

**The Relationships between Economic Hardship, Financial Distress, Relational Aggression,  
and Marital Quality as Experienced by Mid-Life Married Couples during  
and following the Recent Economic Recession**

by

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## Abstract

Using data from the *Flourishing Families Project*, the current dissertation is composed of two studies examining how 335 mid-life married couples experienced economic hardship and financial distress during the recent economic recession and how their marital quality was influenced by these experiences. The first study, guided by Boss's (2002) Contextual ABC-X Family Stress Model, explores the relationship between economic hardship in 2009 and financial distress both concurrently and longitudinally two years later. This study also explores how materialistic beliefs and savings influence these concurrent and longitudinal relationships. Concurrently, economic hardship is related to more financial distress for both wives and husbands. Wives' and husbands' materialistic beliefs are related to their own reports of more financial distress, while having savings is related to both spouses having less financial distress. Longitudinally, economic hardship is related to financial distress two years later indirectly through earlier levels of financial distress. Wives' materialism continues to be related to wives experiencing more financial distress, while savings continues to be related to both spouses having less financial distress.

The second study, guided by Conger et al.'s (1990) Model of Economic Hardship, examines the relationship between economic hardship in 2009 and financial distress in 2010 for both wives and husbands. This study also examines whether perceptions of spouses' relationally aggressive behaviors (e.g., social sabotage and love withdrawal) in 2010 mediate the relationship between wives' and husbands' financial distress in 2010 and their marital quality in 2011.

Economic hardship is related to more financial distress for both spouses. Both spouses' financial distress is related to lower marital quality. Relationally aggressive behaviors are found to mediate the relationship between both spouses' financial distress and their marital quality. Specifically greater financial distress is related to perceptions that the spouse is engaging in more relationally aggressive behaviors, which in turn, are related to lower marital quality. Implications of these studies are discussed.

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## I. General Introduction

The recent economic crisis in the United States, occurring between December 2007 and June 2009, resulted in many individuals, couples, and families experiencing a variety of economic hardship, including reduced wages, unemployment, lost property value, home foreclosures, and bankruptcy (U.S. Bureau of Labor Statistics, 2012). Despite the widespread nature of this most recent recession, little is known about the level of financial distress couples experienced during this period of economic downturn. Accordingly, the current dissertation will conduct two studies to explore how long-term, mid-life, married couples experienced financial distress as a result of economic hardship during the recent recession, and how economic hardship and financial distress influenced their marital quality two years into the economic recovery.

Mid-life married couples are selected for the current dissertation as they represent members of the “sandwich” generation and may be especially vulnerable to economic downturns. These couples are often balancing demands to care for their own children in the home, while simultaneously assisting aging parents (Nema & Bansal, 2015). Complicating these balancing efforts is the desire of parents to fund children’s college/marriage funds while funding their own retirement accounts (Nema & Bansal, 2015). These efforts may be hampered when downturns in the economy make saving more difficult due to lost income and receiving lower returns on funds already invested. These issues may raise concerns and doubts about whether couples will be able to retire when expected and whether they will have enough money to last

through the retirement years (McDaniel, Gazso, & Um, 2013). Such doubts and concerns brought on by economic hardship may result in higher levels of financial distress.

To understand the potential influence an economic downturn may have on couple relationships, it is important to refer to how earlier economic crises have been experienced by couples and families. Research on economic hardship and marital relations began in the 1980s when Liker and Elder (1983) examined how financial setbacks, primarily income loss, during the Great Depression influenced marital tension among couples. Liker and Elder found that loss of income is related to increased instability, conceptualized as irritability, tension, and moody behaviors among husbands, and increased financial disputes and marital tension among couples. Building on Liker and Elder's (1983) research, Johnson and Booth (1990) and Conger et al. (1990) used the Farm Crisis of the 1980s as an opportunity to examine further how economic hardship influences marital relations. Conger et al. (1990) defined economic strain as including any emotional, cognitive, or behavioral responses to these hardships, suggesting family members are having difficulties meeting family needs with available resources. As noted by Prawitz et al. (2006), multiple labels have been used to describe a person's reaction to financial conditions, including, but not limited to, financial strain, financial stress, debt stress, economic strain, and economic distress. For the purpose of this paper, *financial distress* will be used to describe an individuals'/couples' reaction to economic hardship brought on by the recent recession of 2007-2009.

Over two decades ago, Johnson and Booth (1990) found that financial distress is related to poorer marital communication and more thoughts about divorce, and Conger et al. (1990) found, under financial distress, husbands engage in more hostile behaviors and less warmth towards their wives, which results in poorer marital outcomes. Based on their research, Conger et

al. developed the Model of Economic Hardship (also referred to as the Family Stress Model, Conger & Dogan, 2007), which posits that economic hardship is related positively to financial distress, which harms marital quality and stability indirectly by promoting hostile behaviors and limiting warmth between spouses (Figure 1).

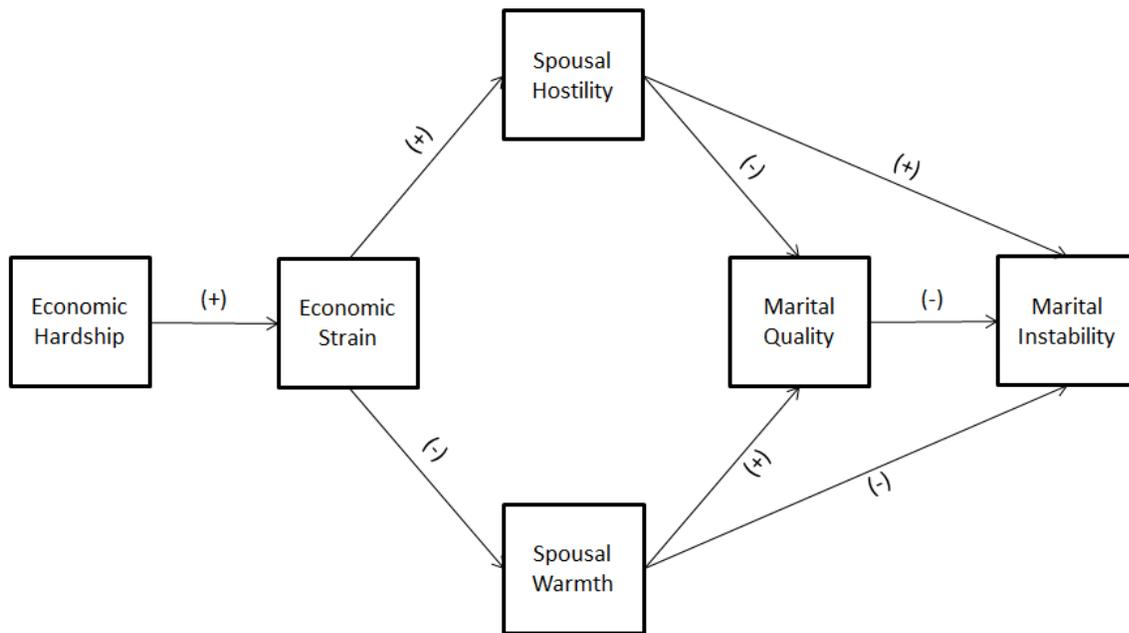


Figure 1.  
Conger et al.'s (1990) Model of Economic Hardship in the Marital Context (p. 646).

Since its development in the early 1990s, this model of economic hardship (Conger et al., 1990) has guided much of the subsequent research on economic hardship, financial distress, and marital outcomes and has been validated among various family structures, ethnic groups, and locations within the United States (Conger & Dogan, 2007), as well as internationally among Korean (Kwon, Rueter, Lee, Koh, & Ok, 2003), Argentinean (Falconier & Epstein, 2010), and Turkish (Aytac & Rankin, 2009) couples. Despite empirical support, however, past applications of the model of economic hardship (Conger et al., 1990) may be limiting our knowledge of the

relationships between economic hardship and financial distress and financial distress and marital outcomes for contemporary couples due to several important limitations.

The first limitation is a lack of consistency in examining economic hardship, financial distress, and marital outcomes from a dyadic perspective. Part of this inconsistency is that matching data are not always collected from husbands and wives (e.g., Aytac & Rankin, 2009). Even when matching data are collected, separate models may be fit to examine the spousal influence on the respondent's marital outcomes, without examining both spouses' data simultaneously in the same model (Conger et al., 1990). Such an approach does not take into account the non-independence of observation, which assumes spouses' scores are linked and highly correlated to one another and need to be nested dyadically in the same model (Cook & Kenny, 2005). Furthermore, not examining spousal data simultaneously removes the notion that couples are interdependent in that actions and behaviors of one partner will influence the spouse (Anderson & Sabatelli, 2011). Boss (2002) notes the need to examine both spouses' perspectives simultaneously as they may experience differing levels of distress, despite sharing a common stressor event, such as economic hardship.

Such differences in levels of financial distress may also influence the use of aggressive or negative behaviors towards a spouse, as well as marital outcomes. For example, Falconier and Epstein (2010) find that both husbands and wives engage in more psychological aggression when husbands are financially distressed, but not when wives are financially distressed. Furthermore, relationally aggressive behaviors have been shown to influence wives' and husbands' marital outcomes differently, depending on perceptions of which spouse engages in these relationally aggressive behaviors (Carroll et al., 2010). Therefore, the studies comprising this dissertation

will address this limitation by examining both wives' and husbands' matching data simultaneously within the same model.

The second limitation, which is addressed by the first study of this dissertation, is that Conger et al.'s (1990) framework does not take into account other factors that may influence the relationship between economic hardship and financial distress. Stress research, guided by Hill's (1949; 1958) ABC-X Model and Boss's (2002) Contextual ABC-X Family Stress Model, notes this relationship will be influenced by available coping resources, perceptions of the stressor event (e.g., meanings behind and reasons for the event), and the context in which the stressor event takes place. Coping resources represent any economic, psychological, or physical resources that aid couples in coping with the stressor event (Boss, 2002). A potentially important economic coping resource is that of savings. Research has noted that savings and other assets (e.g., home value, retirement accounts) are related to less economic pressure (Dew, 2007). Couples cannot control whether an economic recession will occur, representing Boss's external context. However, having savings available may allow couples to feel more control during an economic downturn (Boss, 2002; Dew, 2007), which may be related to less financial distress when facing economic hardship.

Couples can also control their beliefs (e.g., internal context; Boss, 2002) about financial issues, such as materialism, which can influence perceptions of financial distress under conditions of economic hardship. Materialism refers to the importance people place on material goods and their acquisition (Richins & Dawson, 1992). Research has shown when individuals and couples are more materialistic, they are more sensitive to financial problems (Carroll, Dean, Call, & Busby, 2011; Dean, Carroll, & Yang, 2007), which may indicate materialistic individuals will experience greater financial distress during times of economic hardship. Furthermore,

materialism has been shown to moderate the relationship between threatening events and traumatic stress (Ruvio, Somer, & Rindfleish, 2014). Ruvio et al. explained that materialism may act as a lens through which people view threatening events. As such, materialism may also moderate the relationship between economic hardship and financial distress. Specifically, having higher levels of materialism are likely to strengthen the positive relationship between economic hardship and financial distress, while lower levels of materialism are likely to weaken this relationship. Therefore, the first study of this dissertation addresses the second limitation by examining how savings (a coping resource) and materialistic beliefs (an internal context) influence the relationship between economic hardship and both wives' and husbands' financial distress within an external context of an economic recession.

The final limitation, addressed by the second study, is the lack of consistency / transparency in examining direct relationships between financial distress and marital outcomes. Conger et al.'s (1990) original research explicitly tested for, but did not find, a direct relationship between financial distress and marital outcomes. As such, Conger et al. conceptualized the model of economic hardship so that financial distress influences marital outcomes indirectly through couple interactions. Subsequent research guided by this framework has shown mixed results. Falconier and Epstein's (2010) study supports this indirect relationship. Aytac and Rankin's (2009) study, on the other hand, finds both direct and indirect relationships between financial distress and marital problems. Finally, Kinnunen and Feldt (2004) find that the relationship between financial distress and marital adjustment is mediated by psychological distress. Other research has been less transparent about whether a direct relationship between financial distress and marital outcomes is tested as part of the analytical process (e.g., Gudmunson, Beutler, Israelsen, McCoy, & Hill, 2007; Kwon et al., 2003). Therefore, the second study of this

dissertation addresses this limitation by examining whether a direct or indirect relationship exists between financial distress and marital quality among contemporary, mid-life married couples, and whether perceptions of relationally aggressive behaviors mediate this relationship.

Collectively, these two studies provide an updated perspective on how economic hardship influences mid-life married couples' financial distress and how financial distress influences marital quality during and following the most recent economic recession. Although an updated perspective is a major contribution of this research, it also extends the current literature in a number of ways. First, examining savings as a potential protective factor during the economic recession broadens research by Dew (2007) that shows savings and assets reduce economic pressure. Second, the current research extends the literature examining materialistic beliefs within a marital context (Carroll et al., 2011; Dean et al., 2007; Ruvio et al., 2014) by determining how such beliefs relate to financial distress, and testing materialism as a moderator of associations between financial distress and economic hardship and savings. Third, application of the model of economic hardship (Conger et al., 1990) is broadened to test direct, indirect, and mediated relationships between financial distress and marital outcomes. Fourth, the current research advances the limited literature addressing relational aggression within a marital context by building on earlier concurrent findings of Carroll et al. (2010). Specifically, the influence of relational aggression is examined longitudinally, as well as within the context of an economic recession and early recovery period. Fifth and finally, both of the current studies comprising this dissertation rely on a dyadic perspective to examine influences on financial distress and how financial distress influences marital interactions and quality. Results of this research may provide valuable insights for policies to assist families in the management of economic demands, and for

prevention and intervention programs to educate couples about finances before and during marriage, as well as before and during times of economic hardship.

## II. Study 1: Economic Hardship and Financial Distress: A Contextual Examination

### Abstract

Relying on data from the *Flourishing Families Project*, the current study applies the Contextual ABC-X Family Stress Model (Boss, 2002) to explore how 335 married mid-life couples experienced economic hardship and financial distress during the recent economic recession. Economic hardship, measured as cutbacks in work hours and/or salary, is related to greater financial distress concurrently for both wives and husbands, but operates indirectly through earlier financial distress to predict financial distress measured two years later. Husbands' and wives' materialism is related to their own experiences of greater financial distress concurrently, and wives' materialism is related to wives' experiencing greater financial distress two years later. Higher amounts of savings are associated with lower levels of financial distress for both spouses at both time points. Future research directions and implications for policy are discussed.

*Keywords:* economic hardship, financial distress, materialism, savings, marriage

## Economic Hardship and Financial Distress: A Contextual Examination

The recent recession from December 2007 to June 2009 (U.S. Bureau of Labor Statistics, 2012) has been called the worst economic crisis since the Great Depression of the 1930s (Baek & DeVaney, 2010; Mosely, 2009). This crisis included high unemployment rates and high numbers of personal bankruptcies. Additionally, many other less severe forms of hardship (e.g., decreased work hours and/or salary, decreased property values, etc.) impacted families during this time of economic slowing. Yet little is known about how couples experienced financial distress during the most recent economic recession. One potentially vulnerable population includes married mid-life couples. Mid-life couples are often “sandwiched” between caring for children and aging parents, while simultaneously balancing the funding of their own retirements and paying for children’s college educations and/or marriages (Nema & Bansal, 2015). With already limited financial resources, such balancing efforts may place tremendous strain on couples, which can be exacerbated further by hardships brought on by an economic recession. Therefore, the aim of the current study is to explore mid-life couples’ experience of economic hardship during this most recent recession and variability among husbands’ and wives’ experiences of financial distress as a result of this hardship.

Considerable stress research has been guided by Hill’s ABC-X Model (1949, 1958). This model posits that a stressor event (A), which is any event that provokes change, will be related directly and positively to the level of distress (X) experienced by an individual, couple, or family. This distress is the recognition of and behavioral, cognitive, or emotional response to the stressor event (Aldana & Liljenquist, 1998; Conger et al., 1990). However, the relationship between the stressor event and distress may be associated with additional factors, including coping resources and perceptions of the stressor event (Hill, 1949; 1958). Coping resources (B)

are any economic, psychological, or physical resources available to aid in responding to the stressor event (Boss, 2002). Available and adequate resources help to minimize distress, whereas lack of available and adequate coping resources can heighten distress. The final element represents the perceptions of the stressor event (C), such as meanings behind or reasons for the stressor event occurring, which further influence the level of distress experienced. Boss (2002) furthered Hill's research (1949, 1958) by developing the Contextual ABC-X Family Stress Model to illustrate how people experience stressor events and distress within external and internal contexts. External contexts are those factors people cannot control, such as an economic recession. Internal contexts are those factors people can demonstrate control over, such as their beliefs or behaviors.

The current study builds upon Hill's (1949, 1958) and Boss's (2002) work by examining the relationship between economic hardship (A) and financial distress (X) within an external context of the recent economic recession. Couples cannot control what happens in the overall economy or whether a recession will occur. Thus, a person's level of distress is likely to become elevated when facing economic hardship. However, couples can control their internal contexts, such as their beliefs regarding money and financial matters, which may heighten or alleviate the distress experienced. Controllable beliefs, such as those about money, likely influence perceptions of the stressor (i.e., the C component of the original ABC-X model; Hill, 1949; 1958) and also are indicators of the internal context component of Boss's model. One example of a controllable belief is materialism, which comprises the attitudes and perceptions one has about material goods and the acquisition thereof (Richins & Dawson, 1992). Research has shown materialism is related directly to sensitivity towards financial problems in couple relationships (Carroll et al., 2011; Dean et al., 2007). Furthermore, having higher levels of materialism may be

related directly to more financial distress, as hardship may require cutting back on the expected lifestyle (Dean et al., 2007; Richins & Dawson, 1992). Conversely, having a lower level of materialism may be related to lower levels of financial distress, as a couple may be willing to cut back on expenditures and expectations with the hope these cutbacks will promote a better long-term economic position later (Prawitz, Kalkowski, & Cohart, 2013). Therefore, examining spouses' beliefs about materialism may be an important consideration when exploring the relationship between economic hardship and financial distress, as well as the relationship between coping resources and financial distress.

An important economic coping resource (B) is having savings available to help alleviate the distress experienced when facing economic hardship. Dew (2007) found having assets (e.g., home value, savings, etc.) are correlated negatively with economic pressure. Additionally, Boss (2002) and Dew identified resources as allowing people to feel more control over unplanned situations, such as an economic recession. This control develops because couples facing unplanned situations continue to maintain viable options on how to respond and adjust to economic hardship. Those with adequate savings tend to use savings to augment lost income, whereas those without adequate savings tend to use available credit as a short-term solution when facing economic hardship (Baek & DeVaney, 2010). In the short-term, using credit may alleviate the immediate distress felt, but may amplify the stress over time if the hardship continues and credit is no longer available as a coping resource. Using savings may continue to serve as a buffer against economic hardship until savings are depleted, at which time financial distress will be expected to increase once again.

Building on what has been learned from past research addressing financial distress and coping, the purpose of the current study is to examine, among a sample of married, mid-life

couples, how financial distress is influenced by economic hardship, materialism, and savings, concurrently during the economic downturn and longitudinally two years into the recovery. This study also will explore whether wives' and husbands' materialism moderates associations between economic hardship and financial distress, as well as associations between savings and financial distress.

