

2014

The association between supportive behavior and changes in relationship quality among married and cohabitating African American couples

Ashley Merritts
Iowa State University

Follow this and additional works at: <https://lib.dr.iastate.edu/etd>

 Part of the [Quantitative, Qualitative, Comparative, and Historical Methodologies Commons](#)

Recommended Citation

Merritts, Ashley, "The association between supportive behavior and changes in relationship quality among married and cohabitating African American couples" (2014). *Graduate Theses and Dissertations*. 13662.
<https://lib.dr.iastate.edu/etd/13662>

This Dissertation is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

**The association between supportive behavior and changes in relationship quality
among married and cohabitating African American couples**

An analysis of observational and self-report data

by

Ashley Rink Merritts

A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

Major: Human Development and Family Studies

Program of Study Committee:
Daniel Russell, Major Professor
Carolyn Cutrona
Janet Melby
Jennifer Margrett
Fred Lorenz

Iowa State University

Ames, Iowa

2014

TABLE OF CONTENTS

LIST OF TABLES	iv
LIST OF FIGURES	v
ACKNOWLEDGMENTS.....	vi
ABSTRACT.....	viii
CHAPTER 1. INTRODUCTION	1
CHAPTER 2. REVIEW OF LITERATURE	6
Rationale.....	7
Historical Focus on Negative Behaviors	7
Conceptual Approach	9
The Role of Support Behaviors and Positive Affect	12
Relationships and the African American Community	17
Cohabitation, Marriage and Family Structure	20
Testing Sullivan and Colleagues' Findings	23
Observational Ratings of Behavior	26
Gaps in the Research	28
CHAPTER 3. METHODS	32
Participants	32
Measures	32
Behavioral Observation.....	32
Hostility	34
Support	37
Relationship Satisfaction	39
Control Variables	39
Data Analyses	40
CHAPTER 4. RESULTS	41
Sample Characteristics	41
Missing Data	44
Hypothesized Model	48
CHAPTER 5. DISCUSSION	49
Overview	49
Important Considerations and Limitations	52
Implications for Clinicians	55
Future Direction of Research	57

Conclusion 59

REFERENCES 60

APPENDIX A. IRB LETTER OF EXEMPTION 68

LIST OF TABLES

Table 1. Relationship status and relation to target child.....	42
Table 2. Descriptive statistics for measured and latent variables.....	43
Table 3. Descriptive statistics for relationship satisfaction by relationship status.....	44
Table 4. Correlations among study variables.....	46

LIST OF FIGURES

Figure 1. Hypothesized model.....	31
Figure 2. Structural equation model.....	48

ACKNOWLEDGMENTS

As I reflect upon this Ph.D. journey and dissertation writing, I'm overwhelmed by the support I've received from so many people, both professionally and personally. I'm so very grateful for my major professor, Dan Russell, and the rest of my committee members for both challenging and encouraging me to achieve the quality of work that you all know I'm capable of. I'm honored to have had the experience to get to know such outstanding researchers, teachers, and mentors. Dan, thank you for responding to my anxiety-induced, frantic emails about upcoming deadlines and analyses crises with calmness and encouragement over the last several years.

I'm thankful to all of the participants in this study. Although I was not able to meet them face-to-face, they have taught me so much about the research process and, most importantly, about relationships. I am grateful for their time and contributions to the field. My hope is that I am able to use their experiences in order to better understand intimate relationships and how they can be strengthened.

Most importantly, I would like to thank my family. To my parents, Scott and Diane, thank you for always believing in me and always encouraging me to go after my dreams. Your encouragement and support has gotten me through times when I wasn't quite sure I could keep going. I love you both. To my brothers, your support has not gone unnoticed. Thanks for all of the years of playing "school" with me and instilling a love of learning and teaching. To my husband, Sean, thanks for being prepared to do whatever you needed to do in order to make the move back to Iowa happen so that I could pursue my educational aspirations. Without looking back, you jumped on board and have supported me throughout this crazy journey. Thanks for always encouraging

me and pushing me to achieve my goals. Thanks for sticking with me (especially on the bad days) as I juggled work, research and teaching with being a wife and mommy.

Despite everything that we had going on in our lives, you and Manning always were (and always will be) my top priority. I love you. To my son, Manning, who has taught me more about life, love, and patience than I could have ever imagined. Do not be afraid to go after *your* dreams in life; I already see that you have so much determination – you can do anything you set your mind to. Mommy will always be your biggest cheerleader. I love you more than you'll ever know.

ABSTRACT

The purpose of this study was to examine whether initially low levels of support behaviors observed among cohabitating and married African American couples significantly predicted higher levels of negative behaviors (specifically hostility) in their interactions two years later. In addition, the analyses examined whether these later levels of hostility predicted relationship satisfaction over time. That is, did supportive behaviors serve a protective function in terms of their impact on the longitudinal course of marriage and cohabitation? The results of the structural equation modeling analyses provided some support for these hypotheses, as the level of initial support behaviors displayed by the *female* partner was a marginally significant predictor of *her* level of hostility at Wave 2 but not his later level of hostility; as her level of initial support increased, her level of hostility at a later time point decreased. In addition, level of hostility displayed by the *male* partner at Wave 2 was a marginally significant predictor of *his* relationship satisfaction, with higher levels of hostility at Wave 2 significantly predicting lower relationship satisfaction at Wave 2. The results of the current study indicate significant contributions of support to relationship functioning and demonstrate potential gender differences in the role of support on later communication behaviors and relationship satisfaction.

CHAPTER 1. INTRODUCTION

According to the 2002 Current Population Report, the divorce rate for first marriages is over 40 percent and approximately 25% of couples remain married but experience significant marital discord (Lawrence et al., 2008). The existing models of relationship discord have generally focused on communication behaviors and, more specifically, how couples deal with conflicts and disagreements (Sullivan et al., 2010). Furthermore, nearly all of the observational research on couple interaction has focused on how they resolve relationship conflicts (Pasch, Harris, Sullivan, & Bradbury, 2004). In the last decade, however, there has been an emerging literature focused upon the importance of spousal social support in understanding the role of communication behaviors (Lawrence et al., 2008).

Social learning or behavioral accounts of marital deterioration suggest that partner's unhappiness results from mismatched conflict and problem-solving, which influences subsequent interactions and, over time, influences partners' judgments of relationship quality (Williamson, Karney, & Bradbury, 2013; Karney & Bradbury, 1995). Previous research has identified certain dyadic behaviors in couples' communication patterns that serve as risk and protective factors for both relationship satisfaction and stability (Markman, Rhoades, Stanley, Ragan, & Whitton, 2010). For instance, Karney and Bradbury (1997) found that couples were most at risk for declines in relationship satisfaction when there was high negative communication and low positive affect. Couples displaying more intense forms of negative affectivity, such as contempt and hostility, reported a greater prevalence of discord and instability (Walker, Sheffield, Larson, & Holman, 2011). In addition, Markman and colleagues (2010) found that

higher levels of negative communication were significantly associated with lower levels of marital adjustment over the first five years of marriage.

Despite the extensive literature suggesting a relationship between negative behaviors displayed during conflict resolution and marital dissatisfaction and dissolution, the research on marriage in the new millennium has shifted to a focus on the impact of positive behaviors on marital outcomes (Fincham & Beach, 2010). More specifically, Fincham and Beach stated that “conflict, considered by itself, may be less central, or at least less capable of explaining outcomes, than theories, research, and interventions from prior decades would have suggested” (2010, p. 632). There has been an emerging literature that has yielded consistent evidence for the importance of spousal support as a factor in relationship satisfaction (Lawrence et al., 2008). Taken together, these findings suggest the importance of exploring various types of interpersonal exchanges in order to develop accurate theoretical models of relationship dysfunction and effective intervention.

There is emerging evidence suggesting that perhaps positivity in a relationship may offset the effects of negative behaviors (Sullivan et al., 2010). According to the intimacy process model, when couples engage in behaviors that lead one another to feel understood, validated and cared for by their partner, feelings of intimacy deepen (Reis & Patrick, 1996; Reis & Shaver, 1988). This would suggest that relationship distress occurs when one or both partners fail (or perhaps lack the skills) to engage in these positive behaviors, which conveys a lack of care or understanding. Sullivan and colleagues (2010) found that deficits in spouse supportive behaviors foreshadowed deterioration in problem-solving and conflict management, ultimately resulting in unhappiness and

relationship dissolution. Lawrence and Johnson (2005) examined specific skills and affective expressions of couples as predictors of change in marital satisfaction. They found that not only did low levels of positive affect and high levels of negative affect foreshadow rapid rates of marital deterioration, but also that high levels of positive affect buffered the effects of negative behavior on marital deterioration.

The Sullivan and colleagues' study offered several conclusions that can be further explored. First, the data provided evidence for the importance of social support in predicting marital satisfaction levels and marital status over time as demonstrated by Cutrona (1996). Additionally, social support behaviors appear to be more stable over the first year of marriage than conflict behaviors displayed when couples discuss a source of tension. Although couples' interactions tend to become more negative further into the marriage, their level of support does not appear to change. Another important conclusion is that both positive and negative behaviors at the beginning of the marriage predicted marital problem-solving one year later. Finally, change in negative behavior over the first year of marriage predicted later marital satisfaction levels and marital status (Sullivan et al., 2010). These findings suggest that partners who are able to create warm and supportive relationships may be more accepting of relationship problems and, as a result, experience more satisfying and stable relationships (Sullivan et al., 2010).

An important distinction should be made between *positive problem-solving* behavior and *positive affect*. Couple education programs have generally been developed around the notion that decreasing negative problem-solving behavior and increasing positive problem-solving behavior will improve couples communication, which will in turn increase relationship satisfaction and prevent relationship dissolution (Bradbury &

Lavner, 2012). However, recent research suggests this is not the case. One study indicated that newlyweds with poor problem-solving skills but high levels of positive affect (such as humor and affection) have the same four-year outcome as those couples with good communication skills (Lawrence & Johnson, 2005). The majority of the observational data measuring marital interactions has conceptualized spousal support in terms of the verbal content, ignoring the affective component (i.e., non-verbal cues, facial expressions) (Lawrence & Johnson, 2005). This affective component is likely related to how one views his or her partners' level of responsiveness, which is a strong determinant of the positive effect of spousal support on relationship satisfaction.

The current study employed measures of interactional behavior, including both verbal and non-verbal indicators, in order to examine the role of couples' affect and behavior during interactions as a predictor of change in relationship quality and satisfaction over time. It was hypothesized that if couples initially displayed low levels of support behaviors, then they would likely demonstrate higher levels of negative behaviors, specifically hostility, during conversations at a later time point. In addition, the analyses examined whether these later levels of hostility predicted relationship satisfaction and stability over time. The key question I addressed was if couples display high levels of support behaviors, do their interactions become *less negative* over time compared to those couples displaying initially low levels of support? That is, do support behaviors serve a protective function in terms of their impact on the longitudinal course of marriage and cohabitation?

The few studies that have examined predictors of change in relationship satisfaction and stability have utilized *newlywed* samples, focusing on the changes that

take place during the *beginning* of the marriage. By contrast, the present study allowed for an examination of the longitudinal processes of these dyadic behaviors several years into cohabitating relationships or marriages. Studies have demonstrated differences in predictors of relationship quality and stability for married versus cohabiting couples (Brown, 2003), and the current study allowed a comparison of processes for these two types of couples. The sample was comprised of African American couples with at least one elementary school-aged child in the home. The study also allowed for an examination of gender differences in predictors of relationship quality; the research regarding such differences has been inconclusive. An understanding of the factors that promote relationship satisfaction and stability among African Americans is important in terms of guiding theoretical models, policy, and intervention efforts (Cutrona et al., 2011).

CHAPTER 2. REVIEW OF THE LITERATURE

“The ultimate test of a marriage is to disagree but to hold hands.”

Alexandra Penney

There is a large literature suggesting that communication is an important factor in couples' relationships, allowing them to build the intimacy and support needed to maintain relationships as well as to resolve relationship conflicts (Reis & Patrick, 1996). How members of a couple communicate with one another is vital to how they feel about the relationship (Bradbury & Karney, 2010). Recent studies, guided by social learning principles, have demonstrated consistent associations between communication behaviors and relationship satisfaction (Bradbury & Karney, 2010). Therefore, it is not surprising that the majority of the research predicting relationship satisfaction and stability has focused on behavioral interactions. It is important to note that the associations between observed communication behaviors (negative or positive) and marital outcomes have not always been consistent, raising questions about how communication has been conceptualized and addressed in preventive programs and intervention efforts (Bradbury & Lavner, 2012).

