avoidance-focused coping remain highly significant (p < .001) and their coefficient power is only slightly reduced. Finally, in the fifth model when chronic stress is included, avoidance-focused coping is no longer a significant predictor of anxiety, suggesting that its impact is mediated through the effect of chronic stress; problem-focused coping remains significant (p < .01), however. The dataset did not permit me to control for anxiety in Wave II as I did for depressed mood. It’s worth noting that for depressed mood, when all variables are entered in the model, of the three coping styles only avoidance remains significant. For anxiety, after all variables are accounted for, problem-focused coping is the only style that retains significance. That problem-focused coping does not have a moderating effect on depressed mood but does for anxiety provides further evidence of the need to distinguish between the two in analysis.
Table 3: OLS results for the natural log of anxiety

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Socioeconomic status</strong></td>
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<td>-.09***</td>
<td>-.07***</td>
<td>-.07**</td>
<td>-.04</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>-.22***</td>
<td>-.22**</td>
<td>-.19**</td>
<td>-.18**</td>
<td>-.19**</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>-.05**</td>
<td>-.05**</td>
<td>-.04**</td>
<td>-.04**</td>
<td>-.02</td>
</tr>
<tr>
<td><strong>Problem-focused coping</strong></td>
<td>-.05***</td>
<td>--</td>
<td>--</td>
<td>-.04***</td>
<td>-.03**</td>
</tr>
<tr>
<td><strong>Emotion-focused coping</strong></td>
<td>--</td>
<td>-.00</td>
<td>--</td>
<td>.00</td>
<td>-.00</td>
</tr>
<tr>
<td><strong>Avoidance coping</strong></td>
<td>--</td>
<td>--</td>
<td>.07***</td>
<td>.06***</td>
<td>.02</td>
</tr>
<tr>
<td><strong>Chronic stress</strong></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.03***</td>
</tr>
</tbody>
</table>

Note: *** (p < .001) ** (p < .01) * (p < .05)

Figure 2 (below) depicts the age-coping interaction for anxiety (left) and depressed mood (right). Problem-focused and emotion-focused coping variables are centered to reduce multicollinearity (Hamilton, 2013: 189); main effects are now interpreted as “the effect of each variable when the other is at its mean” (2013: 190). I used Stata’s margins command to produce predictions for depressed mood by age and problem-focused coping. I generated predictions for low rates of problem-focused coping (2 on a scale of 12) and higher rates (10 of 12; all predictions are significant: p < .001). I followed the same procedure for anxiety (p < .001).

**Figure 2: Mental Health and the Age by Problem-Focused Coping Interaction**

![Figure 2: The effect of problem-focused coping is stronger in young adulthood than late adolescence.](image-url)
For young adults, increases in problem-focused coping reduce anxiety symptoms, and these effects increase with age during this period. Remarkably, problem-focused coping has almost no effect on anxiety levels at 17 years old: low rates are associated with an anxiety score of 7.0 while high rates are 6.6. Yet as individual’s age, the moderating effect of problem-focused coping on anxiety strengthens. A 19-year-old who frequently relies on problem-focused coping is predicted to report a 5.7 anxiety level (on a scale of 18) while the 23-year-old with identical coping frequency is predicted to score a 4.0 (see Table 4). The results are similar for depressed mood—though increases in problem-focused coping appear to have a stronger moderating effect on depressed mood they do on anxiety at age 17.

Figure 2 (above, right) indicates that the skills associated with problem-focused coping have stronger negative effects on depressed mood in young adulthood than they do in late adolescence. When all other variables are held constant, a 17-year-old who scores a 2 on problem-focused coping—meaning this person relies “a little” on problem-focused coping when faced with stress but mostly “not at all”—is predicted to have a depressed mood level of 11.5 (on a scale of 33). Conversely, the 17-year-old who scores a 10—meaning this person relies on problem-focused coping strategies pretty frequently but not “all the time”—is predicted to have a depressed mood level of 9.7. Thus, the moderating effect of problem-focused coping is not incredibly strong among late adolescents. These results differ for the 21 and 23-year-old: a 21 old with low levels of problem-focused coping is predicted to report depressed mood levels of 12.5; a 21-year-old with high levels is predicted to report 8.2. The prediction for a 23-year-old with low levels is 13.0, while a 23-year-old with high levels of problem-focused coping is

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12 Note: The graph results displayed in Figure 2 use the min/max scores for emotion-focused coping (i.e. 0 and 15) to show the interaction with age; here, for our discussion, we are using 3 and 12 as more realistic scenarios for “low” and “high” reliance on emotion-focused coping mechanisms.
predicted to report depressed mood levels of 7.4. The key point is that high levels of problem-focused coping produce incrementally-stronger negative effects on depressed mood levels with each year of age (i.e. from 9.7 at 17 to 7.4 at 23), a finding that arguably suggests skill development during this period of the life course.

