

CRAIG, DEBRA L., Ph.D. Household Income, Economic Pressure, and Depressive Mood among Unmarried Women in Midlife: The Moderating Effects of Locus of Control, Financial Instrumental Support Received from Parents, and Race. (2008) Directed by Dr. Heather M. Helms. 118 pp.

This investigation uses data from the National Longitudinal Survey of Young Women to replicate studies identifying the associations among household income, economic pressure, and depressive mood in an economically diverse, national sample of white and black unmarried (never married, divorced, separated, and widowed) women in midlife. The study also examines the effects of locus of control and financial instrumental support received from parents on the associations among these economic and psychological measures and explores how these relationships might vary as a function of women's race. Because women's physical health in midlife is associated strongly with depressive mood, the study examines these relationships net of the effects of women's self-rated physical health.

Results of structural equation modeling suggest that economic pressure fully mediated the negative association between household income and women's depressive mood. However, no moderating effects were observed. For both white and black women, the effects of economic pressure on depressive mood did not vary according to women's locus of control or receipt of financial instrumental support from their parents. Additionally, women's locus of control was not associated with higher-order moderation of the effects of receiving financial instrumental support from parents.

HOUSEHOLD INCOME, ECONOMIC PRESSURE, AND DEPRESSIVE MOOD  
AMONG UNMARRIED WOMEN IN MIDLIFE: THE MODERATING  
EFFECTS OF LOCUS OF CONTROL, FINANCIAL  
INSTRUMENTAL SUPPORT RECEIVED  
FROM PARENTS,  
AND RACE

By

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# CHAPTER I

## INTRODUCTION

### Statement of Research Objectives

A tradition of research has focused on the concept of economic pressure, the everyday lived experience of having inadequate economic resources, particularly household income (for a review, see Conger & Elder, 1994). The mediating effects of economic pressure on the association between various economic measures, including household income, and depressive mood are well established in the literature on rural, predominantly white families with adolescents (for a review, see Conger & Conger, 2002). Additional empirical support for these effects has been observed among black two-caregiver families in which caregivers were not restricted to children's biological parents (Conger, McLoyd, Wallace, Sun, Simons, & Brody, 2000) and couples in other countries at times of macroeconomic distress, including the Czech Republic (Lee, Hrabá, Lorenz, & Pechacova, 1994), Finland (Kinnunen & Pulkkinen, 1998), East and West Germany (Forkel & Silbereisen, 2001), and Korea (Kwon, Rueter, Lee, Koh, & Ok, 2003). Moreover, related studies suggest that adults' sense of environmental mastery, as evidenced by myriad indicators such as locus of control, and various types of instrumental support, including financial support, may moderate the associations among household income, economic pressure, and depressive mood (Conger & Conger, 2002; Conger, Rueter, & Elder, 1999; Ennis, Hobfoll, & Schroder, 2000) and that these moderating effects may differ for white and black women (Ennis et al., 2000).

In their call for research on the mediating and conditionalizing factors that elucidate the association between women's economic and psychological well-being, the authors of the *Final Report of the American Psychological Association's National Task Force on Women and Depression* underscored the importance of an empirical focus on women of all ages and marital statuses (McGrath, Keita, Strickland, & Russo, 1990). However, the literature continues to reflect a paucity of interest in the mechanisms by which objective economic measures, such as household income, are associated with depressive mood among unmarried women in midlife. The theoretical (Mirowsky & Ross, 2003) and empirical (McGrath et al., 1990) literatures suggest that single women's diminished access to income, relative to men and married women, may render them psychologically vulnerable. Further, at least one researcher has argued that the deleterious effects of lower levels of income may be particularly harsh for women in midlife because they have fewer productive years over which to recover financially than younger women (Craft, Johnson, & Ortega, 1998). The purpose of this study of unmarried women during midlife is to (a) replicate studies identifying the associations among household income, economic pressure, and depressive mood, (b) examine the effects of locus of control and financial instrumental support received from parents on these associations, and (c) explore how these relationships might differ for white and black women. Additionally, because women's physical health in midlife is associated with depressive mood (Killian, Turner, & Cain, 2005), the study examines these relationships net of the effects of women's self-rated physical health.

This study extends the extant literature examining the association between economic and psychological well-being in several ways. First, the study uses an economically diverse, national sample of white and black unmarried (never married, divorced, separated, and widowed) women in midlife to replicate research suggesting that economic pressure explains the relationship between household income and self-reported depressive mood. Despite the robust empirical interest in the mediating effects of economic pressure on the association of objective economic measures, including household income, and women's psychological well-being, investigations have focused primarily on young single mothers (for a review, see Belle & Doucet, 2003) and married women (for a review, see Conger & Conger, 2002). Moreover, prior studies that examined the effects of economic pressure on women's depressive mood primarily analyzed data on community (Ennis et al., 2000) or regional (for a review, see Conger & Elder, 1994) samples that were often characterized by homogeneity of experience. Additionally, given the consistent evidence of a relationship between women's physical health and depressive mood, this study explores the associations among household income, economic pressure, and depressive mood net of the effects of women's self-rated physical health.

Second, this study explores the moderating effects of (a) locus of control and (b) financial instrumental support received from parents on the association between economic pressure and depressive mood among these unmarried women in midlife. Theory (Lazarus, 1966) and empirical findings (for a review, see Conger & Conger, 2002) suggest that women's sense of environmental control or mastery may buffer the

effects of economic pressure on psychological well-being. Additionally, consonant with theory (Lazarus, 1966), prior studies suggest that financial instrumental support may buffer the association between economic pressure and psychological well-being (for a review, see Conger & Conger, 2002). Finally, because the theoretical (for a review, see Belle, 1991) and empirical (for a review, see Lachman & Firth, 2004) literatures suggest that instrumental social support generally—and thus financial instrumental support from parents in specific—may be more important for women with lower levels of perceived control over the outcomes in their lives than women who report having higher levels of control, the study examines the higher-order moderating effects of locus of control on the buffering effects of financial instrumental support received from parents.

Last, this study examines the relationship between women's race and the moderating effects of locus of control and financial instrumental support received from parents on the association between economic pressure and depressive mood. That is, the study explores how the moderating effects of women's locus of control and financial instrumental support received from parents might vary as a function of race. Theory suggests that the disadvantages associated with having a racial minority status may amplify the negative relationships among household income and various measures of personal and social well-being (Collins, 1991; Hurtado, 1989). Consonant with this perspective, research exploring the effects of locus of control and financial instrumental support on the relationship between economic pressure and depressive mood suggest that the association may be different for white and black women (Belle & Doucet, 2003). However, findings in these studies, which analyzed data on community samples, were

inconsistent, and the use of a large national data set in this study contributes to an understanding of racial differences in the association between household income and psychological well-being.

### Conceptual Models

This study extends previous research examining the association of economic measures and psychological well-being by exploring this relationship among unmarried women in midlife. Specifically, the study tests the mediating effects of economic pressure on the association between household income and depressive mood. Further, the study explores the moderating effects of two factors, locus of control and financial instrumental support received from parents (a particular type of social support), on the relationship between economic pressure and depressive mood. Finally, the study examines two higher-order moderating effects. First, the study asks how the moderating effects of locus of control and financial instrumental support received from parents might differ for white and black women. Second, the study explores how the buffering effects of financial instrumental support received from parents might vary as a function of women's locus of control.

Figure 1 presents the conceptual model postulating that household income is (a) negatively associated with depressive mood and (b) negatively associated with economic pressure which is, in turn, positively associated with depressive mood. Additionally, this model predicts a negative relationship between women's self-rated physical health and depressive mood. Figure 2 reflects the conceptual model hypothesizing that the positive association of economic pressure and depressive mood is moderated by locus of control

and that these moderating effects are different for white and black women. Similarly, Figure 3 presents the conceptual model postulating that the positive association of economic pressure and depressive mood is buffered by financial instrumental support received from parents. This model further hypothesizes that the buffering effects of financial instrumental support received from parents are different for white and black women. Finally, Figure 4 reflects the conceptual model suggesting that the buffering effects of financial instrumental support received from parents vary as a function of women's locus of control.

Figure 1. Conceptual model describing the associations among household income, economic pressure, self-rated physical health, and depressive mood.

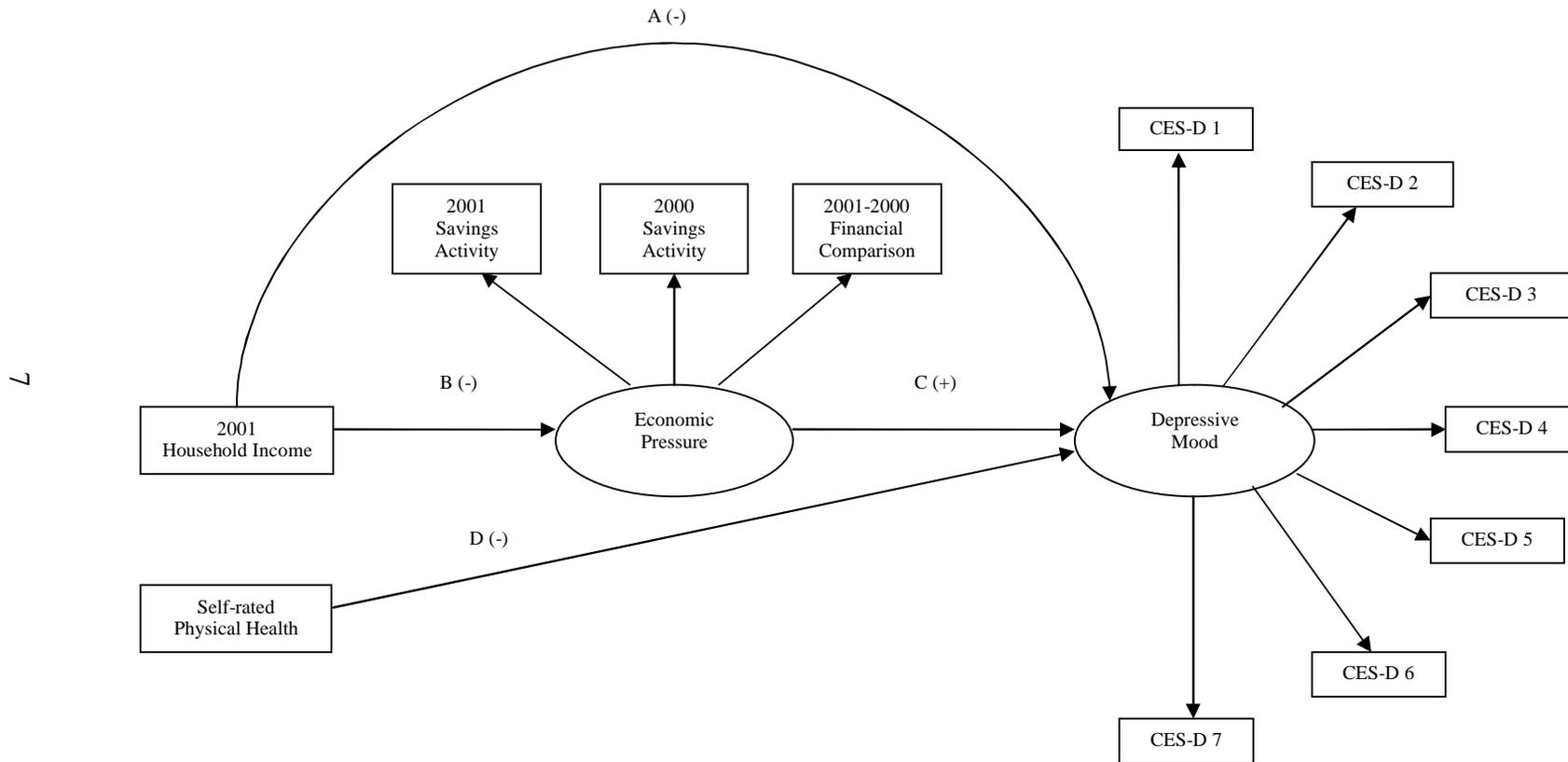


Figure 2. Conceptual model describing the associations among household income, economic pressure, self-rated physical health, locus of control, race, and depressive mood.

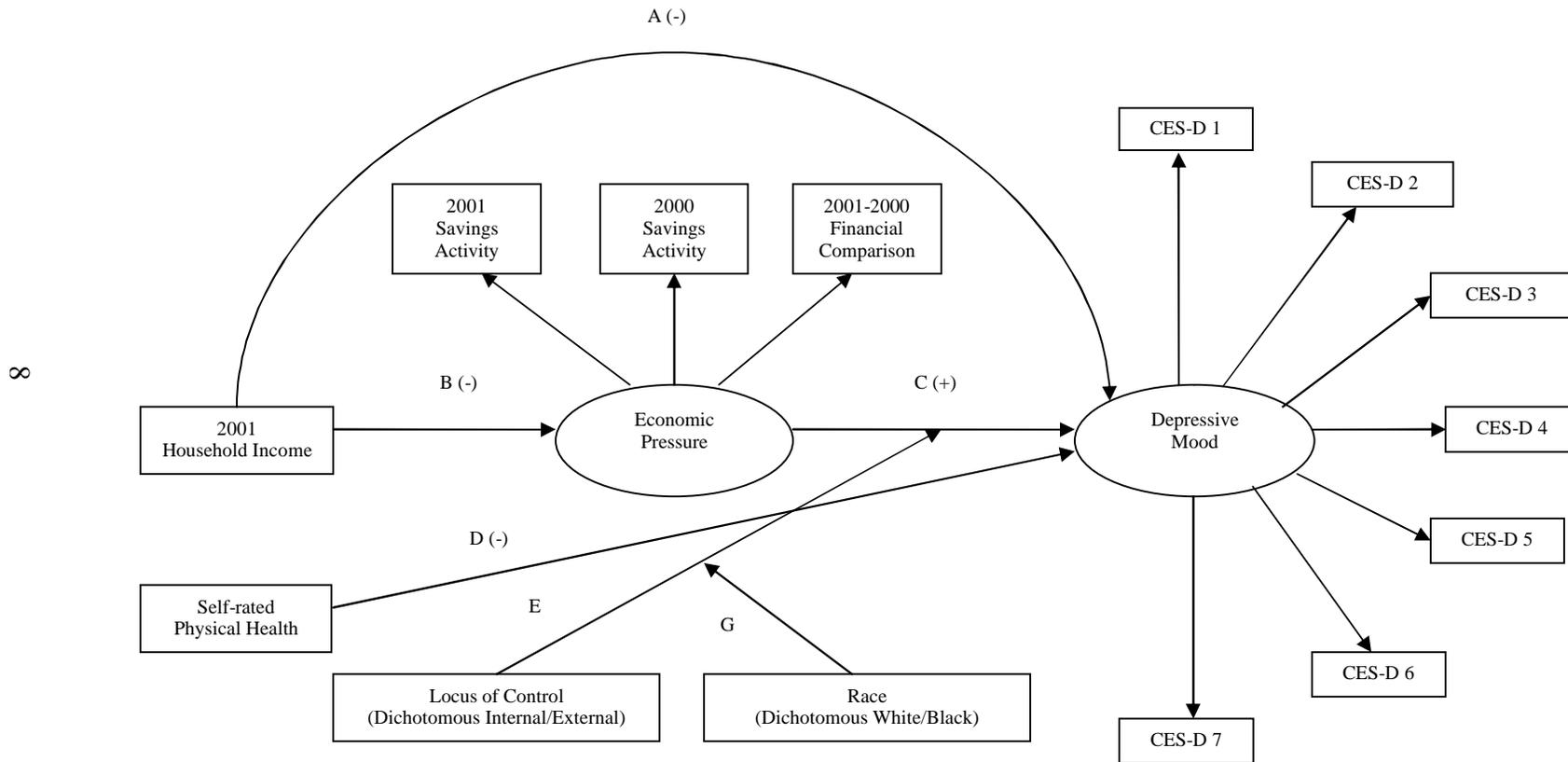


Figure 3. Conceptual model describing the associations among household income, economic pressure, self-rated physical health, financial instrumental support received from parents, race, and depressive mood.