Further clarification regarding how observed communication behaviors and affect among couples covaries with relationship satisfaction and how these behaviors foreshadow changes in relationship satisfaction and stability offers a useful framework for understanding the deterioration of intimate relationships as well as offering guidance for couple education programs (Bradbury & Karney, 2010). As plainly stated by Lavner, Bradbury, and Karney (2012), given that nearly all couples seek to have a stable and

fulfilling relationship with their partner, *why is it that they experience such dramatically different outcomes?*

Lawrence and colleagues (2008) suggest there are a variety of behavioral deficits that likely contribute to relationship distress. They conducted a comprehensive examination of dyadic behaviors that could potentially influence the longitudinal course of marital satisfaction and identified five types of behaviors that serve as risk or protective factors: communication and conflict management, interspousal support, emotional closeness and intimacy, sensuality and sexuality, and decision-making and relational control (Lawrence et al., 2008). The focus of the current study was to further investigate the role of communication behaviors and interspousal support.

Historical Focus on Negative Behaviors

The existing models of relationship discord have generally focused on how couples deal with conflicts and disagreements (Sullivan et al., 2010). Furthermore, nearly all of the observational research on couple interaction has focused on how they resolve relationship conflicts. Communication and conflict management behaviors, as defined by Lawrence and colleagues (2008), include the frequency and length of arguments, behavior during arguments, and strategies for resolving conflicts. In the late 1990s John Gottman had a significant impact on the marital research community with his findings regarding predictors of divorce. Gottman claimed he could predict whether or not a couple would divorce by simply observing them discuss a controversial issue in their relationship. He indicated that specific behaviors such as contempt, belligerence, and defensiveness are the most destructive patterns during conflict resolution and significant predictors of marital instability and divorce (Gottman et al., 1998).

More recently there has been continued support for the importance of these conflict behaviors. A study conducted by Walker, Sheffield, Larson, and Holman (2011) found that couples who ended up stable and happy were the ones who approached conflict with low negative affect. Those couples displaying more intense forms of negative affectivity, such as contempt and hostility, reported a greater prevalence of discord and instability (Walker et al., 2011). For this reason, interventions designed to improve couple relationships have generally focused on negative communication as a target for change (Lavner & Bradbury, 2012).

Building on a social learning or behavioral model, social exchange principles suggest that couples evaluate their relationship by processing their interactions with their partner and comparing their relationship with other alternatives (Thibaut & Kelley, 1959; Jacobson & Margolin, 1979). Taking this a step further, research suggests that happy marriages can be distinguished from unhappy marriages by the ratio of positives to negatives in the relationship (Gottman et al., 1998). Observational studies indicate that distressed couples engage in more negative communication behaviors (e.g., complaining, criticizing, blaming, denying responsibility) and fewer positive communication behaviors (e.g., agreeing, laughing, using humor, smiling) than non-distressed couples (Lavner & Bradbury, 2012). Furthermore, as mentioned above, certain negative communication behaviors, such as contempt, have been found to be predictive of divorce in newlywed couples (Gottman et al., 1998).

Pasch and colleagues (2004) suggest several historic reasons for the almost exclusive focus on conflict in couple and marital research. First, conflict is obviously very salient in couples that are experiencing relationship discord, especially in clinical

settings. In addition, previous studies have found that negative behavior was a stronger predictor of distressed versus non-distressed marriages as compared to positive behavior (Weiss & Heyman, 1990). Lawrence and colleagues (2008) demonstrated that conflict behavior was a significantly stronger predictor of marital satisfaction even after controlling for other dyadic behaviors, such as support and emotional intimacy. Lastly, because social support has been historically conceptualized as a purely positive construct, its ability to assist in understanding relationship distress has been considerably downplayed (Pasch et al., 2004). In the last decade, however, there has been an emerging focus on the importance of support behaviors in understanding relationship outcomes (Lawrence et al., 2008).

Conceptual Approach

Social learning or behavioral accounts of marital deterioration suggest that each partner's behavior in a relationship can be viewed as a function of the consequences provided for that behavior by his or her partner (Jacobson & Margolin, 1979). If couples engage in mismatched conflict and problem-solving, this leads to negatively reinforcing one another's maladaptive behaviors which in turn impacts behavior during subsequent interactions and, over time, influences partners' judgments of relationship quality (Williamson, Karney, & Bradbury, 2013; Karney & Bradbury, 1995). Couples are continually sending messages to one another which have reinforcing or punishing effects on the partner, and a punishing behavior from one partner is more likely immediately following a punishing behavior directed to the other partner (Jacobson & Margolin, 1979). Each of these behavioral exchanges yield an outcome for the partner and "these outcomes collectively determine one's tendency to emit rewarding behavior in future

encounters, one's level of satisfaction in the relationship, and one's general tendency to continue in the relationship" (Jacobson & Margolin, 1979, p. 17). In other words, each interaction that a couple engages in affects how they globally evaluate their relationship, thereby influencing behavior in subsequent interactions (Karney & Bradbury, 1995).

When partners' responses to conflict are ineffective and coercive, they often respond to one another in ways that are harmful to the relationship, which creates a negative interaction cycle that each partner contributes to and maintains (Koerner & Jacobson, 1994). There is evidence that this notion of "negative reciprocity", which is the tendency for couples to engage in punishing behavior toward each other at nearly equal rates, is particularly characteristic of distressed couples (Koerner & Jacobson, 1994). This coercive cycle fuels hostility and tension in the relationship, which further compromises other aspects of the couple's relationship, such as sexual intimacy (Koerner & Jacobson, 1994).

However, a different explanation for the deterioration of intimate relationships can be offered (Sullivan et al., 2010). According to the intimacy process model, when couples engage in behaviors that lead one another to feel understood, validated and cared for by their partner, feelings of intimacy deepen. This would suggest that relationship distress occurs when one or both partners fail (or perhaps lack the skills) to engage in these behaviors, which conveys a lack of caring or understanding. Therefore, according to this view, conflict is *secondary* to the ways in which partners respond to one another during times in which they are vulnerable and seeking compassion and understanding from their significant other (Sullivan et al., 2010). Perhaps if members of a couple are feeling misunderstood and unvalued, the resulting lack of intimacy and warmth in the

relationship compromises the couple's ability to effectively problem-solve and respond to one another in a healthy way.

The social learning and intimacy process models share a common conceptual foundation in that negative behaviors, as discussed in the social learning model, can be viewed as *invalidating* behaviors within the intimacy process model (Sullivan et al., 2010). For example, if a couple exhibits hostile behavior toward one another, this conveys a lack of care or understanding for their partner, which impacts their ability to turn to one another and resolve future issues. Both models draw attention to two important processes that couples must navigate: the ability to address differences and the ability to communicate compassion and warmth to one another. However, these models provide different solutions to managing these processes as well as specifying different intervention targets in order to prevent relationship distress (Sullivan et al., 2010).

Historically, research has suggested that mismanaged conflict predicts declines in relationship satisfaction. However, recent studies are indicating that this model cannot fully account for the interactional antecedents of relationship distress. There is emerging evidence suggesting that perhaps positivity in a relationship may offset the effects of negative behaviors (Sullivan et al., 2010). Supporting this prediction, one study observed couples discussing personal and non-marital issues and found that negative problem-solving behaviors had less of an impact on marital satisfaction when level of support during these interactions was high (Pasch & Bradbury, 1998).

Another key premise of a social learning or behavioral model that is important to consider when attempting to understand relationship outcomes is that relationship behaviors should be viewed in terms of how they change over time and the consequences

of these changes on the intimate relationship. More specifically, the patterns of change are predictive of relationship success or failure (Lawrence et al., 2008). A study conducted by Brown (2003) found that both cohabiting and married couples experience a decline in the quality of interactions with one another over time, especially during the first decade of the relationship. Both married and cohabiting couples experience lower levels of happiness over time - even though married couples report higher relationship satisfaction as compared to cohabiting couples. However, the effect of relationship duration on relationship stability is different for cohabiting couples versus married couples. Relationship duration has been linked to relationship stability for couples who are cohabiting but not for couples who are married (Brown, 2003).

The Role of Support Behaviors and Positive Affect

The historical focus on negative interaction patterns among couples has had obvious implications for existing psychological interventions for intimate relationships and marriages. However, recent research suggests that the traditional focus on negative behaviors needs to be expanded in order to understand the role of positive behavior and emotions, which can add to our knowledge regarding the interpersonal skills and behaviors related to successful relationships (Sullivan et al., 2010). “If intensely negative emotional exchanges lead to relationship deterioration, it is also possible that intensely positive emotional exchanges contribute to relationship survival” (Cutrona, 1996, p. 179).

There is a long history of interactions that contribute to the deterioration of relationships and “the nature and tone of these interactions can be significantly affected by the frequency and sensitivity of supportive acts by husbands and wives” (Cutrona, 1996, p. 174). More specifically, supportive behaviors can promote a positive emotional

tone in the relationship and “prevent the gradual acceleration of negative interactions that often precedes divorce” (Cutrona, 1996, p. 174). Jacobson and Margolin (1979) present a “bank account” analogy of marriage, suggesting that as couples experience positive exchanges (such as demonstrating acts of support to one another), small “offenses” are less likely to cause major issues or disagreements because of the large “balance” of positive exchanges in the bank account. Therefore, it is possible that a large “balance” of positive exchanges could decrease the couple’s *sensitivity* to negative exchanges and thoughtless or hurtful acts (Cutrona, 1996).

Extensive research supports the prediction that social support is positively related to relationship maintenance (Pasch, Bradbury, & Davila, 1997). Previous research has indicated that most married individuals view their spouse as a central source of support and members of couples who report higher levels of social support from their spouse are more satisfied with their marriage (Acitelli & Antonucci, 1994; Julien & Markman, 1991). Receiving support from one’s spouse allows the recipient to cope with the immediate problems or concerns as well as strengthening the marriage. This is likely due to the common element of responsiveness, which Cutrona (2012) suggests is found in the constructs of social support, attachment, intimacy and trust; more specifically, intimacy grows when individuals are able to self-disclose and, ideally, these self-disclosures are met with understanding, validation, and a sense of caring (Reis & Shaver, 1988). Social support can be defined as “acts that reflect responsiveness to another’s needs” (Cutrona, 1996, p. 10). These acts of support promote trust, appreciation, and commitment to one another, which can help the couple survive future conflicts and stressors.

Several types of support have been identified: emotional support (expressions of care and/or empathy), esteem support (expressions of respect and/or confidence in one's abilities), social network support (belonging and/or communicating with a group of similar others), tangible support (offering assistance and/or resources), and informational support (giving advice and/or sharing facts) (Cutrona & Russell, 1990). One study sought to systematically examine which types of support are most strongly tied to marital satisfaction for native-born American and Chinese couples. Results indicated that emotional support was the strongest correlate of marital satisfaction (Xu & Burleson, 2004) and these results were consistent with several other studies demonstrating that emotional support was a strong predictor of marital satisfaction (Suitor & Pillemer, 1994; Wright & Aquilino, 1998).

Research regarding differences between the effects of spousal support for husbands and wives has been inconclusive, with the most recent research suggesting few differences due to the sex of the spouse (Xu & Burleson, 2004). There is some research indicating that spousal support could be a less important determinant of relationship satisfaction for men than for women in the later years of marriage, suggesting that perhaps the benefits that people experience from marriage change over time and may be different for men and women (Acitelli & Antonucci, 1994). Therefore, longitudinal research examining the role of spousal support for both husbands and wives at various points in their relationship would be helpful in determining whether or not the role of spousal support changes over the life of a marriage. Additionally, little research has examined whether the association between spousal support and marital satisfaction differs across ethnic groups. A recent study found that the magnitude of this association

did not vary as a function of ethnic background for native-born Americans and Chinese couples (Xu & Burleson, 2004). Exploring ethnic and cultural differences in terms of the effects of social support on relationship satisfaction is valuable, as conceptions of marriage, intimacy, emotional expression, and other related terms vary across cultures (Xu & Burleson, 2004).

Cutrona (1996) suggested four mechanisms through which social support may enhance relationship satisfaction. First, support from a spouse during stressful times can prevent emotional withdrawal and isolation. If members of a couple are able to maintain an emotional connection with one another in adverse circumstances, it is likely that their relationship will sustain less damage as compared to couples that emotionally isolate from one another. Spousal support can also prevent the onset of severe depression and the damaging behaviors associated with depression, such as irritability. Third, supportive behaviors from one's spouse can hinder the escalation of conflict and the likelihood that the couple will engage in destructive behaviors. Gottman and colleagues (1998) assert that these supportive behaviors serve as a means of de-escalating conflict and possibly physiological soothing oneself and one's partner. Finally, spousal support can increase the emotional intimacy in the relationship. This allows for a deepened bond and sense of trust, which can help a couple handle difficult times in their relationship (Cutrona, 1996).

Although conflict in romantic relationships is inevitable and relationships can break down for a variety of reasons, skill deficits in one or both partners often contribute to the problems that a couple is experiencing (Cutrona, 1996). A survey of marital therapists indicated that poor communication skills were cited as most destructive to relationships (Geiss & O'Leary, 1981) and research suggests that skill-based relationship

education significantly improves couple communication (Halford, Sanders, & Behrens, 2000). Consistent differences in communication patterns have been identified in distressed versus non-distressed couples. Not only do distressed couples engage in more negative verbal behaviors and display more negative affect, but they also exhibit fewer positive verbal behaviors and display less positive affect (Cutrona, 1996; Gottman, 1979). Lawrence and Johnson (2005) examined specific skills and affective expressions of couples to predict change in marital satisfaction and found that not only did low levels of positive affect and high levels of negative affect foreshadow rapid rates of marital deterioration, but also high levels of positive affect buffered the effects of high levels of negative behaviors on deterioration of the relationship.