Table 4 (below) depicts the three age-by-coping interactions and their relationship with anxiety. As with depressed mood, I centered each of the coping variables to reduce multicollinearity (Hamilton 2013). I generated predictions for low rates of problem-focused coping (2 on a scale of 12) and higher rates (10 of 12; all predictions are significant: p < .001). Model 1 indicates that age interacts with problem-focused coping (p < .05) to moderate the effect of anxiety. Model 2 demonstrates that emotion-focused coping also interacts with age (p < .05); its moderating effect on anxiety increases with each year of age, as with problem-focused coping. Model 3 indicates that avoidance-focused coping is the only style not to interact with age in this analysis.

Table 4: OLS results for the natural log of anxiety with interaction terms

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Socioeconomic status</strong></td>
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<td>-.04</td>
<td>-.04</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>-.19**</td>
<td>-.20**</td>
<td>-.20**</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>-.02</td>
<td>-.02</td>
<td>.04</td>
</tr>
<tr>
<td><strong>Problem-focused coping</strong> (centered)</td>
<td>.18</td>
<td>-.03**</td>
<td>-.03**</td>
</tr>
<tr>
<td><strong>Emotion-focused coping</strong> (centered)</td>
<td>-.00</td>
<td>.17</td>
<td>.17**</td>
</tr>
<tr>
<td><strong>Avoidant coping</strong></td>
<td>.02</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td><strong>Chronic stress</strong></td>
<td>.03***</td>
<td>.03***</td>
<td>.03***</td>
</tr>
<tr>
<td><strong>Age by problem interaction</strong></td>
<td>-.01*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Age by emotion interaction</strong></td>
<td>--</td>
<td>-.01*</td>
<td>--</td>
</tr>
<tr>
<td><strong>Age by avoidance interaction</strong></td>
<td>--</td>
<td>--</td>
<td>-.01</td>
</tr>
</tbody>
</table>

Note: *** (p < .001) ** (p < .01) * (p < .05)

Table 5 (below) shows the results for depressed mood for three interaction models. Model 1 shows interaction results for age by problem focused coping (p < .05). Model 2 shows
the age by emotion-focused coping interaction (p < .05), and model 3 indicates that the age-by avoidance interaction is not significant for depressed mood.

**Table 5: OLS results for the natural log of depressed mood with interaction terms**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socioeconomic status</td>
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</tr>
<tr>
<td>Sex</td>
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<td>-.23***</td>
<td>-.21***</td>
</tr>
<tr>
<td>Age</td>
<td>.01</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>Problem-focused coping (centered)</td>
<td>.19</td>
<td>-.02</td>
<td>-.03</td>
</tr>
<tr>
<td>Emotion-focused coping (centered)</td>
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<td>.16</td>
</tr>
<tr>
<td>Avoidance-focused coping (centered)</td>
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<td>.07***</td>
<td>.06</td>
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<tr>
<td>Chronic strain</td>
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<td>.03***</td>
<td>.04***</td>
</tr>
<tr>
<td>Age by problem interaction</td>
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<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Age by emotion interaction</td>
<td>--</td>
<td>-.01*</td>
<td>--</td>
</tr>
<tr>
<td>Age by avoidance interaction</td>
<td>--</td>
<td>--</td>
<td>-.01</td>
</tr>
</tbody>
</table>

Note: *** (p < .001)  ** (p < .01)  * (p < .05)