### **Economic Hardship and Financial Distress**

Economic hardship has been conceptualized in various ways, including income-to-needs ratio, short- and long-term income changes, unstable work, debts-to-assets ratio, and inability to make ends meet (Conger et al., 1990; Conger et al., 1992; Prawitz et al., 2013). Experiencing economic hardship is related to poorer physical health. For example, Kahn and Pearlin (2006) found poorer health among older adults whether they experienced a continuous and unbroken (e.g., chronic) or a more transient (e.g., episodic) trajectory of economic hardship. Furthermore, economic hardship also predicts financial distress (Conger et al., 1990; 1992).

Financial distress represents the perception that economic hardship is being experienced (Boss, 2002; Conger et al., 1990; Falconier & Epstein, 2010). Additionally, financial distress prompts the cognitive, emotional, or behavioral response to that stressor event (Aldana & Liljenquist, 1998) and has been shown to be related to mental health and marital well-being. Specifically, greater financial distress is associated with both spouses' elevated emotional distress (e.g., depression), which is related to greater marital conflict (Gudmunson et al., 2007). Financial distress also has been shown to be associated with troubled marital interactions, such as disagreements and hostility (Conger et al., 1990; Conger, Reuter & Elder, 1999; Gudmunson et al., 2007) and poorer marital outcomes (Britt & Huston, 2012; Johnson & Booth, 1990), which

prompts a need to examine the relationship between economic hardship and financial distress within a marital context.

Conger et al.'s research (1990; 1992) has found economic hardship predicts financial distress within a marital context, yet some of the indicators of economic hardship have demonstrated inconsistencies in predicting financial distress. For example, in the empirical testing of Conger et al.'s (1990) model of economic hardship, income-to-needs ratio and economic pressure (income change) are significantly related to financial distress, but unstable work is not. However, in a subsequent study with a larger sample, unstable work, total family income, and debt-to-assets ratio are significantly related to financial distress, whereas lost income is not (Conger et al., 1992). These inconsistent findings suggest that a better understanding of the relationship between economic hardship and financial distress, concurrently and across time is needed. The most recent economic recession allows for an opportunity to examine how contemporary couples experienced financial distress during a time of economic hardship.

The current study will examine how a cut in work hours and/or wages (e.g., unstable work) influences the level of financial distress experienced by wives and husbands concurrently as well as two years later, while taking into account materialism (an internal context) and the amount of savings available (coping resources). Unstable work was selected for the current study as it has been shown to be correlated with income change (Conger et al., 1990), and having reduced income through work instability may make it more difficult to meet financial obligations, which is an important predictor of financial distress (Aldana & Liljenquist, 1998).

The current study also examines each partner's financial distress, as spouses may not respond to a shared stressor event the same way (Boss, 2002). Conger et al.'s (1990) research

supports this idea in that, during times of economic hardship, husbands engage in hostility whereas wives do not. Although the authors speculated that wives engage in hostility also, due to the reciprocal nature of hostility, the results of their study do not support this speculation.

Valentino, Moore, Cleveland, Greenberg, and Tan (2014) observed that economic hardship is an objective measure that demonstrates limited variability (either the event happens or it does not). However, subjective measures, such as financial distress, demonstrate more variability over time, which may result in spouses experiencing events differently. Additionally, dyadic relationships are interdependent in nature, which means that decisions and behaviors of one partner will influence the other partner (Anderson & Sabatelli, 2011). As such, it is necessary to examine simultaneously how each spouse experiences financial distress during times of economic hardship. It is also important to take into account other factors, such as materialism, that may influence further the financial distress experienced.

### **Beliefs as an Internal Context: Materialism**

Materialism is defined as a person's beliefs about the importance for acquiring and possessing material goods (Richins & Dawson, 1992). Materialism has been shown to be related negatively to life satisfaction and positively to multiple aspects of poor mental health, including depression and anxiety (Burroughs & Rindfleisch, 2002; Richins & Dawson, 1992). Studying materialism among mid-life couples may be an important consideration, as research from Belk (1985) found a mid-life cohort scored highest in materialism, as compared to the youngest cohort (those unmarried, without children, and living with parents) and the oldest cohort (grandparents). Kasser et al.'s (2014) study examined materialism within the context of an economic downturn in Iceland. They noted that economic insecurity is an important indicator of endorsing materialistic beliefs and that materialism would increase during times of economic uncertainty.

Their research showed that materialism did increase significantly over a 6-month period. Furthermore, increases in materialism are related to decreases in psychological well-being, whereas reductions in materialism are related to perceptions of better psychological well-being. This part of Kasser et al.'s study is important to consider as it is the only study to date to examine materialism within a context of an economic downturn. The current study intends to further this research by examining wives' and husbands' materialism within the context of the recent economic recession experienced in the United States.

Limited research has examined materialism within couple relationships. This research has indicated materialism influences people's interest in relationships, their views towards others, and sensitivity towards financial problems. Richins and Dawson (1992) found support for their speculation that highly materialistic individuals would be less likely to value warm relationships with others as compared to those low in materialism. Carroll et al. (2011) further found non-materialistic couples rate themselves as being more other-centered than materialistic couples. Finally, several studies have found individuals and couples with higher levels of materialism perceive more financial problems than those with lower levels of materialism (Carroll et al., 2011; Dean et al., 2007). For example, greater materialism is related to more financial distress due to cutbacks in expected lifestyle when experiencing economic hardship (Dean et al., 2007; Richins & Dawson, 1992). Conversely, lower materialism is related to less financial distress when couples are willing to cut back on expenditures and expectations in the present with the hope these cutbacks will promote a better long-term economic position (Prawitz et al., 2013).

Sensitivity towards financial problems highlights the possibility materialism may be an important moderator to consider in exploring the relationship between economic hardship and financial distress, where, under conditions of higher materialism, the positive association

between economic hardship and financial distress would be expected to be stronger. Ruvio et al. (2014) noted that materialism may act as a lens through which to interpret stressful events. Their research found that highly materialistic people in Israel and the United States experience greater traumatic stress from threatening conditions than less materialistic people. They further found that materialism moderates the relationship between traumatic stress and compulsive consumption and impulsive buying. Thus, more materialistic beliefs may strengthen an already positive relationship between economic hardship and financial distress, while lower levels of materialism may weaken this positive relationship.

Whereas some research indicates materialistic beliefs are established early in life and remain stable over time (Burroughs & Rindfleisch, 2002), other longitudinal research indicates malleability in materialism over time (Kasser et al, 2014). For example, Kasser et al. found decreases in materialism are related to increases in mental health over a 12-year period, which denotes potential benefits in changing or controlling materialistic beliefs, which also fits within Boss's (2002) explanation of an internal context. Kasser et al. explained that people's goals and priorities may change during an economic recession, which aids in explaining why decreases in materialism during an economic downturn are associated with increases in individual well-being, and vice versa. As such, changes in materialism may influence the perceptions of financial problems (Carroll et al., 2011; Dean et al., 2007). The current study seeks to build upon this previous research by exploring how beliefs about materialism (and change in materialistic beliefs) predict financial distress, and the potential moderating role materialism may play in the associations among financial distress and economic hardship and savings.

## **Savings**

Having coping resources available aid in responding to stressor events and alleviate the level of distress experienced (Hill, 1949; 1958; Boss, 2002). Boss identified coping resources as being economic, psychological, or physical in nature. One common form of an economic resource is savings, which may be referred by some as an emergency fund<sup>1</sup> (Baek & DeVaney, 2010; Bhargava & Lown, 2006). Families vary in their capacity to reserve funds for savings, and accumulating savings requires effort and an intentional behavior. Much of the research on savings is limited to whether individuals and families have enough to cover an emergency or unexpected event (Baek & DeVaney, 2010). General guidelines indicate a need to have between two and six months' worth of income or expenses saved (Bhargava & Lown, 2006). Unfortunately, Bhargava and Lown found less than one-third of households had adequate resources in checking, savings, and money market accounts to cover even two-months of expenses.

Although much of the research on savings has focused on the adequacy of these funds, some research has examined the use of these funds during times of economic hardship. Baek and DeVaney (2010) found only one-third of families use savings to manage economic hardship while nearly half of families use available credit as a short-term solution. Families that have adequate levels of savings available are nearly four times more likely to use savings rather than credit during times of economic hardship. Other research has shown that having assets (including a combination of savings, investments, and home equity) are correlated with lower economic pressure (i.e., worries about the ability to pay bills and satisfaction with current finances) (Dew, 2007). Boss (2002) and Dew noted having resources available provides couples control over

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<sup>1</sup> It is important to note that savings may be in place to serve a specific purpose, such as paying for a child's college education, whereas an emergency fund may be intended solely to help during times of short-term unexpected events. With this distinction in mind, this paper will conceptualize savings as having money set aside that has the potential to be used to assist a couple during times of economic hardship, even though this use may not have been the original intention.

unplanned circumstances, which may help reduce the level of financial distress experienced. Thus, resources play a meaningful role in alleviating the level of economic pressure felt by couples, making assets, such as savings, an important resource to consider when examining the relationship between economic hardship and financial distress.

The influence of savings on financial distress needs to be considered while controlling for income. During times of economic hardship, income is often reduced (e.g., reduced work hours and/or salary; Conger et al., 1990), while household bills remain stable or increase. Research has shown that couples with low income experience greater psychological distress than middle-income couples, and many families feel limited control over their ability to provide for their families, which may contribute to feelings of distress during times of economic hardship and/or uncertainty (Dakin & Wampler, 2008). Richins and Dawson (1992) further found materialistic people require higher incomes than do non-materialistic people, which may be problematic during times of economic hardship. Since adequate income is required also to accumulate savings and other assets over time, income demonstrates an important control variable to consider when examining the relationship between economic hardship, savings, and financial distress.

### **Aims of the Current Study**

Taken together, the purpose of the current study is to explore the relationship between economic hardship and financial distress, concurrently (in 2009) and longitudinally (from 2009 to 2011), taking into account beliefs about materialism and amount of available savings. This study has five specific hypotheses (Figure 2):

H1: Both spouses' financial distress in 2009 will be related positively to both spouses' financial distress in 2011. Additionally, due to the passage of time and improvements in the

overall economy, it is expected that wives' and husbands' financial distress will decrease, on average, over the two-year period.

H2: Couples' economic hardship in 2009 will be related positively to both spouses' financial distress concurrently (2009) and longitudinally (2011).

H3: Couples' savings in 2009 will be related negatively to both spouses' financial distress concurrently (2009) and longitudinally (2011).

H4a: Both spouse's level of materialism in 2009 will be related positively to both spouses' financial distress in 2009 and 2011. H4b: Change in materialism between 2009 and 2011 will be related to change in wives' and husbands' financial distress from 2009 to 2011. Specifically, increases or stability in materialism will be related to less decrease in financial distress, whereas decreases in materialism will be related to more decrease in financial distress.

H5: Materialism in 2009 will moderate the associations addressed in hypotheses 2 and 3. Specifically, materialism will interact with economic hardship in that, at higher levels of materialism, there will be a stronger positive relationship between economic hardship and financial distress; at lower levels of materialism, there will be a weaker positive relationship between economic hardship and financial distress. Materialism will also interact with savings so that, at higher levels of materialism, there will be a weaker relationship between savings and financial distress, whereas, at lower levels of materialism, there will be a stronger relationship between savings and financial distress. These associations are expected for both spouses, although own materialism will have a stronger relationship with own financial distress.

## **Method**

### **Sample**

Data for this study come from the *Flourishing Families Project* (FFP; Day, Bean, Coyne, Dyer, Harper, & Walker, 2013), a longitudinal study begun in 2007 that examines family and parental processes. The original data were collected from 500 families living in the Pacific Northwest, all of whom had a focal child between the ages of 10 and 14. Participating families resided within targeted census tracts that reflected the socio-economic and racial makeup of local school districts. The majority (85%) of participating families was contacted at random through usage of a national telephone survey database. Additional families (15%) were recruited using fliers and referrals to gather a sample more reflective of the communities' overall demographics. Of these 500 families, 335 consisted of two-parent, married, heterosexual households. The average age in 2007 was 43.5 years for wives ( $SD = 5.38$ , range: 27 – 59) and 45.3 years for husbands ( $SD = 5.97$ , range: 27 - 62). Couples were married an average of 17.8 years, with 70-75% of couples being married at least 15 years (wives:  $SD = 5.2$ , range: 2 - 40; husbands:  $SD = 4.94$ , range: 2 - 37). Nearly 70% of both wives and husbands had earned a Bachelor's degree or higher. The average yearly combined income fell in a range between \$80,000 and \$90,000, with 90% reporting a combined income of at least \$30,000. Household ethnicity was primarily European-American (76%), with 4% African American, 1% Asian American, and 19% multi-ethnic. The current study used data from the third (2009) and fifth (2011) waves of this study, when pertinent financial variables (economic hardship, savings, and financial distress) were collected in response to the economic recession of 2007-2009.

## Measures

**Financial Distress.** The outcome variables of interest are the financial distress perceived by wives and husbands concurrently (2009) and longitudinally (2011). Financial distress is measured using 11-items from Spilman and Burzette (2006), which measures two domains of

financial distress: financial concerns (5-items; e.g., “I have trouble sleeping because of my financial problems”) and financial constraints (6-items; e.g., “I have enough money to afford the kind of food that I need.”). Responses range from 1 (*strongly disagree*) to 5 (*strongly agree*), with all statements related to financial constraints being reverse coded, so that higher scores indicate higher levels of perceived financial distress. Scores from both domains are combined into a single financial distress scale and averaged for both husbands and wives consistent with Spilman and Burzette. Each scale demonstrates good reliability (2009: wives:  $\alpha = .91$ ; husbands:  $\alpha = .90$ ; 2011: wives:  $\alpha = .92$ ; husbands:  $\alpha = .93$ ).

**Economic Hardship.** Economic hardship is assessed with two items tapping into an area of work cutbacks during the previous 12 months, which consist of (a) taking a cut in wages or salary (1 = *yes*, 0 = *no*) or (b) having work hours reduced (1 = *yes*, 0 = *no*). These two items are moderately correlated (wives:  $r = .42$ ,  $p < .001$ ; husbands:  $r = .40$ ,  $p < .001$ ). These items are recoded into a couple-level measure of economic hardship (0 = *neither spouse experienced hardship*, 1 = *one spouse experienced one event*, 2 = *one spouse experienced both events or both spouses experienced one event each*, 3 = *both spouses experienced both events*). Higher scores indicate greater economic hardship experienced by the couple. Scores are logged following Tukey’s (1977) suggestions for transforming variables with skewed distributions.

**Savings.** Savings is measured at the couple level in 2009 using a single question: “What is the approximate value of your savings?” Savings include any savings accounts, government savings bonds, money market shares, and certificates of deposit (CDs). Ranges of responses include 0 (*none or not applicable*) to 35 (*more than \$3 million*). Scores are logged due to skewed distributions (Tukey, 1977).

**Materialism.** Materialism, predictor and moderator, is measured in 2009 and represents the level of interest a person has in acquiring material goods. Six items from the Comprehensive Marriage Preparation Survey (Carroll, 2004) is used to measure materialism, using a 5-pt. range of responses (1 = *not at all like me*, 5 = *very much like me*). Sample items include “I want my kids to dress in fashionable clothes” and “Having a nice car is important to me.” Scores are averaged for each spouse, with higher scores indicating higher levels of materialism. Reliability for these scales is good (2009: wives and husbands:  $\alpha = .78$ ; 2011: wives:  $\alpha = .82$ ; husbands:  $\alpha = .80$ ).

To test materialism as a moderator, four interaction terms were created: (1) wives’ materialism x economic hardship; (2) husbands’ materialism x economic hardship; (3) wives’ materialism x savings; and (4) husbands’ materialism x savings.

**Income.** Income is controlled in the analyses. During the 2009 wave of data collection, both spouses are asked independently the range in which their combined income fell (e.g., under \$20,000 per year, at least \$20,000 per year, at least \$30,000 per year, etc.). As a result of this independent questioning, a lack of congruency is found in the combined income reported for about one-third of couples (for example, one spouse may report 6 (*at least \$60,000 per year*), while the other spouse reports 8 (*at least \$80,000 per year*)). In these cases, both partners’ reported combined incomes are averaged together (e.g., a report of 6 by one spouse and a report of 8 by the other spouse are scored as 7 (*at least \$70,000 per year*)).

**Ethnicity.** Due to the limited diversity in the sample’s ethnic composition, ethnicity is also controlled in the analyses. Both partners identify their own ethnicity from which a couple-level ethnicity is created (both partners European American, both partners African American, etc.), as well as a Mixed Ethnicity category. From this couple-level ethnicity variable, a dummy

variable was created (European American = 1; Non-European American = 0) to reflect whether couples (i.e., both spouses) are European-American ( $n = 253$ ) or whether one or both spouses are Non-European American ( $n = 81$ ).

### **Plan of Analysis**

All frequencies, descriptive statistics, and bivariate correlations were examined using SPSS Version 22. Path analyses and moderation models (Baron & Kenny, 1986) were fit in MPlus Version 6 (Muthen & Muthen, 1998-2011) to explore the relationship between economic hardship and financial distress, while accounting for the level of savings and potential moderating influences of materialism (Figure 2). Full information maximum likelihood (FIML) was used to manage missing data. Model fit was assessed using indices of chi square, comparative fit index (CFI), Tucker-Lewis Index (TLI), and the root mean square error of approximation (RMSEA). Heck and Thomas (2009) noted that good model fit occurs when the CFI and TLI have values at or above .90. Hu and Bentler (1999) suggested a non-significant RMSEA value below .06 demonstrates good model fit, although Heck and Thomas noted that good model fit occurs when the RMSEA value is below .05.

Mean comparisons were used to examine change in mean levels of wives' and husbands' financial distress between 2009 and 2011. The first three hypotheses and hypothesis 4a were tested within a main effects model in which husbands' and wives' financial distress in 2009 predicted both spouses' financial distress in 2011 (Figure 3). Additionally, this main effects model examined couple economic hardship, couple savings, and wives' and husbands' materialism in 2009 predicting wives' and husbands' financial distress both in 2009 and 2011, while controlling for combined income in 2009 and ethnicity. Thus, the main effects consist of paths from economic hardship, savings, and wives' and husbands' materialism to each spouse's

financial distress at both time points. Hypothesis 4b was tested when both spouses' change in materialism between 2009 and 2011 (the estimate of materialism in 2011 controlling for materialism in 2009) replaced 2009 levels of materialism in the second main effects model to predict both spouses' change in financial distress (i.e., the estimate of wives' and husbands' financial distress in 2011, controlling for wives' and husbands' financial distress in 2009; Figure 4). Finally, moderation (hypothesis five) was tested by adding interaction terms (husband/wife materialism x hardship; husband/wife materialism x savings) to the main effects model (Figure 3). Each of the four two-way interaction terms was tested individually in the prediction of wives' and husbands' financial distress in both 2009 and 2011 to identify whether moderation occurred.

## Results

Descriptive statistics are available in Table 1. These statistics show that couples in the current study experienced relatively low levels of economic hardship during the recent recession, with nearly half of couples experiencing no economic hardship in 2009. The average level of savings in 2009 was in the \$20,001-\$30,000 range, whereas income was in the average range of at least \$80,000 per year. Materialism was low among wives and husbands. Financial distress was also relatively low for both husbands and wives in 2009 and 2011.