Gottman and colleagues (1998) also examined the role of positive affect in marriage and found that the amount of positive affect was significantly related to relationship stability. This included behaviors such as agreement, approval, humor, assent, laughter, physical contact, and smiling. Positive affect was also related to happiness for both wives and husbands. Furthermore, the analyses revealed that positive affect was the only variable that was able to discriminate between stable, happily married couples and stable, unhappily married couples (Gottman et al., 1998). Karney and Bradbury (1995) summarized the results of 14 different studies examining interaction behavior and marital satisfaction and found that positive behaviors enhanced marital satisfaction over time. Taken together, these findings suggest the importance of considering the role of positive verbal communication skills and positive affect in relationship quality and stability and have significant implications for interventions in couple and marital programs.

Couple education programs have generally been developed around the belief that decreasing negative problem-solving behavior and increasing positive problem-solving behavior will improve couples communication, which will in turn increase relationship satisfaction and prevent relationship dissolution (Bradbury & Lavner, 2012). However, recent research suggests this is not the case. One study indicated that newlyweds that have poor problem-solving skills but high levels of positive affect (such as humor and affection) have the same four-year outcomes as couples with good communication skills (Johnson et al., 2005), indicating that "...on it's own, problem solving is likely to be a necessary but insufficient element in a healthy relationship" (Bradbury & Lavner, 2012, p. 116).

Relationships and the African American Community

"Marriage is embedded within one's culture" (Bryant et al., 2010, p. 158) and little research has been done to examine relationship patterns of African American couples and how these patterns change over time (Bryant et al., 2010; Cutrona, Russell, Burzette, Wesner, & Bryant, 2011). Differences in communication style have been identified among various racial and ethnic groups (Sue & Sue, 2013). For instance, "African American communication style tends to be direct, passionate, and forthright (an indication of sincerity and truthfulness)" (Sue & Sue, 2013, p. 70). Cultural groups have their own distinct interpretation of reality and what is healthy or unhealthy in relationships (Sue & Sue, 2013). This has obvious implications when evaluating dyadic behaviors among couples and attempting to understand the role of these behaviors in relationship maintenance. A behavior that is interpreted as "hostile" by one person may

be perceived entirely differently by another person based upon their interpretation of that behavior, which is influenced by one's cultural background.

There appears to be a lack of research related to predictors of relationship stability in African American couples (Bryant et al., 2010) as well as few observational studies that have examined marital interaction among such couples (Cutrona et al., 2003). It has been found that African Americans report lower marital quality and think about divorce more often compared to European Americans (Broman, 1993, 2005; Bulanda & Brown, 2007; Faulkner, Davey, & Davey, 2005). Today, fewer African Americans are getting married, their marriages are more likely to end in divorce, and they report higher rates of intimate partner violence as compared to European Americans (McLoyd, Cauce, Takeuchi, & Wilson, 2000; Rennison & Welchans, 2000). Higher divorce rates in this population can be explained to some degree by contextual factors including joblessness and other economic problems (Cole & Guy-Sheftall, 2009).

Bryant and colleagues (2010) suggest that not only has little attention been paid to African American marriages and relationship quality, but researchers also tend to compare African American relationships with those of European Americans – which has led to the experiences of African Americans being overlooked or negated (Jackson, Antonucci, & Gibson, 1990; Jackson, Chatters, & Taylor, 1993; Jones, 2002; Kelly, 2003). The findings of a longitudinal study of African American couples' relationships conducted by Veroff and colleagues (1995) suggest the importance of considering how cultural context (such as discrimination) affects the experiences of African Americans. Cutrona and colleagues examined the importance of contextual factors, including neighborhood context and financial strain, on relationship outcomes in African American

couples. Results indicated that family financial strain predicted *lower* marital quality and, surprisingly, neighborhood-level economic disadvantage predicted *higher* marital quality (Cutrona et al., 2003). Researchers attributed these findings to social comparison processes and the degree of exposure to racism and discrimination (Cutrona et al., 2003). Bryant and colleagues (2010) suggest other contextual factors, such as the increased likelihood of African American couples entering marriage with at least one child in the home, as potentially contributing to relatively lower levels of marital satisfaction at the onset of marriage, as research indicates a decline in relationship satisfaction upon the birth of a child (Hackel & Ruble, 1992).

Despite the popular explanations for these racial and ethnic differences that emphasize contextual differences such as economic hardship and racism, some researchers have noted variation in the meaning, importance, and expectations surrounding marriage and family formation across racial and ethnic groups. Therefore, it is possible that some of these differences are related to differences in *attitudes* and not current structural conditions (Simons, Simons, Lei, & Landor, 2012). A recent study using longitudinal data from approximately 400 African American young adults found that those participants who experienced a disproportionate amount of adverse circumstances during their childhood, such as harsh parenting, financial hardship, racism, and family instability, were more likely to exhibit distrustful relationship schemas, troubled romantic relationships during adolescence, and ultimately developed a less positive view of marriage (Simons et al., 2012). This suggests the importance of considering how unique life experiences and cultural norms in addition to structural factors impact romantic relationship dynamics and outcomes in African American

couples.

Cohabitation, Marriage, and Family Structure

Cohabitation of couples in the African American community has become a focus of recent research. Rates of cohabitation are somewhat higher in African American couples with children in the home in comparison to other racial and ethnic groups (Simmons & O'Connell, 2003). Recent research suggests that 1 in 10 White children are born into cohabitating parent families as compared to close to 1 in 5 for Black and Hispanic children (Bumpass & Lu, 2000). Additionally, children are more likely to be present in Black and Hispanic cohabiting couple households as compared to White households (McLanahan & Casper, 1995). Cohabiting parents are more likely to have children from previous relationships as compared to married couples, who are more likely to share biological children (Carlson & Furstenberg, 2006; Osborne, 2005). Research suggests that cohabitation influences children's well-being due to the fact that these relationships are much less stable as compared to married couples (Carlson & Furstenberg, 2006; Osborne, 2005).

The rate of cohabitation among unmarried, heterosexual couples has increased dramatically in the last three decades (Rose-Greenland & Smock, 2013). In 2009, 6.6 million American households were headed by cohabitating, heterosexual couples (Current Population Survey [CPS], March 2009). In fact, the majority of marriages and remarriages now begin as cohabitating relationships and most young men and women cohabit at some point in their lives (Smock, 2000). Some reasons cited for the increased rate of cohabitation include declining fertility rates, increasing age at marriage, high divorce rates, and a greater number of children being born outside of marriage. One

contemporary causal explanation is tied to “feedback loops,” suggesting that various trends are “mutually reinforcing”. For example, higher rates of divorce can increase the likelihood of cohabitation as a result of learning (through observations or experience) that marriage may not be permanent (Smock, 2000).

Although cohabitation rates are highest among persons aged 18 to 40, rates of cohabitation among older adults are also on the rise and there is evidence of differences in cohabitation patterns among older adults as compared to younger adults (King & Scott, 2005). For example, data indicate that self-reported relationship satisfaction among older cohabitators is significantly higher as compared to young cohabitators (King & Scott, 2005). However, the factors that predict declining relationship satisfaction and relationship dissolution are similar for both types of unions, including economic troubles, socio-demographic disadvantages, and low levels of support (Brown, Lee, & Bulanda, 2006).

There is a large literature suggesting that cohabiting couples differ from married couples in several respects: they are often less educated, younger, divorcees, non-European, and more supportive of egalitarian gender roles (Bumpass & Lu, 2000; Clarkberg, Stolzenberg, & Waite, 1995; Edin & Reed, 2005; Smock, 2000). Studies have demonstrated differences in relationship quality of married versus cohabiting couples (Brown, 2003). More specifically, research has shown that married couples engage in less frequent disagreements and report higher relationship satisfaction (Brown, 2003).

Research has also demonstrated that cohabiting relationships are significantly less stable than marital relationships (Bumpass & Lu, 2000). This may be partly due to the fact that cohabiting couples have fewer barriers to exiting the relationship and,

therefore, may be less likely to remain in an unhappy relationship (Osborne, Manning, & Smock, 2007). Another reason may be related to the premise that many couples enter cohabitation out of financial necessity, which may result in more fragile partnerships (Sassler, 2004). Familial social support may also play a role, as cohabitating couples are less likely to turn to family members or close others for support (Eggebeen, 2005).

However, there is no conclusive evidence to support a causal explanation for the relationship between marriage and relationship quality and significant evidence for a selection bias. That is, marriages are “selective” of better relationships due to the fact that happier, non-violent, stable couples are more likely to marry (Brown, 2000; DeMaris, 2000; Osborne, Manning, & Smock, 2007). “Persons with low relationship quality or no marriage plans are likely to dissolve their unions, whereas those with plans to marry are likely to exit cohabitation through marriage” (Brown, 2003, p. 588).

Recent estimates suggest that approximately 55% of cohabitating couples marry and 40% end the relationship within five years of beginning cohabitation (Bumpass & Lu, 2000). It should be noted, however, that these differences in relationship stability are smaller among African American couples as compared to European Americans (Osborne, Manning, & Smock, 2007). These recent findings suggest that Black cohabitating and married couples may have more similar relationship quality as compared to White cohabiting and married couples. Therefore, relationship stability may explain more of the difference in relationship quality and stability in White couples as compared to Black couples (Osborne, Manning, & Smock, 2007).

There is literature indicating that duration of the relationship is negatively related to relationship quality for both married and cohabitating couples despite the fact that

relationship quality remains fairly stable over time (Johnson & Booth, 1998). Therefore, it can be assumed that relationship duration will have similar effects on relationship status for both married and cohabitating couples (Brown, 2003). Research examining the association between marital quality and marital duration has generally been focused on life cycle stages, suggesting that as couples experience various normal events, such as the birth of a child, changes in marital quality take a “U-shape”. However, more recent approaches have adapted a life-course perspective to account for variations among families as opposed to the family life-cycle approach, which assumes *all* families experience predetermined family stages in a certain *sequence* (Brown, 2003). The recent increase in cohabitation rates reflects the fact that American families have undergone significant changes in family formation over the past few decades, which suggests the importance of understanding the nature of cohabitating and married relationships (Brown, 2004).

Testing Sullivan and Colleagues’ Findings

Despite the clear association between observable support behaviors and partner reports of relationship satisfaction that has been established and guided by social learning theory, much less is known about the precursors to change in relationship satisfaction (Lawrence & Johnson, 2005). This has obvious implications in terms of having an understanding of empirically supported interventions for clinicians working with couples to improve relationship functioning. Sullivan and colleagues (2010) published a recent longitudinal study that not only clarified these interactional antecedents to change in relationship quality, but also challenged the notion that in order to understand changes in relationship satisfaction and dissolution one must understand above all how couples deal

with *conflicts and disagreements*. They suggested that this conflict-focus “leaves unaddressed important questions about how problem solving and conflict resolution might combine with couples’ management of *other* core interpersonal tasks to produce variability in marital outcomes” (Sullivan et al., 2010, p. 631). Recent studies suggest that the ways in which partners support one another and communicate feelings of care and compassion, especially in times of personal disclosure and vulnerability, can add to our understanding of the dyadic processes likely to generate satisfying and stable relationships (Sullivan et al., 2010).

Sullivan and colleagues (2010) examined newlywed couples’ problem-solving and social support behaviors in relation to one another and to changes in marital quality and status over a ten-year period. Results demonstrated that initially lower levels of positive behaviors and higher levels of negative behaviors during conversations designed to elicit *support* predicted one year increases in negative emotions displayed in problem-solving conversations. Positive and negative emotions that were coded from initial *problem-solving* conversations did not predict one year changes in social support behaviors and controlling for these emotions eliminated or reduced associations between initial supportive behaviors and (a) later levels of satisfaction and (b) relationship dissolution (Sullivan et al., 2010).

The findings of this study suggest that deficits in spouse supportive behaviors foreshadow deterioration in problem-solving and conflict management, ultimately resulting in unhappiness and relationship dissolution. The current study tested this model in a sample of cohabitating and married African American couples to examine whether initially low levels of support behaviors significantly predicted increases in negative

behaviors (specifically hostility) at a later point in time. In addition, the analyses examined whether these changes in negative behaviors predicted relationship satisfaction at a later time. That is, do support behaviors serve a protective function in terms of their impact on the longitudinal course of marriage and cohabitation?

The findings of Sullivan and colleagues (2010) suggest that, if couples display both low levels of supportive behaviors and high levels of negative behaviors, they will demonstrate later increases in negative behaviors during interactions. More specifically, couples that begin marriage with poorer social skills are less happy and more likely to divorce due, in part, to increases in negative behavior during conflicts over time (Sullivan et al., 2010). I hypothesized that if a couple displayed a low level of initial support, they would likely demonstrate an increase in negative behaviors, specifically hostility, during discussions at a later time point. Conversely, if couples displayed high levels of support their interactions should become *less negative* over time compared to couples displaying initially low levels of support. It is important to note that the study conducted by Sullivan and colleagues (2010) included both a problem-solving task as well as a task designed to provide opportunities for spouses to elicit support from one another. The task involved in the current study was a marital discussion in which couples were asked to discuss various aspects of their relationship and life together. These differences in type of task are important to consider when making comparisons between the current study and the findings of Sullivan and colleagues (2010).