Figure 3 (shown below) shows the effect of emotion-focused coping on depressed mood and anxiety during late adolescence and emerging adulthood. As above, I used the margins command to produce predictions for depressed mood by age based upon low (3 on a scale of 15) and high (12 out of 15) frequency of utilizing emotion-focused coping strategies (all margins predictions in Stata were statistically significant; p < .000). Results suggest that efficacious emotion-focused coping skills are developed: in late adolescence, increases in emotion-focused coping increase depressive and anxiety symptoms, but in emerging adulthood, increased emotion-focused coping rates reduce both depressive and anxiety symptoms.
It is clear that emotion-focused coping interacts with age somewhat differently than does problem-focused (Figure 2, above). Low rates of emotion-focused coping are associated with similar levels of anxiety regardless of age (i.e. 5.8 at 17 years old compared with 5.6 at 23 years old). The interesting trend is with frequent use of emotion-focused coping. At 17 and 19 years old, youth experience greater anxiety levels when they utilize emotion-focused coping mechanisms frequently than they would have had they avoided this coping style altogether. This trend changes around 20 years old: low rates of emotion-focused coping are still associated with moderate levels of anxiety, but more frequent use produces a stronger negative impact such that the 19-year-old experiences an anxiety level of 6.5 while the 23-year-old is predicted to report an anxiety level of 4.1. This is a considerable reduction in anxiety (over 13 percent on a scale of 18). The only change is four years of maturation. The figures shown above model only the regression of the continuous-by-continuous interaction of age and problem-focused coping, and age and emotion-focused coping. Importantly, when socioeconomic status, sex, all three coping styles, and chronic stress are entered simultaneously in the model, the age-problem-focused coping interaction remains.
The results are similar for depressed mood. A 17-year-old with low levels of emotion-focused coping is predicted to report an 8.8 on depressive symptomatology when all other variables are held constant; interestingly, the same 17-year-old with high levels of emotion-focused coping experiences more distress—predicted anxiety levels are 11.6, a substantial increase (i.e. nearly 10 percent on a scale of 33). A 19-year-old feels stronger symptoms of depressed mood as emotion-focused coping increases, but the relationship changes around 20 years of age: At 21, higher rates of emotion-focused coping is associated with lower depressed mood levels. This difference becomes more pronounced with age; as the data demonstrate, the 23-year-old with high rates of emotion-focused coping is predicted to score 7.4 on the depressed mood scale. Ultimately, then, for youth scoring identically high on emotion-focused coping strategies, levels of depressed mood change by age: 11.6 at age 17, 10.2 at age 19, 8.8 at age 21, and finally 7.4 at age 23.

DISCUSSION

Significant differences in anxiety and depressed mood exist between the late adolescents and young adults under study. The results for anxiety are particularly striking—late adolescents report significantly higher anxiety levels (mean = 6.7 out of 18) than do young adults (mean = 5.1; p < .001). Krasucki and colleagues (1998) find that the lowest prevalence of generalized anxiety symptoms occurs during youth (ages 15-24); the findings presented in this thesis further the literature by differentiating between late adolescents and emerging adults in that age range. Though I was unable to compare the youth and young adult findings with older adults from this population, the findings from this thesis indicate that generalized anxiety is less prevalent in emerging adulthood than in late adolescence. Generalized anxiety disorder has a later age of
onset, with most cases occurring later in adolescence and early adulthood (e.g., most cases of separation anxiety disorder appear by the age of 12; Beesdo 2011). Results indicate that both late adolescents and young adults experience moderate anxiety levels, but anxiety is more prevalent among late adolescents.

Previous research has noted that emotional and behavioral difficulties increase throughout adolescence and then begin to decline in emerging adulthood (Wickrama et al. 2008). These developmental changes may partially explain age-related differences in levels of depressed mood between late adolescence and young adulthood. The results indicate that late adolescents (mean = 10.1 out of 33) report significantly higher levels of depressed mood than do young adults (8.7; p < .05); this finding supports those from Wickrama and colleagues (2012) who found that mean levels of depressive symptoms decline during the transition from late adolescence through young adulthood. For a substantial portion of those who experience depressed mood in adolescence, symptoms persist into adulthood, and Wickrama and colleagues attribute disruptions in depressed mood continuity to socioeconomic attainment (2012: 654). Declines in depressed mood levels may also be due to emotional maturation, an improved ability to regulate emotion in adulthood (Larson et al. 2002). For depressed mood, only avoidance-focused coping (but not problem- or emotion-focused coping) “explains” any of the age differences—and this finding is only for depressed mood (see Table 2).

These perspectives suggest support for the developmental life context approach to coping (LaChapelle and Hadjistavropoulos 2005): internal developmental changes (e.g., cognitive development and improved emotion regulation) and contextual role shifts (e.g., the transition from full-time student to full-time employee) interact to influence depressed mood. Role changes and contextual shifts in stress exposure may account for the decline in depressed mood
between late adolescence and emerging adulthood documented here. Internal development and role change may influence available coping resources and how the individual experiences the stressor (LaChapelle and Hadjistavropoulos 2005). I find evidence for significant age-related differences in coping style, especially for problem-focused and emotion-focused coping.

The coping literature suggests that problem-focused coping follows a developmental trajectory: cognitive coping strategies increase more during primary school than in middle school (Roecker et al. 1996; Wertlieb et al. 1987), then from late childhood to early adolescence, problem-focused coping appears to be relatively stable (Compas et al. 1988; Donaldson et al. 2000; Hamel and Petermann 2005; Seiffge-Krenke 1993; Wertlieb et al. 1987). The coping literature is heavily concentrated in childhood and early adolescence—far less scholarship has been devoted to research in emerging adulthood, and to my knowledge, this thesis is the first to explore differences in coping between late adolescents and young adulthood. My findings indicate that young adults report using problem-focused coping strategies more frequently than do late adolescents (p < .001). This finding supports and extends the work of Donaldson and colleagues who note late adolescents report “significantly different” patterns of coping than do younger adolescents (2000: 355). Late adolescents report “greater frequency of use for many more strategies than did early and middle adolescents” (Donaldson et al. 2000: 357). Based upon my examination of the data, I argue that this trend continues in emerging adulthood: young adults utilize problem-focused coping more frequently when compared to late adolescents, likely due to contextual role transitions that produce changes in stress exposure and internal development.