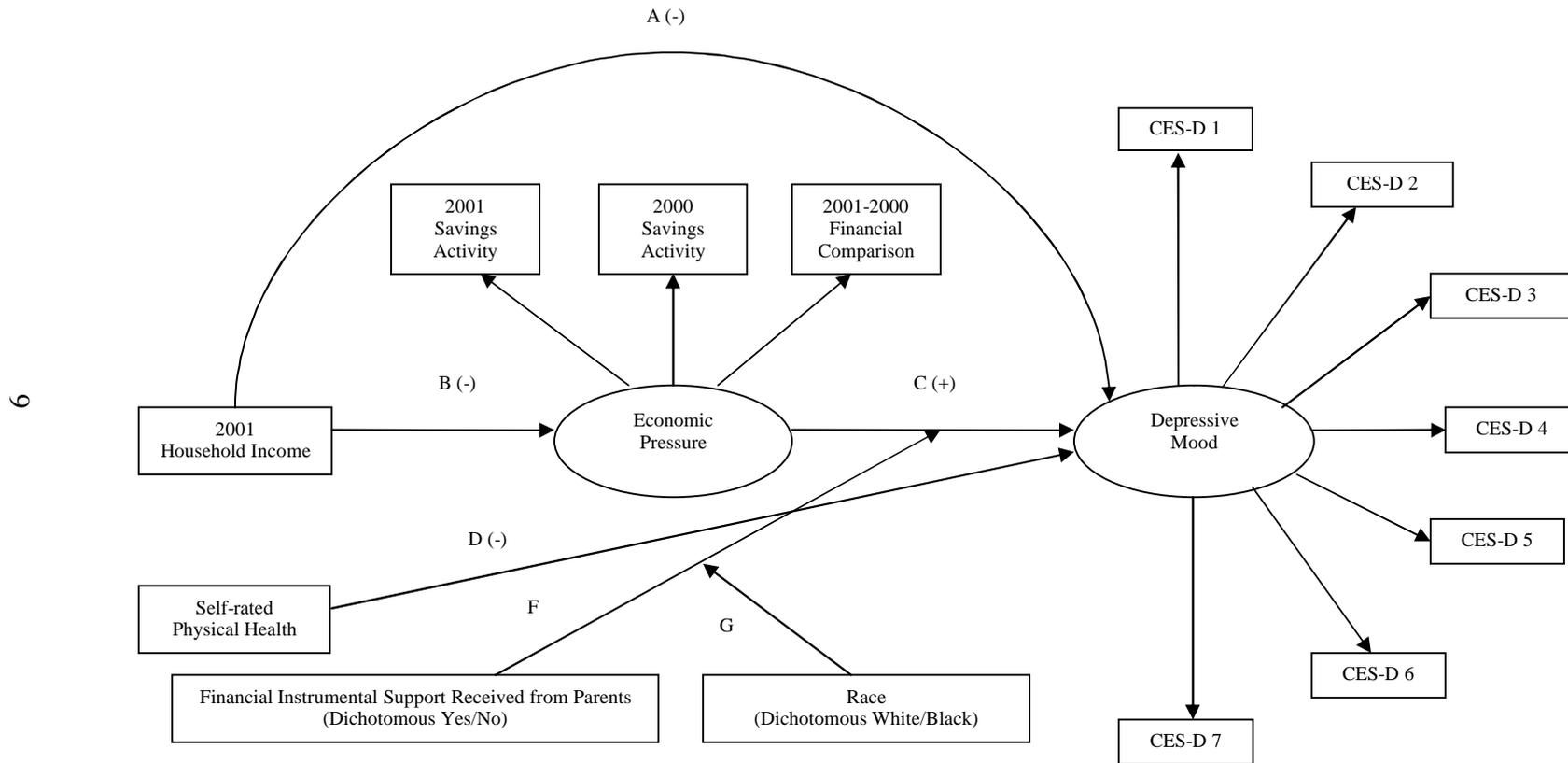
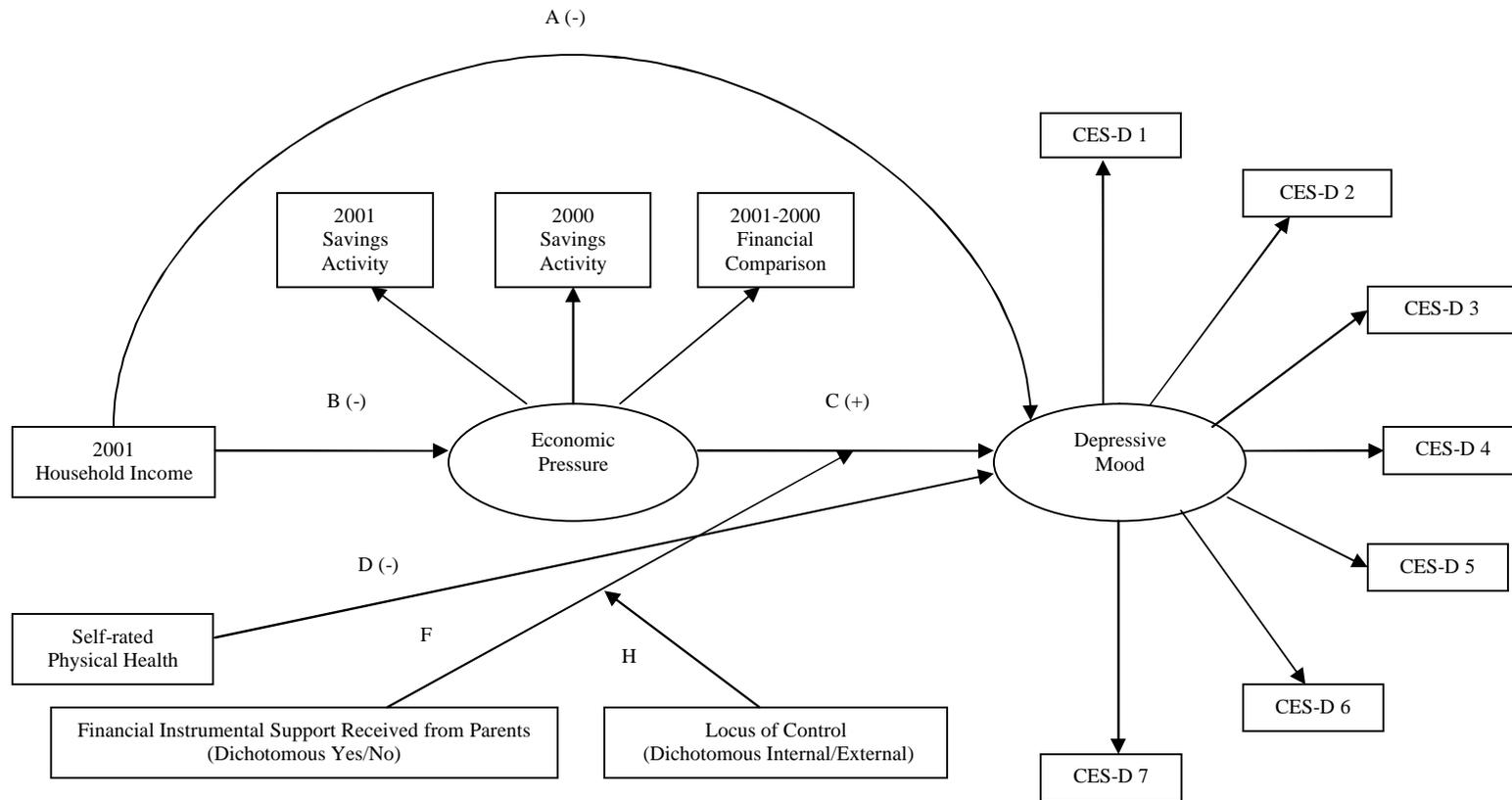


Figure 4. Conceptual model describing the associations among household income, economic pressure, self-rated physical health, financial instrumental support received from parents, locus of control, and depressive mood.

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## CHAPTER II

### REVIEWS OF THE THEORETICAL AND EMPIRICAL LITERATURES

#### Review of the Theoretical Literature

A tradition of sociological theories has addressed the role of social stressors in adults' psychological well-being (for a review, see Pearlin, 1989). Early contributions to this genre of theoretical frameworks, particularly mechanistic paradigms that regarded outcomes as largely predictable monoliths, failed to account for adults' diversity of experience (for a discussion of these limitations, see Lazarus & Folkman, 1984). For example, these early mechanistic theories fell short of explaining why specific conditions within the social environment can be experienced as stressors by some individuals and not by others. Accordingly, more recent sociological theorists have introduced increasingly comprehensive models of stress and coping that offer a contextual perspective for understanding variation in individual perceptions, behaviors, and outcomes. Among these more encompassing frameworks are biopsychological models that integrate internal and external influences on individual responses to stressors and, moreover, explain interactions among these effects (Bernard & Krupat, 1994). These theoretical paradigms are particularly well suited for investigations that explore the relationships among economic, psychological, and social measures of well-being.

To ground this investigation of the associations among household income, economic pressure, and depressive mood and the moderating effects of locus of control, financial instrumental support received from parents, and race on these relationships, I inform Lazarus's cognitive theory of stress and coping (Folkman, 1994; Lazarus, 1966; Lazarus & Folkman, 1984; Monat & Lazarus, 1991) by biopsychological perspectives. Further, to capture more fully the experience of unmarried women in midlife, I incorporate feminist theories. Specifically, the cognitive theory of stress and coping is beneficial in explaining the relationships among household income, economic pressure, and general well-being. Additionally, biopsychological perspectives on women's mental physical health address how lower levels of household income and the related sense of economic pressure might be associated with depressive mood, the outcome of interest in this investigation. Further, I use the cognitive theory of stress and coping to hypothesize the roles of locus of control and financial instrumental support received from parents in contextualizing the relationship between economic pressure and psychological outcomes. Finally, I use the cognitive theory of stress and coping, as informed by biopsychological perspectives and feminist theories, to suggest that white and black women may not have a shared experience of these economic, psychological, and social confluences.

#### *The Cognitive Theory of Stress and Coping*

The cognitive theory of stress and coping (Folkman, 1994; Lazarus, 1966; Lazarus & Folkman, 1984; Monat & Lazarus, 1991) provides a theoretical paradigm that views stress and coping as both relational and process oriented. The relational characteristic, which is essential in explaining individual differences in the experience of

economic pressure, is definitional. That is, this theoretical perspective defines stress as a relationship between individuals and their environments in which individuals appraise their environments as (a) demanding beyond their available resources and (b) injurious to their well-being. Specific to this investigation, the cognitive theory of stress and coping suggests that when women perceive their household income as inadequate and, moreover, threatening in its levels of inadequacy, they will experience a “stress relationship”, a term central to this theoretical paradigm that describes the psychological manifestation of environmental threats. This conceptualization of stress as a relative evaluation distinguishes the cognitive theory of stress and coping from other theoretical paradigms that regard stress as an environmental characteristic (e.g., a source of stimuli) or an individual behavior (e.g., a response to stimuli). In this investigation, consistent with a tradition of research linking economic measures, including household income, and depressive mood (for a review, see Conger & Elder, 1994), the relational nature of stress and coping is evident in the construct of economic pressure, an indication of a stress relationship. That is, economic pressure, although variously indicated, has often reflected evaluative measures, such as the perception of income adequacy.

The cognitive theory of stress and coping also posits that stress and coping are twofold processes. First, stress and coping are viewed as manifestations of dynamic and evaluative interplays between individuals and their environments. Second, the cognitive theory of stress and coping suggests that stress and coping are bidirectional processes in that individuals are both agents and objects of environmental change. In the literature on adult economic well-being, dynamic interplays between women and their environments

are evident, for example, in reports of resilience in the wake of substantial economic setbacks (for a review, see Conger & Conger, 2002). More generally, consistent with the cognitive theory of stress and coping, women's coping with the stressors associated with lower levels of household income appears to be facilitated by their sense of personal agency in effecting change in environments that are appraised as rich in opportunities.

According to the cognitive theory of stress and coping, two processes, cognitive appraisal and coping, influence the relationship between environmental stressors (e.g., lower levels of household income and higher levels of economic pressure) and adaptational outcomes (e.g., depressive mood). Cognitive appraisals are further described as primary and secondary. Primary appraisals are judgments of events as either (a) irrelevant (i.e., having no impact of well-being), (b) benign-positive (i.e., not demanding more resources than those available and having positive consequences), or (c) stressful (i.e., harmful, threatening, or challenging).

Regarding primary appraisals of economic well-being, Mirowsky and Ross (2003) argued that the experience of lower levels of household income is, by its very nature, stressful. These authors also suggested that the sense of economic pressure may occur at all levels of household income, although household income levels that challenge women to provide basic necessities, such as food, clothing, and medical care, are particularly harmful. Indeed, lower levels of household income are associated with psychological distress, particularly depressive mood, because the experience of inadequacy gives rise to recurring crises that threaten women's well-being in multiple domains.

Secondary appraisals refer to individuals' evaluations of their resources in the face of stressful situations. Appraised resources include tangible, psychological, and social resources available to ameliorate stressful circumstances. Psychological resources include the sense of personal control and environmental mastery. Social resources include family relationships that provide instrumental, informational, or emotional support. Women's secondary appraisals, as they relate to the association between economic pressure and depressive mood, are particularly important in theoretically grounding this investigation. Specifically, the study explores the roles of a psychological resource, locus of control, and social resource, financial instrumental support received from parents, in attenuating the deleterious effects of economic pressure on women's psychological well-being.

Finally, the theory of cognitive stress and coping defines coping as efforts to manage the demands imposed by environmental stressors. Coping is described as having two functions. First, emotion-focused coping regulates distress, including, for example, women's depressive mood associated with economic pressure. Second, problem-focused coping manages the distressing circumstances and entails, for example, women's pursuit of financial instrumental support from their parents in an effort to attenuate the stressors associated with lower levels of household income.

In sum, the cognitive theory of stress and coping posits that stress is a relationship in which individuals appraise their environments as presenting demands that (a) exceed their available resources and (b) are deleterious to their well-being. Specific to this investigation, the stress relationship often reflects an imbalance between environmental

demands (e.g., the costs of maintaining a lifestyle) and resources available to meet those demands (e.g., household income). The stress process reflects dynamic, bidirectional interplays between individuals and their contexts, in that individuals are both subject to environmental stressors and agents in combating and creating these stressors.

Additionally, two processes explain the association of environmental stressors and impaired individual outcomes. First, cognitive appraisals are essential in the manifestation of a stress relationship. Specifically, individuals evaluate the challenges posed by their environmental demands and the availability of their resources, including the sense of personal control and financial instrumental support, to meet these challenges. Second, in the face of these challenges, individuals display coping processes, including efforts to manage their emotional distress and modify their environments.

Lazarus's cognitive theory of stress and coping (Folkman, 1994; Lazarus, 1966; Lazarus & Folkman, 1984; Monat & Lazarus, 1991) explains the mechanisms by which a lack of economic resources might give rise to a stress relationship which, in turn, impedes psychological well-being. However, Lazarus's contribution does not suggest that depressive mood, the outcome of interest in this investigation, is a specific manifestation of this stress relationship. Accordingly, more recent theorists have expanded this perspective by posing the question: "what is it about events that creates...depression" (Pearlin, 1991, p. 335)? Pearlin (1991) argued that although the depressogenic effects of events that are (a) undesirable, (b) involve tangible or intangible loss, or (c) give rise to intra-psychic disequilibrium—all likely correlates of the experience of lower levels of household income and higher levels of economic pressure—are perhaps obvious, this

reasoning fails to account for impaired psychological well-being in the wake of positive stressors (e.g., changes to more gainful employment). This observation led Pearlin (1991) to conclude that depressive mood is reflective of the “durable conditions” (Pearlin, 1991, p. 336) or the everyday lived experience of stressors. Thus, lower levels of household income and higher levels of economic pressure might be associated with depressive mood because they are characterized by the day-to-day experiences of unmet material needs and desires. Mirowsky and Ross (2003) aptly captured the depressogenic impact of living with too few economic resources: “The daily grind—the problems that are always there—wear at the nerves and demoralize the spirit (p. 77).”

#### *A Biopsychological Perspective on Women’s Stress and Depressive Mood*

Various theorists focused on women’s experiences have advanced a biopsychological model of women’s stress relationships to explain why lower levels of household income and higher levels of economic pressure might be associated specifically with depressive mood (for a review, see Hyman, 2006). Although the biopsychological perspective is not central to this investigation, the model notably informs the study’s grounding in the cognitive theory of stress and coping. Specifically, the biopsychological model suggests that the associations among household income, economic pressure, and depressive mood are reflective of processes unique to women’s biological and psychological processes.

*Women’s biological processes and depressive mood.* Several biological perspectives on women’s psychological well-being suggest that depressive mood is a likely outcome when women experience an economic stress relationship. First, Penza,

Heim, and Nemeroff (2006) cited others' findings suggesting that early trauma, including physical, sexual, and emotional abuse, alters the neurobiological (e.g., neuroendocrine, neurochemical, and neuroanatomical) stress systems and renders women more sensitive to environmental stressors and depressive mood throughout the life course. Additionally, abnormalities in the hypothalamic pituitary adrenal (HPA) axis, precursors to depressive symptoms that are associated with exaggerated responses to stressors, appear to be more common in women than men (Korszun, Altemu, & Young, 2006). Further, this limbic neuroactivation is often related to cyclical fluctuations in estrogens and progestins during women's reproductive years which may extend into early midlife (for a review, see Somerset, Newport, Ragan, & Stowe, 2006). Finally, there is some evidence that genetic factors contribute to women's likelihood of experiencing depressive mood when confronting environmental stressors. Indeed, the vulnerability to depressive symptoms appears to be heritable, and there is evidence that this genetic linkage is stronger in women than men (for a review, see Nolen-Hoeksema, 2006).

*Women's psychological processes and depressive mood.* Psychological explanations for the association between economic measures and depressive mood among women underscore the role of cognitive processes. For example, cognitive-personality explanations for this phenomenon argue that women's tendencies to exhibit negative cognitive styles, interpersonal orientations, and ruminations elevate their risk of experiencing depressive mood (Nolen-Hoeksema, 2006). Thus, women in midlife who experience higher levels of economic pressure may be particularly prone to manifest self-defeating cognitive patterns that are associated with depressive mood.

### *Contextualizing Factors*

*Locus of control.* Folkman (1984) examined the role of personal control in stress and coping processes from the perspective of the cognitive theory of stress and coping (Lazarus, 1966; Lazarus & Folkman, 1984; Monat & Lazarus, 1991). Folkman described secondary appraisal processes in the stress relationship as addressing a fundamental question: “What can I do?” (p. 842). Psychological resources, including the sense of personal control, agency, and environmental mastery, are therefore pivotal in sustaining hope and morale and, thus, decreasing the likelihood of impaired psychological function. According to the cognitive theory of stress and coping, two types of control are effective in buffering the deleterious effects of the stress relationship. These are (a) a sense of control specific to particular stress relationships and (b) a more general sense of control in meeting environmental demands, operationalized as locus of control in this study.

The cognitive theory of stress and coping is particularly useful in understanding the role of locus of control in moderating the effects of economic pressure on women’s depressive mood. That is, this theoretical framework suggests that women who evaluate themselves generally as agents of environmental change are less affected psychologically by social stressors than women who view themselves as subjects of environmental influences. Specific to this investigation, from the perspective of the cognitive theory of stress and coping, women who have an internal locus of control, a measure of the extent to which outcomes are determined by personal agency, may be less likely to experience depressive mood in the wake of economic pressure than women who view outcomes as largely the product of factors outside themselves.

*Financial instrumental support from parents.* In an exhaustive review of the cognitive theory of stress and coping, Lazarus and Folkman (1984) elaborated on the role of social support, including instrumental support, in attenuating the stress relationship. The theoretical framework views the social environment as both a source of stressful demands and a resource for preventing and ameliorating these demands. More specifically, when individuals experience environmental stressors, such as economic pressure, social relationships can be a source of instrumental assistance that facilitates coping and adaptation. Indeed, Lazarus and Folkman (1984) described an awareness of the benefits of social support in stress and coping processes as intuitive and, in some respects, obvious; this observation seems particularly appropriate to the role of financial instrumental support in buffering the harmful effects of economic pressure.