Observational Ratings of Behavior

There are two methods of data collection frequently used when attempting to understand behavior in relationships. One consists of observing and recording

individuals engaging in these behaviors and the other involves asking participants to report their own behaviors or the behaviors of others (Olson, 1977). This forces researchers to confront the question of which method produces the most accurate predictions of relationship outcomes. There are advantages and disadvantages to both means of data collection. For example, questionnaire reports are much less expensive but researchers often question the validity of self-reports of behavior (Olson, 1977).

Observational data collection methods provide a more objective lens for viewing the behavior of couples. However, the observational settings are often seen as artificial and an unnatural context for observing the behavior of couples. In addition, even the most objective coding of behavior is influenced by observer bias (Olson, 1977). Evidence suggests that these two methods of data collection tap into very different aspects of reality (Olson, 1977). Therefore, the issue is not whether one method is more valid than the other, but rather if the researcher has accurately identified how the data obtained using either method can inform his or her theoretical framework and the implications of the assessment for the findings of the research. Ideally, more than one method of data collection should be employed (Olson, 1977).

A study conducted by Lorenz and colleagues (2012) sought to examine the correspondence between self-report questionnaires and observer ratings of behavior and found that observer ratings of hostility and support were significantly related to couple reports of the same behavior two years earlier. This allowed researchers to determine the extent to which self-reports of behaviors could be traced back to visible behavior during observed tasks. The couples' reports of self and partner hostility and support during the observational task were significantly related to observer ratings of the same behavior,

even after controlling for earlier self and partner reports (Lorenz et al., 2012). Lorenz and colleagues (2012) also examined internal consistency of behavioral measures of observer-rated warmth/support and reported warmth/support from the members of a couple. Correlations between couple and observer ratings of marital interactions were statistically significant for both husbands and wives in the marital interaction task. Taken together, these findings suggest that observer ratings of brief discussion tasks do generally reflect the tone of couples' relationships as observer assessed behaviors produced high levels of agreement with spouses' perceptions (Lorenz et al., 2012).

There is research suggesting the importance of considering task context when evaluating the impact of observed marital interactions. A study conducted by Melby, Ge, Conger, and Warner (1995) utilized observer ratings of warmth/supportive marital interactions during two tasks using the Iowa Family Interaction Rating Scales, the same scale utilized in the current study. This included a marital discussion task and problem-solving task. They found that the marital discussion task elicited significantly *higher* levels of spousal *warmth* as compared to the problem-solving task (Melby et al., 1995), suggesting the importance of understanding the context within which behaviors are occurring. It is important to note that this may only be a difference in level of behavior and have no impact on the validity of the assessments. That is, behavior during the performance of each task may be equally related to the outcomes being studied.

Gaps in the Research

A strength of the current study is the observational measures that were employed to assess dyadic behaviors among couples. The majority of the studies observing marital interactions have conceptualized spousal support in terms of the verbal content, ignoring

the affective component (i.e., non-verbal cues, facial expressions; Lawrence & Johnson, 2005). This affective component may be related to how one views his or her partner's level of responsiveness, which is a strong determinant of the positive effect of spousal support on relationship satisfaction. The current study employed measures of interactional behavior, which include both verbal and non-verbal indicators, in order to examine the role of couples' behavior and affect in predicting change in relationship satisfaction over time.

The few studies that have examined predictors of change have utilized a *newlywed* sample, focusing on the changes that take place during the *beginning* of the marriage. The demographic characteristics of the sample studied here differ significantly from the participants included in Sullivan and colleagues' (2010) study. That is, the current study did not include newlywed couples but rather couples that had been married from one to 51 years (mean = 11 years). Therefore, the ability to examine the interpersonal skills with which partners *enter* the relationship or marriage was not examined. Instead, the present study allowed for an examination of the generalizability of Sullivan and colleagues' findings by examining the longitudinal processes of these dyadic behaviors several years into cohabitating relationships or marriages.

In addition, the sample included African American couples with at least one elementary school-aged child in the home as opposed to the newlywed European majority of the sample included in Sullivan and colleagues' study. Bryant and colleagues (2010) suggest that studies examining relationship satisfaction and stability among African Americans are lacking. An understanding of the factors that promote relationship satisfaction and stability among African Americans is important in terms of guiding

theoretical models, policy, and intervention efforts (Cutrona et al., 2011). This study also allowed for an examination of gender differences in the predictors of relationship quality and stability, as the research regarding potential differences between males and females has been inconclusive (Xu & Burleson, 2004).

The current study was designed to determine the unique contributions that supportive behaviors make to the prediction of changes in hostility observed in couple communications, relationship satisfaction, and relationship stability and to test the generalizability of the findings of Sullivan and colleagues (2010) by examining associations between support and negative behaviors (i.e., hostility) that were assessed during the first wave of data collection in 1997. I also evaluated the relationship of these variables to changes in relationship satisfaction and dissolution for both married and cohabitating couples over the subsequent 5-year period (i.e., from Wave 1 to Wave 3 interviews). The hypothesized model is shown in Figure 1. According to the findings of Sullivan and colleagues, initially low levels of observed support behaviors should predict declines in the quality of the couples' conversations at a later time point. More specifically, it is predicted that couples who provide low levels of support to one another will exhibit increases in observed hostility two years later, which will in turn lead to lower levels of relationship satisfaction and ultimately an increased likelihood of relationship dissolution.

Both social learning principles as well as the intimacy process model served to guide the theoretical model that was tested in this study. According to the intimacy process model (Reis & Patrick, 1996), if couples are able to engage in supportive conversations, both in content and affect, they convey a sense of validation, value, and

care for their partner, and this deepened emotional bond and sense of intimacy will serve a protective function in terms of their experience of hostile behaviors at a later time point. Social learning principles suggest that as couples are able to continually support one another (or not) through differences in opinions and various life experiences, these experiences accumulate. If the messages that members of a couple are sending to one another convey a sense of support and warmth, these exchanges should result in an increased tendency to emit these same rewarding behaviors in the future, which in turn should result in higher relationship satisfaction and an increased likelihood they will continue in the relationship. Conversely, if couples respond to one another in ways that are unsupportive, these interactions should influence subsequent interactions and, over time, partners' judgments of relationship quality (Williamson, Karney, & Bradbury, 2013). Therefore, based on social learning principles couples who provide initially low levels of support to one another should exhibit increases in hostility at a later point in time, which will in turn lead to lower levels of relationship satisfaction and ultimately an increased likelihood of relationship dissolution.

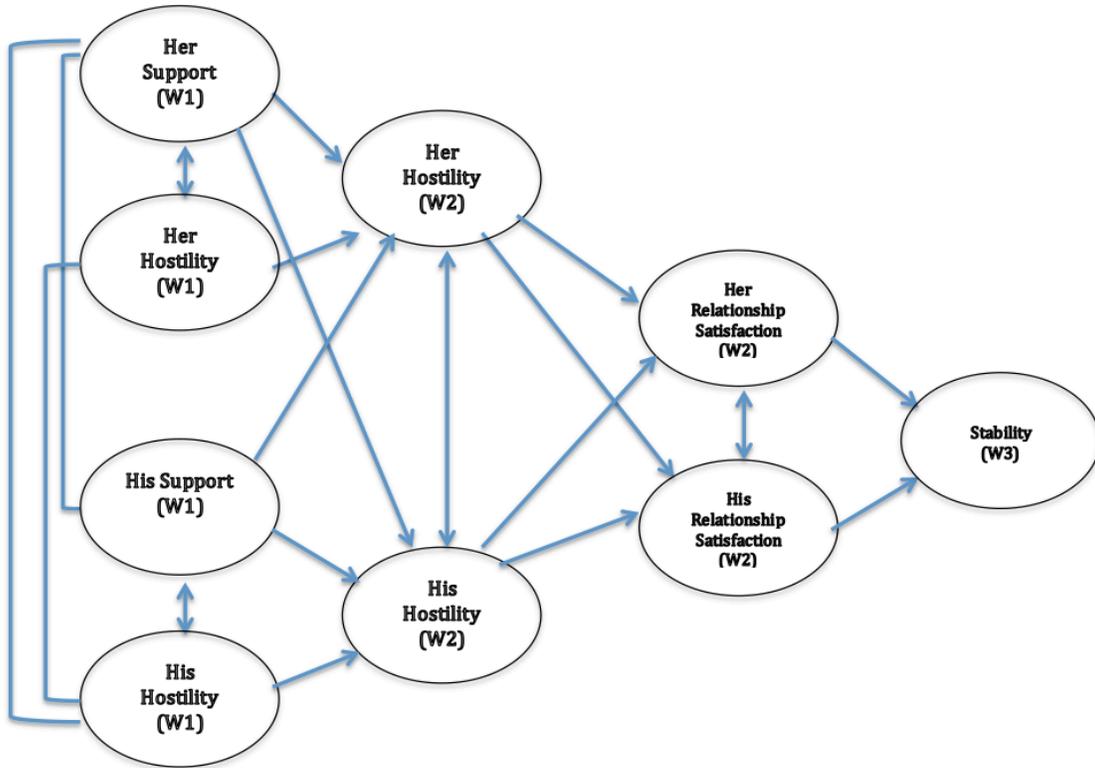


Figure 1. Hypothesized model

CHAPTER 3. METHODS

Participants

The current study included data from cohabitating and married African American couples participating in the Family and Community Health Study (FACHS), which is a longitudinal investigation of resiliency and vulnerability factors related to African American families living in rural settings (Cutrona et al., 2003). The sample consisted of over 890 African American families living in Iowa and Georgia. When the study began in 1997 all of the families included a child between 10 and 12 years of age. Participants were recruited using school and community liaisons from communities with at least 10% African American residents according to the 1990 U.S. Census. All procedures were approved by the Iowa State University Institutional Review Board (see Appendix A) and written informed consent was obtained from all participants.

The current study used data collected during Waves 1, 2, and 3 that were conducted in 1997, 1999, and 2002, respectively. The sample employed in the present analyses was limited to heterosexual couples in which both members were African American and reported they were married or cohabitating at Waves 1 and 2. The sample was further narrowed to include individuals who also participated in the third wave of data collection, which was conducted 5 years after the initial interview ($N = 308$; 154 couples). In addition, all participants had participated both in the interview and observational portions of the study.

Measures

Behavioral observation. A global or macro-level observational coding system called the Iowa Family Interaction Rating Scales (IFIRS; Melby et al., 2001) was used to

measure behavioral and emotional characteristics of participants as they interacted with each other. Although the coding system was originally developed using a sample of European American families, the scales have been used successfully in evaluating the interactions of African American families (Melby et al., 2001). The rating scales were originally developed for evaluating both verbal and non-verbal behavior during *discussion-based tasks*. There are 60 scales that are included in the measure, and nearly all of the measures involve a rating on a scale from 1 to 9, where *1 = not at all characteristic*, *3 = mainly uncharacteristic*, *5 = somewhat characteristic*, *7 = moderately characteristic*, and *9 = mainly characteristic* (Melby et al., 2001). It is important to note that the same behavior can be coded for more than one scale. For example, smiling is coded for both warmth/support and listener responsiveness. Also, some of the observed behaviors do not fit into any of the scales (Melby et al., 2001).

The interviews were conducted in participants' homes and the interviewers were African American. The video-recorded couple interaction task was 20 to 25 minutes in length, during which time the interviewers provided instructions, couples were given a set of cards with discussion questions, and they were asked to discuss various topics related to their relationship and life together (Melby et al., 2001). Suggested topics were designed to bring about both positive and negative behaviors. Example questions include how often they disagree about family matters, what was most enjoyable in the couples' relationship during the previous year, similarities and differences in their goals, and what their relationships are like with each other's families. The topics include specific inductions for eliciting warmth and support as well as conflict in couples' interactions (Melby et al., 2001).

Trained observers coded the videotapes using the Iowa Family Interaction Rating Scales after viewing the videotapes several times (Melby et al., 2001). The coders watched the video initially in order to obtain an overview of the content. Next, they randomly chose one interactor and viewed the tape twice while focusing on that person. Before proceeding to the next interactor they made ratings for that individual on each of the scales. Observers were instructed to code nonverbal cues as well as verbal content and voice tone, and they were trained to base scores on what was seen and heard as opposed to being based on inference. Final scoring decisions were based upon frequency and intensity of the observed behaviors (Melby et al., 2001).

