ASSOCIATIONS OF GLOBAL STRESS, NEGATIVE AFFECT, PSYCHOLOGICAL AGGRESSION, AND RELATIONSHIP QUALITY WITH RELATIONSHIP PARTNER ATTITUDES TOWARD RELATIONSHIP EDUCATION: AN EXPLORATORY ACTOR-PARTNER INVESTIGATION BY GENDER, INCOME, EDUCATION, AND RELATIONSHIP STATUS

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CHAPTER I

INTRODUCTION

Developing satisfying intimate relationships is generally considered an important life goal for many. Many adults ultimately marry, and most Americans express a desire for stable and strong close relationships (Bradbury, 1998; Millward, 1990). Yet, many marriages end in divorce or experience prolonged distress, conflict, and instability (Markman, Stanley, Jenkins, Petrella, & Wadsworth, 2006). Ongoing distress and instability in relationships and marriages, as well as marital dissolution hold potential risks for both adult partners and children including issues related to emotional, physical, and social health (Amato, 2000; Amato & Booth, 1997; Waite & Gallagher, 2000). Challenges uniquely related to the couple situation have been noted to influence distress in relationship partners. Particularly, the effects of relational distress may be exacerbated in couples managing economic difficulty (Martin, 2006; Ooms, 2002).

Concerns regarding the negative impact of relationship distress on adults and children have prompted initiatives at the local, state, and federal government levels designed to offer couple relationship education (CRE) programs to combat divorce and promote healthy relationships (Doherty & Anderson, 2004; Halford, Markman, & Stanley, 2008). In more recent years, concerted efforts have been made to offer CRE to

couples at higher risk for relational distress and dissolution including couples in lower-income circumstances (Adler-Baeder & Hawkins, 2010; Dion, 2005; Administration for Children and Families, 2007; Stanley, Markman, & Jenkins, 2008).

CRE generally consists of skills-based training for couples related to communication, conflict management, and problem-solving skills, and is utilized as both a preventative and remedial means to assist relationship partners (Dion, 2005; Larson, 2004). Many couples of limited financial means experience unique challenges and stressors related to economic difficulty, debt, unemployment, substance abuse, and unsafe living environments that are associated with increased risk for relational distress, dissatisfaction, and instability (Conger et al., 1990; Ooms, 2002; Johnson et al., 2002; Seefeldt & Smock, 2004). Recent and comprehensive meta-analytic studies indicate that CRE and premarital CRE programming are effective in enhancing communication skills and relationship quality with nondistressed and distressed couples, although much less is known about the effectiveness of CRE with distressed couples (Blanchard, Hawkins, Baldwin, & Fawcett, 2009; Carrol & Doherty, 2003; Hawkins, Blanchard, Baldwin, & Fawcett, 2008; Hawkins & Fackrell, 2010).

Additionally, large bodies of research have pointed towards a number of consistent factors placing couples at risk for decreases in relationship satisfaction and stability, and increases in relationship distress. Some of the most salient of these have been identified as elevated stress, heightened negative affect, and relational aggression (See Bradbury & Karney, 2004, Karney & Bradbury, 1995, and Holman, 2001 for reviews; see also Gottman, 1998). Some findings note that couples in one or more at risk categories (e.g., younger age, lower-income, heightened aggression, high amounts of

negativity, high stress levels) are highly under-represented in CRE programming, and unique challenges persist in recruiting couples at greater risk for relationship difficulty to CRE. Thus, some evidence suggests that these factors that place couples at risk for relationship difficulties are also associated with less attendance in CRE (Halford, O'Donnell, Lizzio, & Wilson, 2006; Ooms & Wilson, 2004; Sullivan & Bradbury, 1997).

Yet, there exists somewhat of a disconnect in that state-wide survey data (Oklahoma, Florida, and Utah) indicate that relationship partners at greater risk for relationship difficulty, and in particular relationship partners in lower-income circumstances, report strong interest in CRE services (Karney, Garvan, & Thomas, 2003; Johnson et al., 2002; Schramm, Marshall, Harris, & George, 2003). These findings are encouraging, as some evidence shows that those who consider attending CRE are more likely to attend (Sullivan & Bradbury, 1997).

Some evidence also suggests that high risk couples, such as those who are in economically challenging circumstances, could benefit greatly from CRE through increasing awareness of problematic interaction sequences stemming from family of origin experiences, learning to manage stress, and gaining new communication skill sets (Halford, Sanders, & Behrens, 2001; Halford, et al., 2006; Hawkins & Fackrell, 2010; Ooms & Wilson, 2004). And, although high-risk couples are largely absent in CRE programs and some practitioners deem CRE as "unfit" to address the needs of high-risk couples, some emerging evidence suggests that some high-risk couples are attending and benefitting from CRE programs in terms of improving relationship quality and communication skills (DeMaria, 2005; Halford et al., 2001; Hawkins & Fackrell, 2010).

Based on the body of research assessing factors contributing to the well-being of relationship partners and children, recent large amounts of government and private funds have been allocated to increase the promotion, visibility, and availability of CRE. As noted, some funds have been utilized implementing CRE specifically for couples in lower-income brackets (Hawkins & Fackrell, 2010; Markman & Halford, 2005; Stanley et al., 2008).