I use these tenets of the cognitive theory of stress and coping to inform this discussion of the effects of financial instrumental support received from parents on the relationship between economic pressure, a stress relationship, and depressive mood, an adaptational outcome. According to this theoretical perspective, the benefits of social support in general, and thus financial instrumental support in specific, in attenuating the stressors associated with higher levels of economic pressure are two-fold. First, social relationships typically provide positive attributes, such as feelings of attachment, meaningfulness, and involvement, that are anathema to depressive mood. Second, and particularly germane to this investigation's focus on financial instrumental support from parents, social relationships are often a source of tangible resources that offset environmental demands. More specifically, the cognitive theory of stress and coping

recognizes the distinct benefits of social relationships that provide material assistance and, moreover, describes the family as a potential source of instrumental support within the social environment. Thus, when lower levels of household income and higher levels of economic pressure give rise to a stress relationship, the cognitive theory of stress and coping predicts that financial instrumental support from family members, including parents, will provide stress-buffering effects.

*Locus of control, financial instrumental support from parents, and higher-order moderation effects.* In addition to positing the moderating effects of locus of control and financial instrumental support from parents on the associations among household income, economic pressure, and women's depressive mood, the cognitive theory of stress and coping suggests that higher-order contextualizing effects may also be expected. Specifically, at least two theorists advancing the cognitive theory of stress and coping have argued that the buffering effects of instrumental support may vary as a function of locus of control. First, in an early treatise, Lazarus (1966) suggested that individual strengths (or lack thereof) determine whether environmental conditions, including available resources, are appraised as beneficial or harmful. Lazarus (1966) further argued that "beliefs about one's own general helplessness imply the corresponding potency of the environment for weal or for woe" (p. 133). He extended this reasoning to address coping processes. That is, given a particular environmental threat (e.g., economic pressure), characteristics of the individual (e.g., locus of control) are related to the desirability of specific coping responses (e.g., receiving financial instrumental support from parents). Second, Folkman (1984) addressed adaptational outcomes associated with

threats that pit control beliefs against viable problem-focused alternatives. Specific to this investigation, maladaptive outcomes, such as depressive mood, may be predicted when women with an internal locus of control are unable to harness their intrapersonal resources in an effort to attenuate economic pressure and, instead, are forced to accept others' assistance, including financial instrumental support from their parents. For women with an external locus of control, the self-concept is not similarly challenged by the receipt of financial instrumental support from parents, and depressive mood and other maladaptive outcomes would not be expected.

*Race.* I inform this investigation of the relationship between economic measures and psychological well-being among women in midlife, as grounded in the cognitive theory of stress and coping (Folkman, 1994; Lazarus, 1966; Lazarus & Folkman, 1984; Monat & Lazarus, 1991) and a biopsychological perspective on women's stress and coping (Hyman, 2006), by feminist theories to suggest that white and black women's experiences may vary. Feminist theories suggest that although all women share social and institutional barriers to economic resources, black women's experience is characterized by the intersecting disadvantages of gender and color. Black feminists, including Collins (1991) and Hurtado (1989), have argued that the effects of gender and color are not additive; black women do not share the experience of gender with white women or the experience of race with black men. Rather, black women's experience is unique, particularly as it relates to access to social, political, institutional, and economic power. Said differently, white and black women differ in their subordinated positions relative to white men. Hurtado's (1989) quote attributed to an elderly black woman is particularly

elucidating: “My mother used to say that the black women is the white man’s mule and the white women is his dog” (p. 854).

Bagley and Carroll (1998) further suggested that women’s resources for social support in the black community are distinct from white women’s experience.

Specifically, black women may be less dependent upon their parents for financial instrumental support in part because support resources in the black community are more likely to include extended family members, fictive kin, and social networks embedded in black churches. Howell and McEvatt (2005) argued that these broadly situated social relationships provide a particular psychological benefit to black women when social environments, including those that pose economic challenges, give rise to a stress relationship.

Similarly, Lazarus and Folkman’s (1984) descriptions of stress relationships as socially and culturally embedded suggest that the black community might be a source of coping behaviors. That is, black women may experience unique stress relationships, but may have unique coping mechanisms available to them within the black community, as well. More generally, the cognitive theory of stress and coping suggests that because white and black women experience the social world differently, the overall processes that guide the appraisal of stress relationships and the personal and social resources available to combat them may differ for white and black women. However, when the effects of a particular stress relationship (economic pressure in this study) on a specific outcome of interest (depressive mood in this inquiry) are examined, this theoretical perspective

suggests that these racial differences may fail to be apparent because they are subsumed by a complex interplay of cultural influences.

In short, feminist theories suggest that the relationship between economic and psychological well-being may differ for white and black women. Indeed, feminists have argued that black women's experience of discrimination in the workforce gives rise to stressors, including reduced access to household income, which white women do not share. Moreover, because the black community experience is characterized by these discrimination-based stressors, black women may have fewer social resources for financial instrumental support—notably transfers from their parents—and the benefits of receiving this assistance, when it is available, may reflect the black experience. The cognitive theory of stress and coping lends support to the argument that white and black women's disparate experiences of the social world give rise to unique stress relationships among black women, but this perspective argues further that social resources available in the black community may obscure racial differences in women's experiences of economic and psychological well-being.

*Integrating the Cognitive Theory of Stress and Coping and a Biopsychological Perspective on Women's Economic Well-being and Depressive Mood*

The cognitive theory of stress and coping posits that stress is a relationship in which individuals evaluate the demands of their environment (e.g., costs associated with maintaining a household) as exceeding available resources (e.g., household income). Two specific processes, cognitive appraisals and coping, explain the association of the stress relationship and an impaired sense of well-being. First, primary cognitive appraisals give

rise to the judgment that the perceived inadequacy of resources may have harmful consequences (e.g., eviction or foreclosure). Additionally, in secondary cognitive appraisals, psychological strengths (e.g., personal sense of control) are appraised, and social resources (e.g., the availability of financial instrumental support from parents) are evaluated for their potential benefit in attenuating demands (e.g., offsetting household costs) or increasing resources (e.g., providing financial aid). Coping, including problem-focused efforts (e.g., expending amounts from savings), combat the deleterious effects of the stress relationship.

A biopsychological perspective informs the cognitive theory of stress and coping in describing the specific ways in which the deleterious effects of the stress relationship might manifest among women in midlife. That is, when women are confronted with environmental demands that exceed available resources, changes in their well-being are often consistent with depressive mood. More specifically, the associations among household income, economic pressure, and depressive mood hypothesized in this study are reflective of processes unique to women's biological and psychological processes.

#### Review of the Empirical Literature: Support for the Model Paths

Research on the associations among women's household income, economic pressure, and depressive mood and related inquiries of how these relationships are influenced by locus of control, financial instrumental support, and race are found in two empirical literatures. First, the literature on women's aging reflects an interest in the effects of economic well-being, as variously conceptualized, on psychological well-being, often evidenced by measures of self-reported depressive mood. Typically, in this

literature, the effects of either household income or various indicators of economic pressure on women's depressive mood have been explored independently, and the mediating effects of economic pressure on the association of household income and depressive mood have not been examined. Additionally, a small number of studies in this genre of research have explored the influence of locus of control and race on the relationship between women's economic resources and psychological well-being. Second, in the family studies literature, a tradition of research has examined the mediating effects of economic pressure on the relationship between various economic measures, including household income, and women's depressive mood. Further, at least one study in this genre of research explored the effects of women's receipt of instrumental support from family members on these associations.

This study integrates and extends research from the family studies literature and the literature on women and aging. Specifically, it extends the family studies literature in its focus on (a) the association between economic measures and psychological well-being among unmarried women in midlife and (b) how this association might be buffered by women's receipt of financial instrumental support from their parents. Likewise, the study extends the literature on women and aging in its exploration of (a) the moderating effects of locus of control on the relationship between economic pressure and depressive mood and (b) how these effects might vary as a function of race. Lastly, consonant with the tradition of research on aging women, this study considers these associations among economic and psychological measures net of the effects of women's self-rated physical health.

*Associations among Household Income, Economic Pressure, and Depressive Mood*

*(Model Paths A, B, and C)*

*Evidence from the literature on women and aging.* The broad relationship between women's economic and psychological well-being is well established in the literature on women and aging, and empirical support for the hypothesized association of household income and depressive mood is strong. Although the mediating effects of economic pressure on this relationship have not been examined in these studies, these findings are important in establishing the negative association between women's household income and depressive mood in midlife. For example, a number of studies have demonstrated consistent evidence of a graded association between socioeconomic status, often indicated by measures including household income, and psychological well-being across income strata (for a review, see Adler, Boyce, Chesney, Cohen, Folkman, Kahn, & Syme, 1994). In their review of this literature, Adler and colleagues (1994) noted that household income is inversely related to impaired psychological well-being as variously conceptualized, including major depressive episode and self-reported depressive mood.

Because poor women are particularly vulnerable to depressive mood, they have been the focus of considerable inquiry in the literature on women and aging (for a review, see Belle & Doucet, 2003). Poor women's everyday lived experiences are characterized by a number of uncertainties (e.g., the availability of adequate nutrition, housing, healthcare, and employment) and negative and uncontrollable life events (e.g.,

neighborhood crime and eviction). By many estimates, living in poverty roughly doubles women's risk of experiencing depressive mood (Belle & Doucet, 2003).

The literature on women's aging also suggests that acute economic stressors (economic pressure, as conceptualized in the present study), rather than chronic deprivation, explain the association between women's poverty and depressive mood. For example, in an early review of the literature on depressive mood among poor women, McGrath and colleagues (1990) noted that income inadequacy predicted depressive mood beyond the effects of total income. In a more recent study, Ennis and colleagues (2000) found that for white and black women, household income failed to be a significant predictor of depressive mood when acute economic stressors, indicated by real or threatened material losses in the preceding 90 days, were considered. Thus, the inadequacy of poor women's household income is correlated with depressive mood largely because income shortages give rise to serial, discrete, economic crises.

In sum, the literature on women and aging lends support to two paths in the conceptual models that inform this study. First, studies of women across economic strata provide evidence of the negative association between household income and women's depressive mood. Second, studies focused primarily on poor women suggest that economic pressure, as evidenced by the everyday lived experiences associated with household income inadequacy, is positively associated with depressive mood.

*Evidence from the family studies literature in research on women in rural families.* A tradition of research in the family studies literature suggests that the association between household income and women's depressive mood is fully mediated

by economic pressure. Empirical support for these hypothesized mediating effects among unmarried women in midlife is accordingly strong. Key research establishing these mediating effects on the association of economic status, a latent construct indicated by economic measures including household income, and women's well-being is found in studies from the Iowa Youth and Families Project (IYFP). Data collection for this project began in the mid-1980s, a time of severe, multi-faceted economic disruption in the Midwest United States that has been referred to as the Great Farm Crisis. The IYFP data support the Family Stress Model, a process model of families' experiences of economic distress. Overall, the Family Stress Model suggests that lower levels of economic resources, including household income, gives rise to daily strains and pressures that, in turn, affect the moods and behaviors of family members and, ultimately, their individual well-being trajectories (for a review, see Conger & Conger, 2002). More specifically, in the first mediated path in the Family Stress Model, the association of family economic well-being (termed economic status or economic hardship and typically indicated by household income) and adult family members' well-being, including measures of depressive mood, is fully mediated by the construct of economic pressure (Conger & Elder, 1994). That is, the model suggests that household income is related to women's psychological well-being because it gives rise to feelings of economic pressure or strain.

The Family Stress Model identifies family economic measures, including household income, as antecedents of economic pressure. That is, in the IYFP literature, lower levels of household income were associated with higher levels of economic pressure. In this genre of research, economic pressure was a latent construct typically

indicated by three manifest measures (Elder, Robertson, & Ardel, 1994). First, economic pressure was evidenced by a measure of “can’t make ends meet,” an average of husbands’ and wives’ responses on two questions, one reporting difficulty paying monthly bills and a second reporting whether there is money left over after monthly bills are paid. Second, economic pressure was indicated by a measure of “not enough money,” which represented an average of husbands’ and wives’ responses to seven questions exploring their beliefs that money is inadequate for family needs. Finally, economic pressure was indicated by economic adjustment, evidence of efforts to reduce spending and generate additional income, including reports of (a) borrowing funds and using savings, (b) reducing expenses, and (c) selling property. Conger and Elder (1994) argued that the construct of economic pressure captured the daily experience of living with financial difficulties and, hence, the means by which objective economic measures became meaningful in family life.

In the family studies literature, economic pressure has been operationalized variously, and manifest indicators of the construct have included objective and subjective measures. In a recent study, Conger and colleagues (2002) distinguished economic pressure, which they described as tapping objective experiences, from economic strain, a more subjective evaluation of economic well-being (for a discussion of economic strain, see Voydanoff, 1990). However, the broader literature reflects less clarity in these conceptual definitions. Elder, Robertson, and Ardel (1994) noted that IYFP measures (as previously detailed) included both subjective (e.g., the perception of household income as inadequate) and objective (e.g., reports of activities to generate additional income or

reduce spending) measures. Accordingly, the literature using IYFP data to test the Family Stress Model reflects inconsistent terminology. For example, some researchers used IYFP data, including objective and subjective measures, to indicate constructs denoted as economic pressure (for an example, see Conger, Ge, & Lorenz, 1994), and others used the same IYFP measures to indicate economic strain (for an example, see Simons & Lorenz, 1992). In studies not analyzing IYFP data, the terms economic pressure and economic strain have been conceptualized and operationalized in a manner more consistent with Conger and colleagues' (2002) distinction. For example, Lee and others (1994) tested the Family Stress Model in a study of Czech couples and used subjective measures exclusively to indicate a construct they termed economic strain. In short, the literature reflects various conceptual definitions of economic pressure, and, accordingly, the construct has been represented by objective measure, subjective reports, and, more often, by combinations of objective and subjective indicators. However, as Elder and colleagues (1994) noted, objective and subjective indicators of economic pressure are sufficiently strongly correlated as to suggest that each taps the everyday lived experience of income inadequacy.

For clarity in this review, I use the term economic pressure to describe the various constructs operationalized to reflect the “onerous experiences that give psychological meaning” (Conger et al., 2002, p. 180) to living with lower levels of household income. In IYFP studies of families with adolescents, economic pressure was identified as a mediator in the association between household income and depressive mood among mothers of boys (Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1992) and girls

(Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1993). Other IYFP studies of women in rural families found support for these mediating effects, as well (Conger, Ge, Elder, Lorenz, & Simons, 1994; Conger, Ge, & Lorenz, 1994; Elder et al., 1992; Lorenz, Conger, & Montague, 1994). Additionally, in a study of rural women using data unrelated to the IYFP, Johnson and Booth (1990) associated economic pressure with depressive mood. In sum, a tradition of research on women in rural families supports the mediating effects of economic pressure on the association between economic well-being, as variously conceptualized but typically indicated by measures including household income, and women's depressive mood.

*Evidence from the family studies literature in research on women in non-rural families.* The mediating effects of economic pressure on the association between household income and depressive mood have also been explored among groups of women other than those in blighted rural communities. For example, support for the Family Stress Model was found among 422 black women who participated in a study of two-caregiver families in which caregivers were not restricted to children's biological parents (Conger et al., 2000). Specifically, economic pressure partially mediated the association between household income and women's depressive mood for mothers of boys and girls. These findings were consistent with those of an investigation of 117 Finnish women during a period of high job insecurity and unemployment (Kinnunen & Pulkkinen, 1998). In this study, the association between economic well-being, as evidenced by employment stability rather than household income, and depressive mood was partially mediated by economic pressure (current and anticipated).

Further, two international studies that extended the Family Stress Model, but which did not explore the specific mediating effects of economic pressure on the association between household income and family outcomes, merit mention. In both of these studies, the direct effects of economic pressure on women's psychological well-being were apparent. Specifically, economic pressure was associated with depressive mood in a randomly selected sample of 294 Czech wives who were surveyed during a time of high levels of inflation and unemployment in the Czech Republic (Lee et al., 1994). Similarly, in an investigation of 236 couples in Korea during an era of macroeconomic unrest, economic pressure was associated with wives' distress, as operationalized by measures including self-reported depressive mood (Kwon et al., 2003).

*Bidirectional effects among household income, economic pressure, and depressive mood.* Kaplan (2000) suggested that social research is enhanced by addressing theoretically or empirically the likelihood of significant bidirectional effects among predictor and criterion variables. Consonant with this argument, the effects of depressive mood on household income and economic pressure merit consideration. Although the cognitive theory of stress and coping suggests that women's well-being (e.g., lower levels of depressive mood) is generally a product of coping processes (e.g., seeking financial instrumental support from parents) that assuage the harmful effects of environmental threats (e.g., higher levels of economic pressure), some coping processes are maladaptive. Specifically, avoidant coping processes, which Lazarus (1966) described as interpretations and behaviors that divert one's attention from a specific threat, may

contribute to women's ignoring erosion in their levels of household income or escalation in their levels of economic pressure. Indeed, women with lower levels of household income who fail to employ effective coping strategies (e.g., reducing expenditures) have reported higher levels of economic pressure (for a review, see Conger et al., 2002). Moreover, because women with lower levels of psychological resources, such as those who report depressive mood, are more likely to exhibit avoidant coping processes (Lazarus, 1966), the cognitive theory of stress and coping suggests that, for some women, depressive mood may be both a consequence and antecedent of higher levels of economic pressure.

In the empirical literature, however, there is little evidence of bidirectional effects among household income, economic pressure, and self-reported depressive mood. Longitudinal studies suggest that lower levels of household income are predictive of depressive mood; and, although depressive mood contributes to workplace absenteeism and reduced productivity (Wilhelm, 2006), evidence of the effects of depressive mood on household income is considerably less compelling (for reviews, see Eaton, Muntaner, Bovasso, & Smith, 2001; Lennon, 2006; Penninx, 2006). Indeed, although popular press publications, such as Schor's (1998) *The Overspent American*, describe irrational spending—and, by extension, higher levels of economic pressure—as a product of poor psychological well-being, the academic literature has associated this behavior with bipolar disorder (i.e., manic depression) and not self-reported depressive mood, the outcome of interest in this investigation (for a discussion of distinctions among depressive disorders, see Mazure & Keita, 2006).