It should be noted that Sullivan and colleagues (2010) utilized a different observational coding system. The Specific Affect Coding System (SPAFF) that they used includes 12 indicators of negative affect: anger, belligerence, contempt, criticism, defensiveness, disgust, domineering, fear/tension, sadness, stonewalling, threats, and whining. Positive affect indicators include affection, enthusiasm, humor, interest, and validation (Coan & Gottman, 2007). Lawrence and Johnson (2005) utilized separate scales in order to measure negative and positive *skill* and *affect*, making a distinction between the degree of skills in partners' verbal communications (content) and the affective tone (non-verbal indicators, facial expressions, posture, etc.) that accompanies their verbal communication. However, the current study utilized measures that included ratings of positive and negative behaviors for *both* content and affect.

Hostility. A composite hostility scale was created to represent negative facets of couples' behavior by averaging each participants' scores on 5 distinct but highly correlated scales: hostility, angry coercion, escalation of hostility, reciprocation of

hostility, and antisocialness. The hostility scale is defined as “the degree to which the focal displays hostile, angry, critical, disapproving and/or rejecting behavior toward another interactor’s behavior (actions), appearance, or state” (Melby et al., 2001, p. 33). This included non-verbal behaviors, such as angry facial expressions, emotional expression (such as irritable tone), and the content of the statements themselves. In order to be coded as hostile the disagreements must have included an element of negative affect, such as disapproval, blame, ridicule, etc. Examples of hostility include “You’re just plain wrong about that” and “You’re being a pest” (Melby et al., 2001).

The angry coercion scale is a specific form of hostility that includes hostile, contemptuous, threatening, or blaming behavior (Melby et al., 2001). It assesses the degree to which one “achieves goals, attempts to control or change the behavior or opinions of another interactor, or attempts in a hostile manner to get another interactor to do what the focal wants” (p. 44). Some examples of behaviors coded as angry coercion include verbal threats, agitation, contemptuous mocking, and disgusted sarcasm (Melby et al., 2001).

Escalate hostility is another scale that assesses the degree to which one builds upon their own hostile behaviors toward their partner during interactions using hostility, verbal attack, physical attack, contempt, and/or angry coercion (Melby et al., 2001). Escalate hostility is coded if the partner follows one hostile behavior with another or if the original behavior intensifies (such as an escalation in vocal affect). This includes all behaviors coded as hostility, such as criticizing, mocking, yelling, blaming, contempt, and hitting. It may involve two dimensions of negativity, such as a transition from hostility to angry coercion. An example of behavior coded as escalate hostility includes

the statement, “You are so dumb. It is really boring being around you” (Melby et al., 2001).

Reciprocate hostility is a scale that assesses the degree to which one reciprocates in like manner the hostile, conflictual, angry, or disapproving behavior of his or her partner (Melby et al., 2001). However, this does not include the focal’s *initiation* of hostility. The partner “adds to the heat” through the use of hostility, contempt, verbal attack, physical attack, or angry coercion. To score as reciprocate hostile, the partner must respond *immediately* or within a short period of time. An example of an interaction coded as reciprocate hostility is one partner stating, “You spend too much money (hostility) and the partner responding, “You don’t make enough money for anyone to spend” (Melby et al., 2001).

Antisocialness is a scale that measures the degree to which one exhibits self-absorbed and immature behavior (Melby et al., 2001). “It includes when a focal resists, defies or is inconsiderate of others by being non-compliant, insensitive, or obnoxious, as well as when the focal is uncooperative and unsociable” (Melby et al., 2001, p. 85). This antisocial adult may engage in dismissing behavior and only have concern for his or her own needs. Some examples of behaviors coded as antisocialness include “I’m not going to talk about that anymore” and “I’m better than you are at just about everything” (Melby et al., 1998).

These scores were used as indicators of the hostility latent variable, as this composite measure includes the same scales used in previous studies and has demonstrated adequate reliability and validity (Lorenz et al., 2012). Cronbach’s alpha for the hostility measure was above .80 for both men and women at Wave 1 and Wave 2. A

confirmatory factor analysis was conducted evaluating the fit of a one factor model to the data. The items loaded highly on this factor with loadings ranging from .56 to .90 for women and .62 to .86 for men. Similarly, Lorenz and colleagues (2012) reported loadings ranging from 0.59 to 0.97 for women and 0.68 to 0.89 for men.

Support. Five scales were combined in order to create a composite support measure. Individual scores on the warmth/support, assertiveness, listener responsiveness, communication, and prosocialness rating scales were used to create the composite social support variable. The warmth/support scale assesses the degree to which one expresses care, concern, support, or encouragement toward his or her partner and includes such behaviors as endearment, physical affection, escalation of warmth, and reciprocation of warmth (Melby et al., 2001). Non-verbal behaviors coded as warmth included physical affection (i.e., kissing, touching, etc.), physical gestures (i.e., smiling, winking), body posture (i.e., leaning in toward one another), eye contact, and facial expression. Supportive behaviors include offering encouragement, praise, and showing interest. Statements of affirmation, empathy, approval, liking, and appreciation were all coded as expressions of warmth. Examples of statements of warmth include “I love you” and “That must have hurt.”

The assertiveness scale “assesses the degree to which the [participant] displays confidence and forthrightness while expressing self through clear, appropriate and neutral or positive avenues and exhibits self-confidence, persistence, and patience with others” (Melby et al., 2001, p. 73). It included nonthreatening, non-confrontational, and straightforward statements. The listener responsiveness scale assesses the degree to which one’s partner “attends to, shows interest in, acknowledges, and validates the

verbalizations of the other person” (Melby et al., 2001, p. 77). This includes both verbal and non-verbal behavioral cues. Examples of listener responsiveness include smiling, nodding, and statements such as, “I like your idea.” The notion of responsiveness is important in understanding the role of spousal support in influencing one’s relationship satisfaction and mood states.

The communication scale measures the verbal expressiveness skills and content of statements made by the other member of the couple. A high score on this measure indicates that the member of couple “uses appropriate reasoning, explanations, and clarifications to make himself [or herself] understood” (Melby et al., 2001, p. 80). Finally, the prosocialness scale measures how well one relates to his or her partner and includes demonstrations of cooperation, sensitivity, helpfulness, and willingness to change one’s behavior to accommodate the needs and wishes of his or her partner (Melby et al., 2001). An example of a statement characteristic of prosocialness includes, “I’m sorry, I didn’t know that bothered you” (Melby et al., 2001, p. 84).

These scales have demonstrated adequate reliability and validity, as the composite measure includes the same scales used in a study conducted by Melby et al. (1995) and Lorenz et al. (2012). The Cronbach’s alpha coefficients for the support measure in Melby and colleagues’ study were .82 for wives and .81 for husbands in the marital interaction task. Similarly, the Cronbach’s alpha coefficient for the support measure in the current study was .87 for women and .86 for men. The items loaded highly on one factor, with loadings ranging from .69 to .89 for women and .68 to .89 for men.

Relationship satisfaction. Relationship satisfaction was assessed as a self-report measure using two items modified from a measure developed by Huston, McHale, and Crouter (1986). The first question asked participants to indicate how happy they are with their relationship, with responses ranging from 1 (extremely happy) to 6 (extremely unhappy). The second question asked participants to rate how satisfied they are with their relationship, with responses ranging from 1 (completely satisfied) to 5 (not at all satisfied). The responses were reverse coded so that a high score represented a high level of relationship satisfaction and a low score represented low relationship satisfaction. After obtaining descriptive statistics regarding average scores on these scales, the items were then combined to create a composite score by converting these items to z-scores and averaging scores on these two measures. This measure was highly reliable for both females ($\alpha = .84$) and male ($\alpha = .89$) participants.

Control variables. The present study controlled for relationship status at the first wave of data collection. Relationship status was reported by both members of the couple. Responses included (a) married; (b) living with someone in a steady, marriage-like relationship; (c) in a steady, romantic relationship with one person; (d) dating, but do not have a steady, romantic relationship; and (e) not dating or seeing anyone right now. For the purpose of this study, only those participants who indicated being either married or living with someone in a steady, marriage-like relationship at both Wave 1 and Wave 2 were included in the sample (1 = married; 0 = cohabitating). At the third wave of data collection both members of the couple reported whether they were still with their romantic partner. Only those participants who provided data on whether they were still together were included in the sample.

Data Analyses

The present study was designed to determine the unique contributions that supportive behaviors make to the prediction of changes in hostility observed in couple communications, relationship satisfaction, and relationship stability. Structural equation modeling (SEM) analyses were conducted to evaluate the fit of the hypothesized causal model shown in Figure 1 to the data. Specifically, I sought to test the generalizability of the findings of Sullivan and colleagues (2010) by examining the association between support behaviors and negative behaviors, specifically hostility, assessed during the first and second waves of data collection (1997 and 1999, respectively). I sought to evaluate the relationship of these variables to changes in relationship satisfaction and relationship dissolution over the subsequent five-year period (i.e., from Wave 1 to Wave 3). Based on the findings of Sullivan and colleagues (2010), initially lower levels of support behaviors should predict declines in the quality of the couples' conversations at a later time point. More specifically, it is predicted that members of the couple will exhibit increases in hostility, which will in turn lead to lower levels of relationship satisfaction and ultimately to an increased likelihood of relationship dissolution.

Data were analyzed with both individual and couple characteristics as the unit of analysis. The variables (support, hostility, and relationship quality) were specified as measured or manifest variables as they represented composite scores. Two variables were characteristics of the couple (relationship status and stability). The model was tested using the maximum likelihood estimation procedure in the Mplus 7.11 program.

CHAPTER 4. RESULTS

Sample Characteristics

The sample was limited to heterosexual couples in which both members were African American and reported they were either married or cohabitating at Waves 1 and 2 of the FACHS study. The sample was further narrowed to include couples who also participated in the third wave of data collection, which was 5 years after the initial interview ($N = 308$; 154 couples; 133 married and 21 cohabitating couples). The mean age of the women at Wave 1 was 36.8 years ($SD = 7.3$), with ages ranging from 21 to 71 years. The mean age of the men at Wave 1 was 39.4 years ($SD = 8.5$), with ages ranging from 21 to 74 years. On average, the participants had been together (married or cohabitating) for 11 years, ranging from less than one year to 51 years. Average total household income at Wave 1 was \$51,359 ($SD = 31,072$), with a minimum income of \$6,680 and a maximum income of \$220,175. On average, both men and women had completed approximately one year of college, with a minimum educational level of seventh grade and a maximum of 8 years of college (i.e., graduate degree). Forty-six percent of women and 56 percent of men reported having completed high school.

When the study began in 1997 all of the families included a child between 10 and 12 years of age, and participants reported either being married ($N = 266$) or cohabitating ($N = 42$) with their significant other. The mean number of children living in the home was 2.75 ($SD = 1.36$). Although the majority of these individuals were the biological mother ($N = 140$) and father ($N = 104$) of the target child, the couples were also comprised of stepmothers ($N = 2$) and stepfathers ($N = 32$) of the child, grandparents ($N = 14$), foster parents ($N = 2$), adoptive parents ($N = 2$), and aunts and uncles ($N = 2$). Table 1 indicates

relationship status (married or cohabitating) as a function of whether or not the male figure was the biological parent of the target child in the home. The relationship between these two variables was statistically significant, $\chi^2(1, N = 153) = 43.28, p < .05$, indicating that the percentage of male figures that were the biological father of the target child varied greatly according to whether or not the couple was married or cohabitating. These results indicate that the majority of the males were the biological parent and married to the child's mother. It should be noted that it is possible that the male in the home was the biological father of other children in the home but not the target child.

Table 1
Relationship Status and Relation of Male to Target Child at Wave 1

	Married	Cohabiting
Biological Parent	96	7
Non-biological Parent	36	14

Descriptive statistics for the measures of couple behavior are presented in Table 2. On average, participants were rated as demonstrating high levels of supportive behaviors during their initial observed interactions. Conversely, they were rated low in terms of hostility during both the Wave 1 and Wave 2 interactions. Overall, both females and males rated themselves as highly satisfied with their romantic relationship at Wave 2. The mean relationship satisfaction scores of 4.40 for females and 4.55 for males (on a scale of 1 to 5.5) indicate that the male partners rated their relationship satisfaction slightly higher than their female counterparts. However, this difference was not statistically significant.

Table 2
Descriptive statistics for model variables

Variable	Women		Men		Possible Range
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Support (W1)	5.78	1.53	5.64	1.56	1.0 – 9.0
Hostility (W1)	2.27	1.10	1.95	0.97	1.0 – 9.0
Hostility (W2)	2.27	1.22	1.92	1.09	1.0 – 9.0
Relationship Satisfaction	4.40	0.82	4.55	0.82	1.0 – 5.5

Table 3 provides descriptive statistics for relationship satisfaction scores according to relationship type (i.e., married or cohabitating), which indicates that cohabitating males rated themselves slightly more satisfied with their relationship than married males. Conversely, cohabitating females rated themselves slightly less satisfied with their relationship than cohabitating females. These differences were statistically significant, ($F(1, 154) = 11.26, p < .05$) indicating that relationship satisfaction was significantly different for cohabitating versus married men and women. There were no significant differences on observational ratings (i.e., support and hostility) for cohabitating versus married males or females.