Though separated by only four years in age, the post-high school period is one of tremendous change, especially in personal freedom and decision-making. The transition to
adulthood is also a time of significant neurobiological and cognitive development (Schulenberg et al. 2004). It is a period marked by both continued personal development and changes in context/opportunity—in other words, the individual’s biochemistry and their relationship with the immediate environment dramatically change. Since problem-focused coping includes both cognitive strategies (i.e. the individual tries to “come up with a strategy” on what to do and “think about what steps to take”) and action strategies (i.e. the individual “concentrates [their] efforts” and “takes additional action” to solve the problem), I suggest that neurobiological change and life-course-related role transitions combine to effect coping style.

Pearlin (2010) stressed the concept of agency, that individuals are embedded in social networks and changes in these networks may initiate new life-course trajectories. Similarly, changes in social networks may render problem-focused coping more efficacious. As an individual’s social networks evolve from high school to college or work settings, young adults may also come to feel a stronger sense of social support; consequently, emerging adults may feel emboldened to take “additional action,” whereas adolescents they might have felt less secure. Increased frequency in the use of problem-focused coping strategies is also likely due to the different types of stressors experienced between late adolescents and young adults. Since late adolescents face significantly more stress exposure resulting from sources beyond their control—i.e., parents, home environment, social stress, and discrimination—problem-focused coping may not be as relevant to late adolescents as it is for young adults transitioning from contexts characterized by parental control and schedule inflexibility to contexts increasingly characterized by autonomy and personal choice. Taken together, the significant differences in both stress exposure and problem-focused coping prevalence between late adolescents and young adults provides support for the developmental life context model (LaChapelle and Hadjistavropoulos
—coping during this transitional period in the life course is impacted by both context (i.e., stress exposure) and development (i.e., neurobiological change).

I also find significant differences in emotion-focused coping between the cohorts: late adolescents utilized emotion-focused forms of coping (mean = 8.7 out of 15) significantly less frequently than the young adults (mean = 7.3; p < .001). This finding supports previous research (i.e. Compas et al. 1988; Frydenberg and Lewis 1993), which contends that emotion-focused strategies begin to develop in early childhood and increase in adolescence. My research extends previous work by demonstrating that emotion-focused forms of coping continue to increase beyond adolescence and into emerging adulthood. As Özlem Schäfer and colleagues explain, “During adolescence, cognitive processes that are crucial in emotion regulation, namely in the domain of high-level executive functions and social processes (e.g., working memory, inhibitory control, abstract thought, decision making, and perspective taking), are subject to significant development” (2017: 262). The results presented here suggest that developments in cognitive function may largely account for the increased rate of emotion-focused coping in young adults, especially when compared to late adolescents four years younger.

The differences in emotion-focused coping are particularly interesting when we consider the emotion-focused survey items individually. Two of the items used to assess whether respondents rely on the emotion-focused coping style relate to expressing emotional distress. The first asks how often respondents’ “let [their] feelings out” while the second asks how frequently they feel and express emotional distress (see Appendix I for precise wording). These items are expressive—they are behavioral rather than cognitive strategies—but neither would be construed as evidence of agency in conflict resolution. It is noteworthy, therefore, that cohort differences do not exist on these items; indeed, as the footnotes below demonstrate, these are the
only items where significant age-related differences were not found. In contrast, significant differences were found for each of the remaining three items measuring support seeking (see Appendix I). These items measure agency in problem solving—the individual gets advice, asks people with similar experiences what they did, and seeks emotional support—and late adolescents report using these skills significantly less frequently than young adults (see footnote bottom page for complete item breakdown). The critical point is this: the findings suggest that the problem-solving components of emotion-focused coping (i.e., the support-seeking items) are developed, or continue to develop, during emerging adulthood.

This finding on the problem-solving components of emotion-focused coping are highly relevant (and undoubtedly connected) with the findings on mental health in this thesis, particularly since emotion regulation strategies are commonly associated with psychopathology (Aldao et al. 2010). In their meta-analytic review, Aldao and colleagues find that each of the six emotion regulation strategies studied was associated with overall mental health: “maladaptive strategies (i.e. rumination, avoidance, suppression) were associated with more psychopathology and adaptive strategies (i.e. acceptance, reappraisal, and problem-solving) with less psychopathology” (2010: 231). As noted at the start of the discussion, anxiety and depressed mood are more prevalent among the late adolescents in the population under study than among the young adults. Differences in emotion regulation, therefore, may partially explain the disparity—young adults utilize the problem-solving components characterizing the emotion-focused style of coping at higher rates than late adolescents, likely due to cognitive development.