Mean comparisons reveal several notable findings in the current study. In 2009, wives' and husbands' financial distress was not statistically different from each other ( $t(280) = .42, p = ns$ ). In examining change in financial distress between 2009 and 2011, as addressed by the second part of Hypothesis 1, wives' financial distress remained stable, on average, ( $t(287) = 1.08, p = ns$ ), while husbands' level of financial distress decreased, on average ( $t(265) = 3.31, p < .001$ ). As a result of the stability for wives and a decrease for husbands, husbands' financial distress became statistically lower than wives' financial distress in 2011 ( $t(279) = 2.75, p < .01$ ).

To provide additional contextual information, other change and mean differences also were found. Economic hardship, which was already low in 2009, decreased significantly in 2011 ( $t(297) = 3.12, p < .01$ ). The level of savings also decreased significantly ( $t(282) = -5.82, p < .001$ ), although the average level of savings still fit within the \$10,001-\$20,000 range. At the same time, the average level of income increased significantly ( $t(282) = -9.53, p < .001$ ) to at least \$90,000 per year. Finally, husbands' materialism was significantly higher than wives' materialism in both 2009 and 2011 (2009:  $t(280) = -4.11, p < .001$ ; 2011:  $t(280) = -3.12, p < .01$ ). Mean comparisons also revealed that husbands' materialism remained stable from 2009-2011 ( $t(266) = -1.04, p = ns$ ), whereas wives' materialism increased significantly over these two years ( $t(297) = -2.69, p < .01$ ).

Bivariate correlations (Table 2) show that economic hardship is related positively, and savings is related negatively with both spouses' financial distress in 2009 and 2011. Wives' materialism is marginally ( $p < .10$ ), but positively, related to wives' financial distress in 2009, and wives' materialism is related positively to wives' financial distress in 2011. Husbands' materialism is marginally ( $p < .10$ ), but positively, related to husbands' financial distress in 2009 and 2011. Several positive correlations are also found across spouses: wives' financial distress in 2009 is related to husbands' financial distress in both 2009 and 2011; husbands' financial distress in 2009 is related to wives' financial distress in 2011; wives' materialism in 2009 is related to husbands' materialism in both 2009 and 2011; husbands' materialism in 2009 is related to wives' materialism in 2011; wives' materialism 2011 is related to husbands' materialism in 2011; and wives' financial distress in 2011 is related to husbands' financial distress in 2011.

To address the study hypotheses, path analyses and a series of moderation models (Baron & Kenny, 1986) were fit in MPlus version 6 (Muthen & Muthen, 1998-2011). Full results for

each of these models are reported in Tables 3 and 4 (Table 3 reports the concurrent results; Table 4 reports the longitudinal results). Results for the final fitted main effects model are reported in Figure 3 and Model 2 of Tables 3 and 4. This model fit the data well ( $\chi^2 = 3.51, df = 4, p = .48$ ; CFI = 1.00; TLI = 1.01; RMSEA = 0,  $p = ns$ ). Approximately 50% of the variance in financial distress in 2011 (49.7% for wives; 50.2% for husbands) was explained after controlling for all else in the model.

For the first part of Hypothesis 1 (the second part of this hypothesis having already been reported), it was expected that both spouses' financial distress in 2009 would be related positively to both spouses' financial distress in 2011. This hypothesis was supported fully (Table 4, Model 1). Although the relationship between wives' financial distress in 2009 was related only marginally ( $p < .10$ ) to husbands' financial distress in 2011, all other associations were significant and positive.

It was proposed for the second hypothesis that the couple's level of economic hardship in 2009 would be related positively to both spouses' financial distress concurrently and two years later. This hypothesis was supported partially (Tables 3&4, Model 1). Economic hardship in 2009 was related positively and significantly to both spouses' financial distress in 2009. However, economic hardship in 2009 operates indirectly through both spouses' financial distress in 2009 to influence both spouses' financial distress in 2011 (wives' financial distress:  $B = .55$  (SE = .12)  $\beta = .15, p < .001$ ; husbands' financial distress:  $B = .59$  (SE = .11)  $\beta = .17, p < .001$ ). A possible suppressor effect is noted (Lancaster, 1999), as it can be seen that a model fit without financial distress in 2009 shows the expected positive association between economic hardship and financial distress in 2011 (Table 4 Model 2); however, in the model that includes 2009 financial distress (Figure 3; Table 4, Model 1) the relationship between economic hardship and

wives' financial distress in 2011 becomes negatively related and the relationship between economic hardship and husbands' financial distress in 2011 becomes negative but non-significant.

The third hypothesis held that having savings available in 2009 would be related negatively to both spouses' levels of financial distress in 2009 and 2011. These hypotheses were supported fully in that savings were related negatively and significantly to both spouses' financial distress at both time points (Figure 3; Tables 3&4, Model 1).

For hypothesis 4a, it was predicted that both spouse's materialism would be related positively to both spouse's financial distress in 2009 and 2011. These hypotheses were partially supported (Figure 3). Concurrently, each spouse's own materialism was related positively and significantly to their own financial distress, but not to their spouse's financial distress. Longitudinally, wives' materialism was related positively and significantly to their own change in financial distress, with no other significant relationships found between materialism and change in financial distress.

Hypothesis 4b addressed the relationship between change in materialism and change in financial distress, while taking into account economic hardship and savings in 2009. It was expected that both spouses' financial distress would decrease over these two years (which was partially supported when testing the first hypothesis). Increases or stability in materialism would be expected to be associated with a weaker decrease in financial distress, while a decrease in materialism would be expected to be associated with a stronger decrease in financial distress. Change in materialism as a predictor of decreased financial distress revealed mixed results (Figure 4). An increase in wives' materialism was not related to wives' stability in financial distress or to husbands' decrease in financial distress. Husbands' stability in materialism was not

related to wives' stability in financial distress, but it was related positively, albeit marginally ( $p = .07$ ), to husbands' decrease in financial distress. This positive relationship indicated that stability in husbands' materialism weakened the decrease in husbands' financial distress.

Finally, the fifth hypothesis proposed that materialism in 2009 would moderate the relationships between economic hardship and financial distress and savings and financial distress. It was expected under the condition of higher materialism the positive association between economic hardship and both spouses' financial distress would be stronger than under the condition of lower materialism. Furthermore, under the condition of higher materialism, the negative association between savings and financial distress would be weaker than under the condition of lower materialism. These hypotheses were not supported (Table 3, Models 2a-2d & Table 4, Models 3a-3d). None of the interaction terms were significant predictors of financial distress, concurrently or longitudinally.

### **Discussion**

The current study uses Boss's (2002) Contextual ABC-X Family Stress Model to explore mid-life, middle-class, married couples' experiences with limited economic hardship and financial distress during and immediately following the recent economic recession. Concurrently, greater economic hardship predicts higher financial distress and is associated with financial distress in 2011 through its association with 2009 financial distress. Savings buffer against financial distress concurrently and longitudinally. Each spouse's level of materialism is related to their own, but not their partner's, concurrent financial distress, and only wives' materialism is associated longitudinally with wives' 2011 financial distress. Materialism does not moderate the relationship between economic hardship and financial distress or the relationship between

savings and financial distress concurrently or longitudinally. Finally, stability in husband's materialism is related to less decrease in husbands' financial distress over time.

### **Economic Hardship and Financial Distress**

The results of the current study show that greater economic hardship is associated with greater financial distress among contemporary couples facing economic uncertainty during the recent economic recession. However, it must be noted that these couples did not experience high levels of economic hardship or financial distress, which raises questions of generalizability to other couples experiencing high levels of either economic hardship or financial distress. Despite this limitation, even low amounts of economic hardship are related positively to financial distress. Past research, primarily focusing on lower income families experiencing more severe economic hardship, has demonstrated consistently that this positive relationship exists (Conger et al., 1990; Conger & Dogan, 2007). The current study examines this relationship both during the recent recession as well as two years into the economic recovery period. The relationship between economic hardship and financial distress is positive during the concurrent portion of the study, and operates indirectly through both spouses' financial distress in 2009 in its association with change in financial distress two years later. This relationship likely is present because couples have to deal with the economic hardship as it first occurs. Dealing with economic hardship often requires adjustments to couples' financial reality, including cutting back on immediate expenditures (Prawitz et al., 2013), which prompts higher levels of financial distress concurrently and longitudinally (Boss, 2002).

Although couples in the current study are likely to have made adjustments due to economic hardship and experienced greater financial distress as a result, the couples in the current study were facing a stressor event that was rather mild in severity. Accordingly, these

adjustments represent short-term responses to economic hardship (Price, Price, & McKenry, 2010). Research suggests that short-term adjustments can be related positively to hopefulness for the future, especially when people have more internal locus of control (Prawitz et al., 2013). Because husbands' financial distress decreases significantly in the current study, this finding may indicate that these short-term adjustments are providing greater benefits to husbands than to wives. Wives' financial distress remains stable over two years, which may indicate they have lingering doubts about their economic future, despite making short-term adjustments. McDaniel et al. (2013) found mid-life participants, in light of the recent economic recession, have heightened concerns about employment security and financial preparedness for retirement, which may be true for wives in the current study. Two possible explanations associated with retirement may help to explain why wives may harbor lingering concerns. The first possibility is that women have a longer life expectancy than men, which requires limited retirement funds to last longer. The second possibility is that, due to time away from work to bear and raise children, women may qualify for lower social security benefits upon retirement (Social Security Administration, 2013), which may raise concerns whether retirement funds will be adequate.

An additional explanation for wives' stability in financial distress may have to do with power dynamics within the relationship regarding finances and the amount of caregiving by wives. Research has demonstrated that husbands maintain more control over finances, limiting the amount of control and influence wives have on financial decisions, particularly when finances are going well (Thorne, 2010). However, when finances are not going well, husbands are more likely to relinquish control over finances, which often results in additional strain for wives (Thorne, 2010). Similarly, wives tend to provide more caregiving to children and aging parents than do husbands, which may be related to further strain (Pinquart & Sorenson, 2006).

Unfortunately, the current study does not explore husbands' and wives' adjustments or concerns in response to economic hardship directly or to power dynamics regarding finances and caregiving responsibilities. As such, these explanations are speculative in nature, but are areas to consider in future research.

### **Materialism and Financial Distress**

The current study provides support that materialism has greater influence on own financial distress rather than on one's spouse's financial distress (Carrol et al., 2011), but the influence of materialism is mixed when examining the relationship between economic hardship and financial concurrently and longitudinally. The current findings support previous research on materialism within marriage. Consistent with Dean et al.'s (2007) research, the current study shows husbands are more materialistic than wives in both 2009 and 2011. Prior research also shows more materialistic individuals and couples are more sensitive to concurrent financial problems (Carroll et al., 2011; Dean et al., 2007). The current results support these earlier findings in that wives' and husbands' materialistic beliefs are related positively to their own levels of concurrent financial distress. In addition to supporting existing research, the current study also adds to this earlier research by examining changes in materialism and demonstrating a longitudinal relationship between materialism and financial distress. Specifically, wives' materialism increases significantly over these two years, while husbands' materialism remains stable. Additionally, wives' baseline materialism is related positively to stability in wives' financial distress two years later.

This former finding supports Kasser et al.'s research, which found Icelandic participants, on average, increased in materialism over a 6-month recessionary period. Kasser et al.'s sample was 70% female, which may help to explain, in part, why a similar pattern was found between

these two studies. Unfortunately, Kasser et al. do not differentiate between men's and women's reports so it is not possible to identify sex differences for changes in materialism over time. Reasons for this sex difference are important to consider. Kasser et al. suggested that periods of economic uncertainty provide incentives for people to reevaluate their goals, which may include adopting more materialistic beliefs, as demonstrated by wives in the current study, or de-emphasizing materialistic aspirations. Dean et al. (2007) note that materialistic views by husbands are more socially acceptable, which may help to explain why husbands have higher levels of materialism than wives at both time points and do not change in their level of materialism. Additionally, even though the economic recession may have provided an opportunity to husbands to reevaluate their financial goals, experiencing a lessening of economic hardship and financial distress during the recovery period may have prompted them to decide changes were not necessary.

Both the former and latter findings may relate back to the earlier discussion about lingering concerns wives may have in response to economic hardship (McDaniel et al., 2013). One reason to hold or increase materialistic beliefs is that acquisition of possessions provides a sense of security (Kasser et al., 2014; Ruvio et al., 2014), which may help counteract lingering concerns about the future. Although lingering concerns are a plausible explanation of the current findings, future longitudinal research is needed to understand more fully how materialism and changes in materialism influence financial distress and concerns about the future, particularly in terms of gender differences.

Support was not found for the Kasser et al. (2014) finding that increases in materialism are associated with decreases in well-being. In the current study, wives' increased materialism is not related to wives' stability in financial distress, and husbands' stability in materialism is

related positively to husbands' decrease in financial distress. This positive relationship may indicate that maintaining the same level of materialism weakens the decrease in financial distress. However, this difference in findings may also be due to the constructs used. The current study examined financial distress, whereas Kasser et al.'s study examined psychological well-being (a composite of life satisfaction and positive *vs.* negative affect). While distress, in general, is related to well-being (Gudmunson et al., 2007; Thoits, 2010), financial distress may be too specific to replicate the same findings as a general measure of well-being.

Previous research has demonstrated that materialism moderates the relationships between threatening events and traumatic stress and between traumatic stress and compulsive consumerism and impulsive buying (Ruvio et al., 2014). As such, it was speculated in the current study that having more materialistic beliefs would strengthen the relationship between economic hardship and financial distress, whereas having less materialistic beliefs would weaken this relationship. It was further speculated that having more materialistic beliefs would weaken the relationship between savings and financial distress, while less materialistic beliefs would strengthen this relationship. However, no support was found for these hypotheses. Low levels of materialism and limited variability (90% of the sample scored below 3 with the majority scoring around 2 on a 5-point scale) may help to explain why moderation was not found. These low scores and limited variability may make detecting significant associations more difficult. Previous research has also detected cohort differences in levels of materialism (Belk, 1985) as well as differences in high versus low and couple congruency in materialism (Carroll et al., 2011; Dean et al, 2007), which the current study was not able to examine.

### **Savings and Financial Distress**

Savings had a negative relationship with both spouses' level of financial distress, concurrently and longitudinally. These findings support research that shows savings are related to less economic pressure and distress (Dew, 2007; Rothwell & Han, 2010). Coping resources were included in the original ABC-X Model with the expectation that having these resources would alleviate distress (Hill; 1949; 1958), which the current findings do support. One possibility is that coping resources allow people to feel control over unexpected events (Boss, 2002; Dew, 2007) and over decision-making (Rothwell & Han, 2010). Previous research has shown that those with higher levels of internal locus of control experience more hopefulness for the future and less distress during times of hardship (Prawitz et al., 2013). However, control was not measured specifically within the current study, which may be an area to consider in future research on the relationship between economic hardship, savings, and financial distress.

### **Limitations, Future Research Directions, and Implications for Policy**

The current study has several limitations. The first limitation is how generalizable the findings are to the larger population. All participants are mid-life, primarily European American, couples, who appear to be doing well financially. Higher income and savings, combined with lower levels of economic hardship, made for lower levels of financial distress experienced by these participants. An examination of a more diverse sample (race, age, and SES), with some participants experiencing higher and more chronic levels of economic hardship and financial distress may reveal different patterns of results. For example, those experiencing more severe and chronic economic hardship, with less income and savings, may experience greater financial distress than the couples examined in the current study.

Another limitation of the current study is the low variability in the variables of interest, particularly economic hardship and beliefs about materialism. The level of cutbacks in work

hours and/or salary was limited to yes/no responses, which does not measure the severity of these cutbacks. As such, losing a couple of hours of work per week are treated the same as losing many hours of work, which severity may have a profound influence on the levels of financial distress experienced. Unfortunately, it is not possible to compare couples who faced more severe cutbacks to those who faced less severe cutbacks. Furthermore, it is uncertain if these cutbacks were forced, due to the economic recession, or voluntary, due to factors related to health or caregiving. Additionally, limited variability does not permit an examination of groups with high versus low levels of materialism, or the congruency among spouses in their beliefs. For example, Dean et al. (2007) found individuals high in materialism reported more financial problems than those low in materialism. Additionally, Carroll et al. (2011) found couples congruently high in materialism demonstrate a similar pattern in reporting more financial problems than couples congruently low in materialism, whereas incongruent couples (one partner high and the other partner low in materialism) fall in between congruent groups in reports of financial problems. As such, examining couple congruency in materialism may shed further light on how spouses' beliefs about materialism can influence the relationship between economic hardship and financial distress.

A final limitation is that perceptions of the stressor event and expectations for future outcomes are not included in the current study. Research has shown that hopefulness, concerns, and doubts can influence financial distress (McDaniel et al., 2013; Prawitz et al., 2013). Therefore, examining how couples perceive the economic downturn, the adjustments being made during times of economic hardship, and perceptions about their future may increase understanding of the financial distress experienced during times of economic uncertainty. Such perceptions, as well as beliefs, fit well within the ABC-X stress framework (Boss, 2002; Hill,

1949; 1958) and may help researchers better understand the relationship between economic hardship and financial distress.

**Future research directions.** Across future studies, it will be important that several directions be considered. First, it will be important for studies to use similar measures or constructs so that direct comparisons may be made between studies. For example, earlier research on materialism within marriage used a single-item measure (Carroll et al., 2011; Dean et al., 2007). Carroll et al. noted the need for development and use of multiple-item measures, which the current study uses. However, this difference raises questions about whether these two approaches are measuring the same construct. Additionally, Ruvio et al. (2014) found that materialism moderates the relationship between threatening events, traumatic stress, and compulsive consumerism and impulsive buying. The current study does not find materialism to moderate the relationships between economic hardship/savings and financial distress. Although both studies use measures of materialism similar in concept, the differences in the seriousness of the stressor events (life threatening compared to financial) may explain why the findings differed. Therefore, future research designs need to allow for direct comparisons across studies.

Future research also should consider exploring how materialism influences the choices people make during times of economic hardship, such as prioritizing expenses and how materialism influences the decision to save money and reasons for doing so. In terms of savings, future research might consider exploring purposes behind saving money (e.g., funding children's college education) as well as what happens when savings are used for a purpose other than the originally intended reason (e.g., counteracting lost wages during an economic downturn versus paying for child's education). Baek and DeVaney (2010) noted that people are more willing to use savings, when available, to counteract lost wages during times of economic hardship, rather

than using credit. As such, future research might also explore differences in the level of financial distress when using savings versus credit in both the short- and long-term.

In addition to exploring additional aspects of materialism and savings, it would be of value for future research to explore the psychology of money (i.e., people's beliefs about money) and money personalities (e.g., saver, spender), both individually and dyadically. For example, research has identified a number of different beliefs about money, including money obsession, money avoidance, money as a source of security, power, and status, or money as being evil (Furnham, 1984; Klontz, Britt, Mentzer, & Klontz; Tang, 1992). Financial distress during times of economic hardship may be influenced by these beliefs about and importance of money. Additionally, couple interactions and outcomes during times of economic hardship may be influenced when beliefs or behaviors are vastly different. Rick, Small, and Finkel (2011) explored the congruency (or lack thereof) in couples' spending or saving behaviors and found that couples who are congruent in their money behaviors had better relationship outcomes than couples who are incongruent. Therefore, examining money beliefs and money personalities, individually and dyadically, might provide some important insights on how couples respond to experiences of economic hardship.