*Self-rated Physical Health and Depressive Mood (Model Path D)*

Although the relationship between women's physical health and psychological well-being is not central to this study, the effects of physical health on depressive mood are included in the conceptual models because physical health is strongly associated with psychological well-being among women in midlife. Indeed, a tradition of literature has associated physical health and depressive mood among aging women. Self-reported physical health has predicted consistently both the risks and levels of depressive symptoms among older women, and the strength of these relationships may have confounded empirical efforts to isolate the separate effects of aging on depressive mood (Ried & Planas, 2002). Further, in a study of white and black women in midlife, Bromberger, Harlow, Avis, Kravitz, and Cordal (2004) found an association between physical health and depression that was independent of race.

Declines in physical health appear to be associated with an immediate increase in women's vulnerability to depressive mood in midlife (Killian et al., 2005). Moreover, midlife declines in physical health appear to fuel a downward trajectory, as physical health declines predict depressive mood which, in turn, predicts subsequent physical health declines (Killian et al., 2005). Because the relationship between women's physical health and depressive mood has been demonstrated consistently in the empirical literature, this study examines the association between economic and psychological measures of well-being net of the effects of women's self-rated physical health.

*The Moderating Effects of Locus of Control and Financial Instrumental Support from Parents (Model Paths E and F)*

In their summary of the literature exploring resilience among families who participated in the IYFP, Conger and Conger (2002) noted that, overall, two types of resources buffered the association between economic pressure and adults' maladjustment. First, IYFP adults varied in their personal attributes, and those with higher levels of individual resources fared better psychologically when confronted with economic pressure than their less advantaged counterparts. More specifically, women's sense of control or environmental mastery was identified as a personal attribute that moderated the association of economic pressure and depressive mood. Second, IYFP adults varied in their levels of social support, both instrumental and non-instrumental, which buffered the effects of economic pressure on women's psychological distress. In sum, this literature provides some evidence of the moderating effects of both locus of control and instrumental social support on the association between economic pressure and women's depressive mood. However, because these relationships have been the focus of few inquiries, only moderate empirical support for the conditionalizing effects hypothesized in this study are evident. Additionally, there is scant evidence that these moderating effects vary between white and black women, although empirical support for these higher-order conditionalizing factors is weak.

*Locus of control (Model Path E).* Locus of control is a concept that captures the extent to which individuals view themselves as capable of producing desirable or preventing undesirable events (Skinner, 1995). Generally, adults with an internal locus of

control believe that their actions influence outcomes, whereas those with an external locus of control perceive outcomes as principally affected by outside circumstances and events. Thus, locus of control is related conceptually to various constructs that tap environmental mastery and, to a lesser extent, concepts such as self-esteem. Although there is scant evidence that the relationship between locus of control and psychological well-being may be confounded (Aiken & Baucom, 1982), overall, the literature suggests that an external locus of control is associated with depressive mood (for a review, see Girgus & Nolen-Hoeksema, 2005). That is, overall, women who perceived themselves as lacking power over their circumstances have reported elevated levels of depressive mood.

The relationship between age and locus of control is not well understood. In cross-sectional research designs, the sense of control has been found to increase, remain stable, and decrease across the adult life course (for a review, see Lachman, 2006). However, longitudinal studies have suggested that among middle-aged and older adults, the locus of control becomes slightly more external with age (for a review, see Lachman, 2006). Because aging is often characterized by events that are not controllable, such as physical health declines and bereavement, slight shifts in the locus of control may be expected. However, the adaptive value of maintaining an internal locus of control in the wake of these losses may be particularly important to psychological well-being among women in midlife (Lachman & Firth, 2004).

There is also some evidence that locus of control becomes more domain specific across the life course. Lachman and Firth's (2004) comparison of domain-specific measures of personal control across cohorts of adults suggests shifts toward an internal

focus in the domains of employment, economic resources, and marriage and shifts toward an external focus in the domains of child outcomes and sexuality. In these analyses, generally adults in midlife more closely resembled their older counterparts than young adults suggesting that domain-specific shifts begin in midlife and continue during the later years. One exception to this finding is notable: On a single-item measure of control over “finances” middle-aged adults distinguished themselves. Compared to younger and older adults, those in midlife reported significantly higher levels of control in this domain. In their review of less recent research, Aiken and Baucom (1982) argued that the domain-specific nature of locus of control may be particularly important in studying the correlates of depressive mood, as women with elevated levels of depressive mood may be more likely to attribute their ongoing lack of psychological well-being to specific external factors. Although no studies have examined closely the association between locus of control specific to the domain of economic well-being and women’s psychological well-being, there is scant empirical evidence that this relationship exists. In a study of women aged 55 and over, Craft, Johnson and Ortega (1998) reported bivariate correlations linking women’s perceptions of themselves as capable of solving financial problems to fewer depressive symptoms.

Inconsistencies in the literature suggest that the relationship between locus of control and economic measures remains unclear. In a study of women in the middle and later years, Caputo (1997) found no evidence of a relationship between locus of control and household income-to-poverty ratio in either cohort. However, in a study of young women, Ennis and colleagues (2000) associated a sense of mastery and household

income levels among white, but not black, women. Using national probability samples, Lachman and Weaver (1998) found a relationship between levels of mastery and household income among men and women, although these analyses did not include tests for racial or gender differences.

Research on the effects of women's sense of control on the association between economic pressure and psychological well-being are more consistent. Among women who participated in the IYFP research, a sense of mastery and self-confidence partially buffered the effects of economic pressure on depressive mood (for a review, see Conger & Conger, 2002). In short, women with higher levels of mastery were less psychologically distressed by economic pressure. Similarly, in their study of Czech couples, Lee and colleagues (1994) found that self-esteem buffered the relationship between economic pressure and women's depressive mood.

Other findings also suggest that an internal locus of control may buffer the effects of economic pressure on women's psychological well-being. For example, in Lachman and Weaver's (1998) study of adults, a high sense of mastery buffered the association of income and depressive mood. Moreover, these effects were strongest for adults in lower social classes. That is, among adults with lower levels of incomes, higher levels of control were particularly important in reducing the vulnerability to depressive mood. However, in a study of young, inner-city women, Ennis and colleagues (2000) found that personal mastery buffered the effects of recent economic stressors on depressive mood among white women, but similar effects were not observed for black women. Thus, the

buffering effects of locus of control on the association between economic pressure and depressive mood may not be fully understood.

*Financial instrumental support from parents (Model Path F).* In their summary of the literature on resilience in IYFP families, Conger and Conger (2002) noted that studies testing the Family Stress Model have focused on identifying mediating effects and failed to examine moderating effects that might conditionalize the association between economic pressure and poor outcomes, including depressive mood. This and more recent reviews, including Mistry, Lowe, Benne, and Chien's (2008) call for an expansion of the Family Stress Model, further noted that the role of instrumental support in combating economic stressors has received little attention. Accordingly, this study's exploration of the buffering effects of financial instrumental support from parents on the association between economic pressure and depressive mood among unmarried women in midlife builds on tangential research in several disparate genres of inquiry to contribute to an emerging body of literature.

The benefits of social support in buffering the harmful effects of various environmental stressors on adult well-being are well established in various tangential literatures (for a review, see Mirowsky & Ross, 2003). Additionally, researchers have distinguished instrumental assistance, such as financial transfers, from socioemotional or expressive support (e.g., validation and acceptance) and informational support or directive guidance (e.g., advice) (for a review, see Newcomb, 1990). In short, the literature reflects various conceptualizations of social support, and its empirically demonstrated benefits depend, to some extent, on these conceptual domains. Overall,

however, social support in general, and instrumental support in specific, is thought to buffer the effects of stressors, such as economic pressure, on adult psychological well-being.

There is evidence that parents provide financial instrumental support to their children across the life course (Hogan, Eggebeen, & Clogg, 1993; Lawton, Silverstein, & Bengtson, 1994). Moreover, in a national survey of adult children, including children who were ages 45 and over, norms of intergenerational responsibility were evident. Specifically, given an assortment of domain-specific expectations (e.g., helping with bill payment when adult children are economically distressed), approximately one-third of respondents agreed that parents should provide financial assistance to their adult children as needs arise (Lawton et al., 1994). However, financial instrumental support from parents may occur in the context of problematic or ambivalent intergenerational relationships, and these relational qualities may be reflected in the psychological benefits associated with the transfers (Fingerman, Hay, & Briditt, 2004).

Considerable quantitative research has focused on the correlates of parents' provision of instrumental financial support to their adult children. Overall, compared to young adults, middle-aged children receive less financial instrumental support from their parents, perhaps because midlife is less likely than young adulthood to be characterized by lower levels of household income and higher levels of economic pressure (Lawton et al., 1994; Levitt, Guacci, & Weber, 1992). Although early studies associated adult children's marital status with the likelihood of receiving financial instrumental support from parents (for a review, see White & Peterson, 1995), White and Peterson's (1995)

more recent study, which included adult children in midlife, suggested that among adult children who did not reside with their parents, unmarried children were no more likely than married children to receive financial instrumental support from their parents. Further, unmarried non-coresiding sons and daughters did not differ in the levels of financial instrumental support they received from their parents (White & Peterson, 1995), but mothers were more likely than fathers to provide this type of support to their adult children (Lawton et al., 1994). In part because parents' financial instrumental support of adult children is associated with parents having sufficient resources to share, lower levels of parental provision of financial instrumental assistance to adult children have been observed among black families than their white counterparts (Lawton et al., 1994). However, these lower levels of financial instrumental support from parents may be particularly meaningful. In a study of black women's adult parent-child relations, Jayakody, Chatters, and Taylor (1993) associated women's family satisfaction with their receipt of financial instrumental support from their parents.

Although no prior quantitative inquiries have examined broadly the association of financial instrumental support from parents and unmarried women's well-being in midlife, findings in three related genres of research suggest that parental assistance may provide a specific psychological benefit to these women. First, considerable qualitative research focused on relations between adult daughters and their mothers suggests a dyadic interdependence across the life course (for a review, see Fingerman, 2003). Perhaps in part because mothers and daughters share a gendered economic vulnerability, their relationships are often characterized by the exchange of instrumental support, and

receipt of these benefits appears to be important to daughters' sense of well-being. Indeed, Fingerman (2003) argued that women's susceptibility to lower levels of household income may foster among daughters a lifelong sense of dependence and connectedness to their families of origin.

Second, in accounts of women in divorce transition, which is often a time of pronounced economic stressors for women (Sayer, 2006), the benefits of social support, including financial instrumental support from parents, feature prominently (for a review, see Sprecher, Felmlee, Schmeckle, & Shu, 2006). For example, in quantitative analyses of data on women's divorce experience, Kitson (1992) associated the receipt of financial instrumental support from family members with lower levels of depressive mood. Further, in qualitative interviews, women in this study described this financial instrumental support as beneficial to their overall adjustment to divorce, a chief component of which is recovery from the economic consequences of marital dissolution (Braver, Shapiro, & Goodman, 2006; Sayer, 2006).

Finally, although no previous research has examined the mechanisms by which financial instrumental support from parents might provide psychological benefits to economically vulnerable unmarried women in midlife, at least two studies may inform this discussion. First, in their extension of the Family Stress Model to Czech couples, Lee and colleagues (1994) hypothesized that social support, including non-financial instrumental support, would buffer the effects of economic pressure on wives' depressive mood and hostility. Although the data were consistent with the hypothesized effects on hostility but not depressive mood, the researchers noted that these findings may have

reflected attributes unique to women in the Czech culture. Second, in a study of poor mothers of adolescents, coping behaviors, which included enlisting the help of others and active problem solving (and which may or may not have included the receipt of financial instrumental support from parents), buffered the association between economic pressure and women's depressive mood (Wadsworth, Raviv, Compas, & Conner-Smith, 2005).

In sum, no prior research has considered specifically how the receipt of financial instrumental support from parents might buffer the association between economic pressure and depressive mood among unmarried women in midlife. However, there is evidence, albeit disparate, that financial instrumental support from parents might provide a unique benefit to these women. That is, the literature suggests that adult daughters are dependent upon and derive particular psychological benefits from their families of origin across the life course. Moreover, these benefits appear to be particularly important when women face environmental challenges, such as the economic stressors associated with divorce transition.

*Higher-order moderating effects of locus of control on the buffering effects of financial instrumental support from parents (Model Path H).* Because little research has examined the buffering effects of financial instrumental support on the association between economic pressure and women's depressive mood, there is only scant empirical evidence that the benefits of financial instrument support may vary according to locus of control. Indeed, only one researcher has concluded that these higher-order moderating effects may be present. Specifically, in a study of black women experiencing economic pressure, Cotton (1999) suggested that the relationship between locus of control and

social support may be confounded. That is, in this study, financial instrumental support was more important for women with an external locus of control than their more internally-focused peers.

*Racial Differences in Depressive Mood and the Moderating Effects of Locus of Control and Financial Instrumental Support from Parents (Model Path G)*

Although race is commonly regarded as a correlate of psychological well-being, the empirical literature suggests that the relationship between women's race and depressive mood may be complex. For example, the incidence of major depression among white women is equivalent to or higher than its occurrence in black women, but black women report higher levels of depressive symptoms (for a review, see Jackson & Williams, 2006). Nonetheless, race is generally considered a correlate of women's depressive mood for at least two reasons. First, black women's experiences are more often characterized by a confluence of factors associated with depressive mood. That is, relative to white women, black women are more likely to experience violent victimization, poor quality employment, and poverty (for a review, see Belle & Doucet, 2003). Indeed, in a study of women in midlife, racial differences in depressive mood were attenuated when socioeconomic variables, including education, economic stressors, and employment status, were considered (Bromberger et al., 2004).

Second, among black women, the disadvantages associated with gender and class are confounded by the everyday lived experience of discrimination. Discrimination subjects black women to repeated stressors, including social and institutional undeserved contempt (Belle & Doucet, 2003). Although racial differences in women's depressive

mood are often attributed to issues of class, there is growing evidence that the experience of discrimination additionally elevates the risk to black women's psychological well-being. For example, in a two-panel study of black women's physical health, change in women's experiences of discrimination over a five-year period was associated with change in women's depressive mood over the same period, independent of baseline education and income levels (Schulz, Israel, Gravelle, Mentz, Williams, & Rowe, 2006).

Although Conger and colleagues (2002) argued that the associations among household income, economic pressure, and depressive mood are similar overall for white and black adults, at least one study suggests that the associations among economic pressure, locus of control, non-instrumental social support, and depressive mood may differ between white and black women. As previously noted, Ennis and others (2000) found that among young, low-income single women (60% of whom were mothers in this investigation), personal mastery buffered the effects of acute resource loss (a measure conceptually similar to economic pressure) on depressive mood among white, but not black, women. However, among black women in this study, the association of acute resource loss and depressive mood was buffered by non-instrumental social support (measured by, for example, satisfaction with others' provision of distraction from worries and unconditional acceptance). Similar effects for social support were not found for white women.

No prior studies have explored racial differences in the effects of women's receipt of instrumental support, either broadly conceptualized or specific to financial instrumental support, on their well-being. However, the literature suggests that the

benefits of financial instrumental support to black women may not be fully understood. For example, Lincoln, Chatters, and Taylor (2005) found that receiving financial instrumental support from family members did not mediate the effects of economic pressure on black women's depressive mood. Moreover, there is some evidence that black adults, particularly those who are unmarried, suffer reduced levels of overall social support in the wake of negative life events. For example, in a study of black women, aged young adulthood to midlife, economic pressure was associated with depressive mood both directly and indirectly, through lower levels of social support from family members (excluding spouses), perhaps because these relationships were incapable of providing financial instrumental support (Lincoln et al., 2005).

There is evidence that white and black adults differ in their sources of social support, and these findings may help to elucidate the observed racial differences in the benefits to women of financial instrumental support received from parents. In an examination of white and black older women, Armstrong (2000) found that black women had larger social networks and were more likely to draw friendships from church, whereas white women were more likely to establish neighborhood-based friendships. Among older black women, the frequency of interaction with church friends and the emotional closeness these relationships provided were associated with the likelihood that women received instrumental support from church members (Taylor, Lincoln, & Chatters, 2005). In sum, there is evidence that the benefits of instrumental support differ for white and black women, but these effects are not well understood, particularly as they

relate to the effects of financial instrumental support on the association between women's economic measures and depressive mood in midlife.

### The Present Study and Extending the Literature

This investigation extends the literature in at least three ways. First, although considerable research has examined the mediating effects of economic pressure on the association between household income and depressive mood, no investigations have focused on these relationships among unmarried women in midlife. Second, despite considerable theoretical and empirical evidence suggesting that the association between economic pressure and depressive mood may be moderated by locus of control and financial instrumental support, including assistance received from parents, no single study has considered the contextualizing effects of these factors and how they might interact with one another. Finally, consistent with the feminist argument and growing empirical evidence that white and black women do not have a shared experience of economic and psychological well-being, the study examines the moderating effects of race on the roles of locus of control and financial instrumental support received from parents on the association between economic pressure and depressive mood.

### Hypotheses

This study uses Lazarus's cognitive theory of stress and coping (Folkman, 1994; Lazarus, 1966; Lazarus & Folkman, 1984; Monat & Lazarus, 1991), as informed by a biopsychological model and feminist theories, to examine associations among measures of economic, psychological, and social well-being in a sample of unmarried women in midlife. Specifically, I first examine the mediating effects of economic pressure on the

association between household income and depressive mood. Next, I explore the moderating effects of locus of control and financial instrumental support received from parents on the association between economic pressure and depressive mood. I also examine the effects of race on the contextualizing roles of locus of control and financial instrumental support from parents. Finally, I test for the higher-level moderating effects of locus of control on the buffering effects of financial instrumental support received from parents. The theoretical and empirical literatures that ground the conceptual models support the following hypotheses:

1. The association between household income and depressive mood, net of the effects of self-rated physical health, will be fully mediated by economic pressure (Figure 1, paths A, B, and C).
2. The association between economic pressure and depressive mood, net of the effects of self-rated physical health, will be moderated by locus of control such that women with an internal locus of control will be less affected by economic pressure than their more externally-focused counterparts (Figure 2, path E).
3. The moderating effects of locus of control on the relationship between economic pressure and depressive mood will differ for white women and black women. Specifically, the stress-buffering effects of an internal locus of control will be evident for white, but not black, women (Figure 2, path G).
4. The association between economic pressure and depressive mood, net of the effects of self-rated physical health, will be buffered by financial instrumental support received from parents. That is, women who received financial

instrumental support from their parents will be less affected by economic pressure than their peers who reported having received no financial instrumental support from their parents (Figure 3, path F).