13 Results: For “You let your feelings out,” the YC mean is 1.42 and the OC mean is 1.56, which is not statistically significant (p = .149). For “You feel a lot of emotional distress and express those feelings a lot,” the YC mean is 1.13 and the OC mean is 1.20; as before, this difference is not statistically significant (p = .410).
14 Results: For “You try to get advice from someone about what to do,” the YC mean is 1.8 while the OC mean is 2.2. For “You ask people with similar experiences what they did,” the YC mean is 1.4 while the OC mean is 1.8. Finally, for “You try to get emotional support from friends or relatives,” YC mean is 1.5 while OC mean is 2.0.
and the continued development of social support seeking networks beyond the immediate high
school social environment of their youth. Indeed, Aldao and colleagues note the critical
importance of the problem-solving component: “not having a strong problem-solving orientation
may have wide-ranging negative effects on well-being, and open the door for the development of
maladaptive emotion-regulation strategies [i.e., like avoidance]” (2010: 231).

Studies show that while avoidance may reduce negative emotions in the short term, it has
long terms psychological costs—frequent avoidance is associated with depressive and anxiety
symptoms (Siu and Shek 2010; Özlem Schäfer et al. 2017). My findings indicate that late
adolescents report using avoidance-focused coping strategies (mean = 2.0 out of 9) more
frequently than do young adults (1.5; p < .05), which was an expected result, especially in light
of higher rates of depressed mood and anxiety among the younger cohort. It’s important to note,
however, that chronic stress “explains” the effect of avoidant coping on anxiety (see Table 3).
Several studies have found avoidant coping may have adaptive properties, especially in
managing stress in situations deemed beyond the individual’s control (Eitle and Eitle 2014; Van
Gundy et al. 2015; see footnote).¹⁵ Agency may provide part of the explanation. Most
adolescents cannot control their parents’ expectations or disciplinary practices, cannot escape a
chaotic home environment (if they have one), and cannot completely defuse social
discrimination or bullying at school; thus, avoidance-oriented coping strategies likely have more

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¹⁵ Eitle and Eitle (2014), for example, find that an avoidance-focused coping technique – “self-distraction”
(2014:320) – differed in its effect depending on race. For whites, self-distraction decreased the likelihood of
marijuana use while for American Indians, self-distraction increased the risk for alcohol use. Van Gundy and
colleagues (2015) had similar findings on the protective qualities of avoidance. Specifically, African-American
young adults rely avoidance more frequently than whites and use problem-focused coping less. Increased reliance
on avoidance may “reflect an adaptive response” to economic disadvantage (Van Gundy et al., 2015:7).
utility in adolescence than in young adulthood when autonomy increases. Pearlin and Bierman note that mastery plays a critical role when confronted with stressors:

First, it is quite possible that stressors that are otherwise experienced as severe are perceived as being less ominous by those armed with an elevated sense of mastery. Thus, the sense of personal control helps to perceptually neutralize the level of threat posed by stressors. Second, and related to the first, the diminished threat leaves one with greater confidence that the stressor is within the range of their abilities to control it, making it more likely that individuals will be motivated to attempt to ameliorate or address the problems in their lives, rather than deny or avoid these problems (2012: 332-3).

Avoidance—and the mental health symptoms that seem to accompany habitual reliance on avoidance as a coping mechanism—is likely more common in late adolescence than emerging adulthood for two primary reasons: (1) cognitive development is ongoing and likely to influence the individual’s sense of personal mastery, and (2) the social stressors experienced in late adolescence are more conducive to avoidance-oriented strategies. As Özlem Schäfer and colleagues noted, avoidance may lessen negative emotion in the short term; thus, it may function as a perfectly rational coping mechanism for high school students who have yet to develop a strong sense of agency. Only avoidant coping (but not problem- or emotion-focused coping) “explains” any of the age differences, and only for depressed mood (see Table 2). Furthermore, chronic stress actually “explains” the effect of avoidant coping on anxiety (see Table 3). I tested for significant age by coping style interactions after noting significant differences in both coping styles and mental health outcomes between cohorts; future research should examine the role of agency in explaining differences in mental health and coping style by age cohort.