Identifying additional coping resources may also be beneficial to future research examining the link between economic hardship and financial distress. Boss's (2002) conceptualization of internal contexts notes the ability to control factors is related to lower levels of distress. Therefore, future research might consider including measures of perceived control to identify how much control couples feel they have during times of economic hardship. Prawitz et al. (2013) note that economic hardship is related to lower levels of control, but those with more internal locus of control experience greater levels of hopefulness and less financial distress. An

additional coping resource to consider is a couples' capacity to identify alternatives for dealing with economic hardship or whether couples avoid coping. Wilhelm and Ridley (1988) note that avoidance coping is related to more distress when facing economic hardship. These and other coping resources may provide future researchers with a better understanding of factors, both protective and harmful, that influence financial distress when experiencing economic hardship.

**Implications for policy and practice.** In addition to providing directions for future research, the findings of the current study offer several implications for social policy and financial education. Economic hardship and financial distress have long-term implications on physical and mental health (Kahn & Pearlin, 2006; Thoits, 2010), thus, identifying factors that reduce the level of financial distress are beneficial. The current study shows that having savings helps protect couples against financial distress, when experiencing short-term, low-levels of economic hardship. Therefore, workplace and social policies that support financial education and promotion of saving behaviors may be of value.

Numerous individuals, organizations, and government agencies have called for increased efforts in providing financial education, especially for those with lower-incomes, who may be most vulnerable to changes in the economy (Hogarth, Beverly, & Hilgert, 2003; Prawitz et al., 2013). Hogarth et al. note that more financially educated individuals will make better financial decisions. During times of economic hardship, when immediate adjustments are required, this financial education may be especially beneficial. Lyons, Chang, and Sherpf (2006) suggest that financial education programs, focusing on short-term changes (e.g., development of realistic budgets, etc.), produce more immediate positive results that may carry over into long-term behaviors. Prawitz et al. also observe that experiencing positive outcomes in the short-term may

help people to feel more control over the situation and more optimistic towards the future, which may aid in reducing the level of financial distress in the short-and long-term.

In addition to increased emphasis on financial education, policymakers should consider how important coping resources already in place influence couples experiencing economic hardship. Several government programs help families struggling with economic issues, such as Supplemental Nutrition Assistance Program (SNAP), Medicaid, Temporary Assistance for Needy Families (TANF), and public housing. While these programs have been shown to be beneficial to low-income families (Pilkauskas, Currie, & Garfinkel, 2012), middle-class households typically are not eligible for government support programs. During the recent recession, many middle-class families saw their mortgages exceed the value of their homes or lost homes to foreclosure when one or both spouses lost jobs or took salary reductions. Even though these families were struggling, many did not have access to support from government programs. As such, it may be warranted to offer programs, similar to programs already in place, which can offer temporary assistance to middle-class families that experience substantial reductions in their economic capacity due to recessionary circumstances. Another possibility is to develop a source for low-interest or deferred-interest loans that provide temporary assistance with the stipulation these loans are repaid once families' financial circumstances are stabilized.

## **Conclusions**

In conclusion, the current study demonstrates that Boss's (2002) ABC-X Contextual Family Stress Model is a useful framework in which to explore the relationship between economic hardship and financial distress within the context of an economic recession and recovery period. Economic hardship influences wives' and husbands' financial distress in a similar manner, and associations between materialistic beliefs and financial distress are positive

but only sustained across time for wives. The current study shows that having savings available serves as a buffer against financial distress concurrently and longitudinally. Collectively, these findings suggest that couples need to be educated in ways that can help protect them against future economic hardship. Future research can continue to inform how couples can cope effectively with economic hardship by explaining ways financial distress is exacerbated and mitigated under varied circumstances for differing types of couples. Research can also identify additional financial beliefs and coping resources and explore how they influence levels of financial distress couples experience during times of economic hardship.

Table 1.

Descriptive Statistics for All Variables Exploring the Relationship between Economic Hardship and Change in Financial Distress ( $N = 335$ ).

Partner-Level Variables	Wives		Husbands	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Financial Distress</b>				
2009	2.15	.77	2.12	.73
2011	2.12 <sup>a</sup>	.82	1.99 <sup>b</sup>	.79
<b>Materialism</b>				
2009	2.02	.65	2.23 <sup>a</sup>	.70
2011	2.08 <sup>c</sup>	.67	2.26 <sup>a</sup>	.71
Couple-Level Variables	Original		Transformed	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Economic Hardship</b>				
2009	.88	1.07	.21	.23
2011	.66 <sup>b</sup>	1.00	.16	.22
<b>Savings</b>				
2009	5.39	4.21	.68	.31
2011	4.90 <sup>b</sup>	5.90	.58	.40
<b>Income</b>				
2009	8.61	2.77	--	--
2011	9.40 <sup>c</sup>	2.58	--	--

Note: <sup>a</sup> denotes a significantly higher level than spousal report; <sup>b</sup> denotes a significant decrease between 2009 and 2011; <sup>c</sup> denotes a significant increase between 2009 and 2011.

Table 2. Correlation Coefficients for All Variables Exploring the Relationship between Economic Hardship and Financial Distress, Concurrently and Longitudinally.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. C Ethnicity	--										
2. C Income (2009)	.07	--									
3. C Hardship (2009)	.03	-.18**	--								
4. W Distress (2009)	.05	-.53***	.28***	--							
5. H Distress (2009)	-.07	-.53***	.22***	.58***	--						
6. C Savings (2009)	.16**	.37***	-.07	-.35***	-.34***	--					
7. W Materialism (2009)	.04	.13*	.09	.10~	-.01	.03	--				
8. H Materialism (2009)	-.02	.13*	.07	.03	.10~	-.07	.21***	--			
9. W Materialism (2011)	.12*	.20***	.10	.02	-.06	.09	.75***	.25***	--		
10. H Materialism (2011)	-.05	.09	.09	.09	.12	-.13*	.14*	.76***	.21***	--	
11. W Distress (2011)	-.06	-.42***	.13*	.66***	.52***	-.36***	.13*	.03	.01	.08	--
12. H Distress (2011)	-.11~	-.43***	.15*	.48***	.67***	-.39***	.07	.12~	.02	.19**	.62***

Key: C = Couple-level variable; W = Wife variable; H = Husband variable

~  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 3. Taxonomy of Fitted Moderation Models Exploring the Concurrent Relationship between Economic Hardship, Savings, Materialism, and Financial Distress ( $N = 335$ ).

	Model 1			Model 2a			Model 2b			Model 2c			Model 2d		
	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$
Wife Distress 2009															
Couple Hardship 2009	.63***	(.16)	-.09	1.01~	(.52)	.30	.96~	(.54)	.31	.62***	(.16)	.18	.63***	(.16)	.18
Couple Savings 2009	-.47***	(.12)	-.19	-.48***	(.13)	-.19	-.47***	(.12)	-.19	-.27	(.34)	-.11	-.28	(.45)	-.14
Wife Materialism 2009	.16**	(.06)	.13	.20*	(.08)	.16	.16**	(.08)	.13	.22~	(.12)	.19	.16**	(.06)	.13
Husband Materialism 2009	.04	(.06)	.04	.04	(.06)	.04	.08	(.06)	.07	.04	(.06)	.04	.09	(.14)	.08
Hardship * Wife Materialism				-.19	(.06)	-.13									
Hardship * Husband Materialism							-.15	(.23)	-.11						
Savings * Wife Materialism										-.10	(.23)	-.10			
Savings * Husband Materialism													-.09	(.20)	-.09
R <sup>2</sup> Statistic	37.70%			37.60%			37.60%			37.80%			39.90%		
	Model 1			Model 2a			Model 2b			Model 2c			Model 2d		
Husband Distress 2009	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$
Couple Hardship 2009	.85***	(.16)	.26	1.47**	(.50)	.46	.29	(.49)	.10	.84***	(.16)	.26	.85***	(.16)	.26
Couple Savings 2009	-.32**	(.12)	-.14	-.33**	(.12)	-.14	-.32***	(.12)	-.13	-.05	(.12)	-.02	.03	(.41)	-.02
Wife Materialism 2009	.01	(.05)	.01	.07	(.07)	.06	.01	(.05)	.01	.10	(.12)	.09	.01	(.05)	.01
Husband Materialism 2009	.14**	(.05)	.13	.14**	(.05)	.13	.07	(.07)	.07	.14**	(.05)	.13	.24**	(.13)	.22
Hardship * Wife Materialism				-.31	(.24)	-.21									
Hardship * Husband Materialism							.26	(.21)	.20						
Savings * Wife Materialism										-.14	(.15)	-.15			
Savings * Husband Materialism													-.15	(.18)	-.17
R <sup>2</sup> Statistic	39.30%			39.10%			39.10%			39.60%			41.30%		
Chi-Square (df) (p-value)	3.51 (4) ( $p = .48$ )			10.17 (5) ( $p = .07$ )			52.24 (5) ( $p = .00$ )			3.90 (5) ( $p = .56$ )			91.05 (5) ( $p = .00$ )		
$\Delta$ Chi-Square ( $\Delta$ df)	1.53 (0)			6.66 (1)			48.73 (1)			.39 (1)			87.54 (1)		
CFI/TLI	1.00/1.01			1.00/.97			.97/.66			1.00/1.01			.95/.42		
RMSEA (p-value)	0 ( $p = .79$ )			.06 ( $p = .36$ )			.17 ( $p = .00$ )			0 ( $p = .86$ )			.23 ( $p = .00$ )		

Note: Models control for household income at Wave 3 and Ethnicity; ~  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 4. Taxonomy of Fitted Moderation Models Exploring the Longitudinal Relationship between Economic Hardship, Savings, Materialism, and Change in Financial Distress ( $N = 335$ ).

	Model 1			Model 2			Model 3a			Model 3b			Model 3c			Model 3d		
	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$
Wife Distress 2011																		
Wife Distress 2009	.55***	(.06)	.51				.54***	(.06)	.51	.55***	(.06)	.51	.54***	(.06)	.51	.54***	(.06)	.51
Husband Distress 2009	.25***	(.06)	.22				.26***	(.06)	.23	.25***	(.06)	.22	.25***	(.06)	.22	.25***	(.06)	.22
Couple Hardship 2009	-.34*	(.17)	-.09	.53*	(.19)	.15	-.93~	(.52)	-.26	-.61	(.51)	-.19	-.34*	(.17)	-.10	-.34*	(.17)	-.09
Couple Savings 2009	-.34**	(.12)	-.13	-.95***	(.14)	-.36	-.32**	(.12)	-.12	-.34**	(.12)	-.13	-.07	(.33)	-.03	-.20	(.42)	-.09
Wife Materialism 2009	.11*	(.05)	.09	.17*	(.07)	.13	.05	(.07)	.04	.11*	(.05)	.09	.20~	(.12)	.16	.11*	(.05)	.09
Husband Materialism 2009	-.04	(.05)	-.03	-.04	(.07)	-.03	-.04	(.05)	-.04	-.08	(.05)	-.07	-.04	(.05)	-.03	.003	(.13)	.003
Hardship * Wife Materialism							.29	(.24)	.18									
Hardship * Husband Materialism										.12	(.22)	.09						
Savings * Wife Materialism													-.13	(.15)	-.13			
Savings * Husband Materialism																-.07	(.19)	-.06
R <sup>2</sup> Statistic	49.70%			17.40%			49.80%			49.60%			49.80%			52.20%		
	Model 1			Model 2			Model 3a			Model 3b			Model 3c			Model 3d		
Husband Distress 2011	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$	B	(SE)	$\beta$
Wife Distress 2009	.11~	(.06)	.11				.11~	(.06)	.11	.11~	(.06)	.11	.11~	(.06)	.11	.11~	(.06)	.11
Husband Distress 2009	.62***	(.06)	.57				.62***	(.06)	.57	.62***	(.06)	.57	.62***	(.06)	.57	.61***	(.06)	.55
Couple Hardship 2009	-.15	(.16)	-.04	.68***	(.19)	.19	-.001	(.51)	.00	-.15	(.49)	-.05	-.15	(.16)	-.04	-.15	(.16)	-.04
Couple Savings 2009	-.42***	(.12)	-.16	-.94***	(.14)	-.37	-.43***	(.12)	-.17	-.42***	(.12)	-.17	-.63*	(.32)	-.24	-.16	(.40)	-.08
Wife Materialism 2009	.08	(.05)	.06	.06	(.07)	.05	.09	(.07)	.07	.08	(.05)	.06	.003	(.12)	.002	.08	(.05)	.06
Husband Materialism 2009	.05	(.05)	.05	.09	(.06)	.08	.05	(.05)	.05	.05	(.07)	.05	.05	(.05)	.05	.13	(.13)	.11
Hardship * Wife Materialism							-.07	(.24)	-.05									
Hardship * Husband Materialism										-.001	(.21)	-.001						
Savings * Wife Materialism													.11	(.15)	.11			
Savings * Husband Materialism																-.11	(.18)	-.11
R <sup>2</sup> Statistic	50.20%			20.10%			49.90%			49.50%			50.40%			54.00%		
Chi-Square (df) (p-value)	3.51 (4) ( $p = .48$ )			47.40 (4) ( $p = .00$ )			10.17 (5) ( $p = .07$ )			52.24 (5) ( $p = .00$ )			3.90 (5) ( $p = .56$ )			91.05 (5) ( $p = .00$ )		
$\Delta$ Chi-Square ( $\Delta$ df)	1.53 (0)			45.43 (0)			6.66 (1)			48.73 (1)			.39 (1)			87.54 (1)		
CFI/TLI	1.00/1.01			.87 / .14			1.00/.97			.97/.66			1.00/1.01			.95/.42		
RMSEA (p-value)	0 ( $p = .79$ )			.18 ( $p = .00$ )			.06 ( $p = .36$ )			.17 ( $p = .00$ )			0 ( $p = .86$ )			.23 ( $p = .00$ )		

Note: Models control for household income at Wave 3 and Ethnicity; ~  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

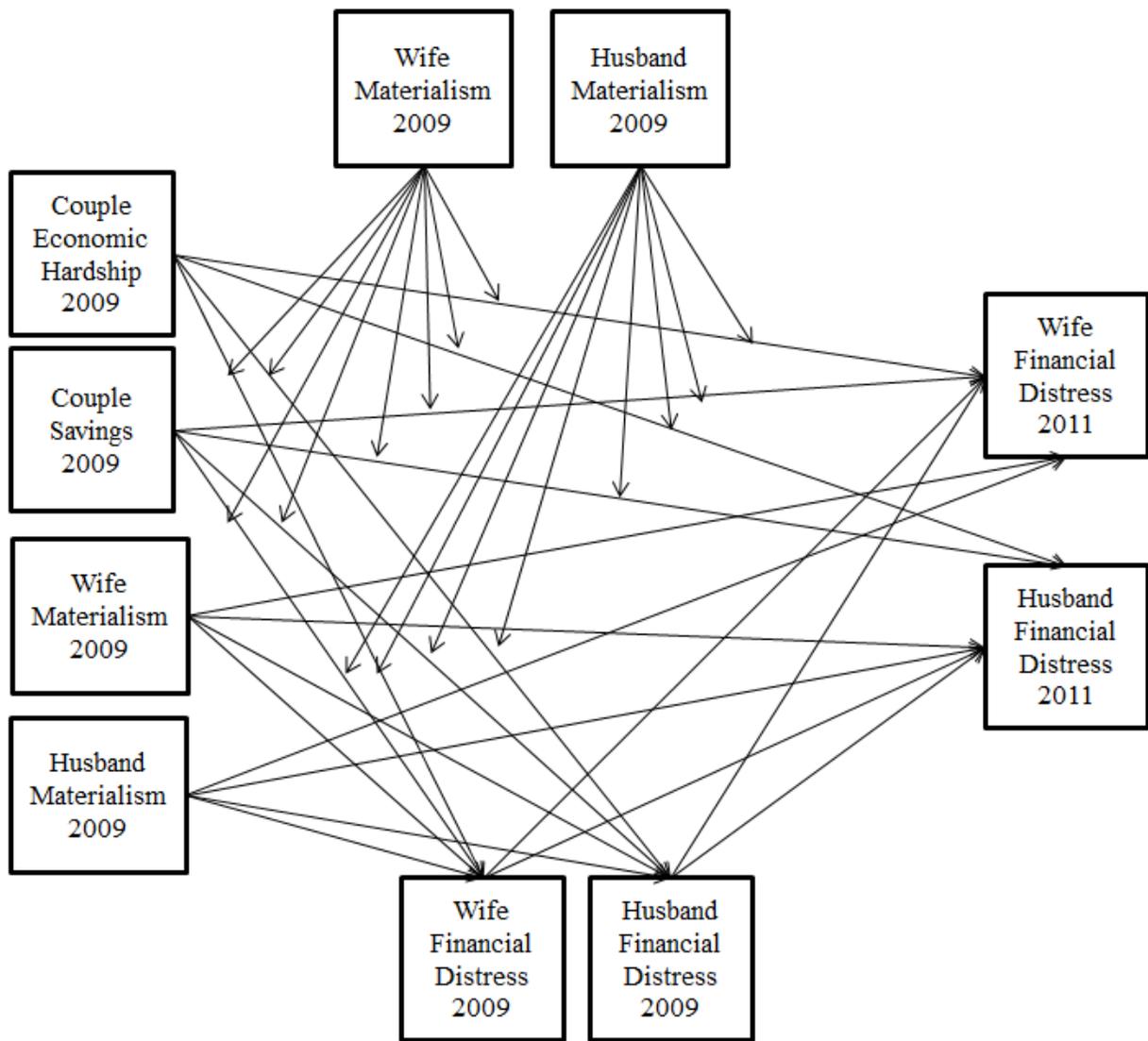


Figure 2.  
 Conceptual Model Exploring the Relationship between Economic Hardship, Savings, Financial Distress Concurrently and Longitudinally as Moderated by Spousal Materialism.