5. The buffering effects of financial instrumental support received from parents will differ for white women and black women. Among white women, receiving financial instrumental support from parents will buffer the effects of economic pressure on depressive mood, but similar effects will not be evident for black women (Figure 3, path G).
6. The buffering effects of financial instrumental support received from parents will differ for women with internal and external loci of control. Among women with an external locus of control, receiving instrumental financial support from parents will buffer the effects of economic pressure on depressive mood. However, these buffering effects will not be evident for women with an internal locus of control (Figure 4, path H).

## CHAPTER III

### METHODS

#### NLS-YW Survey Data

This study uses data from the National Longitudinal Survey of Young Women (NLS-YW), one of four longitudinal surveys initiated by the Bureau of Labor Statistics in the 1960s. For this investigation, NLS-YW participants' race, which is not reported in all waves of data, is drawn from the 1968 wave, the first year in which data were collected. All other data for the study are extracted from the 2001 survey. The 2001 wave of NLS-YW data is the most recent wave that contains items central to this investigation, including measures of locus of control and financial instrumental support received from parents.

NLS-YW survey data provide detailed sociodemographic, economic, labor, physical health, and attitudinal information on a cohort of 5,159 women, primarily white and black, who were ages 14 to 24 in 1968. The cohort represents a multi-stage probability sample drawn from U. S. Census Bureau data and includes women who originally comprised four strata: white women in predominantly white enumeration districts (geographical areas defined by the Census Bureau), white women in predominantly non-white enumeration districts, non-white women in predominantly non-white enumeration districts, and non-white women in predominantly white enumeration districts.

## Procedures

Since 1968, annual or biennial interviews of the NLS-YW cohort have been conducted. Generally, women who participated in the 1968 survey were contacted for interviews in years subsequent to 1969 provided they (a) continued to reside in the United States, (b) were noninstitutionalized, (c) were not members of the Armed Forces, and (d) had not refused to participate in any prior survey. In 2001, the twenty-first interviews in the longitudinal series were conducted.

All NLS-YW waves of data have been collected by a combination of in-person and telephone interviews. In 2001, 1,388 (49.46%) interviews were conducted during a personal visit, and 1,207 (43.01%) by telephone. Additionally, 109 (3.88%) interviews began as a personal visit and concluded over the telephone. Similarly, three interviews began as a telephone interview, but ended with a personal visit.

Beginning in 1995, computer-assisted personal interview (CAPI) survey methods replaced paper-and-pencil recording techniques. Respondents who were interviewed in years during which data were collected using CAPIs, including 2001, spent on average 70 minutes completing the survey.

## Sample

In 2001, 2,806 women, 54.39% of the original cohort, participated in the NLS-YW survey. Because this investigation focuses on unmarried women, 1,761 married women and seven women who reported cohabiting with a partner were not included in these analyses. Likewise, because this study examines the experiences of white and black

women, 12 unmarried women who reported a race other than white or black were eliminated from these analyses.

The total sample included in these analyses represents 1,026 respondents ages 47 to 61 with a mean age of 52.15 (SD = 3.09). As noted previously, the sample was narrowed to include only women who were white (62.09%; n = 637) or black (37.91%; n = 389). Although most unmarried respondents were divorced (56.43%; n = 579), others were never married (23.67%; n = 243), widowed (11.11%; n = 114), or separated (8.79%; n = 90). Additional sociodemographic data for the sample are found in Tables 1 and 2.

## Measures

### *Depressive Mood*

Depressive mood is a latent variable with seven indicators, which represent responses from a seven-item abbreviated version of the CES-D Scale (Radloff, 1977). The CES-D was designed to assess self-reported depressive symptoms in community samples. NLS-YW respondents were asked to consider the past week and rate the frequency of specific cognitive, affective, and behavioral indications of depressive mood. These include: (1) I felt that I could not shake off the blues, even with help from my family or friends, (2) I had trouble keeping my mind on what I was doing, (3) I felt that everything I did was an effort, (4) My sleep was restless, (5) I felt lonely, (6) I felt sad, (7) I could not get “going”. Responses were reported on a four-point Likert-type scale: 1 = rarely or none of the time (less than one day), 2 = some or a little of the time (1-2 days), 3 = occasionally or a moderate amount of time (3-4 days), and 4 = most or all of

*the time (5-7 days)*. Cronbach's alpha for the CES-D subscale used to indicate depressive mood is .89.

### *Household Income*

2001 household income is drawn from a single survey question that asked respondents to consider the past 12 months and report their income. Because respondents were interviewed during various months of 2001, the specific dates that respondents considered in answering this question varied, and these dates are not reported in the NLS-YW data. However, for all respondents, the past 12 months was a one-year period ending in 2001.

### *Economic Pressure*

Economic pressure is a latent variable indicated by three measures: savings activity during 2001, savings activity during 2000, and a comparison of respondents' current financial position with that of the previous year. Two single questions regarding savings activity asked respondents to consider two consecutive twelve-month periods (the most recent 12-month period ending in 2001 and the former period ending in 2000). To assess 2001 savings activity, interviewers asked: During the past 12 months, considering all of your savings, investments, and reserve funds, overall did you put more money into these accounts or take more money out of these accounts in this year? Responses were 1 = *put more money in*, 2 = *took more money out*, and 3 = *amount did not change*. For these analyses, responses were recoded to provide an order consistent with levels of economic pressure: 1 = *put more money in*, 2 = *amount did not change*, and 3 = *took more money out*. To measure 2000 savings activity, respondents were asked to

consider the year that preceded the twelve-month period on which activity had just been reported and answer the question a second time. Responses to the question on 2000 savings activity were recoded also such that higher values represented higher levels of economic pressure. To measure comparative financial position, respondents were asked: So far as your overall financial position is concerned, would you say you are better off, about the same, or worse off than you were at this time last year? Responses were reported on a three-point scale: 1 = *better off*, 2 = *same*, and 3 = *worse*.

#### *Contextualizing Factors*

*Locus of control.* NLS-YW respondents were asked to complete an eight-item modified version of the Rotter (1966) Internal-External Locus of Control Scale. This abbreviated version consists of four forced-choice responses between two attitudinal statements. One of the two attitudinal statements reflects an internal locus of control, and the other is consistent with an external focus. NLS-YW forced-choice pairs included (1) What happens to me is my own doing. / Sometimes I feel that I don't have enough control over the direction my life is taking. (2) When I make plans, I am almost certain that I can make them work. / It is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow. (3) In my case, getting what I want has little or nothing to do with luck. / Many times we might just as well decide what to do by flipping a coin. (4) Many times I feel that I have little influence over the things that happen to me. / It is impossible for me to believe that chance or luck plays an important role in my life. After choosing which statement of each attitudinal pair best captured their beliefs, NLS-YW respondents were asked to describe the selected

statement as “much closer” or “slightly closer” to their opinion than the unselected statement. Responses to these eight items were recoded on an ordinal scale such that 1 = *internal control and much closer*, 2 = *internal control and slightly closer*, 3 = *external control and slightly closer*, and 4 = *external control and much closer*. The recoded responses to the four attitudinal statements were then summed to produce a single score for each respondent. Summed scores ranged from four (*internal control and much closer* on each of the four items) to 16 (*external control and much closer* on each of the four items) with higher scores reflecting a more external locus of control than lower scores. Preliminary analyses of the summed scores indicated mean score of 7.97 and a median score of 8.00. Accordingly, because locus of control is a dichotomous variable (internal or external) in the analyses, respondents whose scores were seven and below were considered as having an internal locus of control, and those with scores of eight and above were treated as having an external locus of control.

*Financial instrumental support received from parents.* Financial support received from parents is a dichotomous variable constructed from responses to three questions that asked whether respondents had received recent monetary loans, gifts, and other pecuniary assistance from their parents. To determine if respondents had benefited from any loan, interviewers asked respondents to recall the previous 12 months and indicate if they had been lent any money by either of their parents or the parents’ spouses. Responses were coded dichotomously (0 = *no* and 1 = *yes*). Receipt of any monetary gift was similarly assessed and coded. Finally, with regard to the past 12 months and these family members, respondents were asked if they were provided with any other financial support, such as

assistance with bill payment, groceries, or other expenses. These responses were also dichotomous (0 = *no* and 1 = *yes*). To facilitate these analyses, a dichotomous variable (0 = *no financial support was received* and 1 = *financial support was received*) was constructed such that an affirmative response to at least one of the three questions (monetary loans, gifts, or other monetary assistance) indicates the receipt of financial support from parents.

*Race.* Race (1 = *white* and 2 = *black*) is a single indicator based on participants' response to the question of race in the 1968 wave of data, the first year in which NLS-YW data were collected.

#### *Control Variable*

*Self-rated physical health.* Consonant with prior research on women in midlife, self-rated physical health is included as a control variable in these analyses. Physical health (1 = *excellent*, 2 = *good*, 3 = *fair*, and 4 = *poor*) is a manifest variable measured by a single question in which respondents were asked to rate their physical health compared to the physical health of same-aged women. Responses were reverse coded (1 = *poor* to 4 = *excellent*) for these analyses such that higher scores indicate better self-rated physical health.

#### Analytic Strategy

Analyses of models in this investigation were conducted using Amos 16.0 structural modeling program (Amos Development Corporation, 1995). Structural equation modeling (SEM) is appropriate to these analyses for several reasons. First, latent variable models are particularly well-suited to the study of constructs that are not easily

observable, such as economic pressure and depressive mood (Marsh & Grayson, 1995; Raykov & Marcoulides, 2000). Second, SEM employs full maximum likelihood estimation (FIML) in analyzing missing data. The well-recognized advantages of secondary data analyses, which include representation of socioeconomic and family structure subgroups, are often compromised by missing data that reflect respondents' failure or refusal to answer selected survey questions (Hofferth, 2005). Provided these data are missing at random, FIML is less likely than traditional approaches (e.g., listwise deletion, pairwise deletion, and mean substitution) to produce invalid conclusions that stem from biased estimates, inflated or deflated statistical power, or increased type-I and type-II errors (Acock, 2005). Whereas traditional approaches impute missing values, FIML uses all reported data to compute the maximum likelihood estimation of parameters. Third, because SEM provides a means of considering measurement error in observed variables, the likelihood that inappropriate substantive conclusions are drawn is reduced. Other analytic methods, such as regression analysis, rely on an admittedly false underlying assumption that variables are measured without error (for a discussion, see Raykov & Marcoulides, 2000).

Additionally, for models that are properly specified and identified, SEM provides a number of measures to assess model fit (for detailed discussions of these tests, see Hu & Bentler, 1995; Raykov & Marcoulides, 2000). In this study, four tests of goodness of fit, including inferential, descriptive, and alternative-fit indices, are presented for each model. First, an inferential goodness-of-fit index, the chi-square test statistic, is computed to test the null hypothesis that each model precisely reproduces its respective population

covariance matrix. Generally, a significant chi-square test statistic ( $p < .05$ ) suggests problematic model fit, and a test statistic that exceeds this preset value indicates that a model fits the data. However, when sample sizes are large, chi-square evaluations are often associated with spuriously small  $p$ -values and, hence, model rejection. Therefore, a descriptive-fit index, the Tucker-Lewis coefficient, also termed the non-normed fit index (NNFI), is computed for each model. Like the normed fit index (NFI), the NNFI compares the chi-square statistic for the model under evaluation to the chi-square statistic for the null model, one that assumes no interrelationships among the variables. Unlike the NFI, however, the NNFI considers the degrees of freedom in the model. Finally, two alternative-fit indices are examined. Unlike descriptive and inferential-fit evaluations, which have a null hypothesis of perfect model fit, alternative-fit evaluations are rooted in the noncentrality parameter (NCP) and, hence, center on the degree to which a model fails to fit the data. The first alternative-fit index used in this investigation is the root mean square error of approximation (RMSEA). Computed RMSEA values less than .08 suggest acceptable model fit, although values less than .05 are preferred. The second alternative-fit index, the comparative-fit index (CFI) tests the ratio of improvement in noncentrality comparing the null and hypothesized models. CFI values approaching one are indicative of model fit, and, generally, values in the mid-.90s are acceptable.

## CHAPTER IV

### RESULTS

Results are presented in two sections. First, preliminary analyses, including correlations among the variables, are reported. Second, structural equation analyses are presented, including a description of the measurement model and tests for the hypothesized effects of full mediation and moderation.

#### Preliminary Analyses

Although social science data seldom satisfy the SEM assumption of multivariate normality (for a review, see McDonald & Ho, 2002), preliminary analyses began with an evaluation of the data to assess the degree of multivariate normality. A visual examination of variable distributions suggested no problematic outliers. Consistent with Rencher's (2002) argument, Q-Q plots were also examined and deemed similarly unremarkable. A final visual inspection of histograms for all variables revealed that expectations regarding skewness and kurtosis were met. Consistent with Conger and colleagues' (2002) comments concerning economic data from large surveys that oversample minorities, household income was positively skewed. Additionally, household income and financial instrumental support received from parents were mildly leptokurtotic. However, according to established criteria (for reviews, see Howell, 2002 and Rencher, 2002) these degrees of skewness and kurtosis were not likely to have violated assumptions of univariate (and hence multivariate) normality. Moreover, should

these criteria be misleading, McDonald and Ho's (2002) review of the literature on conducting and reporting structural equation analyses cited a number of simulation studies suggesting that parameter estimates in SEM are robust to violations of the multivariate normality assumption.

Descriptive statistics, including the Pearson correlations, means, standard deviations, skewness, and kurtosis for all variables, are shown in Table 3. Regarding the bivariate Pearson correlations shown in Table 3, as expected, manifest indicators within the two latent constructs (economic pressure and depressive mood) were positively related to one another. Additionally, household income was negatively related to the three indicators of economic pressure: 2001 savings activity ( $r = -.12, p < .01$ ), 2000 savings activity ( $r = -.13, p < .01$ ), and 2001-2000 financial comparison ( $r = -.22, p < .01$ ). Household income was also negatively related to each of the seven indicators of depressive mood (ranging from  $r = -.14, p < .01$  to  $r = -.23, p < .01$ ). Regarding intercorrelations among the contextualizing factors, locus of control and the receipt of financial instrumental support from parents were not correlated with one another. However, race was significantly related to locus of control ( $r = .18, p < .01$ ) such that black women were more likely than white women to have an external locus of control. Similarly, race was significantly related to the receipt of financial instrumental support from parents ( $r = -.08, p < .05$ ) in that white women were more likely than black women to have reported receiving financial support from parents.

## Structural Equation Analyses

### *Measurement Model*

Consonant with the four conceptual models, a baseline measurement model (Model 1) was constructed to reflect the auxiliary theory associated with the two latent factors (economic pressure and depressive mood). Specifically, in this baseline model, economic pressure was indicated by three measures: savings activity during 2001, savings activity during 2000, and a comparison of respondents' current financial position with that of the previous year. Depressive mood was indicated by seven measures, the seven items on the NLS-YW abbreviated CES-D scale.

Manifest indicators of the two latent factors were used to estimate item loadings in this baseline model (Model 1). Consistent with Arbuckle's (2008) suggestion, each latent factor was scaled by setting to 1.00 the path to its indicator with the largest factor loading (2001 savings activity for economic pressure and unable to shake the blues for depressive mood). In Model 1, no measurement errors were allowed to correlate. As shown in Table 4, goodness of fit indices for Model 1 suggested that this baseline model fit the data adequately ( $\chi^2 = 283.62$ ,  $df = 34$ ,  $p < .001$ , CFI = .92, NNFI = .90, RMSEA = .09).

I next considered possible sources of measurement error. Consistent with Yu's (2007) procedure for identifying manifest indicators with shared variances, I focused on two indicators of economic pressure: 2001 savings activity and 2000 savings activity. Because the NLS-YW survey items measuring 2001 and 2000 savings activity were worded identically and appeared in the survey in close proximity to one another,

responses to the latter question may have been related to respondents' recall of the prior question (Yu, 2007). To account for this possible introduction of measurement error, a second measurement model (Model 2) was specified in which the error terms on these two indicators were allowed to correlate. As shown in Table 4, goodness of fit indices for Model 2 suggested that this model also fit the data moderately well ( $\chi^2 = 259.64$ ,  $df = 33$ ,  $p < .001$ , CFI = .93, NNFI = .91, RMSEA = .09). Moreover, the chi-square difference test was significant ( $\chi^2 = 23.98$ ,  $df_{diff} = 1$ ,  $p < .001$ ) suggesting that Model 2 fit the data significantly better than Model 1.

Finally, consonant with Yu's (2007) argument, I specified a third model (Model 3) in which adjacent items on each of the two latent factors (economic pressure and depressive mood) were allowed to correlate with one another. This respecification is consistent with Choi and Marks's (2008) investigation of women's psychological well-being on which the present study builds. Choi and Marks (2008) operationalized depressive mood using the full CES-D (Radloff, 1977) scale, and correlation of error terms on the scale improved their measurement model. Similar improvement to the measurement model was observed in the current study, as goodness of fit indices suggested that Model 3 fit the data particularly well ( $\chi^2 = 82.81$ ,  $df = 26$ ,  $p < .001$ , CFI = .98, NNFI = .97, RMSEA = .05). Further, a chi-square difference test indicated that the model fit for Model 3 was significantly better than the Model 2 fit ( $\chi^2 = 176.83$ ,  $df_{diff} = 7$ ,  $p < .001$ ). Accordingly, Model 3 was deemed the best fitting of the three measurement models evaluated.