Perhaps most interesting is the discovery of statistically significant age by problem-focused coping and age by emotion-focused coping interactions. Indeed, the effect of the coping style appears dependent on the individual’s age, their stage in the life course. Margins predictions in Stata suggest high levels of problem-focused coping do not appear to have much of an impact on depressed mood for the late adolescent, and this makes some sense. The chronic stress results suggest that late adolescents in this population appear to be facing significantly
more stressors that are beyond their ability to control. In other words, developing a “strategy,” thinking about “what steps to take,” and “taking on additional action”—the problem-focused strategies—may not be possible for some of these young people; thus, they either do not use them, or if they do, they have limited impact on depressed mood. Chronic stress remains significant in the interaction models, but it does not “explain” the significant interactions.

Similar effects are found for problem-focused coping and anxiety. Remarkably, problem-focused coping has almost no effect on anxiety levels at 17 years old—low levels produce an anxiety score of 7.0 while high levels produce a score of 6.6. This finding differs from depressed mood, which indicates once again the need to study multiple outcomes. As Aneshensel and Gore (1991) argue, research that focuses on a single mental health outcome tends to underestimate the impact of stress, a practice that limits understanding because stress has such varied impact on social life. This thesis shows that identical levels of problem-focused coping have quite different impacts depending on age, suggesting the importance of neurobiological development (i.e. Schulenberg 2004) and social context. Even problem-focused coping strategies—mechanisms generally considered the superior “adaptive” styles in the mental health and coping literature—are not universally beneficial in all contexts. Future research should consider if processes are similar (or not) for other outcomes (e.g., substance misuse, physical health, etc.).

The age by problem-focused coping interaction documented here provides evidence to suggest that the contextual interpretation (Folkman et al. 1987) does not sufficiently explain the coping process—an environment-centered approach ignores stage-related developments in the life course. The results indicate the critical dual importance of neurobiological development and developmental transitions during the transition from late adolescence to early adulthood, neither of which are directly related to role stress. The transition to adulthood is characterized by a series
of developmental changes, including “perspective taking,” and “emotional regulation” (Schulenberg et al 2004: 801). Neurobiological development—“including synaptic pruning of the prefrontal cortex, developmental transformations in prefrontal cortex and limbic brain regions, and continued myelination of intracortical and mesolimbic dopamine systems” (Schulenberg et al. 2004: 801)—interact with these developmental transitions in the shift to adulthood. The results here provide clear support for the developmental interpretation (Folkman et al. 1987): that is, variation in coping between late adolescence and young adulthood is not explained by context alone, but rather by inherent changes intimately associated with neurobiological growth. Ultimately, I contend that the statistical significance of both the age by problem-focused coping interaction and chronic stress indicates the veracity of the developmental life context model (LaChapelle and Hadjistavropoulos 2005). Coping researchers must account for both the nature of the stressor and age-related changes in the life course.

Results also suggest that an emotion-focused coping repertoire is developed during emerging adulthood, much like the skills associated with the problem-focused style. Emotion-focused coping progresses from maladaptive—that is, higher levels produce greater feelings of anxiety and depressed mood—to adaptive, and it does so in a few years. This indicates the critical importance of emotion regulation during late adolescence and young adulthood. Hofmann and colleagues (2012) suggest that emotion regulation coping strategies (i.e. cognitive reappraisal, problem-solving, acceptance, etc.) likely require cognitive skills and a level of maturity that may not have fully developed during adolescence. Perhaps more importantly, effective utilization of emotion-focused coping strategies in the present may depend on whether the individual has experienced the effectiveness of these strategies in responding to emotional distress in their past.
Emotion regulation is thus “closely intertwined with development and undergoes profound changes with the transition to adolescence” (Özlem Schäfer et al. 2017: 262).

Furthermore, emotion regulation strategies can be classified “on a dimension from maladaptive (i.e., associated with negative long-term outcomes) to adaptive (i.e. associated with beneficial long-term outcomes” (2017: 262). Dysfunctional patterns in emotion regulation play an important role in the onset of mental health symptoms such as depressed mood or anxiety. The skills associated with emotion-focused coping, particularly seeking social support, are closely associated with cognitive development (Özlem Schäfer et al. 2017). The results presented in this thesis provides additional evidence for the developmental approach to coping, but as with problem-focused coping, chronic stress remains statistically significant in our models. Taken together, these interactions provide support for the developmental life context model and its emphasis on investigating both the nature of the stressor and stage-related developmental changes in the life course when examining the process of coping.

This thesis is not without limitations, however. First, though the data represent nearly the entire late adolescent and young adult population of a rural New Hampshire county, findings may not be generalizable to rural youth everywhere. Duncan’s (1999, 2014) ethnographic work on rural poverty reminds us that place matters—coping with poverty is different in Appalachia than it is in the Mississippi Delta, and it is starkly different with the picture of poverty presented in Northern New England. Readers should therefore interpret the findings with caution, even when applying them to other rural youth populations facing high rates of poverty. It is also unclear whether these results would transfer to other contexts, particularly urban settings.