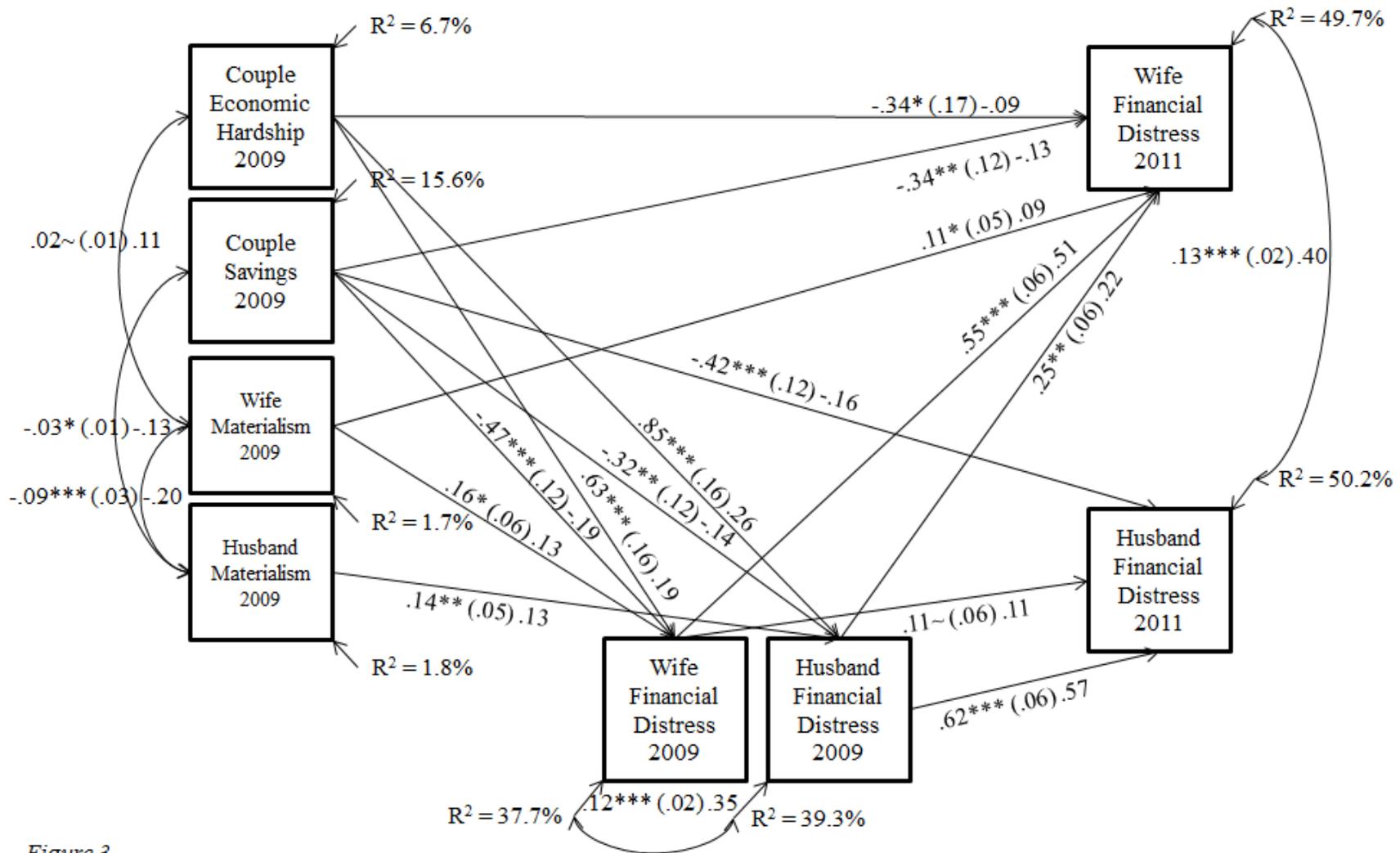


Figure 3.

Fitted Main Effects Model Exploring the Relationship between Economic Hardship, Savings, Materialism, and Financial Distress, Controlling for Income and Ethnicity ( $N = 335$ ).

Model Fit Statistics:  $\chi^2 = 3.51$ ,  $df = 4$ ,  $p = .48$ ,  $CFI = 1.00$ ,  $TLI = 1.01$ ,  $RMSEA = .00$ ,  $p = .79$ .

Note: Only significant pathways shown; Unstandardized (SE) Standardized coefficients reported.

$\sim p < .10$ ,  $* p < .05$ ,  $** p < .01$ ,  $*** p < .001$

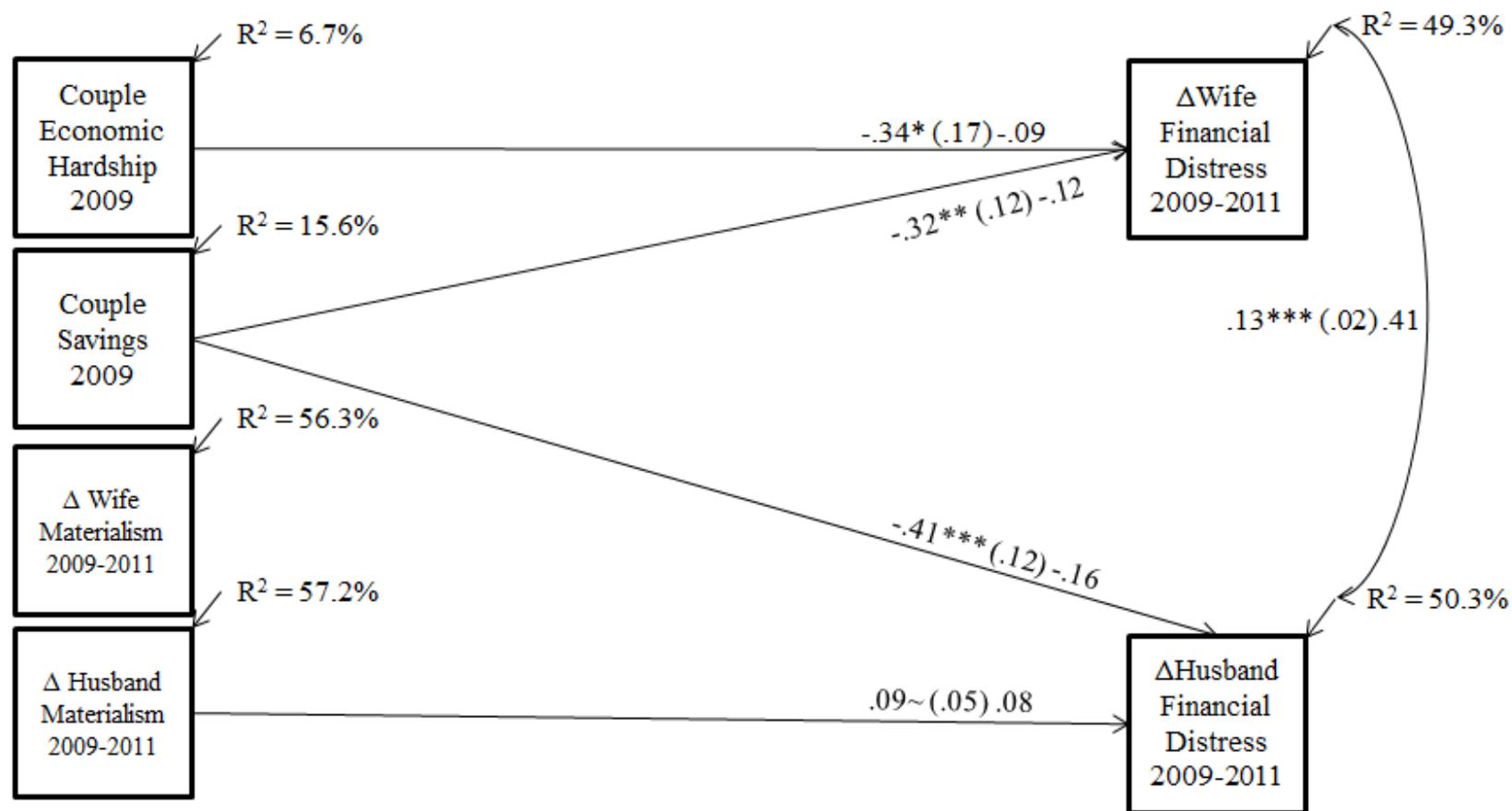


Figure 4.

Fitted Main Effects Model Exploring the Relationship between Economic Hardship, Savings, Change in Materialism, and Change in Financial Distress, Controlling for Income and Ethnicity ( $N = 335$ ).

Model Fit Statistics:  $\chi^2 = 43.66$ ,  $df = 22$ ,  $p = .004$ ,  $CFI = .98$ ,  $TLI = .95$ ,  $RMSEA = .05$ ,  $p = .36$ .

Note: Only significant pathways shown; Unstandardized (SE) Standardized coefficients reported.

$\sim p < .10$ ,  $* p < .05$ ,  $** p < .01$ ,  $*** p < .001$

### III. Study 2: Economic Hardship, Financial Distress, and Marital Quality: The Role of Relational Aggression

#### Abstract

The Model of Economic Hardship (Conger et al., 1990) guides the current study of 335 married mid-life couples during the recent economic recession to examine relationships between economic hardship, financial distress, relational aggression, and marital quality. Data from the *Flourishing Families Project* reveal that wives and husbands experience a similar level of financial distress when facing economic hardship. Both wives' and husbands' financial distress is related to lower marital quality for both spouses. However, this relationship is mediated by perceptions of spouses engaging in relationally aggressive behaviors (i.e., social sabotage and love withdrawal). Several notable gender differences are found. Specifically, wives' financial distress is related to both wives and husbands perceiving their spouses engage in more social sabotage. Husbands' financial distress is related to husbands perceiving wives engage in more social sabotage and love withdrawal. Perceived spousal use of relationally aggressive behaviors is related to lower marital quality for both husbands and wives. Implications for research and practice are discussed.

*Keywords:* economic hardship, financial distress, relational aggression, marriage

## Economic Hardship, Financial Distress, and Marital Quality: The Role of Relational Aggression

Economic hardship (lacking needed financial resources) and financial distress (perceived financial difficulty) have been shown to be harmful to individual and marital well-being.

Economic hardship, both chronic (e.g., continuous and unbroken) and transient (e.g., episodic), is related to poorer health outcomes over the life course (Kahn & Pearlin, 2006), and greater financial distress is associated with more emotional distress, including depression and hostility, which are related to poorer marital outcomes (Conger et al., 1990; Gudmunson et al., 2007). The recent recession from December 2007 to June 2009 (U.S. Bureau of Labor Statistics, 2012) has been called the worst economic downturn since the Great Depression (Baek & DeVaney, 2010; Mosely, 2009). This recessionary period may have had a profound influence on the individual and marital well-being for those who experienced hardship during this time, and provides an important opportunity for researchers to explore the relationship between economic hardship, financial distress, and marital outcomes.

Mid-life married couples may be especially vulnerable to downturns in the economy. As members of the “sandwich” generation, mid-life couples are caught in a precarious balancing act between caring for children in the home and aging parents, while saving for their own retirements and children’s college educations and marriages (Nema & Bansal, 2015). Experiencing an economic downturn during this time is especially challenging, as couples may develop doubts about whether they will have adequate job security and health coverage, be prepared financially for retirement, and have enough to cover rising living costs amid lower returns on investments (McDaniel et al., 2013). All of these concerns may manifest as feelings of distress over a period of several years, which are likely to influence marital interactions and

quality. For example, research has demonstrated that relationally aggressive behaviors are common among mid-life couples and that the engagement in these behaviors harms marital outcomes (Carroll et al., 2010).

Research on the relationship between economic hardship, financial distress, and marital outcomes began in the 1980s when Liker and Elder (1983) examined couples' experiences with economic hardship during the Great Depression. This early research found lost income is associated with increased irritability and moodiness among husbands, as well as financial conflict and marital tension (as reported by both husbands and wives), all of which are associated with weakened marital relationships. Additional research in response to the Farm Crisis of the 1980s in the Midwestern United States further validated the harmful influence economic hardship and financial distress have on marital relations (Conger et al., 1990; Johnson & Booth, 1990). Conger et al.'s research also produced a key theoretical model, the Model of Economic Hardship (also known as the Family Stress Model; Conger & Dogan, 2007), to illustrate how economic hardship and financial distress influence marital outcomes through observed couple interactions.

This Model of Economic Hardship emerged from Conger et al.'s (1990) research among 76 Iowa farm families during the aforementioned farm crisis. Economic hardship, measured as unstable work, economic pressure, and income-to-needs ratio, represents objective measures, whereas economic strain represents the subjective emotional, cognitive, or behavioral response to this hardship (Conger et al., 1990). Economic hardship demonstrates limited variability within a given couple or family (i.e., hardship either occurs or does not occur to the couple/family), whereas perceptions of economic strain demonstrate a wider range of possible responses (Valentino et al., 2014). This wider range of responses explains why Boss (2002) asserts family

members can experience differing levels of distress despite sharing common stressor events, which prompts a need to examine members of the same family system simultaneously. Conger, Ge, and Lorenz (1994) further observed that marital processes and outcomes are influenced by these subjective responses rather than through the economic hardship directly, as people's recognition of this hardship will prompt their response. Conger et al.'s (1990) research demonstrates this indirect influence in that economic hardship is related positively to perceptions of economic strain, while these perceptions of economic strain are related to husbands' use of more hostile behaviors and fewer expressions of warmth towards wives. Conger et al. further found higher levels of hostility and lower levels of warmth are related to poorer marital outcomes for both spouses. Although Conger et al. label the response to economic hardship as economic strain, Prawitz et al. (2006) noted that research has used multiple terms interchangeably to describe this response (e.g., economic strain, financial stress, debt stress, economic distress, etc.). For the purpose of the current study, *financial distress* will be the consistent term used to describe an individual's/couples' reaction to economic hardship brought on by the recent recession of 2007-2009.

The Model of Economic Hardship (Conger et al., 1990) has provided the theoretical framework for much of the subsequent research addressing economic hardship, financial distress, and marital outcomes. It has been validated among varying family structures, nationally and internationally (e.g., Aytac & Rankin, 2009; Conger & Dogan, 2007; Falconier & Epstein, 2010; Kwon et al., 2003). This research has continued to support gender differences in that financial distress influences husbands' behaviors more robustly than wives' behaviors. Furthermore, this research has found that the influence of financial distress on marital outcomes often operates indirectly through the couples' interactions (e.g., hostility, conflict, etc.). Despite what has been

learned from applications of Conger et al.'s (1990) model, uncertainty remains about the understanding of the relationships between economic hardship, financial distress, couple behaviors, and marital outcomes, particularly as this model applies to contemporary mid-life married couples. One area of uncertainty relates to the gender differences found. Another area of uncertainty is whether there is a direct or indirect relationship between financial distress and marital outcomes.

### **Gender Differences in Behaviors Associated with Financial Distress**

Earlier research has noted that when financially distressed, men demonstrate higher levels of irritability and moodiness (Johnson & Booth, 1990), hostility (Conger et al., 1990), and psychologically aggressive behaviors (Falconier & Epstein, 2010) than women do. One speculation is that men engage in these negative behaviors when distressed, in part, because of their role as the primary household provider (Gudmunson et al., 2007). Husbands may feel added pressure to provide adequately for their families, which may be difficult during times of an economic downturn. However, as dual-income households have become more prevalent in American society and within the current economic realities, does this distinct gender difference still apply to contemporary married couples in which the majority of couples are dual-earner?

Another speculation about gender differences is that men are more likely to exhibit externalizing behaviors, whereas women are more likely to exhibit internalizing behaviors when financially distressed (Gudmunson et al., 2007; Leinonen, Solantus, & Punamalki, 2002). Conger et al.'s (1990) research partially supports this claim showing that men engage in increased hostility when financially distressed. Conger et al.'s original research had hypothesized women would engage in more hostility, at least within a role of reciprocity, but this hypothesis was not supported. In a recent study, however, Falconier and Epstein (2010) found both men and women

engage in more psychological aggression when men are financially distressed, which supports Conger et al.'s original hypothesis, but does not support the claim that externalizing and internalizing behaviors are gender specific. In terms of research on women engaging in internalizing behavior, partial support has been found. Specifically, financial distress is related to higher levels of emotional distress and depression among both women and men (Conger et al., 1992; Conger et al., 1999; Gudmunson et al., 2007), but husband's depression becomes non-significant when wives' depression is included in the same model (Conger et al., 1999). The results of these studies challenge the claim that externalizing and internalizing behaviors are gender specific within the context of financial distress.

A more plausible explanation is that responses to financial distress are dependent on what externalizing behaviors are being examined. Falconier and Epstein's (2010) study notes that women engage in externalizing behaviors in the form of psychological aggression when their partner is financially distressed. Again, this engagement may be in response to their partner's increased aggressiveness. However, it also may be that the measures of psychological aggression used by Falconier and Epstein overlap with relational aggression, a form of aggression women engage in more frequently than men do (Carroll et al., 2010). This overlapping element consists of hostile withdrawal (refusal to talk to the partner about a problem) (Falconier & Epstein, 2010), which is similar giving partner a silent treatment or withdrawing affection when upset found in relational aggression (Carroll et al., 2010; Crick et al., 1999). Research on relational aggression within a marital context, measured as love withdrawal and social sabotage (spreading rumors about partner), has shown that wives engage in these behaviors more than husbands do, and that these behaviors have a negative influence on marital outcomes (Carroll et al., 2010). However, relational aggression has not been examined within a context of financial distress. As such, the

question arises, might husbands *and* wives engage in higher levels of relationally aggressive behaviors when either spouse is financially distressed? This question is explored in the current study.

### **Indirect versus Direct Influences of Financial Distress on Marital Outcomes**

Existing research provides examples of financial issues having both direct and indirect influences on marital outcomes. In support of direct influences on marital outcomes, financial stressors (Archuleta, Britt, Tonn, & Grable, 2011), financial distress (Johnson & Booth, 1990), financial disagreements and financial unfairness (Dew, 2011), and frequency (and increased frequency) of money arguments (Britt & Huston, 2012) are related to increased risk of relationship dissolution and decreased relationship satisfaction. Thus, this research confirms there are direct influences of finances on marital outcomes.

Although these direct relationships have been found between finances and marital outcomes, research also supports the notion that finances influence marital outcomes indirectly through a variety of intervening variables, including hostility (Conger et al., 1990), locus of control and depression (Dew, 2007), couple disagreements, conflict, and quality time together (Gudmunson et al., 2007), and emotional distress and marital conflict (Kwon et al., 2003). Conger et al. are very explicit that they tested both direct and indirect pathways when using their model of economic hardship, but found no significant direct pathways between financial distress and marital outcomes. As a result, Conger et al.'s framework does not propose a direct relationship. Much of the subsequent research on economic hardship and marital outcomes has followed this proposed indirect model without describing whether both direct and indirect influences were examined (e.g., Gudmunson et al., 2007; Kwon et al., 2003). An exception is Falconier and Epstein's (2010) study, which did examine explicitly both direct and indirect

pathways within a dyadic model and found that the relationship between financial distress and relationship satisfaction operates indirectly through psychological aggression. Given the limited research, it remains important for studies to test indirect and direct pathways to determine whether and when direct or indirect associations exist between financial variables and marital outcomes. Aytac and Rankin (2009), for example, found both a direct relationship between economic strain and marital problems, as well as an indirect relationship through emotional distress. The current study proposes that economic hardship will be related directly and positively to financial distress, as earlier research has noted (e.g., Conger et al., 1990; Falconier & Epstein, 2010). Additionally, it is expected that financial distress and marital quality will be related directly and positively as supported by existing research (Britt & Huston, 2012; Dew, 2011), while relational aggression may mediate this direct relationship, consistent with past research showing mediation (Conger et al., 1999; Kinnunen & Feldt, 2004) or indirect associations (Falconier & Epstein, 2010) among similar constructs.

### **Relational Aggression as a Mediator between Financial Distress and Marital Quality**

Relational aggression refers to using behaviors intended to manipulate a relationship or the partner (Madsen, 2012). Much of the research on relational aggression has focused on children and adolescents (Madsen, 2012). From this research, relational aggression has been conceptualized as damaging or threatening to damage relationships by using various tactics, including giving the partner a silent treatment, social exclusion, or threats of ending the relationship (Crick et al., 1999). Several examples of relational aggression within a marital context include withdrawing affection (e.g., love withdrawal) when upset with a spouse or having a spouse threaten divorce in an effort to manipulate the other spouse into meeting demands for the relationship (Madsen, 2012).

The study of relational aggression within marriage has relied primarily on data from the *Flourishing Families Project* and is limited to only a few studies to date, which have examined the prevalence of relationally aggressive behaviors and the influence of these behaviors on marital dynamics and outcomes (Carroll et al., 2010; Madsen, 2012). This research reveals that relational aggression is common within well-established and stable marriages. Among couples married an average of 17 years, the majority of couples engage in both social sabotage (the spreading of rumors about the partner) and love withdrawal (withdrawing affection) (Carroll et al., 2010). Furthermore, relational aggression is used more by wives than husbands (64% versus 52% for social sabotage; 96% versus 88% for love withdrawal) and is related to poorer marital outcomes (Carroll et al., 2010). However, the conceptualization of relational aggression in marriage has not been examined within a context of financial distress, which may be an important direction of study, considering the commonality of these behaviors and their potential influence on marital well-being, particularly during times of greater vulnerability.