Model 3 estimates of unstandardized factor loadings, standard errors, and standardized factor loadings are found in Table 5. Additionally, Figure 5 provides a graphic representation of the measurement model. All standardized item loading coefficients for the two latent factors (economic pressure and depressive mood) were acceptable according to the criteria reviewed by Garson (2008) and McDonald and Ho (2002). Also, as expected, the two latent variables were positively correlated with one another (.43).

#### *Full Structural Model*

*The mediating effects of economic pressure on the association between household income and depressive mood.* Hypothesis One posited that the negative association between household income and depressive mood, net of the effects of self-rated physical health, would be fully mediated by economic pressure. To test for these full mediating effects, structural equation modeling was used to examine the associations among household income, economic pressure, physical health, and depressive mood. Consistent with my hypothesis, I modeled household income as (a) a direct predictor of depressive mood and (b) an indirect predictor of depressive mood through economic pressure. Additionally, the direct effects of physical health on depressive mood were modeled to control for these influences. Finally, consistent with Arbuckle's (1995) criteria for modeling exogenous variables, I allowed household income and self-rated physical health to correlate.

Following the procedures reviewed by James, Mulaik, and Brett (2006) for establishing full mediation in SEM, I freed all hypothesized pathways. A path diagram

reporting all structural parameter estimates is found in Figure 6. Goodness of fit statistics suggested that the model fit the data well ( $\chi^2 = 155.56$ ,  $df = 43$ ,  $p < .001$ , CFI = .97, NNFI = .96, RMSEA = .05). In total, the model explained 23% of the variance in depressive mood. As shown in Figure 6, the coefficient for the direct path from household income to depressive mood, -.06, was not significant ( $p > .05$ ), suggesting that the association between household income and depressive mood was fully mediated by the effects of economic pressure.

To further establish the full mediating effects of economic pressure on the relationship between household income and depressive mood, I constrained the path from household income to depressive mood to zero. As expected, the change in chi-square was not significant ( $\chi^2 = .88$ ,  $df_{diff} = 1$ ,  $p > .05$ ). Next, I freed the path from household income to depressive mood and constrained to zero the path from economic pressure to depressive mood. This model reflected a significant change compared to the model with no paths constrained ( $\chi^2 = 9.96$ ,  $df_{diff} = 1$ ,  $p < .001$ ). Consistent with James and colleagues' (2006) criteria, these results provided additional evidence that economic pressure fully mediated the association between household income and depressive mood.

Finally, I conducted a Sobel (1982) test to estimate the significance of the indirect pathway (i.e., the effects of household income on depressive mood that were accounted for by economic pressure). The Sobel procedure tests the hypothesis that there was no significant difference between (a) the effects of household income on depressive mood and (b) the effects of household income on depressive mood controlling for the effects of economic pressure (for a discussion, see MacKinnon, Warsi, & Dyer, 1995).

Conceptually, the test requires that the indirect effects be computed as the product of two regression coefficients: (a) the regression coefficient from the model in which household income and economic pressure each independently predict depressive mood and (b) the regression coefficient from the model in which only household income predicts depressive mood. When the computed indirect effects are divided by their standard error, the resultant ratio can be expressed as a z-statistic and evaluated according to critical values in a standard normal distribution (for a discussion of various computations of the standard error in the significance testing of indirect effects, see MacKinnon, Lockwood, Hoffman, West, and Sheets, 2002).

As Preacher and Hayes (2004) noted in their review of the literature, although many statistical programs do not compute Sobel test statistics, the regressions coefficients and standard errors generated by these programs provide researchers with adequate information to conduct the Sobel procedure, of which at least three analytic versions are commonly available. When the data from this investigation were analyzed, these three versions produced slightly different test statistics such that the traditional Sobel ( $Z = 1.90, p = .06$ ) and Aroian ( $Z = 1.85, p = .06$ ) versions provided less evidence of mediation than the Goodman version ( $Z = 1.95, p = .05$ ). According to Preacher and Hayes's (2004) review of the literature, these inconclusive results are likely to have stemmed from the positively skewed distribution on household income (a level of skewness which is not likely to have influenced the SEM tests for full mediation). As noted in this review, all three versions of the Sobel procedure are more sensitive to skew than other regression-based procedures, including SEM, for assessing the presence of

indirect effects. These observations led Preacher and Hayes (2004) to conclude that “ultimately, the validity of one’s conclusions about mediation is determined by the design of the study as much as by statistical criteria” (p. 718). Thus, in these analyses, although the distribution of the data on at least one of the predictor variables may not have been optimally suited for the Sobel procedure, the test results provided some, albeit minimal, additional evidence of the full mediating effects of economic pressure on the association between household income and depressive mood.

*The moderating effects of locus of control on the association between economic pressure and depressive mood (Table 6, Panel A).* Hypothesis Two proposed that the association between economic pressure and depressive mood would be moderated by locus of control such that women with an internal locus of control would be less affected by economic pressure than their more externally-focused counterparts. To explore these conditionalizing effects, I followed established procedures (as described, for example, by Arbuckle, 1995; Blunch, 2008; Kaplan, 2000) for using SEM to test for moderation. Accordingly, I assessed the full mediational model fit, expressed as a chi-square statistic, under two conditions. Specifically, I first evaluated the model fit under unconstrained conditions such that all structural paths were allowed to vary as a function of women’s locus of control. Second, I assessed the model fit when all structural paths were constrained to be equal for the two groups: women with an external locus of control (n = 474) and women with an internal locus of control (n = 453). I then conducted a significance test of the difference between the model fits under these two conditions (each fit expressed as a chi-square statistic) to determine the presence of moderation.

Consistent with established guidelines, I expected that if the mediating effects of economic pressure on the association between household income and depressive mood varied as a function of women's locus of control, the model fit for the constrained model would, relative to the fit of the unconstrained model, exhibit significant deterioration because the equality constraint is based on an assumption that no moderating effects exist. Results for this test and all subsequent moderation analyses are summarized in Table 6, Panels A through E.

The analyses conducted did not support the hypothesized moderating effects of locus of control on the association between household income and depressive mood. In the unconstrained model, in which all structural paths were allowed to vary, model fit was acceptable ( $\chi^2 = 193.36$ ,  $df = 86$ ,  $p < .001$ , CFI = .97, NNFI = .94, RMSEA = .04). Likewise, model fit was adequate when the structural paths were constrained to be equal across the two groups (women with an external locus of control and women with an internal locus of control) ( $\chi^2 = 199.04$ ,  $df = 90$ ,  $p < .001$ , CFI = .97, NNFI = .94, RMSEA = .04). Additionally, results of the chi-square difference test were not significant ( $\chi^2 = 5.68$ ,  $df_{diff} = 4$ ,  $p > .05$ ). Thus, according to the criteria reviewed by Blunch (2008) and Kaplan (2000), contrary to my hypothesis, the association between economic pressure and depressive mood did not vary as a function of women's locus of control.

*Race and the moderating effects of locus of control on the association between economic pressure and depressive mood (Table 6, Panel B).* Hypothesis Three posited that the moderating effects of locus of control on the relationship between economic pressure and depressive mood would be different for white women and black women.

Specifically, the buffering effects of an internal locus of control were predicted to be evident for white, but not black, women. Although in the previous analysis, the association between economic pressure and depressive mood did not vary as a function of women's locus of control, I nonetheless considered it possible that women's race could have exerted high-order moderating effects. That is, having an internal locus of control could have buffered the effects of economic pressure on depressive mood among white women and amplified these effects among black women. Because the net effects of this plausible higher-order moderation by race could have been an attenuation of the hypothesized first-order moderation effects by locus of control (for a discussion of subgroup interactions, see McArdle & Hamagami, 1996), I continued to expect that locus of control would provide different benefits to white and black women.

I conducted multiple-group comparisons using four subgroups: white women with an internal locus of control ( $n = 320$ ), black women with an internal locus of control ( $n = 133$ ), white women with an external locus of control ( $n = 250$ ) and black women with an external locus of control ( $n = 224$ ). Fit statistics for the model in which structural paths were unconstrained ( $\chi^2 = 332.24$ ,  $df = 172$ ,  $p < .001$ , CFI = .95, NNFI = .91, RMSEA = .03) and the model in which the structural paths were constrained to be equal across the four groups ( $\chi^2 = 333.27$ ,  $df = 185$ ,  $p < .001$ , CFI = .95, NNFI = .92, RMSEA = .03) were adequate. Additionally, the change in the chi-square statistics was not significant ( $\Delta\chi^2 = 1.03$ ,  $df_{diff} = 13$ ,  $p > .05$ ). This suggests that no higher-order moderating effects of race were evident. That is, the effects of locus of control on the association between economic pressure and depressive mood did not vary as a function of women's race.

*The buffering effects of financial instrumental support received from parents on the association between economic pressure and depressive mood (Table 6, Panel C).*

Hypothesis Four predicted that the association between economic pressure and depressive mood would be buffered by the receipt of financial instrumental support from parents.

That is, women who received financial instrumental support from their parents were expected to be less affected by economic pressure than their peers who reported having not received this support. In an analysis mirroring the test for moderation reported above, I divided the sample into two groups: women who received financial instrumental support from their parents ( $n = 120$ ) and women who did not receive financial instrumental support from their parents ( $n = 906$ ). Goodness-of-fit statistics revealed adequate model fit for the unconstrained ( $\chi^2 = 202.60$ ,  $df = 86$ ,  $p < .001$ , CFI = .97, NNFI = .95, RMSEA = .04) and constrained ( $\chi^2 = 206.19$ ,  $df = 90$ ,  $p < .001$ , CFI = .97, NNFI = .95, RMSEA = .04) models. Additionally, significance testing of the chi-square statistic difference between the two model fits revealed that the model fit did not significantly deteriorate when the constraints were imposed ( $\chi^2_{diff} = 3.59$ ,  $df_{diff} = 4$ ,  $p > .05$ ). Therefore, the receipt of financial instrumental support from parents did not moderate the association between economic pressure and depressive mood.

*Race and the buffering effects of financial instrumental support received from parents on the association between economic pressure and depressive mood (Table 6, Panel D).* Hypothesis Five proposed that the buffering effects of financial instrumental support received from parents on the association between economic pressure and depressive mood would vary as a function of women's race. Specifically, among white

women, receiving financial instrumental support from parents was expected to buffer the effects of economic pressure on depressive mood. However, similar effects were not predicted among black women. To tests for these higher-order moderating effects, I performed a multiple group analysis examining four groups simultaneously: white women who received financial instrumental support from their parents ( $n = 87$ ), black women who received financial instrumental support from their parents ( $n = 33$ ), white women who did not receive financial instrumental support from their parents ( $n = 550$ ), and black women who did not receive financial instrumental support from their parents, ( $n = 356$ ). The unconstrained ( $\chi^2 = 360.23$ ,  $df = 172$ ,  $p < .001$ , CFI = .96, NNFI = .92, RMSEA = .03) and constrained ( $\chi^2 = 366.49$ ,  $df = 184$ ,  $p < .001$ , CFI = .96, NNFI = .93, RMSEA = .03) models were of adequate fit. An evaluation of the change in the chi-square statistic suggested that the deterioration in model fit was not significant when constraints were imposed ( $\Delta\chi^2 = 6.26$ ,  $df_{diff} = 12$ ,  $p > .05$ ). Accordingly, the effects of receiving financial instrumental support from parents did not vary as a function of women's race.

*Locus of control and the buffering effects of financial instrumental support received from parents on the association between economic pressure and depressive mood (Table 6, Panel E).* Hypothesis Six predicted that the buffering effects of financial instrumental support received from parents on the association between economic pressure and depressive mood would vary as a function of locus of control. Specifically, women with an external locus of control were expected to benefit from financial instrumental support received from their parents, but these benefits were not predicted for women with

an internal locus of control. Although in the previous analyses, neither locus of control nor the receipt of financial instrumental support from parents was found to moderate the association between economic pressure and depressive mood, I continued to expect an interaction between these variables. More generally, the absence of first-order moderation effects for both variables did not preclude higher-order interaction effects.

To test for these hypothesized effects, I examined four groups: women with an internal locus of control who received financial instrumental support from their parents ( $n = 55$ ), women with an internal locus of control who did not receive financial instrumental support from their parents ( $n = 398$ ), women with an external locus of control who received financial instrumental support from their parents ( $n = 53$ ), and women with an external locus of control who did not receive financial instrumental support from their parents ( $n = 421$ ). Model fit was acceptable for the unconstrained ( $\chi^2 = 284.82$ ,  $df = 172$ ,  $p < .001$ , CFI = .96, NNFI = .94, RMSEA = .03) and constrained ( $\chi^2 = 304.22$ ,  $df = 185$ ,  $p < .001$ , CFI = .96, NNFI = .94, RMSEA = .03) models. Additionally, the chi-square difference test was not significant ( $\chi^2 = 19.40$ ,  $df_{diff} = 13$ ,  $p > .05$ ) suggesting that the four subgroups did not vary from one another. Thus, contrary to my hypothesis, women's locus of control did not moderate the effects of their receiving financial instrumental support from their parents.

Figure 5. Measurement model including standardized item loading coefficients.

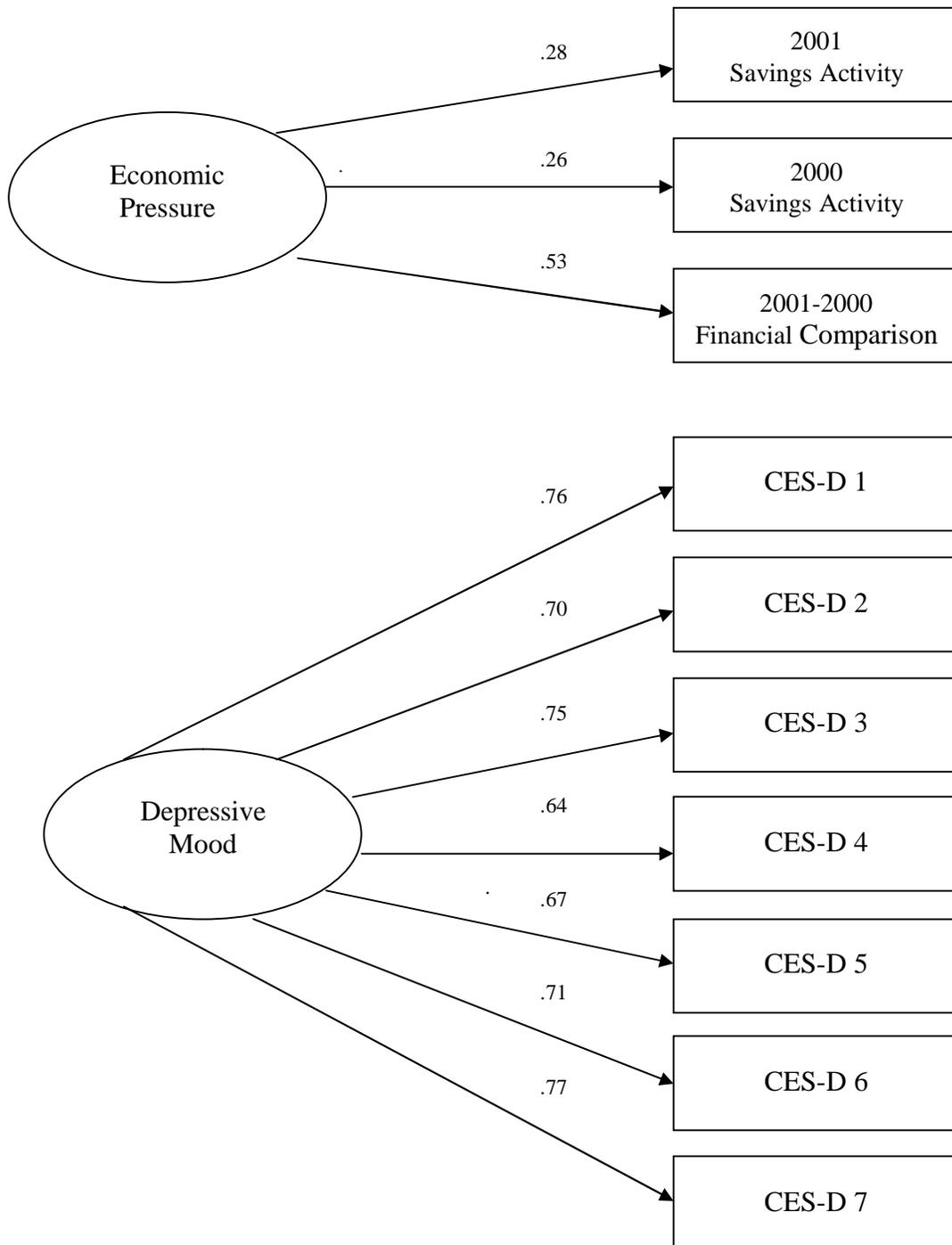
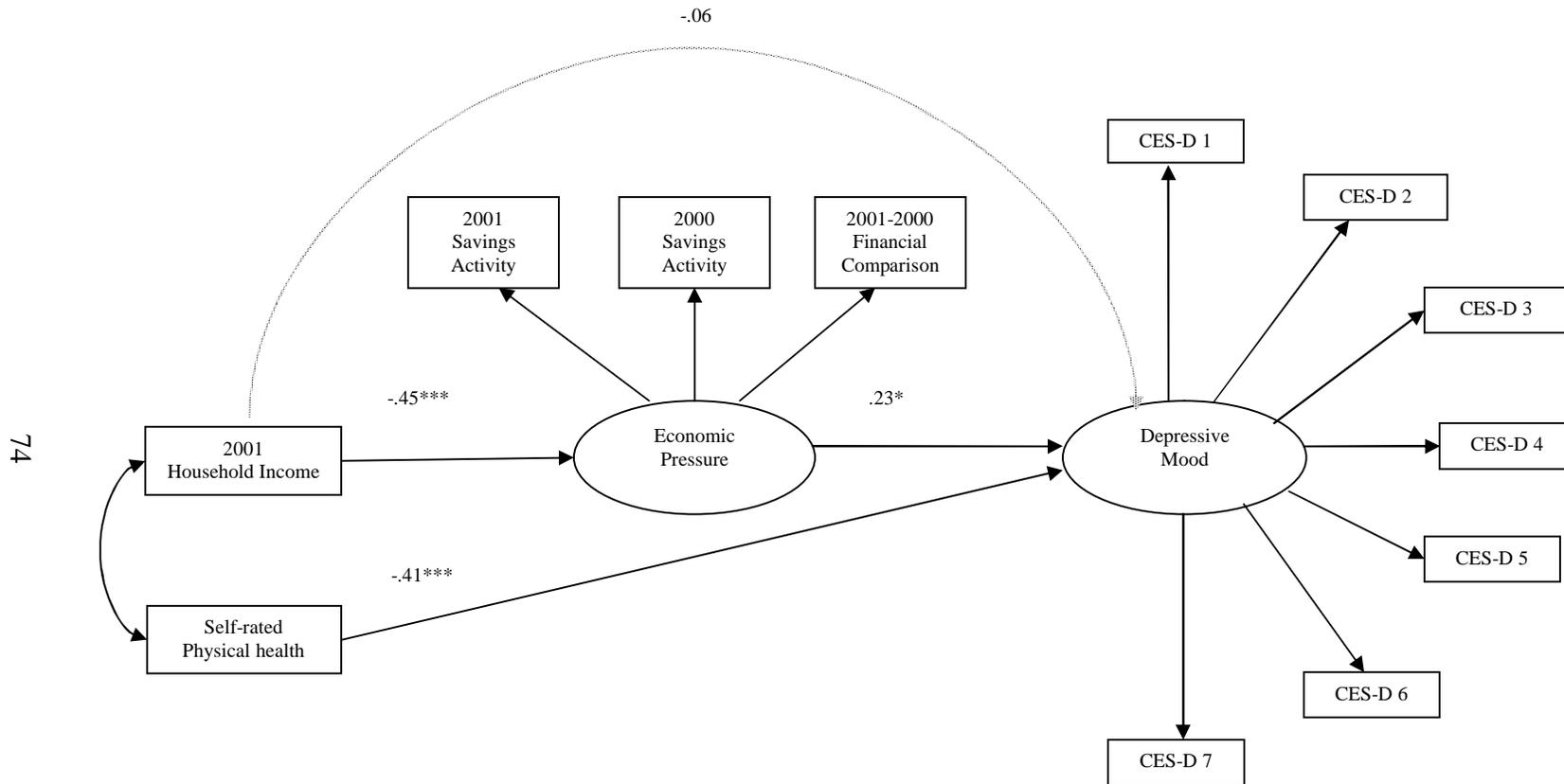