Van Gundy and colleagues investigated community cohesion and the stress process among New Hampshire youth in both rural and urban settings; they note “the bulk of our
evidence suggests that stress and psychosocial resources, liked community cohesion, operate similarly for youth in rural and urban areas” (2011: 312). They did not examine coping styles, and future research is necessary to discover whether results hold for adolescents transitioning to adulthood in other contexts. Attrition is also a concern. As indicated in the data section, the response rate for Wave I was 83 percent (n = 657) of all Côos County youth. The follow-up rate for Wave II was 86 percent (n=565; Van Gundy et al. 2015). For Wave IV, the response rate was 62 percent (n = 514). To create the final data set, I (a) required completed surveys for both the second and fourth waves and (b) eliminated participants with missing data on any item used to construct the scales for depressed mood and anxiety. This trimmed the dataset to 423, leading to questions concerning how attrition may affect the results on coping and the stress process.

The age by coping interactions found here are noteworthy, however, and merit further attention in the coping and mental health literature. Does problem-focused coping continue to interact with age throughout adulthood or does the relationship change? Does emotion-focused coping continue to be beneficial throughout adulthood or does this relationship change, particularly since some of the skills associated with emotion-focused coping partly depend on the ameliorative effect of social support? Results from this thesis indicate the importance of studying coping further, not only within late adolescents and young adults, but throughout the life course, particularly its association with stage-related neurobiological development. Future research should investigate the relationship between age, coping style, and sex/gender, since (among other things) adolescent girls and young adult women are more likely than their male

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16 For more information regarding recruitment and survey procedures, see Van Gundy and colleagues (2015). This data has also been utilized in Sharp et al. (2014), Stracuzzi et al. (2015), Tucker et al. (2013, 2014), and Van Gundy et al (2011).
counterparts to experience depression and anxiety (internalizing disorders), to experience more interpersonal stressors, and to utilize emotion-focused coping strategies.

CONCLUSION

Researchers have examined coping strategies in emerging adulthood in a variety of social contexts: racial discrimination (Polanco-Roman et al., 2016), relationship stressors (Seiffge-Krenke, 2006), coping with Type 1 Diabetes (Rassart et al., 2016; Luyckx et al., 2008), religious coping (Brelsford et al., 2014; Eisenberg et al., 2011; Lord & Gramling, 2014), living with facial acne (Prior & Khadaroo, 2015), identity processes in college (Luyckx et al., 2012), and social well-being (Zambianchi & Ricci Bitti, 2013). Studies also show sex differences in the use of coping strategies during emerging adulthood among college students (Brougham et al. 2009). Age-related differences in coping style during the transition from late adolescence to emerging adulthood, however, has yet to be explored.

This thesis begins to address that gap in the literature by asking to what extent age influences mental health in the transition to adulthood. Specifically, to what extent are age differences in depressed mood or anxiety explained by age differences in coping style? To what extent does coping style moderate the effects of age on depressed mood and anxiety? To what extent do observed patterns hold with statistical adjustment for chronic stress? I find significant age-related differences in role stressors, in mental health, and in the moderating effect of age by problem-focused and age by emotion-focused coping interactions. Only avoidant coping (but not problem- or emotion-focused coping) “explains” any of the age differences in mental health, and only for depressed mood (see Table 2). In fact, chronic stress “explains” the effect of avoidance-focused coping on anxiety (see Table 3).
In the United States, there remains a lack of institutional structure to facilitate the transition to adulthood, a stark contrast to the rigid structure guiding the transition from childhood through adolescence (Hurrelmann 1990). As Schulenberg and colleagues remind us, “there is far less institutionally and culturally imposed structure on young people” in emerging adulthood than even in late adolescence, and for some, the “greater capacity for self-selection of contexts and roles” can increase well-being (2004: 801). Indeed, the results here indicate that chronic stress, anxiety, and depressed mood declined from late adolescence to early adulthood, indicating that for some young people, the transition may prove positive for well-being. For some, however, the “the relatively sudden drop in institutional structure can be debilitating, creating a mismatch between individual needs and contextual affordances. This discrepancy can result in avoidance of life tasks during this time, creating a sense of floundering that can adversely affect mental health” (Schulenberg et al. 2004: 801). Policy interventions should target this population particularly.