Supporting expectations for the influence of relational aggression on marital quality are findings addressing other forms of aggressive partner behaviors during times of financial distress that have been linked to poorer marital outcomes. For example, Conger et al.'s (1990) original model of economic hardship found couple-level financial distress is related to husbands' use of hostility (criticism, angry gestures, and contempt) towards their wives, whereas financial distress is unrelated to wives' use of hostility. Hostility is related to both spouses' poorer marital outcomes. Falconier and Epstein (2010) used self-report data among cohabiting and married couples to examine psychologically aggressive behaviors, including denigration (calling partner worthless in front of others), hostile withdrawal (refusal to talk to partner about a problem), and intimidation (threatening to hit partner). They found men's financial distress is related positively

to both partners' use of psychological aggression, but women's financial distress is unrelated to either partner's use of psychological aggression. Women's psychological aggression is related negatively to women's relationship satisfaction, whereas men's psychological aggression is related negatively to both partners' relationship satisfaction.

Taken together, these studies indicate that financial distress influences men and women differently, but that aggressive behaviors harm marital outcomes in a similar manner. Several differences, as well as similarities, exist in these two studies. Differences include the use of couple-level versus individual-level financial distress, observed versus self-report data, and the examination of marital outcomes in separate models versus simultaneously in the same model. The similarities include building on the same theoretical model and using a common approach to the way aggressive behaviors were measured.

Although psychological and relational aggressions share similarities, including similar influences on marital outcomes, they operate differently within the relationship. Madsen (2012) explained that psychological aggression often targets specific thoughts, behaviors, and feelings, whereas relational aggression targets the relationship, often in an attempt to manipulate the relationship or the partner. Furthermore, concepts of relational aggression overlap with psychological aggression, but psychological aggression contains additional concepts that do not overlap with relational aggression, such as requiring a spouse to report where he/she has been or efforts to destabilize perceptions of reality (Madsen, 2012). As such, relational aggression may represent a specific subcategory within the overall umbrella of psychological aggression. The fact that women use these relationally aggressive behaviors more frequently than men do (Carroll et al., 2010) may reveal that this form of aggression qualifies some of the gender differences noted by earlier research on financial distress and aggression, namely the conclusion

that financial distress is more influential on husbands' behaviors than on wives' behaviors (Conger et al., 1990; Falconier & Epstein, 2010). Additionally, it is important to confirm whether financial distress influences marital outcomes directly or indirectly through these relationally aggressive behaviors.

### **Aims of the Current Study**

The purpose of this study is to apply the Model of Economic Hardship (Conger et al., 1990) to the examination of relationships between economic hardship, financial distress, and marital quality and whether commonly occurring relationally aggressive behaviors (e.g., love withdrawal and social sabotage) mediate the financial distress-marital quality relationship. The following hypotheses are posed (see Figure 5 for the conceptual model):

H1: Economic hardship in 2009 will be related positively to both spouses' financial distress in 2010.

H2: Financial distress in 2010 will be related negatively to both spouses' marital quality in 2011.

H3: Financial distress in 2010 will be related positively to both wives' and husbands' perceptions their spouses engage in relationally aggressive behaviors in 2010.

H4: Perceptions of relationally aggressive behaviors in 2010 will be related negatively to both spouses' marital quality in 2011.

H5: Perceptions of relationally aggressive behaviors in 2010 will mediate the relationship between financial distress in 2010 and both spouses' marital quality in 2011.

### **Method**

Data for this study come from the *Flourishing Families Project* (FFP; Day et al., 2013), a longitudinal study begun in 2007 that examines family and parental processes. The original data

were collected from 500 families living in the Pacific Northwest, all of whom had a focal child between the ages of 10 and 14. Of these 500 families, 335 consisted of two-parent, heterosexual, married households. The average age in 2007 was 43.5 years for wives (SD = 5.38, range: 27 – 59) and 45.3 years for husbands (SD = 5.97, range: 27 - 62). Couples were married an average of 17.8 years (wives: SD = 5.2, range: 2 - 40; husbands: SD = 4.94, range: 2 - 37). Nearly 70% of both wives and husbands had earned a Bachelor’s degree or higher, and fewer than six percent had received less than a high school diploma. The average yearly combined income fell within the \$80,000-\$90,000 range, with most wives and husbands reporting at least some earned income (approximately 17% of wives and 2% of husbands report individual earnings of less than \$10,000). An expansion of pertinent financial variables was brought into the study starting in 2009 in response to the economic recession that began in 2007. The current study uses data collected for Waves 3-5 (2009, 2010, and 2011).

## **Measures**

**Marital Quality.** Marital quality in 2011 consists of 5-items adapted from the Quality Marriage Index (Norton, 1983). Responses range from 1 (*very strongly disagree*) to 6 (*very strongly agree*). An example statement includes “We have a good relationship.” Scores are averaged for each partner (Table 5 contains all descriptive statistics). Higher scores indicate higher levels of marital quality. Scores are squared due to skewed distributions, following Tukey’s (1977) guidelines for measurement transformation. Scales demonstrate good reliability ( $\alpha = .97$  for both wives and husbands).

**Economic Hardship.** Economic hardship in 2009 is assessed with two items tapping into an area of work cutbacks during the previous 12 months, which consist of (a) taking a cut in wage or salary (1 = yes, 0 = no) or (b) having work hours reduced (1 = yes, 0 = no). These two

items are moderately correlated (wives:  $r = .42, p < .001$ ; husbands:  $r = .40, p < .001$ ) and are recoded into a couple-level measure of economic hardship (0 = *neither spouse experienced hardship*, 1 = *one spouse experienced one event*, 2 = *one spouse experienced both events or both spouses experienced one event each*, 3 = *both spouses experienced both events*). Higher scores indicate greater economic hardship experienced by the couple. Scores are logged due to skewed distributions (Tukey, 1977).

**Financial Distress.** Financial distress in 2010 is measured using an 11-item scale from Spilman and Burzette (2006), which measures two domains of financial distress: financial concerns (5-items; e.g., “I have trouble sleeping because of my financial problems”) and financial constraints (6-items; e.g., “I have enough money to afford the kind of food that I need.”). Responses range from 1 (*strongly disagree*) to 5 (*strongly agree*), with all statements related to financial constraints being reverse coded, so that higher scores indicate higher levels of perceived financial distress. Scores from both domains are combined and averaged for wives and for husbands. Each scale demonstrates good reliability (wives:  $\alpha = .91$ ; husbands:  $\alpha = .90$ ).

**Relational Aggression.** Relational aggression in 2010 measures the respondent’s perception that his/her spouse is engaging in relationally aggressive behaviors. It is measured using 12-items adapted from the Self-Report of Aggression and Victimization in Marriage (SRAV-M; Nelson & Carroll, 2006), with responses ranging from 1 (*not at all true*) to 7 (*very true*). Relational aggression measures two domains: social sabotage and love withdrawal. Social sabotage consists of 6-items that measure the degree to which wives and husbands perceive their spouse uses behaviors to embarrass them during times of conflict. Examples include “My partner has gone ‘behind my back’ and shared private information about me with other people” and “My partner tried to embarrass me or make me look stupid in front of others.” Love withdrawal

consists of 6-items that measure the degree to which wives and husbands perceive their spouse withdraws affection and support during conflict. Examples include “My partner gives me the silent treatment when I hurt his/her feelings in some way” and “My partner withholds affection or sex from me when s/he is angry with me.” Scores are averaged by subscale and logged due to skewed distributions (Tukey, 1977). Higher scores indicate the respondent’s perception that his/her spouse is engaging in higher levels of social sabotage or love withdrawal. Each scale demonstrates good reliability (social sabotage: wives:  $\alpha = .87$ ; husbands:  $\alpha = .88$ ; love withdrawal: wives:  $\alpha = .89$ ; husbands:  $\alpha = .88$ ).

### **Plan of Analysis**

All frequencies and descriptive statistics are examined using SPSS Version 22. Path analyses and mediation models (Baron & Kenny, 1986) are fit in MPlus version 6 (Muthen & Muthen, 1998-2011) to explore the relationships between economic hardship, financial distress, relational aggression, and marital quality. Full information maximum likelihood (FIML) is used to manage missing data. Model fit is assessed with indices of chi square, comparative fit index (CFI), Tucker-Lewis Index (TLI), and the root mean square error of approximation (RMSEA). Heck and Thomas (2009) noted that good model fit occurs when the CFI and TLI have values at or above .90. Hu and Bentler (1999) suggested a non-significant RMSEA value below .06 demonstrates good model fit, although Heck and Thomas (2009) noted that good model fit occurs when the RMSEA value is below .05.

To test mediation, the first set of steps determine whether significant associations exist between: financial distress (the predictor) and marital quality (the outcome), financial distress and the relational aggression behaviors (the mediators), and the relational aggression behaviors and marital quality (in effect testing hypotheses 2-4). Upon confirmation of significant

associations, additional steps are taken to test and confirm mediation. Specifically, the direct paths from wife and husband financial distress to wife and husband marital quality with and without the relational aggression behaviors included in the model are compared. If one or more of these paths change from significant to non-significant (or decreased significantly in size) when the mediators are included, possible mediation occurred. To confirm mediation, the direct paths from wife and husband financial distress to marital quality are constrained to zero. The results of delta chi square tests comparing wives' and husbands' freely estimated paths from financial distress to marital quality to these same paths constrained to zero are used to determine whether either of these paths from financial distress to marital quality was essentially zero when the relational aggression behaviors are included in the model (i.e. the critical value is not exceeded).

## **Results**

Descriptive statistics are found in Table 5. These descriptive statistics reveal that the couples experienced relatively low levels of economic hardship and financial distress. Perceptions of spousal engagement in relationally aggressive behaviors were also relatively low, although husbands reported their wives engaged in these behaviors more frequently than wives reported their husbands engaged in these behaviors. Finally, couples experienced relatively high levels of marital quality.

An examination of the bivariate correlations offers preliminary support for the proposed hypotheses (Table 6). Economic hardship was related positively to both partners' financial distress and was not related to relational aggression or marital quality. Financial distress was related to perceptions spouses were engaging in higher frequency of relationally aggressive behaviors. Perceptions of social sabotage and love withdrawal were related positively to each

other. Financial distress and perceptions of relationally aggressive behaviors were related negatively to marital quality.

To address the study hypotheses, models were fit in MPlus version 6 (Muthen & Muthen, 1998-2011). Fit statistics for all models are found in Table 7, while path coefficients for all models are found in Table 8. The first hypothesis proposed that economic hardship in 2009 would be related positively to both spouses' level of financial distress in 2010. This hypothesis was supported fully (Table 8, Model 1). Economic hardship in 2009 was related positively to both wives' and husbands' financial distress in 2010, explaining 7.6% of wives' financial distress and 9.2% of husbands' financial distress. Additionally, economic hardship was related indirectly to both spouses' marital quality, operating through financial distress and relational aggression (wives:  $B = -3.57$  (SE = .99)  $\beta = -.09$ ,  $p < .001$ ; husbands:  $B = -4.20$  (SE = 1.03)  $\beta = -.10$ ,  $p < .001$ ).

To examine potential mediation, it first was necessary to determine whether there were direct associations between financial distress in 2010 and both spouses' marital quality in 2011. It was hypothesized that both wives' and husbands' financial distress would be related negatively to both spouses' marital quality (Hypothesis 2). This hypothesis was confirmed in that both spouses' financial distress was related negatively to marital quality for both wives and husbands one year later (Table 8, Model 1). Variance explained for wives' and husbands' marital quality is 6.9% and 10.1%, respectively.

Having confirmed the direct associations between financial distress in 2010 and marital quality in 2011, the next step was to examine the relationship between financial distress in 2010 and perceptions of relationally aggressive behaviors in 2010. For this hypothesis, it was expected that financial distress would be related positively to both husbands' and wives' perceptions their

spouses engaged in higher levels of relationally aggressive behaviors (Hypothesis 3). This hypothesis was partially supported (Table 8, Model 2). Wives' financial distress was related positively to both husbands and wives reporting their spouses engaged in social sabotage, indicating that both spouses were perceived to engage in social sabotage when wives were financially distressed. Husbands' financial distress was related positively to husbands reporting their wives engaged in social sabotage and love withdrawal. The amount of variance explained, ranged from a low of 2.9% for wives' perceptions their husbands engaged in love withdrawal and a high of 9.8% for husbands' perceptions their wives engaged in social sabotage.

For the fourth hypothesis, it was expected that relational aggression in 2010 would be related negatively to both spouses' marital quality in 2011. With the exception of the pathway between husbands' perceptions their wives engaged in love withdrawal and wives' marital quality, all pathways supported the proposed hypothesis that perceptions of relationally aggressive behaviors in 2010 would be related negatively to marital quality in 2011 (Table 8, Model 3). The amount of variance in marital quality explained by relational aggression was 35.7% for wives and 37.5% for husbands.

The final hypothesis was that perceptions of relational aggression in 2010 would mediate the relationship between financial distress in 2010 and marital quality in 2011 (Hypothesis 5). Based on results from testing the prior hypotheses, it was determined that mediation could be tested for: (1) the paths from wives' financial distress to husbands' and wives' perceptions of social sabotage to husbands' and wives' marital quality; (2) the paths from husbands' financial distress to husbands' perceptions their wives engaged in social sabotage and love withdrawal to husbands' marital quality; and (3) the paths from husbands' financial distress to husbands' perceptions their wives engaged in social sabotage to wives' marital quality. By including

relational aggression in the model, the direct associations between husbands' and wives' financial distress and their marital quality became non-significant, with the exception of the pathway between husbands reporting their wives engaged in more love withdrawal and husbands' marital quality, which remained marginally significant ( $p < .10$ ), indicating partial mediation (Figure 6; Table 8, Model 5).

To confirm mediation, pathways between financial distress and marital quality were constrained to zero, one at a time, (Table 8, Models 4a-4d) and delta chi square tests were conducted. Mediation occurs when changes in chi square values do not exceed the critical value as determined by changes in the degrees of freedom. Delta-chi squares tests revealed that none of the changes in chi square values (ranging from .41 to 2.44; Table 7) exceeded the critical value (3.84 for 1 degree of freedom), indicating that perceptions of relationally aggressive behaviors being used by spouses mediated the relationships between financial distress and marital quality. Results of the final fitted mediation model are shown in Figure 6 with unstandardized (standard error) and standardized coefficients shown for all significant pathways only (coefficients for all pathways are shown in Table 8, Model 5). The model fit the data well ( $\chi^2 = 13.11$ ,  $df = 6$ ,  $p = .04$ ; CFI = .99; TLI = .96; RMSEA = .06,  $p = ns$ ). The amount of variance explained in marital quality was 36.6% for wives and 39.4% for husbands after controlling for all else in the model. Husbands' and wives' reports of their spouses engaging in social sabotage fully mediated the relationship between wives' financial distress and wives' marital quality (Figure 2). Husbands' reports of wives engaging in social sabotage fully mediated the relationship between wives' financial distress and husbands' marital quality, as well as the relationship between husbands' financial distress and wives' marital quality. Husbands' reports of wives engaging in social sabotage fully mediated the relationship between husbands' financial distress and husbands'

marital quality. Husband's reports of wives engaging in love withdrawal partially mediated the relationship between husbands' financial distress and husbands' marital quality.

### **Discussion**

The results of the current study show that greater economic hardship is related to greater financial distress for both husbands and wives one year later, which supports the concurrent associations found by Conger et al. (1990). Contrary to Conger et al., however, direct associations are found between financial distress and marital quality, revealing that husbands' and wives' financial distress are related to their own and their spouse's lower marital quality the following year. These direct associations between financial distress and marital quality are mediated by perceptions of relational aggression. Specifically, when wives experience greater financial distress, wives perceive their husbands are engaging in more social sabotage, which is related to lower marital quality for wives. Both wives' and husbands' financial distress is related to husbands' perceiving their wives engage in more social sabotage, which is related to lower marital quality for both wives and husbands. When husbands experience greater financial distress, they also perceive their wives to engage in more love withdrawal, which is related to lower marital quality for husbands. Although, wives' perceptions of husbands engaging in more love withdrawal are unrelated to either spouse's financial distress, these perceptions are related to lower marital quality for both wives and husbands.

### **Economic Hardship and Financial Distress**

The results of the current study demonstrate that objective measures of economic hardship are related positively to subjective measures of financial distress for both wives and husbands (Valentino et al., 2014). This finding is not surprising as it supports research guided by Conger et al.'s (1990) model of economic hardship. Boss (2002) asserted, however, that wives

and husbands' financial distress needs to be examined simultaneously, as they may differ in their responses to shared stressor events, such as economic hardship. The current study suggests economic hardship influences both spouses' financial distress in a similar positive manner. In support of Boss's assertion, the levels of financial distress might be influenced by perceptions of the stressor event, available coping resources, and context (Boss, 2002; Hill, 1949; 1958), which were not explored in the current study, but is something to explore in future research.

### **Financial Distress and Relational Aggression**

In addition to finding economic hardship is related to financial distress, the current study finds that both husbands' and wives' financial distress influences perceptions of spousal engagement in relationally aggressive behaviors. These findings are consistent with Conger et al. (1990) who found that husbands engage in more hostile behaviors when couples are financially distressed and with Falconier and Epstein (2010) who found that both husbands and wives engage in more psychological aggression when husbands are financially distressed. The current study extends this previous research by showing wives' financial distress is related to both wives' and husbands' perceptions their spouses engage in more social sabotage.

When Falconier and Epstein's (2010) research did not show wives' financial distress to be related to psychologically aggressive behaviors, they speculated women are better able to prevent their strain from influencing marital interactions. While this speculation may be plausible, other research has shown financial distress is related to both spouse's composite measures of emotional distress, which sometimes includes hostile feelings (Gudmunson et al., 2007). Yet hostile feelings are not the same as hostile or aggressive behaviors. The current study demonstrates that husbands' and wives' financial distress are related to perceptions of relationally aggressive behaviors. Although it has been speculated in prior studies that men were

under more strain as the primary breadwinner, and thus more likely to engage in aggressive behaviors (Gudmunson et al., 2007), couples in the current study comprised primarily dual-income households. Both spouses may have felt added financial distress during times of economic hardship, which explains why wives and husbands perceived more relationally aggressive behaviors were being used. It is important to note that perceptions of the spouse engaging in more relationally aggressive behaviors may demonstrate different patterns of associations than reporting on one's own aggressive behaviors, which should be explored in future research.

### **Relational Aggression and Marital Quality**

In examining the relationship between relational aggression and marital quality, three commonalities are found between results of the current study and past research using data from the *Flourishing Families Project*: (1) husbands perceive wives to engage in more frequent use of both types of relational aggression than wives perceive of their husbands do (Carroll et al., 2010; Madsen, 2012); (2) perceived frequency of the spouse using relational aggression is statistically different between wives and husbands (Carroll et al., 2010); and (3) relationally aggressive behaviors are shown to be harmful to marital outcomes (Carroll et al., 2010).