Table 3
Descriptive statistics for relationship satisfaction by relationship status

	Women		Men	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Married	4.42	0.83	4.53	0.83
Cohabiting	4.31	1.22	4.74	0.77

Missing Data

An issue I encountered in conducting the analyses involved couples ($N = 37$, representing 24% of the sample) who did not participate in the Wave 2 marital discussion task. These couples were not included in the analyses, since there was no measure of their Wave 2 hostility. This reduced the sample size from 154 couples to 117 couples. Analyses indicated that these two groups (i.e., 37 participants with incomplete data versus 117 participants with complete data) significantly differed on *female* support provided at Wave 1. Female partners exhibited higher levels of support among couples with complete data versus couples with missing Wave 2 data. Second, there was a large difference in terms of marital status, with 84% of the married couples having Wave 2 observational data compared to 24% of the cohabiting couples. This could clearly create a bias in testing for differences as a function of relationship status on the variables included in the model. These two groups did not differ significantly on the other variables included in the model (i.e., age, education, income, number of children, relationship satisfaction, and hostility).

The correlations among the measured variables are presented in Table 4. The relationships among these variables were generally consistent with predictions. As expected, there was a significant positive correlation between his and her initial support behaviors as well as a significant positive correlation between his and her hostility at both time points. There was a significant positive association between her hostility scores across time (Wave 1 and Wave 2) as well as a significant positive association between his hostility scores across time. There was a significant negative association between her initial support behaviors and both his and her later level of hostility. Similarly, there was a significant negative correlation between his initial support behaviors and both his and her later level of hostile behaviors. These associations between initial support and later levels of hostility would be expected given the hypotheses proposed in the current study guided by the intimacy process model.

There was a significant positive correlation between her initial support behaviors and relationship satisfaction for her at Wave 2. His level of hostility at Wave 2 was significantly negatively associated with his relationship satisfaction but her level of hostile behavior was not associated with either his or her relationship satisfaction. As expected there was a significant positive correlation between his and her relationship satisfaction.

Table 4.
Correlations among study variables

Variable	1	2	3	4	5	6	7	8
1. Her Initial Support Behaviors (W1)	1.00							
2. His Initial Support Behaviors (W1)	0.65**	1.00						
3. Her Hostility (W1)	-0.36**	-0.26**	1.00					
4. His Hostility (W1)	-0.18*	-0.20*	0.56**	1.00				
5. Her Hostility (W2)	-0.28**	-0.21**	0.45**	0.25**	1.00			
6. His Hostility (W2)	-0.25**	-0.24**	0.30**	0.37**	0.70**	1.00		
7. Her Relationship Satisfaction (W2)	0.21*	-0.13	-0.06	0.13	0.04	-0.03	1.00	
8. His Relationship Satisfaction (W2)	0.13	0.15	0.00	-0.13	-0.13	-0.19*	0.35**	1.00

Test of the Causal Model

The next set of analyses examined the fit of the hypothesized structural equation model shown in Figure 1 to the data. As previously indicated an issue I encountered in testing the causal model involved couples ($N = 37$, representing 24% of the sample) who did not participate in the Wave 2 marital discussion task. These couples were not included in the analyses, since there was no measure of their Wave 2 hostility. This resulting decrease in sample size required the stability variable to be removed from the model, as it was problematic due to the small number of cases where the relationship ended – at Wave 3, 85.7 percent of couples had remained intact, either married or cohabitating.

This model appeared to provide a good fit to the data, $\chi^2(10, N = 117) = 25.18, p = .005$, CFI = .90 and RMSEA = .11. Figure 2 presents the results from the test of the hypothesized causal model. As expected, there was a strong positive relationship between his and her hostility as well as his and her support at Wave 1. There was also a significant negative relationship between *her* support and hostility as well as *his* support and hostility at Wave 1. His level of hostility at Wave 1 was a significant predictor of his hostility at Wave 2, accounting for 15% of the variation in Wave 2 hostility, and her level of hostility at Wave 1 was a significant predictor of her hostility at Wave 2, accounting for 21% of the variation in Wave 2 hostility.

Support provided by *her* at Wave 1 was a marginally significant predictor of *her* level of hostility at Wave 2 but not his later level of hostility; as her level of initial support increased, her level of hostility at a later time point decreased. His level of initial support was not a significant predictor of either his or her later levels of hostility. There

was a significant positive association between his and her levels of hostility at Wave 2. His level of hostility at Wave 2 was a marginally significant negative predictor of *his* relationship satisfaction. Her level of hostility at Wave 2 was *not* a significant predictor of relationship satisfaction for either him or her. Finally, as expected there was a strong positive correlation between his and her relationship satisfaction.

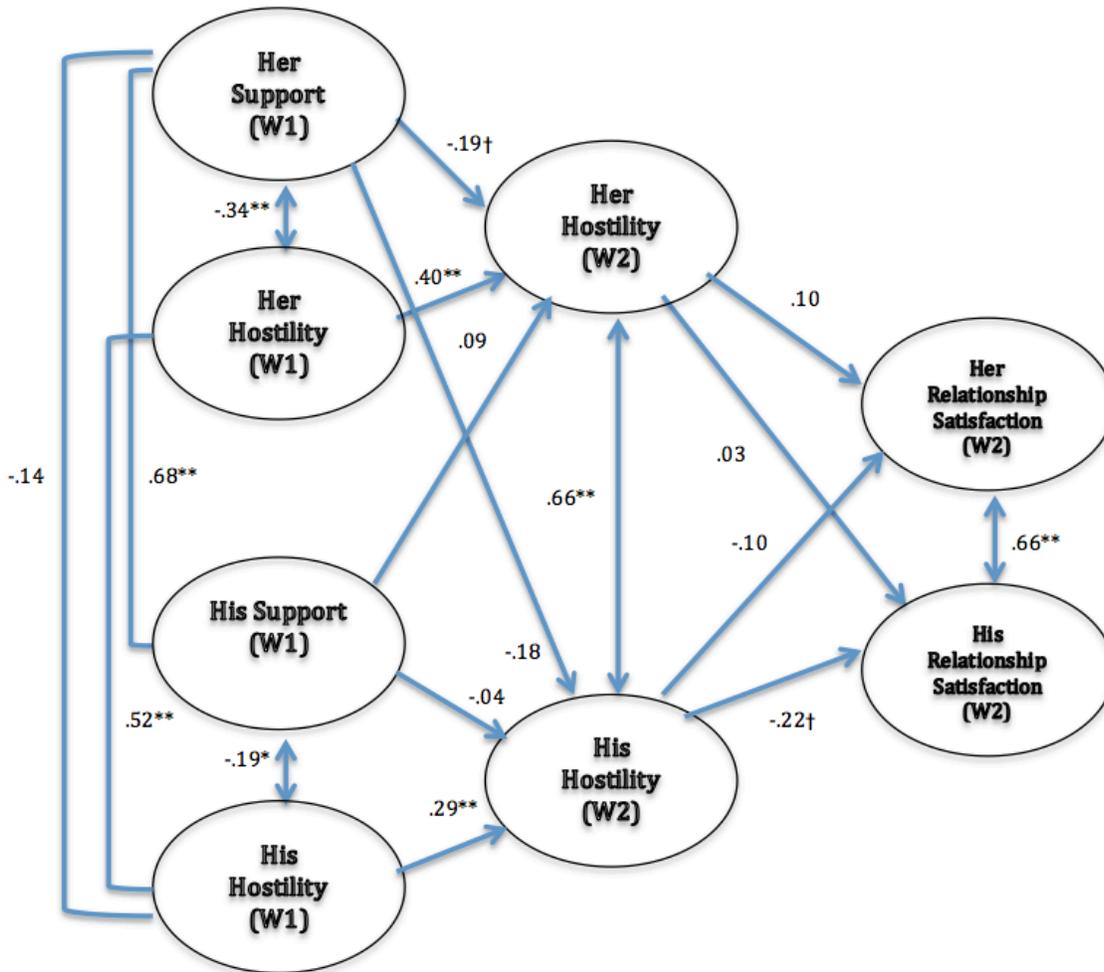


Figure 2. Results of the structural equation modeling analysis $^{**} p = .001$, $^* p < .05$, $\uparrow p < .10$

CHAPTER 5. DISCUSSION

The current study expands upon previous research and theory regarding the relationship between negative communication behaviors (specifically hostility), support behaviors, and changes in marital satisfaction over time. The sample consisted of African American heterosexual couples who had a child living in the home between the ages of 10 and 12 years old when the study began. The majority of the male partners were the biological parent and married to the child's biological mother. Hostility and support behaviors were observed and coded for both cohabitating and married couples at two time points. The interactions were designed to elicit both positive and negative behaviors during the couples' interactions (Melby et al., 1995; 2001). Overall, the couples demonstrated high levels of support and low levels of hostility during their initial observed interactions.

Both women and men rated themselves as highly satisfied with their relationship at Wave 2. Interestingly, cohabitating males rated themselves slightly *more* satisfied in their relationship as compared to married males. Conversely, cohabitating females rated themselves slightly *less* satisfied with their relationship as compared to cohabitating females, and this difference was statistically significant. This indicates that relationship satisfaction was significantly different for cohabitating versus married partners, which expands upon previous research. For example, a previous study found that married couples reported higher relationship satisfaction (Brown, 2003). Further research should examine potential gender differences in relationship satisfaction among cohabitating and married African American couples.

There was some evidence for the intimacy process model proposed by Sullivan

and colleagues (2010) in that the level of support behaviors displayed by *her* at Wave 1 was a marginally significant predictor of *her* later levels of hostility; as her level of initial support increased, her level of hostility at a later time point decreased. However, his level of initial support was not a significant predictor of either his or her later levels of hostility. It is possible that these relationships were non-significant or only marginally significant in the model due to the decrease in power as a result of the smaller sample size due to missing data.

The intimacy model suggests that supportive behaviors lead couples to feel validated and cared for, thereby influencing the quality of their interactions at a later time point. Relationship distress occurs when one or both partners fail (or perhaps lack the skills) to engage in these supportive behaviors, which conveys a lack of care or understanding. Therefore, according to this model conflict is *secondary* to the ways in which partners respond to one another during times in which they are vulnerable and seeking compassion and understanding from their significant other (Sullivan et al., 2010). This would suggest that if one member of a couple is feeling misunderstood and undervalued by his or her partner, the resulting lack of intimacy and warmth in the relationship compromises their ability to effectively problem-solve and respond to conflict in a healthy way. Or, conversely, if he or she is feeling cared for, validated, and supported by his or her partner, the resulting intimacy and warmth in their relationship improves their future conversations and their ability to resolve problems and differences of opinion. The results did not provide strong support for this prediction and suggest there is something unique about the contribution of conflict behavior to the quality of future interactions.

As expected, there was a strong positive relationship between his and her hostility at Wave 1. When conflict arises and one or both partners respond aversively, a negative interaction cycle is created and each partner maintains and contributes to this cycle (Koerner & Jacobson, 1994). There was also a strong positive relationship between his and her supportive behavior at Wave 1. These findings provide evidence reciprocity, which is the tendency for couples to engage in punishing or rewarding behavior toward each other at nearly equal levels (Koerner & Jacobson, 1994).

There was a significant negative relationship between *her* support and hostility as well as *his* support and hostility at Wave 1. The intimacy process model would suggest that if couples are providing support to one another, this conveys a sense of care and understanding, improving their ability to problem-solve and discuss issues in a way that is healthy and, therefore, less hostile. His level of hostility at Wave 1 was a significant positive predictor of his hostility at Wave 2, and her level of hostility at Wave 1 was a significant positive predictor of her hostility at Wave 2. There was also a significant positive association between his and her levels of hostility at Wave 2.

His level of hostility at Wave 2 was a marginally significant predictor of *his* relationship satisfaction but neither his or her Wave 2 hostility was a significant negative predictor of her relationship satisfaction. It is possible that these relationships were non-significant or only marginally significant due to the decrease in statistical power as a result of the smaller sample size. Taken together, these findings suggest potential gender differences in the role of support on later communication behaviors and relationship satisfaction. However, it is clear that this model cannot fully account for the interactional antecedents of relationship distress, and additional research is needed in order to better

understand potential gender differences and predictors of relationship stability among African American couples. Finally, as expected, there was a strong correlation between his and her relationship satisfaction.

As previous research has indicated, there are *multiple* types of dyadic behaviors, such as interspousal support, decision-making, conflict management, and sexual intimacy, that couples exhibit in an effort to manage their intimate relationships, and previous research has identified unique contributions of each of these skill sets on relationship dynamics (Lawrence et al., 2008). For instance, Lawrence and colleagues found that sexual intimacy was the strongest predictor of change in relationship satisfaction for husbands whereas communication and conflict management was the strongest predictor of change in relationship satisfaction for wives. The findings of the current study emphasize the importance of evaluating other types of dyadic behaviors that couples engage in when attempting to understand the longitudinal course of intimate relationships. Researchers typically concentrate on only one or two domains of relationship behavior as predictors of relationship dysfunction, which underestimates the complexity of intimate relationships (Lawrence et al., 2008). Taken together, these findings suggest that additional research is needed in order to better understand potential gender differences in relationship stability among African American couples.