First, emotion-focused coping in late adolescence is appears to be maladaptive, at least when considering its effects on depressed mood and anxiety. Future research might explore why this is the case, but in terms of policy, school counselors might seek to assist young people in emotion regulation, perhaps by inculcating skills associated with problem-focused coping. Even though policy makers cannot meaningfully affect cognitive development during the transition to adulthood—and as these results indicate, cognitive development influences coping style and mental health above and beyond the influence of chronic role stressors—resources can target public health interventions for emerging adults. For some youth, this transition can prove perilous; providing expanded mental health insurance coverage for young adults, especially those
no longer eligible for coverage under their parent(s)’ policy, could prove particularly beneficial in navigating the prickly path to adulthood, especially in an increasingly complex modern age.
References


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Appendix I: Measurement

Socioeconomic Status

Education Level
1. What is the highest level of education achieved by your mother?
2. What is the highest level of education achieved by your father?

Perceived Financial Strain
1. How would you rate your family?
2. How satisfied how you with your family’s financial situation?

Chronic Strain (Wheaton, 1994)

General
1. You’re trying to take on too many things at once.
2. There is too much pressure put on you to be like other people.
3. Too much is expected of you by others.

Relationship with parents/guardians
1. Your parent(s)/guardian(s)’ beliefs are old fashioned.
2. Your parent(s)/guardian(s) expect you to act like they did when they were young.
3. Your parent(s)/guardian(s) are too controlling.
4. Your parent(s)/guardian(s) try to protect you too much.
5. Your parent(s)/guardian(s) are unwilling to see you as an adult.
6. Your parent(s)/guardian(s) ask too many questions about where you’ve been or what you’ve been doing.
7. Your parent(s)/guardian(s) don’t really remember what it was like to be your age.

Home Life
1. You feel overwhelmed by the craziness of your family life.
2. Your family life is more stressful than other people’s family lives.
3. Your family has a lot of drama.
4. Your family life is chaotic.

Discrimination
1. You are treated with less courtesy than other people.
2. You are treated with less respect than you deserve.
3. You receive worse service than other people at restaurants and stores.
4. People act as if they think you are not smart.
5. People act as if they are afraid of you.
6. People act as if they think you are dishonest.
7. People act as if they are better than you are.
8. You are called names or insulted.
9. You are threatened or harassed.

School
1. You find it difficult to balance school demands with your social life and/or work.
2. You are concerned about your ability to keep up your grades.
3. You are not sure that you will be able to complete your education.
4. You want to go to college but you don’t have the money to pay for it.
5. You want to go to college but you don’t have the grades to get in.

Relationships with boyfriend/girlfriend/partner
1. Your partner/boyfriend/girlfriend doesn’t understand you.
2. Your partner/boyfriend/girlfriend expects too much of you.
3. Your partner/boyfriend/girlfriend doesn’t show enough affection.
4. Your partner/boyfriend/girlfriend is not committed enough to your relationship.
5. You are not sure you can trust your partner/boyfriend/girlfriend.
6. You have a lot of conflict with your partner/boyfriend/girlfriend.

Work-related (older cohort only)
1. Your supervisor is always watching what you do at work.
2. You want to change jobs but don’t feel you can.
3. Your job often leaves you feeling both mentally and physically tired.
4. You don’t get paid enough for the job you have.
5. Your work is boring and repetitive.
6. You are looking for a job and can’t find the one you want.

Parenting
1. One of the worst things about being a parent is that you feel you can’t get out.
2. Children get on your nerves if you have to be with them all day.
3. You often feel that you can’t stand the child(ren) a moment longer.

**Problem-Focused Coping (Carver, 1996)**

1. You concentrate your efforts on doing something about it.
2. You try to come up with a strategy about what to do.
3. You think about what steps to take.
4. You take on additional action to try to get rid of the problem.

**Emotion-Focused Coping (Carver, 1996)**

1. You try to get advice from someone about what to do.
2. You try to get emotional support from friends or relatives.
3. You let your feelings out.
4. You ask people with similar experiences what they did.
5. You feel a lot of emotional distress and you find yourself expressing those feelings a lot.

**Avoidant Coping (Carver, 1996)**

1. You say to yourself ‘this isn’t real.’
2. You admit you can’t deal with it and quit trying.
3. You refuse to believe that it has happened.

**Depressed Mood (Radloff, 1977)**

1. I was bothered by things that usually don’t bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I was just as good as other people. (reverse coded)
4. I felt that everything I did was an effort.
5. I felt fearful.
6. I talked less than usual.
7. I felt lonely.
8. People were unfriendly.
9. I had crying spells.
10. I felt sad.
11. I felt that people disliked me.
12. I could not ‘get going.’
Anxiety (DSM-5, 2013)

1. I felt wound up, tense, or restless.
2. I became easily worn out or fatigued.
3. I had difficulty concentrating.
4. I was easily irritated.
5. My muscles were very tense.
6. I had difficulty sleeping.