Despite these commonalities, differences emerge between the results of the current study and Carroll et al.'s (2010) research. In the current study it was found that husbands' perceptions of wives engaging in social sabotage is harmful to wives' marital quality, and that wives' perception of husbands engaging in social sabotage is harmful to husbands' marital quality. Carroll et al.'s study did not find these associations. However, Carroll et al.'s study only examined these associations concurrently, whereas the current study examines this relationship longitudinally. From a longitudinal perspective, social sabotage appears to damage both spouses'

perceptions of the relationship. This finding may be an indication that aggressive behaviors are reciprocal (Burrus & Cobb, 2011). While engaging in relationally aggressive behaviors, wives and husbands may not think such behaviors are harmful in the short-term. However, over time, as spouses begin to experience reciprocated relationally aggressive behaviors, they may begin to realize that these behaviors are damaging, not only to their spouses, but also to themselves. Furthermore, relational aggression may be adopted as a conflict tactic. When upset, husbands or wives may engage in love withdrawal or social sabotage to control or manipulate his or her spouse (Carroll et al., 2010). Such tactics may harm the relationship further over time. The current study reveals relational aggression as being harmful to marital outcomes over time, although additional longitudinal research is needed to understand more fully the long-term outcomes of relational aggression in marriage. Additionally, the current study does not explore relational aggression as a conflict tactic, which future research may consider.

Although the results of the current study support and extend research using data from the *Flourishing Families Project* (Day et al., 2013), these results among mid-life married couples also support aspects of research examining relational aggression within young adults' romantic relationships. For example, Goldstein, Chesir-Teran, and McFaul (2008) find relational aggression is common among young adults' romantic relationships, with less than 10% of participants reporting never having engaged in relational aggression against their romantic partners. Furthermore, Goldstein et al. find a positive relationship between length of romantic relationship and relational aggression, which supports the current findings that relationally aggressive behaviors are common among long-term, stably married couples.

In addition to the common nature of relational aggression in romantic relationships, males perceive more relational aggression used against them (Goldstein et al., 2008; Linder,

Crick, & Collins, 2002), which is consistent with the current findings. Research is mixed, however, on whether young adult females engage in more relational aggression than young adult males do. Whereas Goldstein et al. (2008) find women engage in more relational aggression than men, other research indicates that men and women engage in similar levels of relational aggression in young adult romantic relationships (Linder et al. 2002; Wright & Benson, 2010). Thus, variation exists on the perceptions of use and self-reported use of relational aggression within romantic relationships, which prompts a need for additional research on these differences.

### **Relational Aggression as a Mediator between Financial Distress and Marital Quality**

The original Conger et al. (1990) model of economic hardship tested for but did not find a direct relationship between financial distress and marital outcomes. Subsequent research guided by this framework is mixed on whether this relationship is direct, indirect, both direct and indirect, or mediated. Findings of the current study are consistent with previous research showing a direct relationship when no intervening variables are in the model (Archuleta et al., 2011; Aytac & Rankin, 2009; Britt & Huston, 2012; Dew, 2011; Johnson & Booth, 1990). This direct relationship may be explained in that, even though the majority of couples in the *Flourishing Families Project* are dual-income households, they still experience limitations to their finances during times of economic hardship. Such limitations place added strain on couples (Papp, Cummings, & Goeke-Morey, 2009), which supports Conger et al.'s (1990) original proposition. Perceived financial stressors are related to lower relationship satisfaction and may lead to doubts about the marital relationship itself (Archuleta et al., 2011), which may exacerbate existing marital problems. The emerging field of financial therapy highlights the comingling of financial and relational issues and promotes the need to address both simultaneously (Archuleta, Burr, Dale, Canale, & Danford, 2012).

Although a direct relationship between financial distress and marital quality is found in the current study, the inclusion of perceptions of relational aggression suggest financial distress influences marital quality indirectly through relationship dynamics, which supports Conger et al.'s (1990) original framework. Conger et al.'s research demonstrated financial distress is related to husbands' engaging in more hostility. Husbands and wives have also been shown to engage in more psychologically aggressive behaviors when husbands are financially distressed (Falconier & Epstein, 2010). Relational aggression not only overlaps some dimensions of hostility and psychological aggression (Madsen, 2012), but also relational aggression is associated with poorer marital outcomes (Carroll et al., 2010). As such, it was expected that perceptions of relational aggression would mediate the relationship between financial distress and marital quality, which the current study found.

Earlier research has used emotional/psychological distress, an internalizing behavior, as the mediating variable (Conger et al., 1999; Kinnunen & Feldt, 2004) in the prediction of externalizing behaviors such as marital conflict, which is then linked to marital outcomes (Conger et al., 1999; Gudmunson et al., 2007). The current study extends this earlier research by demonstrating perceptions of relational aggression, an externalizing behavior, also mediates the relationship between financial distress and marital quality. This distinction is important in that much of the earlier research demonstrates men are more susceptible to hostile and aggressive behaviors when financially distressed (Conger et al., 1990; Falconier & Epstein, 2010; Gudmunson et al., 2007), whereas the current study demonstrates perceptions of relational aggression apply when both wives and husbands are financially distressed. Furthermore, perceptions of relational aggression join other variables, such as emotional distress, marital conflict, and psychological aggression, which have already been identified as intervening

variables in the relationship between financial distress and marital outcomes (Aytac & Rankin, 2009; Conger et al., 1999; Falconier & Epstein, 2010; Gudmunson et al., 2007).

### **Limitations, Future Research Directions, and Implications for Practice**

The current study has the strengths of being guided by Conger et al.'s (1990) model of economic hardship, applying a dyadic and longitudinal perspective, and examining direct, indirect, and mediated relationships, but it is not without limitations. One limitation is the sample participants themselves. The sample consists of stably married, mid-life couples that are predominately European American, doing well financially, and not experiencing much economic hardship or financial distress. The characteristics of these couples limit the generalizability of the findings. As such, replication of these findings is needed among a more diverse sample, especially diversity in levels of economic hardship, financial distress, ethnicity, marital length and quality. Such diversity may reveal differences in how couples interact that are not demonstrated in the current study. Despite this limitation, findings indicate for even stable, long-term couples, relational aggression is a marital process associated with financial distress that can damage marital quality.

An additional limitation is not being able to identify why couples experienced economic hardship. For example, some couples may have experienced forced cutbacks at work as a result of the economic recession, which may be associated with higher levels of financial distress. On the other hand, other couples may have voluntarily cut back on work hours and/or salary. Health factors or the decision to spend more time at home with children or in caregiving duties may have prompted some families to cutback in work hours, despite the economic recession that was taking place. Such voluntary cutbacks may be unrelated to financial distress. Without further information, it is uncertain if forced or voluntary cutbacks occurred or how they may have

influenced experiences with financial distress, which is something to consider exploring in future research.

Another noteworthy limitation of the current study is the reliance on perceptions that spouses are engaging in aggressive behaviors against the respondent. Perceptions of aggressive behaviors may be influenced by attribution bias. Attribution bias refers to identifying responsibility for why events, such as aggressive behaviors, occur (Fincham & Bradbury, 1992). Fincham and Bradbury note that distressed people often place more responsibility on their spouses/partners for negative events that take place within the relationship. Financial distress may inflate the perceptions these behaviors are being used against the respondent. This speculation may be supported in that wives' do not perceive their husbands to engage in more social sabotage when husbands are financially distressed, but they do perceive it when wives are financially distressed. As such, future research should consider using self- and partner-reported aggressive behaviors, in addition to observational data when possible, to more accurately identify how relationally aggressive behaviors are used within couple relationships and under conditions of financial distress. Such an approach may also provide additional insights into the influence of aggressive behaviors on marital quality.

More in-depth examination of the relationship between economic hardship and financial distress, specifically whether mediating or moderating factors help to explain this relationship is another important future research direction. The current study demonstrates that economic hardship influences both wives' and husbands' financial distress in a similar manner. However, taking into account other mediating or moderating factors may reveal additional insight into the relationship between economic hardship and financial distress, as well other potential gender differences. For example, using Hill's (1949; 1958) ABC-X Model or Boss's (2002) Contextual

ABC-X Family Stress Model will allow researchers to explore how coping resources, perceptions of events, or context influence the relationship between economic hardship and financial distress.

The results of the current study not only inform future research directions, but also provide several implications for practice. One implication is a need for educators and therapists to explore how couples are experiencing economic hardship. Research demonstrates that experiencing economic hardship is related to increased doubts, fears, and anxiety about the future (McDaniel et al., 2013), which may carry over into couples' feelings of financial distress and marital interactions. Practitioners may need to discuss with couples how they are experiencing economic hardship (e.g., doubts, anxiety, etc.) and their levels of financial distress. It may be helpful to have couples identify ways to reduce their financial distress during times of economic hardship, and other times when money concerns or problems arise.

Another implication to consider is the comorbid nature of financial and relational issues. The emergence of financial therapy recognizes this comorbidity and combines a therapeutic approach addressing both issues simultaneously (Archuleta et al., 2012). Research suggests financial issues are strongly related to marital processes and outcomes. For example, Papp et al. (2013) note that disagreements about money are more negative, longer lasting, and more recurrent than disagreements about other issues. Therapists may consider helping couples to recognize how financial issues are related to other relational issues, including their interactions with one another.

A final implication is that practitioners may need to focus on the content-process-outcome therapeutic approach (Nichols & Schwartz, 1998). This approach suggests that the content of the problem (financial distress) is less important than the processes (relational

aggression) couples use when financially distressed. The results of the current study suggest that relational aggression mediates the relationship between financial distress and marital quality. As such, educators and therapists may consider encouraging couples to identify ways to cope with financial distress by turning towards their spouses, rather than turning towards others to undermine the spouse (social sabotage) or withdrawing affection (love withdrawal).

In conclusion, the results of the current study demonstrate that Conger et al.'s (1990) model of economic hardship is still applicable for exploring how economic hardship and financial distress influence marital interactions and outcomes among contemporary married couples experiencing the recent economic recession. This framework demonstrates that economic hardship is related to more financial distress, which is related to poorer marital outcomes. This relationship is further mediated by perceptions of spouses engaging in relationally aggressive behaviors. Although Conger et al.'s framework is beneficial in exploring these associations, it can benefit from modifications. Promoting a dyadic approach to analyze data will be beneficial in exploring potential gender differences. Additionally, exploring mediating and moderating factors associated with the relationship between economic hardship and financial distress may provide further insights into these gender differences, and relying on stress research guided by the ABC-X models (Boss, 2002; Hill, 1949; 1958) helps identify mediating or moderating factors. Finally, exploring both direct and indirect relationships between financial distress and marital outcomes will aid in better understanding how content and marital processes together influence marital outcomes.

Table 5.

Descriptive Statistics for All Variables Exploring the Relationship between Economic Hardship, Financial Distress, Relational Aggression, and Marital Quality ( $N = 320$ ).

Couple-Level Variable	Original		Transformed	
	<i>M</i>	SD	<i>M</i>	SD
Economic Hardship (2009)	.88	1.07	.21	.23
	Wives		Husbands	
Partner-Level Variables	<i>M</i>	SD	<i>M</i>	SD
Financial Distress (2010)	2.11	.78	2.07	.73
Perception of Spouse's Social Sabotage (2010)	1.57 <sup>a</sup>	.78	1.74	.87
Logged	.39 <sup>a</sup>	.11	.54	.14
Perception of Spouse's Love Withdrawal (2010)	2.40 <sup>a</sup>	1.29	2.73	1.24
Logged	.50 <sup>a</sup>	.15	.54	.14
Marital Quality (2011)	4.78	1.09	4.86	1.01
Squared	24.05	9.53	24.65	9.06

Note: <sup>a</sup> denotes a significant difference between husband's reports.

Table 6. Correlation Coefficients for All Variables Exploring the Relationship between Economic Hardship, Financial Distress, Relational Aggression, and Marital Quality ( $N = 320$ ).

	1.	2.	3.	4.	5.	6.	7.	8.
1. C Hardship (2009)	--							
2. W Financial Distress (2009)	.27***	--						
3. H Financial Distress (2009)	.30***	.61***	--					
4. W Reports on Social Sabotage by Husbands (2010)	-.01	.25***	.21***	--				
5. H Reports of Social Sabotage by Wives (2010)	.03	.27***	.28***	.42***	--			
6. W Reports of Love Withdrawal by Husbands (2010)	-.09	.15**	.16**	.79***	.36***	--		
7. H Reports of Love Withdrawal by Wives (2010)	-.06	.19***	.22***	.34***	.76***	.29***	--	
8. W Marital Quality (2011)	-.03	-.24***	-.24***	-.51***	-.44***	-.24***	-.37***	--
9. H Marital Quality (2011)	-.06	-.28***	-.29***	-.46***	-.51***	-.29***	-.46***	.66***

Key: C = Couple-level variable; W = Wife variable; H = Husband variable

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table 7.

Fit Statistics for All Fitted Models Exploring the Relationship between Economic Hardship, Financial Distress, and Marital Quality, as Mediated by Relational Aggression ( $N = 320$ )

	$\chi^2$	df	CFI	TLI	RMSEA
Model 1	1.43	2	1.00	1.01	.00
Model 2	12.78**	4	.99	.94	.08
Model 3	.00	0	1.00	1.00	.00
Model 4a	14.49*	7	.99	.97	.06
Model 4b	13.52~	7	.99	.97	.05
Model 4c	14.43*	7	.99	.97	.06
Model 4d	15.55*	7	.99	.96	.06
Model 5	13.11*	6	.99	.96	.06

~  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$

Note: df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation

Table 8.

## Taxonomy of Results Exploring the Mediated Relationship between Financial Distress and Marital Quality.

	Husbands			Wives		
	B	SE	$\beta$	B	SE	$\beta$
Model 1						
Hardship 2009 → Distress 2010	.95***	.19	.28	.98***	.18	.30
W Distress 2010 → Marital Quality 2011	-1.91*	.89	-.16	-1.79*	.84	-.15
H Distress 2010 → Marital Quality 2011	-1.75~	.95	-.14	-2.48*	.90	-.20
Model 2						
Hardship 2009 → Distress 2010	.95***	.19	.28	.98***	.18	.30
W Distress 2010 → Perception of Social Sabotage 2010	.03*	.01	.19	.02*	.01	.16
H Distress 2010 → Perception of Social Sabotage 2010	.01	.01	.10	.03**	.01	.19
W Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.09	.02	.01	.10
H Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.10	.03*	.01	.16
Model 3						
W Perception of H Social Sabotage 2010 → Marital Quality 2011	-18.80**	7.29	-.21	-13.81~	7.10	-.16
H Perception of W Social Sabotage 2010 → Marital Quality 2011	-18.65**	6.59	-.22	-22.49***	6.34	-.27
W Perception of H Love Withdrawal 2010 → Marital Quality 2011	-15.64***	4.87	-.25	-12.14*	4.80	-.20
H Perception of W Love Withdrawal 2010 → Marital Quality 2011	-4.28	5.19	-.06	-9.11~	4.96	-.14
Model 4a						
Hardship 2009 → Distress 2010	.95***	.19	.28	.98***	.18	.30
W Distress 2010 → Perception of Social Sabotage 2010	.03*	.01	.18	.02*	.01	.16
H Distress 2010 → Perception of Social Sabotage 2010	.02	.01	.10	.03**	.01	.19
W Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.08	.02	.01	.10
H Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.11	.03*	.01	.16
W Distress 2010 → Marital Quality 2011	.00	.00	.00	-.42	.63	-.04
H Distress 2010 → Marital Quality 2011	-1.03	.65	-.08	-1.42*	.72	-.11
W Perception of H Social Sabotage 2010 → Marital Quality 2011	-17.49*	7.30	-.19	-11.49	7.08	-.13
H Perception of W Social Sabotage 2010 → Marital Quality 2011	-16.92*	6.65	-.20	-19.30**	6.37	-.23
W Perception of H Love Withdrawal 2010 → Marital Quality 2011	-16.04***	4.85	-.26	-12.82**	4.74	-.22
H Perception of W Love Withdrawal 2010 → Marital Quality 2011	-4.38	5.18	-.06	-9.36~	4.90	-.14

Note: B = unstandardized coefficient, SE = standard error,  $\beta$  = standardized coefficient; W = Wife; H = Husband  
 ~  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

(Continued on next page)

Table 8 (Continued)

	Husbands			Wives		
	B	SE	$\beta$	B	SE	$\beta$
Model 4b						
Hardship 2009 → Distress 2010	.95***	.19	.28	.98***	.18	.30
W Distress 2010 → Perception of Social Sabotage 2010	.03*	.01	.18	.02*	.01	.16
H Distress 2010 → Perception of Social Sabotage 2010	.02	.01	.10	.03**	.01	.19
W Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.09	.02	.01	.10
H Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.10	.03*	.01	.16
W Distress 2010 → Marital Quality 2011	-1.15~	.61	-.09	-.94	.68	-.08
H Distress 2010 → Marital Quality 2011	.00	.00	.00	-.95	.66	-.08
W Perception of H Social Sabotage 2010 → Marital Quality 2011	-16.40*	7.35	-.18	-10.98	7.09	-.13
H Perception of W Social Sabotage 2010 → Marital Quality 2011	-16.63*	6.64	-.19	-19.17**	6.36	-.23
W Perception of H Love Withdrawal 2010 → Marital Quality 2011	-16.63***	4.86	-.27	-13.09**	4.75	-.22
H Perception of W Love Withdrawal 2010 → Marital Quality 2011	-4.62	5.17	-.07	-9.46~	4.90	-.14
Model 4c						
Hardship 2009 → Distress 2010	.95***	.19	.28	.98***	.18	.30
W Distress 2010 → Perception of Social Sabotage 2010	.03*	.01	.18	.02*	.01	.15
H Distress 2010 → Perception of Social Sabotage 2010	.02	.01	.10	.03**	.01	.19
W Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.08	.02	.01	.10
H Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.11	.03*	.01	.16
W Distress 2010 → Marital Quality 2011	-.47	.66	-.04	.00	.00	.00
H Distress 2010 → Marital Quality 2011	-.75	.76	-.06	-1.67**	.61	-.13
W Perception of H Social Sabotage 2010 → Marital Quality 2011	-16.89*	7.34	-.19	-12.05~	7.04	-.14
H Perception of W Social Sabotage 2010 → Marital Quality 2011	-16.58*	6.66	-.19	-19.62**	6.36	-.24
W Perception of H Love Withdrawal 2010 → Marital Quality 2011	-16.31***	4.86	-.26	-16.30**	4.74	-.21
H Perception of W Love Withdrawal 2010 → Marital Quality 2011	-4.48	5.17	-.06	-9.22~	4.90	-.14

Note: B = unstandardized coefficient, SE = standard error,  $\beta$  = standardized coefficient; W = Wife; H = Husband  
 ~  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

(Continued on next page)

Table 8 (Continued)