Figure 6. Standardized structural path coefficients for the full mediation model ( $n = 1,206$ ).



## CHAPTER V

### DISCUSSION

Although the mediating effects of economic pressure on the association between various economic measures, including household income, and depressive mood are well established in the literature, empirical interest in these relationships has focused primarily on rural white families with adolescents (for a review, see Conger & Elder, 1994). Further, extensions of these findings (e.g., Conger et al., 2002; Forkel & Silbereisen, 2001; Kinnunen & Pulkkinen, 1998; Kwon et al., 2003) have centered on couples' experiences, as well. This study extends the literature by using an economically diverse, national sample of white and black unmarried women in midlife to replicate studies identifying the associations among household income, economic pressure, and depressive mood. Additionally, because women's perception of their environmental control and receipt of instrumental support, as variously conceptualized, have been identified as moderators of social stressors (Conger & Conger, 2002; Conger et al., 1999; Ennis et al., 2000), this study examines the effects of locus of control and financial instrumental support received from parents on the associations among household income, economic pressure, and depressive mood. Further, because white and black women do not have a shared experience of the social and economic environments (Ennis et al., 2000), the study explores how the relationships among these economic and psychological measures might vary as a function of women's race. Finally, because women's physical health in midlife

is associated strongly with depressive mood (Killian et al., 2005), the study also examines these relationships net of the effects of women's self-rated physical health.

### Hypothesized Effects

In the present study, the theoretical and empirical literatures informed the development of four conceptual models that, in turn, grounded six hypotheses, each of which predicted relationships between measures of economic and psychological well-being, net of the effects of women's physical health. Specifically, household income was expected to be negatively associated with depressive mood, but this relationship was hypothesized to be fully mediated by the effects of economic pressure (Hypothesis One). Additionally, locus of control was predicted to moderate the positive association of economic pressure and depressive mood, and these moderating effects were expected to differ for white and black women (Hypotheses Two and Three). Next, the receipt of financial instrumental support from parents was predicted to buffer the positive association of economic pressure and depressive mood, and these buffering effects were expected to vary as a function of women's race (Hypotheses Four and Five). Finally, the buffering effects of financial instrumental support received from parents were expected to vary as a function of women's locus of control (Hypothesis Six).

This discussion opens with a brief comment about women's physical health, the control variable in these analyses. Following that comment, the discussion is organized around the hypothesized effects that were central to the investigation. Finally, limitations of the study and directions for future research are considered.

### *The Negative Association of Self-rated Physical Health and Depressive Mood*

Although the association between physical and psychological physical health was not central to this investigation, the analyses controlled for this relationship. Physical health is widely regarded as important to women's psychological well-being across the life course, and this study is the first to explore the associations among household income, economic pressure, and women's depressive mood net of the effects of women's self-rated physical health. As expected, among these unmarried women in midlife, physical health was associated negatively with depressive mood. That is, women with lower levels of self-rated physical health were significantly more likely to report higher levels of depressive mood. Consonant with a tradition of research on women and aging, these findings underscore the importance of physical health to psychological well-being among women in midlife.

### *The Mediating Effects of Economic Pressure on the Association between Household Income and Depressive Mood*

The empirical literature reflects well established associations among household income, economic pressure, and women's depressive mood. However, prior investigations explored the experiences of married women, primarily mothers, in young adulthood, and this study is the first to examine these relationships among unmarried women in midlife. Overall, in its focus on the mediating effects of economic pressure on the relationship between household income and women's depressive mood, this study extends the literature in at least two ways.

First, consistent with a tradition of research on families (for example, see Conger & Elder, 1994), among these unmarried women in midlife economic pressure fully mediated the negative association between household income and depressive mood. Stated differently, although lower levels of household income were associated with higher levels of depressive mood, this relationship was explained by the effects of economic pressure. That is, lower levels of household income were related to higher levels of economic pressure that, in turn, were associated with higher levels of depressive mood. Moreover, after accounting for the full mediating effects of economic pressure, the association between household income and depressive mood failed to reach significance.

These findings underscore conclusions drawn by researchers representing various disciplines (notably the family studies and women's aging research genres on which this study builds) and employing myriad methodological approaches. More specifically, it is not the stasis of chronic deprivation that erodes psychological well-being; rather, it is the sequence of stressors inherent in discrete demands on household income levels that are simply inadequate. Indeed, as Mirowsky and Ross (2004) argued, the everyday lived experiences of having too little—the serial shortfalls that characterize the plight of economically pressured unmarried women in midlife—give rise to distraction, lethargy, sadness, and sleeplessness: all indicators of depressive mood. Moreover, although these shortfall conditions are more common at lower levels of household income, they can occur across economic strata when levels of household income are insufficient to satisfy the demands placed upon them.

Second, this study extends the literature in its auxiliary theory associated with the operationalization of economic pressure. Specifically, this study is the first to use savings activity, as reported in national survey data, to estimate economic pressure. Like the NLS-YW, national datasets containing economic data typically feature objective measures, such as savings activity, but less often include common subjective indicators of economic pressure (e.g., appraisals of household income as inadequate). Although Elder and colleagues (1994) argued that objective and subjective measures of economic pressure are highly positively correlated, prior research, particularly less recent inquiries, reflects a slight predominance of subjective reports in the operationalization of economic pressure. Indeed, in many prior investigations, including, for example, the IYFP, these subjective measures were included in regional surveys designed specifically to tap economic pressure. Findings in the present study suggest that objective reports included in public data, such as the reports of change in savings activity that were used to estimate economic pressure among these unmarried women in midlife, are adequate to examine the associations among household income, economic pressure, and psychological well-being.

In using measures of change in savings activity to operationalize economic pressure, this study also extends Craft and colleagues' (1998) research. In their study of women in midlife, these researchers suggested that economic pressure (as evidenced by the inadequacy of household income to meet certain needs, such as housing and medical insurance) may be particularly depressogenic for women in midlife because they have few productive years over which to recover, presumably from the depletion of savings or

increase in borrowings required to compensate for their inadequate levels of household income. To lend support to this argument, Craft and colleagues (1998) associated women's short-term prospects for economic recovery with their current psychological well-being. In the present study, it is possible that women's negative savings activity (i.e., their making more withdrawals from than deposits to savings) was indicative of a sense of economic pressure that reflected both their current and projected circumstances. That is, for these women, negative savings activity may have been associated with two depressogenic factors: concerns that household income was inadequate to meet current demands and related worries that diminished levels of savings (and erosion of the safety net that savings provides) would give rise to future shortfalls, particularly during the post-productive years. In short, for these unmarried women in midlife, merely gaining an economic footing—as was evidenced by having more deposits to than withdrawals from savings—was important to psychological well-being. Given the recent widespread popular press reports of national negative savings, a trend now evident across economic strata and throughout the life course, these findings may have implications for interventions.

#### *The Moderating Effects of Locus of Control*

Contrary to my hypothesis as moderately supported in the extant literature, locus of control did not moderate the mediating effects of economic pressure on the association between household income and depressive mood. That is, among these unmarried women in midlife, having an internal locus of control did not provide buffering effects against the elevated levels of depressive mood that were related to lower levels of household income

and higher levels of economic pressure. Instead, when women with internal and external loci of control were compared, no significant differences were found in the relationships among their measures of economic and psychological well-being.

Given the theoretical (for example, see Folkman, 1984) and empirical (for example, see Lachman & Firth, 2004) evidence of the benefits of having an internal locus of control for women who experience a broad spectrum of social stressors, the lack of support for the hypothesized effects in this study is unexpected, but not beyond explanation. Indeed, Lachman and Firth's (2004) study that examined the relationship between locus of control and myriad outcomes, and which compared adults in midlife to their younger and older counterparts, may be helpful in reconciling findings in the present study with the extant literature. That is, as noted previously, generally as women move through the adult life course, locus of control becomes slightly more external and markedly more domain specific. However, the sense of control over economic well-being, which is significantly more internal in midlife, is a singular exception to the observed tendency for locus of control to become more externally focused with age. Specifically, relative to younger and older adults, adults in midlife have a greater sense of personal control over their economic well-being, presumably including their ability to generate higher levels of household income and achieve or maintain lower levels of economic pressure.

In sum, three shifts in locus of control are apparent among women in midlife: (a) an overall shift toward a more external locus of control, (b) a competing shift toward a more internal focus regarding economic well-being, and (c) an overall shift toward

domain specificity in the relationship between locus of control and various outcomes. Moreover, these shifts are not mutually exclusive. Thus, the overall shift toward domain specificity—which has implications for empirical investigations across domains—may have particular ramifications for the study of economic well-being. Thus, the use of a global measure of locus of control in this study may have failed to capture the extent to which women were internally or externally focused with regard to their sense of control over levels of household income and economic pressure. For example, among these unmarried women in midlife, experiences associated with the death of a husband or partner and normative declines in physical health may have contributed to an overall external shift in locus of control. However, midlife gains in these women’s levels of household income, relative to the levels they experienced in young adulthood, may have given rise to a simultaneous shift toward a more internal focus relative to economic well-being. It is possible that this incongruence between the general sense of control and locus of control specific to the domain of economic well-being among the women in this study explains the lack of support for the hypothesized effects.

In short, in this study of unmarried women in midlife, the nonsignificant effects of locus of control on the association between economic pressure and depressive mood may represent a failure to capture meaningfully the extent to which women felt a sense of control specific to the domain of their economic well-being. The importance of conceptualizing constructs appropriately—neither too generally nor too narrowly—is well established in the methodological literature, and the global measure utilized in this study is conceptually broader than its counterpart specific to the domain of economic

well-being. It is possible that this broader conceptualization of locus of control, a conceptualization that was mandated by use of the NLS-YW data, contributed to the lack of support for the hypothesized moderating effects.

*The Buffering Effects of Financial Instrumental Support Received from Parents*

Despite moderate empirical support in prior investigations, contrary to my hypothesis, in this study of unmarried women in midlife, the receipt of financial instrumental support from parents did not buffer the effects of economic pressure on depressive mood. That is, women who reported having received financial instrumental support from their parents were not less likely to report elevated levels of depressive mood than their counterparts who reported having received no financial instrumental support from their parents. Although this finding is inconsistent with a tradition of theoretical (Lazarus, 1966) and empirical (for a review, see Mirowsky & Ross, 2003) support for the benefits of instrumental support in attenuating the psychologically harmful effects of a broad array of social stressors, three themes in the extant literature may provide a meaningful explanation.

First, because the relationship between adults in midlife and their parents is often characterized by bilateral transfers of financial instrumental support (Kronebusch & Schlesinger, 1994, Lawton et al., 1994), particularly among middle-aged daughters and their elderly mothers (Fingerman, 2003; Levitt et al., 1992), it is possible that the NLS-YW respondents who reported having received financial instrumental support from their parents also made financial transfers to their parents. Thus, among these unmarried women in midlife, the receipt of financial instrumental support from parents may have

been a proxy for financial instrumental support reciprocity between middle-aged daughters and their elderly parents. Moreover, given the likelihood that these reciprocal transfers benefited parents more than daughters (Kronebusch & Schlesinger, 1991), it is possible that the women in this study who reported having received financial instrumental support from their parents made financial transfers to their parents at levels exceeding those at which parents reciprocated. Unfortunately, the NLS-YW data include measures of financial transfers women received from their parents, but do not report measures of women's financial transfers to their parents. Had these measures been included, the theoretical and empirical literatures suggest that my hypothesis could have been refined by predicting: The association between economic pressure and depressive mood, net of the effects of self-rated physical health, is buffered by financial instrumental support received from parents *net of financial instrumental support transferred to parents*. To the extent that these transfers *to* parents were material in their omission, the construct of financial instrumental support received *from* parents may have been poorly explicated. Indeed, if the adult parent-child relations of the middle-aged daughters in this study were characterized by reciprocal financial instrumental support exchanges that favored the parents (i.e., provided more economic benefit to the elderly parents than the middle-aged daughters) or, more generally, did not substantially favor the daughters, the lack of support for the hypothesized effects of daughters' receipt of financial instrumental support from parents is consistent with the extant literature.

Second, given that midlife is a stage in the life course during which adult daughters are more likely to provide than receive financial instrumental support in

exchanges with their parents (Kronebusch & Schlesinger, 1994; Levitt et al., 1992), it is possible that the economically pressured women in this study who received financial instrumental support from their parents did not report lower levels of depressive mood than their unsupported peers because the parentally supported daughters viewed this assistance as nonnormative. More generally, women in midlife who receive financial instrumental support from their parents may fail to benefit psychologically if these transfers are inconsistent with daughters' overall expectations regarding normative economic well-being in midlife. That is, if adult daughters expect the middle years to be characterized by financial independence from their parents and, moreover, the capacity to contribute to their parents' financial support, it may be less likely that requiring financial instrumental support from parents at this stage of the life course would provide significant psychological benefits.

Although the cognitive theory of stress and coping identifies instrumental social support as a coping mechanism (i.e., a means of attenuating a stress relationship), the theory likewise recognizes "impulses to cope in ways that are alien to the value system of the society or to that which has been internalized by the individual" (Lazarus, 1966, p. 412). More specific to this study, when women in midlife perceive a stress relationship (e.g., lower levels of household income and higher levels of economic pressure) and attempt to attenuate this stress relationship by receiving assistance (e.g., financial instrumental support from their parents), the theory of cognitive stress and coping suggests that the psychological benefits normally associated with coping may be absent if receiving the assistance violates women's internalized social norms.

There is some empirical evidence suggesting that this tenet of the cognitive theory of stress and coping (Lazarus, 1966) may be useful in understanding why the receipt of financial instrumental support from parents was not associated with lower levels of depressive mood among women in this study who reported higher levels of economic pressure. For example, in qualitative interviews of women in divorce transition, Kitson (1992) found that women who relied on financial instrumental support from their families felt embarrassed by this display of economic dependence. Girgus and Nolen-Hoeksema (2006) noted in their review of the literature that the depressogenic effects of women's sociotropy (heightened concerns regarding others' opinions and approval) are well established, and these concerns may be heightened when women are economically vulnerable, particularly in midlife when economic frailty is less normative. Because the women in this study were unmarried, it is possible that their levels of economic pressure were products of midlife divorce or death of a husband and that these levels of economic pressure necessitated the receipt of financial instrumental support from parents and precluded the financial instrumental support of parents. Given the trajectories of normative intergenerational exchanges (for a review, see Kronebusch & Schlesinger, 1994), it is possible that the middle-aged unmarried women in this study were, in young adulthood, comfortable relying on the financial instrumental support of their parents. However, this reliance may have given rise to daughters' or parents' expectations that these transfers to daughters as young adults would be offset by daughters' financial instrumental support of parents when daughters reached midlife.

Third, it is possible that in this study the receipt of financial instrumental support from parents failed to provide stress-buffering effects because the support occurred in the context of problematic adult parent-child relations. A majority (56.43%) of women in this study were divorced, and the literature on the social context of divorce suggests that financial instrumental support from family members—albeit intended to assuage transitional challenges—may be problematic when, for example, it is accompanied by advice (for qualitative accounts, see Kitson, 1992; for a review, see Seprcher et al., 2006). More generally, in exploring the correlates of adult daughters' receipt of financial instrumental support from their elderly mothers, Fingerman and colleagues (2004) noted that these transfers often occur in relationships that are characterized by ambivalent and problematic relations. In short, if transfers of financial instrumental support from elderly parents to their daughters in midlife occur in the context of generally troubling adult parent-child relations, these transfers may fail to provide psychological benefits.