Important Considerations and Limitations

It is important to note that the demographic characteristics of the present sample differ significantly from the participants in Sullivan and colleagues' (2010) study. First, the current study did not include newlywed couples but rather couples who had been married for 11 years on average. Instead, the interpersonal skills with which partners

enter the relationship were not examined. However, the present study allowed for an examination of the generalizability of Sullivan and colleagues' study, as it examined the longitudinal processes of these dyadic behaviors (i.e., support and hostility) several years into cohabitating or marital relationships. The findings of the current study suggest that there is something unique about the dyadic behaviors that emerge at the *beginning* of relationships as predictors of trajectories of relationship satisfaction and stability. The beginning of relationships may be critical times for couples as they learn how to navigate individual differences in communication styles and personal histories.

Another unique aspect of the study sample was the racial and ethnic background of participants. The current study was comprised of African American couples in contrast to the largely European sample included in Sullivan and colleagues' study, which is an important consideration related to the generalizability of the findings. It should be noted that this sample was not nationally representative of African American families, as the participants resided in one of two states (Iowa and Georgia) and excluded major metropolitan areas. It is necessary to understand that race, ethnicity, and culture are powerful variables influencing how people think, behave, and make decisions (Sue & Sue, 2013). "Each cultural/racial group may have its own distinct interpretation of reality and offer a different perspective on the nature of people ... and the standards for judging normality and abnormality" (Sue & Sue, 2013, p. 45). An understanding of the factors that promote relationship satisfaction and stability among African Americans is important in terms of guiding theoretical models, policy, and intervention efforts (Cutrona et al., 2011).

Another important factor to consider in terms of understanding the generalizability of the current study is task context. It is important to note that the study conducted by Sullivan and colleagues (2010) included both a problem-solving task as well as a task designed to provide opportunities for spouses to elicit support from one another. The task employed in the current study was a marital discussion in which couples were asked to discuss various aspects of their relationship and life together which highlighted both positive and negative aspects of their relationship. Therefore, it is possible that participants' behaviors were not representative of the type and amount of support they might have provided one another when completing a different type of task, such as a problem-solving task or a task designed to elicit support. This may limit the relevance of the current findings to those of Sullivan and colleagues (2010) and suggest the importance of considering task context when examining observed dyadic behaviors.

The procedures used to measure couples' behavior in the current study may also limit the external validity of the findings. The couples' interactions were observed in a laboratory setting and partners solicited positive and negative behaviors after instructions to discuss certain aspects of their relationship. Therefore, it is unlikely that these behaviors represented couples' typical discussions and behaviors when they are in natural settings. In addition, how couples *perceived* their partner's behavior was not taken into account. Perceived responsiveness is important in understanding the role of spousal support in influencing relationship satisfaction and mood. Reis, Clark, and Holmes (2004) found that when one's partner was viewed as highly responsive, visible support was associated with increased relationship quality (Reis et al., 2004). Understanding how couples perceive their partner's behavior as either beneficial or detrimental to the

relationship is important in evaluating relationship functioning.

An additional limitation of the current study was the measure used to evaluate relationship satisfaction, as it was comprised of only two self-report items selected from a longer measure of relationship satisfaction. Although this measure was reliable for both men and women, a more thorough assessment of relationship quality and satisfaction should be used in future studies. Several instruments could be used to assess relationship satisfaction, such as the Marital Adjustment Test (MAT: Lock & Wallace, 1959) and the Inventory of Marital Problems (Geiss & O'Leary, 1981).

Implications for Clinicians

Research examining the role of specific dyadic behaviors in relationships has obvious implications for the development of theoretical models designed to understand marital outcomes as well as intervention efforts. For instance, literature on spousal support over the last decade has yielded consistent evidence of the importance of supportive behaviors that should be incorporated into theoretical models and intervention efforts (Lawrence et al., 2008). These findings suggest that, although intervention efforts with couples have been focused on communication and conflict-management strategies, dyadic behaviors are also likely to be influenced by contextual factors in couples' lives. For example, Williamson, Karney, and Bradbury (2013) found that financial strain and stressful life events were the strongest correlates of negative communication, with higher levels of stress predicting more negativity in interactions. This highlights the importance of considering contextual factors that are influencing the lives of partners and the functioning of their relationship.

In terms of couple therapy, the research regarding effective intervention has been

inconsistent and sometimes counter-intuitive. For instance, some studies have indicated that teaching couples positive problem-solving and communication skills is helpful and effective in reducing their chances of relationship dissolution. However, other studies have indicated that increases in negative communication are actually associated with positive relationship outcomes (Bradbury & Lavner, 2012). Taken together, these findings indicate the importance of focusing on several domains of relationship dynamics. For example, although discussing couples' display of behaviors such as anger and contempt (which has historically been emphasized in marital therapy) is important, it is also important to address childhood experiences, trauma histories, external stressors, and so on. In addition, teaching couples how to cope with difficult circumstances, both individually and as a couple, is necessary. One approach that is gaining momentum in the mental health field is the use of mindfulness practice, which can be defined as awareness of oneself in the present moment with acceptance and without judgment (Gehart, 2012). Mindfulness practice has been linked to improved communication, increased marital satisfaction, increased awareness of interactional patterns, increased acceptance of self and partner, and a greater sense of unity and safety in the relationship (Gehart, 2012).

Most importantly, it is imperative that clinicians are culturally competent and sensitive in their work with diverse individuals and families. "Equal treatment" in regards to mental health services may actually be discriminatory as there has been confusion related to the distinction between *equal access and opportunities* versus *equal treatment* (Sue & Sue, 2013). Effective interventions will be enhanced when the service providers use approaches that are consistent with the life experiences and cultural values

of the client (Sue & Sue, 2013). This includes having an understanding of each client's unique worldview as well as the clinician's own assumptions, values, and beliefs.

Therapeutic approaches are not equally effective with all clients; it is essential that clinicians are aware of universal and culture-specific strategies of helping (Sue & Sue, 2013).

Future Research Directions

Clarifying how couples' observed communication behaviors relate to relationship satisfaction and stability is a useful starting point for directing intervention efforts and promoting healthy communication and relationships. However, little research has been done to understand *why* couples differ in their communication styles. Adapting a social-learning approach to recognize the role of context, such as partners' personal histories, individual differences, and environmental triggers, would allow for an investigation of possible causes of couple communication behavior (Williamson, Karney, & Bradbury, 2013). This approach suggests that relationship deterioration can be attributed to mismatches in conflict and problem-solving style as well as "partners' inadvertent tendency to negatively reinforce one another's maladaptive behaviors" (Lavner, Bradbury, & Karney, 2012, p. 65). Furthermore, this framework allows for a further investigation of the factors impacting these behavioral processes. For example, variables such as stress and personality characteristics assessed early in marriage have been found to predict marital stability and marital deterioration (Lavner, Bradbury, & Karney, 2012). In addition, there is some research that suggests that the effect of social support on relationship satisfaction may vary based on factors such as daily mood (Shrout, Herman, & Bolger, 2006) and attachment style (Campbell, Simpson, Boldrey, & Asher, 2004).

Therefore, more complex models including individual characteristics and mood need to be examined.

Bradbury and colleagues (2000) suggest that the ways in which spouses and couples adapt to stressful or challenging events they encounter are important determinants of marital outcomes. More specifically, if couples repeatedly fail in adapting to stressful and challenging events, marital distress and dissolution becomes more likely. As Karney and Bradbury (2005) suggest, there has been a recent movement toward conducting research focused on the context in which conflict occurs in couple processes. Guided by the Vulnerability-Stress-Adaptation Model, a recent study conducted by Williamson, Karney, and Bradbury (2013) sought to investigate the influence of contextual factors such as family-of-origin experiences, depressive symptoms, financial strain, and stressful life events on newlywed communication behaviors. The findings indicated that financial strain and stressful life events were the strongest predictors of negative communication. In addition, higher levels of relationship satisfaction predicted more positivity during marital interactions (Williamson et al., 2013). One study found that couples in which one partner came from a risky family background were more likely to benefit from specific communication training than basic psychoeducation (Halford, Sanders, & Behrens, 2001). Cutrona and colleagues (2003) explored neighborhood context and financial strain as predictors of marital interaction and marital quality in the present sample. They found that neighborhood-level economic disadvantage predicted lower warmth during observed marital interactions. Taken together, these findings highlight the benefits associated with broadening our understanding of *why* couples differ in their communication styles and behaviors.

Conclusion

The purpose of this study was to examine whether initially low levels of support behaviors observed among cohabitating and married African American couples significantly predicted higher levels of negative behaviors (specifically hostility) in their interactions two years later. In addition, the analyses examined whether these later levels of hostility predicted relationship satisfaction over time. That is, did supportive behaviors serve a protective function in terms of their impact on the longitudinal course of marriage and cohabitation? The results of the structural equation modeling analyses provided some support for these hypotheses, as the level of initial support behaviors displayed by the *female* partner was a marginally significant predictor of *her* level of hostility at Wave 2 but not his later level of hostility; as her level of initial support increased, her level of hostility at a later time point decreased. In addition, level of hostility displayed by the *male* partner at Wave 2 was a marginally significant predictor of *his* relationship satisfaction, with higher levels of hostility at Wave 2 significantly predicting lower relationship satisfaction at that time point. The results of the current study indicate significant contributions of support to relationship functioning and demonstrate potential gender differences in the role of support on later communication behaviors and relationship satisfaction.

References

- Acitelli, L. K., & Antonucci, T. C. (1994). Gender differences in the link between marital support and satisfaction in older couples. *Journal of Personality and Social Psychology, 76*, 688-698.
- Bradbury, T. N., Fincham, F. D., & Beach, S. R. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and Family, 62*(4), 964-980.
- Bradbury, T. N., & Karney, B. R. (2010). *Intimate relationships*. WW Norton & Company.
- Bradbury, T. N., & Lavner, J. A. (2012). How can we improve preventive and educational interventions for intimate relationships?. *Behavior therapy, 43*(1), 113-122.
- Broman, C. L. (1993). Race differences in marital well-being. *Journal of Marriage and Family, 55*, 724 – 732.
- Broman, C. L. (2005). Marital quality in Black and White marriages. *Journal of Family Issues, 26*, 431 – 441.
- Brown, S. L. (2003). Relationship quality dynamics of cohabiting unions. *Journal of Family Issues, 24*(5), 583-601.
- Brown, S. L. (2000). Union transitions among cohabitators: The significance of relationship assessments and expectations. *Journal of Marriage and Family, 62*(3), 833-846.
- Brown, S. L., Lee, G. R., & Bulanda, J. R. (2006). Cohabitation among older adults: A national portrait. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 61*(2), S71-S79.
- Bryant, C. M., Wickrama, K. A. S., Bolland, J. M., Bryant, B. M., Cutrona, C. E., & Stanick, C. E. (2010). Race matters, even in marriage: Identifying factors linked to marital outcomes for African Americans. *Journal of Family Theory and Review, 2*(3), 157-174.
- Bulanda, J. R., & Brown, S. L. (2007). Race-ethnic differences in marital quality and divorce. *Social Science Research, 36*, 945 – 967.
- Bumpass, L., & Lu, H. H. (2000). Trends in cohabitation and implications for children's family contexts in the United States. *Population Studies, 54*(1), 29-41.

- Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: the role of attachment anxiety. *Journal of personality and social psychology*, 88(3), 510.
- Carlson, M., & Furstenberg, F. (2006). The prevalence and correlates of multipartnered fertility among urban US parents. *Journal of Marriage and Family*, 68, 718 – 732.
- Clarkberg, M., Stolzenberg, R. M., & Waite, L. J. (1995). Attitudes, values, and entrance into cohabitational versus marital unions. *Social Forces*, 74(2), 609-632.
- Coan, J. A., & Gottman, J. M. (2007). The specific affect coding system (SPAFF). *Handbook of emotion elicitation and assessment*, 267-285.
- Cole, J., & Guy-Sheftall, B. (2009). *Gender talk: The struggle for women's equality in African American Communities*. Ballantine Books.
- Current Populations Report (2002). Number, timing and duration of marriages and divorces. P70–80.
- Cutrona, C. E. (1996). Social support as a determinant of marital quality: The interplay of negative and supportive behaviors.
- Cutrona, C. E. (1996). *Social support in couples*. Thousand Oaks, CA: Sage.
- Cutrona, C. E. (2012). Recent Advances in Research on Social Support in Couples. *The Wiley-Blackwell Handbook of Couples and Family Relationships*, 392-405.
- Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 319-366). New York: Wiley
- Cutrona, C. E., Russell, D. W., Abraham, W. T., Gardner, K. A., Melby, J. N., Bryant, C., & Conger, R. D. (2003). Neighborhood context and financial strain as predictors of marital interaction and marital quality in African American couples. *Personal Relationships*, 10, 389–409.
- Cutrona, C. E., Russell, D. W., Brown, P. A., Clark, L. A., Hessling, R. M., & Gardner, K. A. (2005). Neighborhood context, personality, and stressful life events as predictors of depression among African American women. *Journal of abnormal psychology*, 114(1), 3.
- Cutrona, C. E., Russell, D. W., Burzette, R. G., Wesner, K. A., & Bryant, C. M. (2011). Predicting relationship stability among midlife African American couples. *Journal of Consulting and Clinical Psychology*, 79(6), 814-825.