	Husbands			Wives		
	B	SE	$\beta$	B	SE	$\beta$
Model 4d						
Hardship 2009 → Distress 2010	.95***	.19	.28	.98***	.18	.30
W Distress 2010 → Perception of Social Sabotage 2010	.03*	.01	.18	.02*	.01	.16
H Distress 2010 → Perception of Social Sabotage 2010	.02	.01	.10	.03**	.01	.19
W Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.09	.02	.01	.10
H Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.10	.03*	.01	.16
W Distress 2010 → Marital Quality 2011	-1.20~	.72	-.10	-1.46*	.58	-.12
H Distress 2010 → Marital Quality 2011	.09	.70	-.01	.00	.00	.00
W Perception of H Social Sabotage 2010 → Marital Quality 2011	-16.39*	7.36	-.18	-10.90	7.12	-.13
H Perception of W Social Sabotage 2010 → Marital Quality 2011	-16.71*	6.66	-.20	-19.87**	6.37	-.24
W Perception of H Love Withdrawal 2010 → Marital Quality 2011	-16.64***	4.87	-.27	-13.21**	4.76	-.22
H Perception of W Love Withdrawal 2010 → Marital Quality 2011	-4.60	5.17	-.07	-9.58~	4.91	-.14
Model 5						
Hardship 2009 → Distress 2010	.95***	.19	.28	.98***	.18	.30
W Distress 2010 → Perception of Social Sabotage 2010	.03*	.01	.18	.02*	.01	.16
H Distress 2010 → Perception of Social Sabotage 2010	.02	.01	.10	.03**	.01	.19
W Distress 2010 → Perception of Love Withdrawal 2010	.02	.02	.08	.02	.01	.10
H Distress 2010 → Perception of Love Withdrawal 2010	.02	.01	.11	.03*	.01	.16
W Distress 2010 → Marital Quality 2011	-.88	.74	-.07	-.82	.71	-.07
H Distress 2010 → Marital Quality 2011	-.50	.79	-.04	-1.17	.75	-.09
W Perception of H Social Sabotage 2010 → Marital Quality 2011	-16.36*	7.35	-.18	-10.97	7.09	-.13
H Perception of W Social Sabotage 2010 → Marital Quality 2011	-16.29*	6.66	-.19	-19.01**	6.37	-.23
W Perception of H Love Withdrawal 2010 → Marital Quality 2011	-16.56***	4.86	-.27	-13.05**	4.75	-.22
H Perception of W Love Withdrawal 2010 → Marital Quality 2011	-4.57	5.17	-.07	-9.45~	4.89	-.14

Note: B = unstandardized coefficient, SE = standard error,  $\beta$  = standardized coefficient; W = Wife; H = Husband  
 ~  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

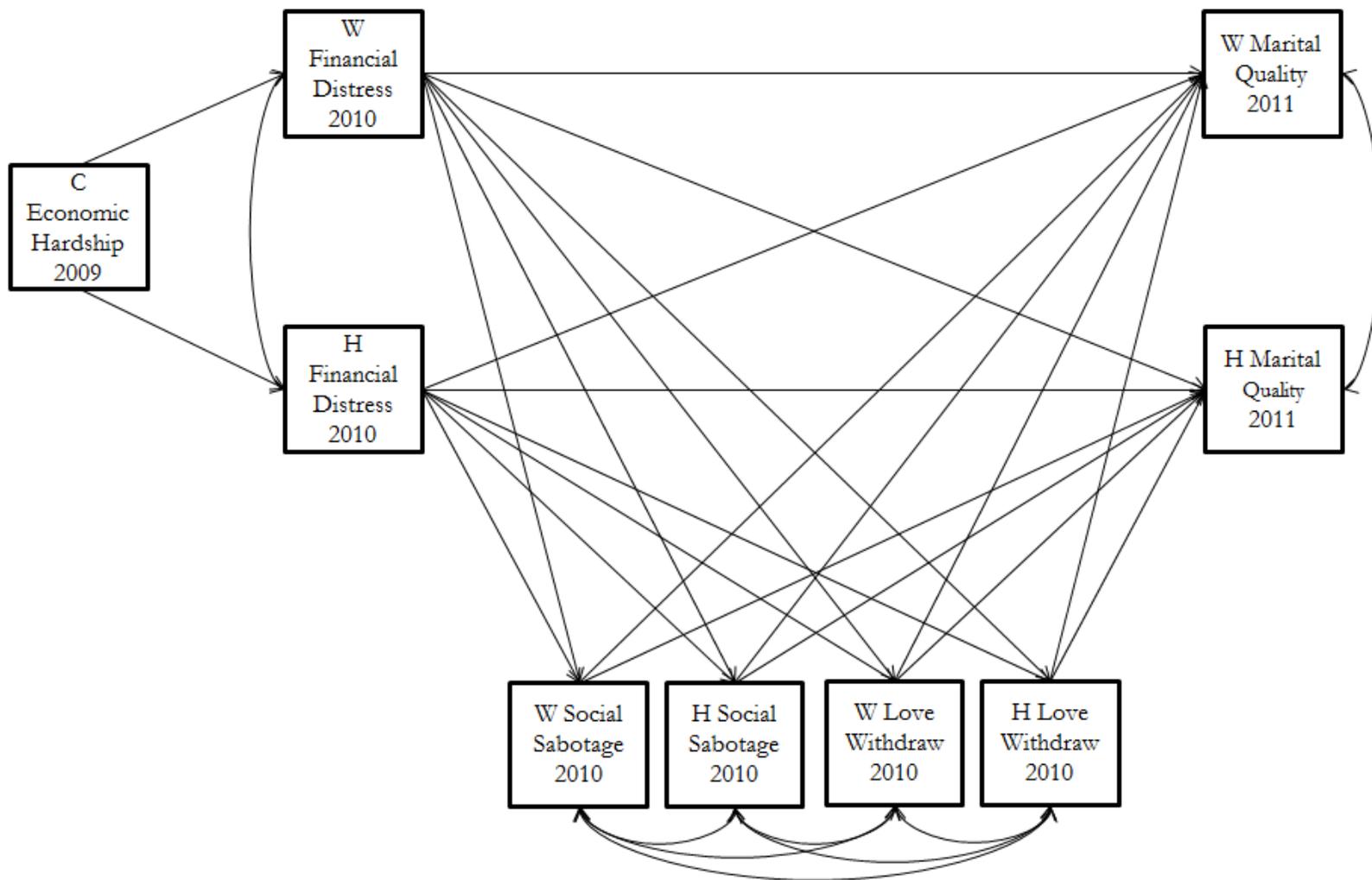


Figure 5.  
 Conceptualized Model Exploring the Relationship between Economic Hardship, Financial Distress, and Marital Quality, as mediated by Relational Aggression ( $N = 320$ )  
 Note: C = Couple, W = Wife, H = Husband

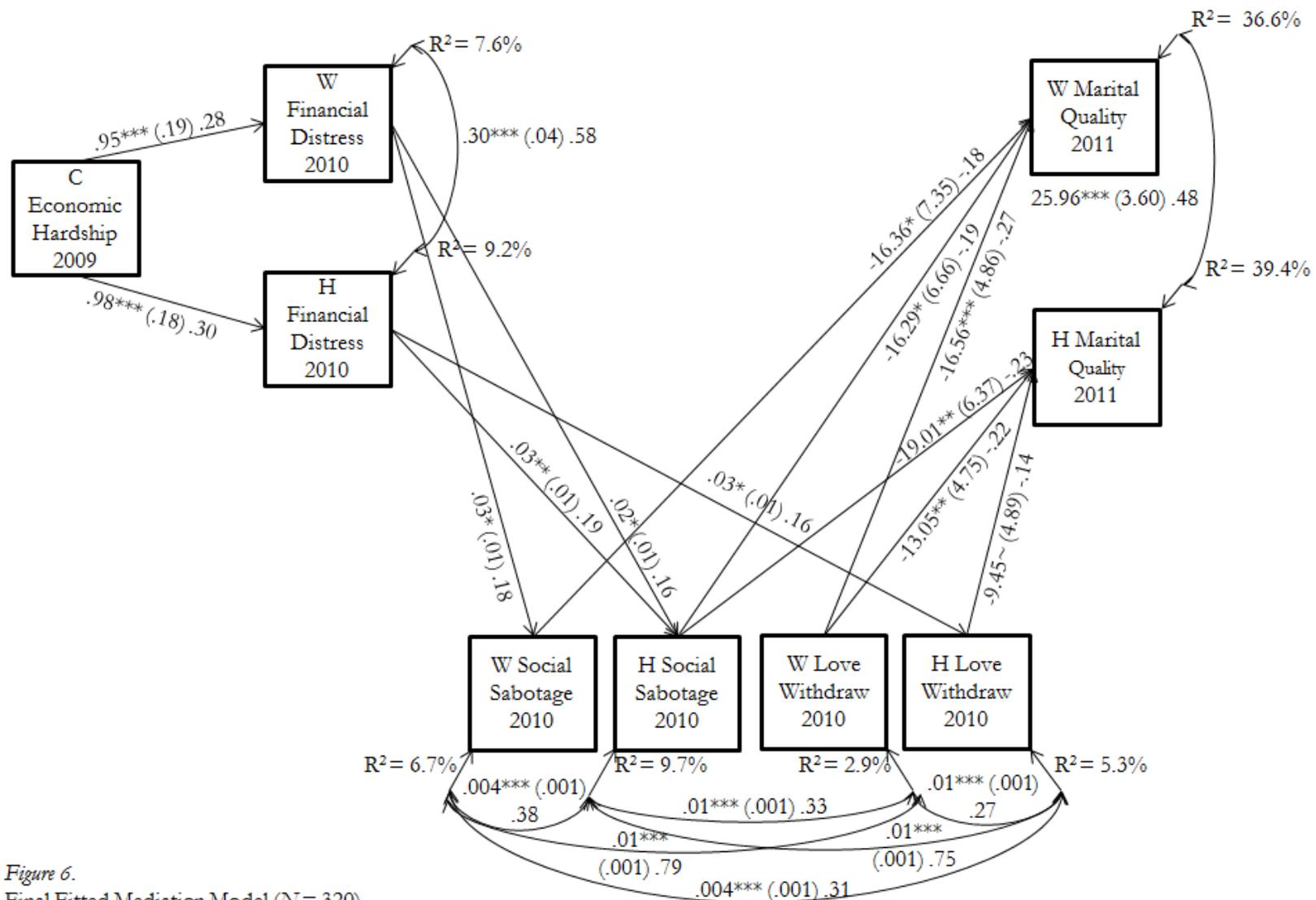


Figure 6.

Final Fitted Mediation Model ( $N = 320$ )

Fit Statistics: chi square = 13.11,  $df = 6$ ,  $p = .04$ , CFI = .99, TLI = .96, RMSEA = .06,  $p = .29$

Unstandardized (Standard Error) Standardized Coefficients Reported;  $\sim p < .10$ ,  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$

Note: C = Couple, W = Wife, H = Husband

#### IV. General Discussion

The impetus for the current dissertation research was to provide an updated perspective on how contemporary couples experienced economic hardship and financial distress during the recent recession. The current research was guided by three well-established theoretical frameworks, namely Hill's ABC-X Model (Hill, 1949; 1958), Boss's (2002) Contextual ABC-X Family Stress Model, and Conger et al.'s (1990) Model of Economic Hardship. These theories overlap in addressing the relationship between a stressor event (e.g., economic hardship) and the level of distress experienced, but each offers a unique frame for examining financial distress and marital relationships. The results of these two studies demonstrate that mid-life married couples experienced economic hardship and financial distress during the recent recession, despite these couples doing well financially. This research also demonstrates that materialistic beliefs have potential to exacerbate the level of financial distress experienced, whereas having savings available has potential to alleviate financial distress. Finally, financial distress is related to the perception that spouses engage in more relationally aggressive behaviors that harm marital quality. These results provide a contribution to the existing literature addressing the relationships between economic hardship, financial distress, marital interactions, and marital outcomes.

Three limitations of previous research were addressed in this dissertation. The first limitation is a lack of consistency in exploring associations among economic hardship, financial distress and marital interactions and outcomes using a dyadic perspective (addressed by both studies). The second limitation is that previous research does not take into account additional factors, such as coping resources and financial beliefs (addressed by study 1). The final

limitation is the lack of consistency and transparency in examining direct relationships between financial distress and marital outcomes (addressed by study 2). Addressing these limitations provides broader implications in terms of theory, research, and policy/practice.

The current dissertation addressed the first limitation by examining relationships between economic hardship and financial distress and financial distress and marital quality by using a dyadic perspective in both studies. Boss (2002) called for a need to examine both spouses simultaneously, as they may experience a shared stressor event differently. Furthermore, this dyadic perspective takes into account the interdependency of couples in that behaviors and actions by one spouse will influence the other spouse (Anderson & Sabatelli, 2011). As such, exploring both spouses' experiences during this recent economic recession was considered important to explore.

The results of these two studies demonstrate similarities and differences among husbands and wives. For example, husbands and wives report similar levels of financial distress when experiencing mild economic hardship. Furthermore, the first study shows, for both husbands and wives, that materialism is related to more financial distress concurrently, whereas having savings available is related to less financial distress concurrently and longitudinally. The second study demonstrates that perceptions of relationally aggressive behaviors are harmful to both spouses' marital quality. Differences between husbands and wives also emerge when examining both spouses simultaneously. In the first study, wives' materialism is related to wives' stability in financial distress, whereas husbands' materialism is not related to husbands' decrease in financial distress. Another difference is that when wives are financially distressed, wives and husbands perceive their spouses to engage in more social sabotage. When husbands are financially distressed, only husbands perceive their wives to engage in more social sabotage and

love withdrawal. These results demonstrate that using a dyadic approach that controls for partner responses reveals spousal differences and are important to consider in research.

Although using a dyadic perspective contributes to existing research, integrating aspects of the three guiding theoretical frameworks also can be beneficial. Conger et al.'s (1990) Model of Economic Hardship does not take into account other factors that may influence the relationship between economic hardship and financial distress, which prompted the second limitation explored in the current research. Hill's (1949; 1958) and Boss's (2002) frameworks, on the other hand, allow for exploration of additional factors, including coping resources, perceptions, and context. The results of the first study demonstrate that the internal context of materialism exacerbates financial distress and that the coping resource of savings alleviates financial distress. The inclusion of these additional factors not only provides an example of integrating concepts from these theoretical frameworks, but it also allows for a greater understanding of how economic hardship influences financial distress.

The current research demonstrates that other factors, namely materialism and savings, influence both spouses' financial distress. However, the current research does not explore how relationships between financial distress, materialism and savings influence marital interactions and outcomes. In fact, Hill's and Boss's frameworks are limited in that they do not go beyond the level of distress experienced. On the other hand, Conger et al.'s (1990) model does explore how financial distress influences both marital interactions and marital outcomes, which demonstrates an additional area of integration that might be beneficial. Future research could employ a more fully integrated model that explores how other factors (coping resources, perceptions, or context) influence the relationship between economic hardship and financial distress and how financial distress influences marital interactions and outcomes.

Regardless of whether future research explores a fully integrated model, it is important to examine direct and indirect relationships, which motivated the exploration of the third limitation in the current research. Results from previous studies are mixed as to whether the relationship between financial distress and marital outcomes is direct (e.g., Britt & Huston, 2012; Johnson & Booth, 1990), indirect (e.g., Conger et al., 1990; Falconier & Epstein, 2010), both direct and indirect (e.g., Aytac & Rankin, 2009), or mediated (Conger et al., 1999; Kinnunen & Feldt, 2004). The results of the second study in the dissertation provide support for a direct relationship between both spouses' financial distress and both spouses' marital quality, when no intervening variables are included (Britt & Huston, 2012; Johnson & Booth, 1990). The current results also show these relationships are mediated by perceptions of relationally aggressive behaviors. Both direct and indirect relationships were also identified in the first study of the current research. For example, economic hardship was directly related to both spouses' concurrent financial distress, but only indirectly related to both spouses' change in financial distress. This indirect relationship operated through the earlier financial distress experienced by both spouses. The results of these two studies demonstrate that direct, indirect, and mediated relationships exist and need to continue to be examined.

Although the dissertation addresses some of the limitations of previous research and enhances our knowledge of the relationship between economic hardship and financial distress and financial distress and marital quality, more can be learned about these relationships. One major limitation of the current research is the generalizability of the findings. These participants were stably married couples, doing well financially, mostly European American, and were not experiencing high levels of economic hardship or financial distress. As such, replication of these

results is needed among a more demographically diverse population experiencing greater variability in economic hardship and financial distress.

In addition to replication with a more diverse sample, future research can be enhanced in a number of ways. First, integrating more fully the ABC-X stress framework (Boss, 2002; Hill, 1949; 1958) with Conger et al.'s (1990) Model of Economic Hardship may provide additional insights on how economic hardship influences financial distress, marital interactions, and marital outcomes. The first study of the current dissertation integrates some aspects of these two frameworks, but it does not explore how savings and materialism influences perceptions of relationally aggressive behaviors or marital quality. Extending this research will permit examination of whether more or less financial distress, due to having savings or materialistic beliefs, influences how couples perceive relationally aggressive behaviors and how these behaviors influence their marital quality.

Another way this research can be furthered in the future is to examine how younger couples' experiences with economic hardship and financial distress influence their relational interactions and outcomes. For example, young adults today are facing increased financial pressure due to the rising level of student loan debt. Debt, in general, has been associated with delaying marriage (Carlson, 2005), and debt has been associated with increased emotional stress, conflict, and reduced financial options in the future (Skogrand, Johnson, Horrocks, & DeFrain, 2011; Skogrand, Schramm, Marshal, & Lee, 2005). Additionally, many young adults may not have savings available, which may necessitate using other financial means (e.g., credit) to deal with economic hardship when it arises (Baek & DeVaney, 2010). In addition to examining debt brought into relationships, exploring other individual factors, such as impulsiveness and/or delayed gratification, may provide valuable insights in examining how young adults may

respond to economic hardship and experience financial distress, which then carries over into relational interactions and outcomes.

Not only do the results of the current research contribute to the existing literature and provide directions for future research, they also provide suggestions for policy and practice. The first suggestion is a need for additional financial education. More financially educated individuals make better financial decisions (Hogarth et al., 2013), which may be beneficial during times of economic hardship when prioritization of expenses may become critical. Those with more financial education are also more likely to save (Hogarth et al., 2013). The current research demonstrates that having savings may be a protective factor against financial distress when experiencing mild economic hardship.

Financial education programs also can include lessons/discussions on how finances influence marital interactions. The current research demonstrates that spouses perceive more relational aggression when financially distressed. Existing studies further demonstrate husbands engage in more hostile behaviors when couples are financially distressed (Conger et al., 1990), and husbands and wives engage in more psychological aggression when husbands are financially distressed (Falconier & Epstein, 2010). Additionally, disagreements about money are associated with longer lasting, more recurrent, and more negative interactions (Papp et al., 2009). As such, an emphasis on financial education, either through organizations or government agencies may be beneficial to couples before and during times of economic hardship. Additionally, the emergence of financial therapy, which explores the comorbid nature of financial and couple issues (Archuleta et al., 2012), may be a way to bridge financial education programs with that of therapeutic practice.

There also is a need for short-term programs that can aid mid-life, married couples during times of economic hardship. Existing programs are available and beneficial to low-income families (Pilkauskas et al., 2012), but middle-class couples, such as those examined in the current research, rarely qualify for such support. Offering programs similar to those already in place or that provide low-interest or deferred-interest loans may help middle-class couples until their financial situation stabilizes. Additionally, including requirements to attend financial education and/or financial therapy as part of the process to obtain these benefits may also be a way to bridge policy and practice.

In conclusion, the results of the current dissertation demonstrate that contemporary, mid-life married couples experienced financial distress when facing economic hardship during the recent economic recession. Materialistic beliefs added to the financial distress experienced, whereas savings acted as a buffer against economic hardship. Financial distress influenced perceptions of relationally aggressive behaviors engaged in by the spouse, and these behaviors mediated the relationship between financial distress and marital quality. Collectively, the results suggest that even couples doing well financially and facing less severe economic hardship are at risk for financial distress during times of economic uncertainty. As such, couples need to be encouraged to develop saving habits to help prepare for and cope with economic hardship when it arises. Additionally, couples should be made aware of the common, but potentially damaging, relationally aggressive behaviors that partners often engage in when experiencing distress, and taught alternative ways of interacting that protect against marital deterioration during times of economic hardship.

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