These plausible explanations suggest that the hypothesized buffering effects of financial instrumental support received from parents may vary according to personal and social measures that were not included in the NLS-YW data and, hence, not operationalized in this study. For example, the benefits of receiving financial instrumental support from parents may have been evident for women who viewed these transfers as normative and not for women who viewed them as indicative of personal failure. Likewise, the buffering effects of financial instrumental support from parents may have been apparent for women whose adult parent-child relations were harmonious and not among women for whom these transfers occurred in the context of conflict-

ridden relationships. In short, higher-order moderating effects that were not examined in this study may elucidate the lack of support for the first-order buffering effects of financial instrumental support from parents on the association between economic pressure and women's depressive mood.

*The Higher-order Moderating Effects of Race on Locus of Control and Financial Instrumental Support Received from Parents*

Contrary to my hypotheses and inconsistent with the weak empirical support reviewed previously, in this study of unmarried women in midlife, race did not moderate the effects of locus of control or financial instrumental support received from parents on the association between economic pressure and depressive mood. I predicted that having an internal locus of control would buffer the deleterious effects of economic pressure on psychological well-being for white, but not black, women. Similarly, I hypothesized that among white women, receiving financial instrumental support from parents would buffer the effects of economic pressure on depressive mood, but similar effects were not expected for black women. These hypothesized effects were not supported by the analyses in that when women's race was considered, both of the hypothesized first-order moderators (locus of control and financial instrumental support received from parents) failed to provide conditionalizing effects for white and black women.

These findings are inconsistent with at least one community-based study in which locus of control provided different benefits to economically pressured young, low-income white and black women, most of whom were single mothers (Ennis et al., 2000). As noted previously, the failure of locus of control to provide the hypothesized effects in the

present study may be related to the construct's measurement (i.e., operationalization by a general scale rather than one that is specific to the domain of economic well-being). It is also possible that just as the benefits provided by an internal locus of control vary somewhat across the life course and across domains (Lachman & Firth, 2004), racial differences in these benefits are more pronounced at some stages in the life course than others. Likewise, because Lachman and Firth's (2004) comprehensive Midlife in the United States (MIDUS) study of the sense of control in midlife explores the effects of social class, but not race, the extent to which race is a proxy for class in the study of locus of control remains unclear.

Lack of support for the hypothesized racial differences in the benefits of receiving financial instrumental support from parents may be methodological or substantive. Regarding the methodologies employed, sample sizes in the subgroup analyses were sufficiently small as to have increased the likelihood of type-II error. Kenny (2004) cited recent research in Aguinis' publication *Moderated Regression*, which is not available to me, suggesting that moderation analyses featuring categorical moderators (in this test for high-order moderation, a dichotomous measure of financial instrumental support from parents and a second dichotomous race classification) and continuous predictor variables (in this moderation analysis, levels of economic pressure) are characterized by exceedingly low statistical power. Accordingly, Kenny (2004) recommended that groups number at least 100 in moderation analyses. In the present study, only 33 black women and 87 white women reported having received financial instrumental support from their

parents, and these small subgroup sizes may have contributed to the lack of support for the hypothesized effects.

Additionally, the empirical literature suggests that there may be substantive explanations for the unsupported hypothesized racial differences in the benefits of women's receipt of financial instrumental support from their parents. As Conger and colleagues' (2002) argued, overall the Family Stress Model, including its various conditionalizing factors, has been associated with similar trajectories for white and black adults. However, given Lincoln and others' (2005) speculation that the benefits of receiving financial instrumental support in the black community are complexly interwoven with other factors, particularly the co-receipt of emotional support, it is likely that a nuanced approach to this genre of inquiry would be elucidating, and NLS-YW data do not contain measures permitting a more contextualized study.

*The Higher-order Moderating Effects of Locus of Control on the Effects of Financial Instrumental Support Received from Parents*

Contrary to my hypothesis, in this study of unmarried women in midlife, locus of control did not moderate the effects of financial instrumental support received from parents on the association between economic pressure and depressive mood. I predicted that that the benefits of receiving financial instrumental support from parents would be significantly greater for women with an external locus of control than their more internally focused counterparts. These theoretically grounded hypothesized effects are perhaps intuitive: Women who view their personal well-being as dependent on the actions of others may be expected to experience others' assistance as more

psychologically beneficial than women who view themselves as capable, independent, and self-sufficient.

It is likely that the lack of support for these higher-order moderating effects is related to sizes of the subgroups analyzed or the operationalization of locus of control. Only 53 women with an external locus of control and 55 with an internal locus of control reported having received financial instrumental support from their parents, and, as noted previously in this discussion, these subgroup sizes may have contributed to Type II error inflation. Also as noted previously, the use of a global measure of locus of control, rather than a domain-specific measure, may have impaired the operationalization of women's sense of control in this study. Stated differently, it is possible that among these unmarried women in midlife, locus of control *specific to economic well-being* did determine the levels of psychological benefits provided by financial instrumental support received from parents. However, to the extent that the global locus of control measure failed to tap these domain-specific influences, these higher-order moderating effects were not captured.

#### Limitations

This study focuses on the association between economic and psychological measures among a cohort of unmarried women in midlife. Accordingly, these findings are not generalizable to married women or women at other stages in the adult life course. Also, lesbian women in midlife, who may have been included but not identified in this sample, may have unique experiences that were not explored. Similarly, because the study highlights the experiences of white and black women, the experiences of Latina and

other minority women whose populations in the United States have grown substantially since the NLS-YW inception are not represented in these findings.

Additionally, lack of support for the hypothesized moderating effects of locus of control and buffering effects of receiving financial instrumental support from parents may be related to limitations in the study's methodologies. It is possible that the operationalization of locus of control, which was estimated by a scale measuring the global sense of control, failed to capture the extent to which these unmarried women in midlife felt a sense of control over their economic well-being. It is also very likely that the failure to observe group differences, particularly in the analyses that examined higher-order moderation, was related to suboptimal subgroup sizes.

Finally, because this study uses a cross-sectional design, these findings should not be interpreted as identifying causal relationships. Although the NLS-YW survey is longitudinal, the specific measures that were central to this investigation, including survey items that tapped women's two-year financial comparison, locus of control, and financial instrumental support received from parents, were not included in other waves of NLS-YW data. Thus, analyses of these NLS-YW data do not permit an examination of the effects of these influences over time.

#### Directions for Future Research

Although most prior research exploring the associations among household income, economic pressure, and women's psychosocial well-being analyzed data on regional samples, findings in this study suggest that national datasets may be useful in examining these relationships. Objective economic measures, such as changes in savings

activity, are commonly found in national surveys that include economic data, and these measures may provide novel and informative ways to operationalize economic pressure. Future research on the mediating effects of economic pressure on the association between household income and myriad measures of well-being may be well served by considering the suitability of national datasets to these inquiries.

Because the hypothesized first and higher-order moderating effects of locus of control were not supported in these analyses, future studies may wish to identify research genres for which domain-specific measures of personal control are more appropriate than global control scales. Given that locus of control becomes increasingly domain specific after young adulthood, the use of domain-specific measures may aid in the study of the middle and later years, particularly in investigations that center on the economic well-being of adults in midlife.

Additionally, this study examines the moderating effects of locus of control on the association between economic pressure and depressive mood, but did not consider other mechanisms by which locus of control might influence the relationships among economic and psychological measures. The theoretical underpinnings of this study are consistent with locus of control playing a mediational role, as well, and future research may explore whether a global measure of locus of control fully or partially mediates the association between economic pressure and depressive mood. That is, it is possible that the deleterious effects of economic pressure on women's psychological well-being are explained, rather than conditionalized, by the extent to which they are externally focused.

Finally, future research that takes a nuanced approach to the study of unmarried women's midlife receipt of financial instrumental support from their parents may be elucidating, and qualitative inquiries that highlight this interplay of economic, social, and psychological factors may inform the design of future quantitative studies. NLS-YW data do not permit transfers of financial instrumental support to be examined in context, and studies that explore the extent to which this support occurs in relationships that are characterized by reciprocal transfers or conflict-ridden adult parent-child relations may be informative.

### Conclusion

This study uses national data on unmarried women in midlife to extend the tradition of research identifying relationships among various economic and psychological measures. Consistent with prior studies, in this investigation economic pressure fully mediated the association between household income and women's depressive mood, and these effects were apparent after controlling for the influence of women's self-rated physical health. Additionally, the study examines the first and higher-order conditionalizing effects of locus of control, financial instrumental support received from parents, and race on the full mediational model, but no group differences were observed. The lack of support for these hypothesized first and higher-order moderating effects may underscore the strength of the relationships among measures of women's economic and psychological well-being. That is, these findings suggest that the deleterious effects of lower levels of household income and higher levels of economic pressure may be more universal than conditionalized.

The null findings in this study regarding the benefits of women's internal locus of control and receipt of financial instrumental support from their parents and, moreover, how these factors might interact with one another and women's race support other researchers' call for nuanced, contextual approaches to the study of women's well-being. Future research examining the relationship between economic and psychological measures among women in midlife may consider the mediational role of a global measure of locus of control or the conditionalizing influences of a locus of control measure specific to the domain of economic well-being. Similarly, qualitative inquiries may inform the design of future quantitative studies that capture in context the effects of women's midlife receipt of financial instrumental support from their parents. When these mechanisms are better understood, researchers may be more soundly positioned to tease apart the influences of women's race in the complex interplay of factors that determine women's psychological well-being in the socioeconomic environment.

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APPENDIX. TABLES

Table 1.

*Selected Sample Sociodemographic Data (n = 1,026).*

Study Characteristic	n	%
<b>Education level</b>		
Did not attend school	2	.2
Attended school, but did not graduate high school	172	16.8
High school graduate	352	34.3
Attended college	236	23.0
College graduate	117	11.4
Attended graduate school	147	14.3
<b>Labor Force Status</b>		
Employed and at work	670	65.3
Employed and absent	84	8.2
Unemployed due to layoff	6	.6
Unemployed and seeking employment	24	2.3
Retired	36	3.5
Disabled	142	13.8
Other	64	6.3
<b>Residence area type</b>		
Non-farm open country	113	11.0
Farm	11	1.1
City or town with less than 50,000 people	327	31.9
City with at least 50,000 and less than 250,000 people	167	16.3
Suburb of a large city	103	10.0
Large city with at least 250,000 people	149	14.5
Residence unobserved due to telephone interview	123	12.0
Response omitted	33	3.2

Table 2.

*Occupations of Employed Survey Participants (n = 775).*

Occupations	<i>n</i>	%
Management	77	7.5
Business and financial operations	30	2.9
Computer and mathematical	10	1.0
Architecture and engineering	1	.1
Life, physical, and social services	5	.5
Community and social services	24	2.3
Legal	7	.7
Education, training, and library	65	6.3
Art, design, entertainment, sports, and media	16	1.6
Healthcare practitioners and technical workers	40	3.9
Healthcare support	32	3.1
Protective service	9	.9
Food preparation and serving	36	3.5
Building and grounds cleaning and maintenance	30	2.9
Personal care and service	30	2.9
Sales and related	73	7.1
Office and administrative support	174	17.0
Farming, forestry, and fishing	5	.5
Construction and extraction	1	.1
Installation, repair, and maintenance	3	.3
Production	83	8.1
Transportation and material moving	17	1.7
Refused to answer	4	.4
Response omitted	3	.3

Table 3.

*Intercorrelations among Variables and Descriptive Statistics.*

Variables	1	2	3	4	5	6	7	8
1. 2001 Total income	-							
2. Self-rated physical health	.30**	-						
3. 2001 Savings activity	-.12**	-.13**	-					
4. 2000 Savings activity	-.13**	-.19**	.37**	-				
5. 2001-2000 Financial Comparison	-.22**	-.22**	.32**	-.14**	-			
6. CES-D (1) Unable to shake blues	-.22**	-.32**	-.10**	.08*	.17**	-		
7. CES-D (2) Trouble with tasks	-.21**	-.32**	.06	.06	.17**	.54**	-	
8. CES-D (3) Extra effort	-.21**	-.36**	.10**	.12**	.18**	.58**	.58**	-
9. CES-D (4) Restless sleep	-.14**	-.36**	.07*	.11**	.16**	.49**	.44**	.48**
10. CES-D (5) Lonely	-.20**	-.29**	.08**	.08*	.16**	.57**	.46**	.49**
11. CES-D (6) Sad	-.18**	-.29**	.09**	.10**	.14**	.63**	.48**	.51**
12. CES-D (7) Could not get going	-.23**	-.41**	.06	.09**	.15**	.56**	.58**	.63**

Table 3, *Continued.*

Variables	9	10	11	12	13	14	15
1. 2001 Total income							
2. Self-rated physical health							
3. 2001 Savings activity							
4. 2000 Savings activity							
5. 2001-2000 Financial comparison							
6. CES-D (1) Unable to shake blues							
7. CES-D (2) Trouble with tasks							
8. CES-D (3) Extra effort							
9. CES-D (4) Restless sleep	-						
10. CES-D (5) Lonely	.41**	-					
11. CES-D (6) Sad	.46**	.71**	-				
12. CES-D (7) Could not get going	.51**	.51**	.54**	-			

Table 3, *Continued.*

Variables	1	2	3	4	5	6	7	8
13. Locus of control	-.18**	-.28**	.11**	.14**	.17**	.24**	.20**	.27**
14. Financial support from parents	.06	-.02	.03	.02	.00	.02	.02	.01
15. Race	.18**	-.19**	.04	.12**	.01	.06	.06	.13**
<i>M</i>	38.21 <sup>1</sup>	2.93	1.96	1.91	1.90	1.54	1.62	1.71
<i>SD</i>	37.52 <sup>1</sup>	.89	.64	.58	.71	.92	.94	1.02
<i>Skewness</i>	1.99	-.53	.04	.02	.15	1.57	1.34	1.23
<i>Kurtosis</i>	7.68	-.46	-.59	-.14	-1.03	1.25	.63	.19

*Note:* *Ns* range from 977 to 1,026 due to missing data. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

<sup>1</sup> Amounts are reported in thousands.

Table 3, *Continued.*

Variables	9	10	11	12	13	14	15
13. Locus of control	.22**	-.26**	.23**	-.25**	-		
14. Financial support from parents	-.01	.01	.03	.02	-.02	-	
15. Race	.04	.07*	.00	.07*	.18**	-.08*	-
<i>M</i>	1.90	1.54	1.60	1.64	1.51	.12	1.38
<i>SD</i>	1.11	.93	.95	.96	.50	.32	.48
<i>Skewness</i>	.86	1.63	1.45	1.34	-.04	2.39	.50
<i>Kurtosis</i>	-.74	1.41	.89	.68	-2.00	3.71	-1.75

Notes: *Ns* range from 997 to 1,206 due to missing data. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

<sup>1</sup> Amounts are reported in thousands.

Table 4.

*Goodness of Fit Indices for Measurement Models.*

Model	<i>df</i>	$\chi^2$	$\chi^2/df$	CFI	NNFI	RMSEA
<i>Model 1.</i> Baseline model	34	283.62		.92	.90	.09
<i>Model 2.</i> Correlated error terms between 2001 and 2000 Savings Activity	33	259.64	23.98***	.93	.91	.09
<i>Model 3.</i> Correlated error terms between adjacent manifest indicators	26	82.81	176.83***	.98	.97	.05

Note: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 5.

*Parameter Estimates and Standard Errors (SE) for Economic Pressure and Depressive Mood (Measurement Model 3).*

Items	Unstandardized Estimate	SE	Standardized Estimate
<i>Economic pressure</i>			
2001 Savings activity	1.00		.28
2000 Savings activity	.98	.34	.26
2001-2000 Financial comparison	2.26	.69	.53
<i>Depressive mood</i>			
CES-D (1) Unable to shake blues	1.00		.76
CES-D (2) Trouble with tasks	.95	.05	.70
CES-D (3) Extra effort	1.12	.05	.75
CES-D (4) Restless sleep	1.06	.06	.64
CES-D (5) Lonely	.90	.05	.67
CES-D (6) Sad	.97	.05	.71
CES-D (7) Could not get going	1.06	.05	.77

Table 6.

*Structural Equation Subgroups Analyses.*

Model	$\chi^2$	<i>df</i>	$\chi^2$ difference	<i>df</i> difference	<i>p</i>
<i>Panel A: Internal LOC (n = 453) and external LOC (n = 474)</i>					
Model with paths between latent constructs allowed to vary	193.36	86			
Model with paths between latent constructs fully constrained to be equal	199.04	90	5.68	4	0.22
<i>Panel B: Internal LOC and white (n = 320), internal LOC and black (n = 133), external LOC and white (n = 250), and external LOC and black (n = 224)</i>					
Model with paths between latent constructs allowed to vary	332.24	172			
Model with paths between latent constructs fully constrained to be equal	333.27	185	1.03	13	0.99
<i>Panel C: FISRFp (n = 120) and no FISRFp (n = 906)</i>					
Model with paths between latent constructs allowed to vary	202.60	86			
Model with paths between latent constructs fully constrained to be equal	206.19	90	3.59	4	0.46
<i>Panel D: FISRFp and white (n = 87), FISRFp and black (n = 33), no FISRFp and white (n = 550), and no FISRFp and black (n = 356)</i>					
Model with paths between latent constructs allowed to vary	360.23	172			
Model with paths between latent constructs fully constrained to be equal	366.49	184	6.26	12	0.90

*Note:* LOC = Locus of control. FISRFp = Financial instrumental support received from parents.

Table 6, *Continued.*

Model	$\chi^2$	<i>df</i>	$\chi^2$ difference	<i>df</i> difference	<i>p</i>
<i>Panel E:</i> Internal LOC and no FISRFp (n = 398), internal LOC and FISRFp (n = 55), external LOC and no FISRFp (n = 421), and external LOC and FISRFp (n = 53)					
Model with paths between latent constructs allowed to vary	284.82	172			
Model with paths between latent constructs fully constrained to be equal	304.22	185	19.40	13	.11

*Note:* LOC = Locus of control. FISRFp = Financial instrumental support received from parents.