- DeMaris, A. (2000). Till discord do us part: The role of physical and verbal conflict in union disruption. *Journal of Marriage and the Family*, 62, 683-692.
- Edin, K., & Reed, J. M. (2005). Why don't they just get married? Barriers to marriage among the disadvantaged. *The Future of Children*, 15(2), 117-137.
- Eggebeen, D. (2005). Cohabitation and exchanges of support. *Social Forces*, 83, 1097-1110.
- Faulkner, R. A., Davey, M., & Davey, A. (2005) Gender-related predictors of change in marital satisfaction and marital conflict. *American Journal of Family Therapy*, 33, 61 – 83.
- Fincham, F. D., & Beach, S. R. (2010). Marriage in the new millennium: A decade in review. *Journal of Marriage and Family*, 72(3), 630-649.
- Franck, K., & Anderson, O. (2004). *Summary of published works that include observational measures from the Iowa Family Project Rating Scales*. Family Life Project. The University of Tennessee at Knoxville.
- Gehart, D. R. (2012). *Mindfulness and acceptance in couple and family therapy*. Springer.
- Geiss, S. K., & O'Leary, K. D. (1981). Therapist Ratings of Frequency and Severity of Marital Problems: Implications for Research. *Journal of Marital and Family Therapy*, 7(4), 515-520.
- Gottman, J. M. (1979). *Marital interaction: Empirical investigations*. New York: Family Process.
- Gottman, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family*, 60(1), 5-22.
- Gottman, J. M., McCoy, K., Coan, J., & Collier, H. (1996). The specific affect coding system (SPAFF) for observing emotional communication in marital and family interaction. *What predicts divorce*, 112-195.
- Hackel, L. S., & Ruble, D. N. (1992). Changes in the marital relationship after the first baby is born: Predicting the impact of expectancy disconfirmation. *Journal of Personality and Social Psychology*, 62(6), 944.
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (2001). Can skills training prevent relationship problems in at-risk couples? Four-year effects of a behavioral relationship education program. *Journal of Family Psychology*, 15(4), 750.

- Halford, W. K., Sanders, M. R., & Behrens, B. C. (2000). Repeating the Errors of Our Parents? Family-of-Origin Spouse Violence and Observed Conflict Management in Engaged Couples. *Family Process, 39*(2), 219-235.
- Huston, T. L., McHale, S., & Crouter, A. (1986). When the honeymoon's over: Changes in the marriage relationship over the first year. In R. Gilmour & S. Duck (Eds.), *The emerging field of personal relationships* (pp. 109–132). Hillsdale, NJ: Erlbaum.
- Jackson, J. J., Antonucci, T. C., & Gibson, R. C. (1990). Cultural, racial, and ethnic minority influences on aging. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging*. San Diego, CA: Academic Press.
- Jackson, J. S., Chatters, L. M., & Taylor, R. J. (1993). *Aging in Black America*. Newbury Park, CA: Sage.
- Jacobson, N. S., & Margolin, G. (1979). *Marital therapy: Strategies based on social learning and behavior exchange principles*. Psychology Press.
- Johnson, D. R., & Booth, A. (1998). Marital quality: A product of the dyadic environment or individual factors?. *Social Forces, 76*(3), 883-904.
- Jones, C. P. (2002). Levels of racism: A theoretic framework and a gardener's tale. In T. A. LaVeist (Ed.), *Race, ethnicity, and health: A public health reader* (pp. 311 – 318). San Francisco, CA: Jossey- Bass, Wiley.
- Julien, D., & Markman, H. J. (1991). Social support and support networks as determinants of individual and marital outcomes. *Journal of Social and Personal Relationships, 8*, 549-568.
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, methods, and research. *Psychological bulletin, 118*(1), 3.
- Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, marital interaction, and the trajectory of marital satisfaction. *Journal of Personality and Social Psychology, 72*, 1075-1092.
- Karney, B. R., & Bradbury, T. N. (2005). Contextual influences on marriage: Implications for policy and intervention. *Current Directions in Psychological Science, 14*(4), 171-174.
- Kelly, S. (2003). African American couples: Their importance to the stability of African American families and their mental health issues. In J. S. Mio & G. Y. Iwamasa (Eds.), *Culturally diverse mental health: The challenges of research and resistance* (pp. 141 – 158). New York: Brunner-Routledge.

- Kerig, P. K., & Lindahl, K. M. (2001). Family Observation Coding Systems.
- King, V., & Scott, M. E. (2005). A comparison of cohabiting relationships among older and younger adults. *Journal of Marriage and Family*, 67(2), 271-285.
- Kinsella, K., & He, W. (2009). US Census Bureau, international population reports. *Washington, DC: US Census Bureau.*
- Koerner, K., & Jacobson, N. S. (1994). Emotion and behavioral couple therapy. *The heart of the matter: Perspectives on emotion in marital therapy*, 207-226.
- Lavner, J. A., & Bradbury, T. N. (2012). Why do even satisfied newlyweds eventually go on to divorce? *Journal of Family Psychology*, 26(1), 1-10.
- Lavner, J. A., Bradbury, T. N., & Karney, B. R. (2012). Incremental change or initial differences? Testing two models of marital deterioration. *Journal of family psychology*, 26(4), 606.
- Lawrence, E., Pederson, A., Bunde, M., Barry, R. A., Brock, R. L., Fazio, E., ... & Dzankovic, S. (2008). Objective ratings of relationship skills across multiple domains as predictors of marital satisfaction trajectories. *Journal of social and personal relationships*, 25(3), 445-466.
- Lawrence, E., & Johnson, M. D. (2005). Problem-solving skills and affective expressions as predictors of change in marital satisfaction. *Journal of Consulting and Clinical Psychology*, 73(1), 15-27.
- Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and family living*, 21(3), 251-255.
- Lorenz, F. O., Melby, J. N., Conger, R. D., & Surjadi, F. F. (2012). Linking questionnaire reports and observer ratings of young couples' hostility and support. *Journal of Family Psychology*, 26(3), 316.
- Markman, H. J., Rhoades, G. K., Stanley, S. M., Ragan, E. P., & Whitton, S. W. (2010). The premarital communication roots of marital distress and divorce: The first five years of marriage. *Journal of Family Psychology*, 24(3), 289-298.
- McLanahan, S., & Casper, L. (1995). Growing diversity and inequality in the American family. In R. Farley (Ed.), *State of the union: America in the 1990s* (pp. 1 – 45), vol.2. New York: Russell Sage.
- McLoyd, V. C., Cauce, A. M., Takeuchi, D., & Wilson, L. (2000). Marital processes and parental socialization in families of color: A decade review of research. *Journal of Marriage and the Family*, 62, 1070 – 1093.

- Melby, J. N., & Conger, R. D. (2001). The Iowa Family Interaction Rating Scales: Instrument summary.
- Melby, J., Conger, R., Book, R., Reuter, M., Lucy, L., Repinski, D., Rogers, S., Rogers, B., & Scaramella, L. (1998). The Iowa family interaction rating scales (5th ed.).
- Melby, J. N., Ge, X., Conger, R. D., & Warner, T. D. (1995). The importance of task in evaluating positive marital interactions. *Journal of Marriage and the Family*, 981-994.
- Nichols, M. P., & Schwartz, R. C. (2007). *The essentials of family therapy*. Boston: Allyn and Bacon.
- Olson, D. H. (1977). Insiders' and outsiders' views of relationships: Research studies. *Close relationships: Perspectives on the meaning of intimacy*, 115-135.
- Osborne, C. (2005). Marriage following the birth of a child among cohabiting and visiting parents. *Journal of Marriage and Family*, 67, 14 - 26.
- Osborne, C., Manning, W. D., & Smock, P. J. (2007). Married and cohabiting parents' relationship stability: A focus on race and ethnicity. *Journal of Marriage and Family*, 69(5), 1345-1366.
- Pasch, L. A., & Bradbury, T. N. (1998). Social support, conflict, and the development of marital dysfunction. *Journal of Consulting and Clinical Psychology*, 66(2), 219.
- Pasch, L. A., Harris, K. W., Sullivan, K. T., & Bradbury, T. N. (2004). The Social Support Interaction Coding System (SSICS). *Couple observational coding systems*, 319.
- Pasch, L. A., Bradbury, T. N., & Davila, J. (1997). Gender, negative affectivity, and observed social support behavior in marital interaction. *Personal Relationships*, 4, 361-378.
- Reis, H. T., & Patrick, B. C. (1996). Attachment and intimacy: Component processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 523–563). New York, NY: Guilford Press.
- Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process.
- Rennison, C. M., & Welchans, S. (2003). Intimate partner violence. *Washington DC: Bureau of Justice*.
- Rose-Greenland, F., & Smock, P. J. (2013). Living Together Unmarried: What Do We Know About Cohabiting Families?. *Handbook of Marriage and the Family*, 255-273.

- Russell, D. W., Kahn, J. H., Spoth, R., & Altmaier, E. M. (1998). Analyzing data from experimental studies: A latent variable structural equation modeling approach. *Journal of Counseling Psychology, 45*(1), 18.
- Sassler, S. (2004). The process of entering into cohabiting unions. *Journal of Marriage and Family, 66*(2), 491-505.
- Shrout, P. E., Herman, C. M., & Bolger, N. (2006). The costs and benefits of practical and emotional support on adjustment: A daily diary study of couples experiencing acute stress. *Personal Relationships, 13*(1), 115-134.
- Simmons, T., & O'Connell, M. (2003). *Married-couple and unmarried couple partner households: 2000*. Washington, DC: U.S. Census Bureau.
- Simons, R. L., Simons, L. G., Lei, M. K., & Landor, A. M. (2012). Relational schemas, hostile romantic relationships, and beliefs about marriage among young African American adults. *Journal of social and personal relationships, 29*(1), 77-101.
- Smock, P. J. (2000). Cohabitation in the United States: An appraisal of research themes, findings, and implications. *Annual review of sociology, 1-20*.
- Suitor, J. J., & Pillemer, K. (1994). Family caregiving and marital satisfaction: Findings from a 1-year panel study of women caring for parents with dementia. *Journal of Marriage and the Family, 681-690*.
- Sue, D. W., & Sue, D. (2012). *Counseling the culturally diverse: Theory and practice* (6th Ed.). Hoboken, NJ: Wiley.
- Sullivan, K. T., Pasch, L. A., Johnson, M. D., & Bradbury, T. N. (2010). Social support, problem-solving, and the longitudinal course of newlywed marriage. *Journal of personality and social psychology, 98*(4), 631.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York, NY: Wiley.
- Veroff, J., Douvan, E., & Hatchett, S. (1995). *Marital instability: A social and behavioral study of the early years*. Westport, CT: Praeger.
- Walker, E. C., Sheffield, R., Larson, J. H., & Holman, T. B. (2011). Contempt and defensiveness in couple relationships related to childhood sexual abuse histories for self and partner. *Journal of Marital and Family Therapy, 37*(1), 37-50.
- Weiss, R. L., & Heyman, R. E. (1990). Observation of marital interaction. *The psychology of marriage: Basic issues and applications, 87-117*.

- Williamson, H. C., Karney, B. R., & Bradbury, T. N. (2013). Financial strain and stressful events predict newlyweds' negative communication independent of relationship satisfaction. *Journal of Family Psychology, 27*(1), 65.
- Wright, D. L., & Aquilino, W. S. (1998). Influence of emotional support exchange in marriage on caregiving wives' burden and marital satisfaction. *Family Relations, 47*, 195-204.
- Xu, Y., & Burleson, B. R. (2004). The association of experienced spousal support with marital satisfaction: Evaluating the moderating effects of sex, ethnic culture, and type of support. *The Journal of Family Communication, 4*(2), 123-145.

APPENDIX A. IRB LETTER OF EXEMPTION

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

Date: 9/10/2013

To: Ashley Merritts
34 MacKay

CC: Dr. Daniel Russell
1085 Elm Hall

From: Office for Responsible Research

Title: The Protective Function of Supportive Behaviors on the Longitudinal Course of Cohabitation and Marriage

IRB ID: 13-399

Study Review Date: 9/10/2013

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

- (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified directly or through identifiers linked to the subjects.

The determination of exemption means that:

- **You do not need to submit an application for annual continuing review.**
- **You must carry out the research as described in the IRB application.** Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. Changes to key personnel must also be approved. The purpose of review is to determine if the project still meets the federal criteria for exemption.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

Detailed information about requirements for submission of modifications can be found on the Exempt Study Modification Form. A Personnel Change Form may be submitted when the only modification involves changes in study staff. If it is determined that exemption is no longer warranted, then an Application for Approval of Research Involving Humans Form will need to be submitted and approved before proceeding with data collection.

Please note that you must submit all research involving human participants for review. **Only the IRB or designees may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.**

Please be aware that **approval from other entities may also be needed.** For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.**

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.