Thus, in a somewhat puzzling manner, some evidence has shown that couples of more limited financial means express interest in CRE services, but also may be at heightened risk for relationship difficulties that appear to decrease the likelihood of attendance of CRE programming. Overall, very few higher-risk couples access CRE programs, and scant information is available regarding personal and relational factors that influence CRE attendance, especially for couples in lower-income circumstances.

The statewide survey information provided information on perceptions of CRE, but little about how characteristics of the close relationships of study respondents were associated with attitudes towards such programs. Little is known about how factors that affect relationships also affect relationship partner attitudes toward relationship programming. For example, very little is known if the aforementioned salient factors associated with relationship satisfaction and stability are also associated with relationship partner attitudes toward CRE programming, and how these associations may vary by social strata. Investigating such important factors such as couple attitudes and considerations of CRE programs represents a basic and important means through which relationship partners decide on participating in such programs (Halford et al., 2006; Hawkins & Fackrell, 2010; Larson, Kigin, & Holman, 2008; Wilson & Halford, 2008).

The dearth of information related to relationship partner attitudes toward CRE, and factors undermining these associations may be viewed in terms of substantial limitations to CRE recruitment, planning, and implementation, and potentially limits the impact of CRE with higher-risk populations. Wilson and Halford (2008) note that for those working in CRE programming to be most effective, "extending the reach of CRE is a major challenge in realizing its potential impact in preventing relationship distress and dissolution (p. 625)." Learning more about the factors associated with attitudes towards CRE for couples in different circumstances helps program facilitators better know how to present, target, and "pitch" their programs to be more relevant to diverse audiences and increase the effectiveness of promotional efforts (Morris, Cooper, & Gross, 1999).

Certainly, attitudes towards CRE cannot be equated with access to CRE, and are not necessarily predictive of future attendance. Where limited access to CRE is available, limited information on interest can be ascertained, and CRE services have generally been less available to couples of limited financial means (Adler-Baeder, Bradford, Skuban, Lucier-Greer, Ketring, & Smith, 2010; Hawkins & Fackrell, 2010; Stanley et al., 2008). Yet, intentions and attitudes have been associated with performing target behaviors. Bringle and Byers (1997) suggest that where services are reasonably available, attitudes and intentions are predictive of behavior.

Currently, there is little known about attitudes and perceptions of CRE, specifically. CRE services have not yet reached the status of a common, larger-level cultural practice such as parenting classes, and birthing preparation (Dion & Hershey, 2010; J. Miller, personal communication, November 23, 2009). Therefore, assessing attitudes towards these programs, and factors that are associated with these attitudes

allows for an investigation of whether these programs are connecting and resonating with the public, and how these attitudes might be influenced by personal and relationship factors.

In terms of this study's sample, the Oklahoma Marriage Initiative (OMI) is the largest and longest running initiative of its kind. The OMI operations began in 1999, and the OMI provides CRE across the state, including programs designed to target and benefit couples managing financial difficulty, specifically (Johnson et al., 2002). The assumption here is made that CRE services are more reasonably available in Oklahoma than in other areas. Thus, assessing relationship partner attitudes toward CRE, as well as factors associated with these attitudes, can be a useful means for those involved in CRE recruitment, design, study, and implementation.

Purpose of the Study

The purpose of the study is to assess the association of factors known to be connected with relationship satisfaction and stability (stress, negative affect, and relationship aggression), as well as predictive of decreased likelihood of CRE attendance, to explore whether these factors are associated with relationship partner attitudes toward CRE. This study also seeks to investigate how these associations may differ by gender, relationship status, and for relationship partners of differing income levels and education levels. It is proposed that such information can benefit and enhance the reach and effectiveness of CRE programs.

Theories Conceptualizing Economic Difficulty and Couple Relationships

Theory can play a crucial role in guiding, accentuating, and organizing relevant information and concepts of the experience of couples of limited financial means. Certainly, the experience of all couples experiencing economic hardship is not the same, and how economic factors influence the couple relationship may vary from couple to couple. Strong theoretical ties allow for postulation and examination of a wide array of potential influencing factors across different situations.

For the purpose of this study, components of two broad theories that address various potential influences (personal, relational, and contextual) on the couple relationship as related to economic hardship were selected. These theories are Human Ecological Theory, as well as a few "adaptations" of Family Stress Theory. In addition, the Ecological and Family Stress Theories are described as to how they relate to and enhance the utilization of The Family Stress Model. The Family Stress Model is an empirically driven model that has been utilized to address how economic stressors affect couple and family relationships (Conger et al., 1990).

Human Ecological Theory, Economic Difficulty, and Couple Relationships

Ideas from Human Ecology Theory help outline the context for the overall question posed by this paper: How are stress, negative affect, relationship quality, and relational aggression associated with attitudes toward CRE, and how might these associations differ for by relationship partner circumstances. Couple relationships do not exist in a vacuum, rather relationships are shaped by a number of different interacting levels. These levels include the individual (or partner) level, the couple (or relational)

level, and the contexts in which the relationship develops and is maintained (Wilson, Larson, McCulloch, & Stone, 1997).

Urie Bronfrenbrenner (1979, 1989) is noted as the developer of ecological systems theory. Bronfrenbrenner posits that an individual interacts with different contexts to form and guide development, and that these contexts are nested within four layers or systems of influence in which the individual lives (Bronfenbrenner, 1979). These four layers are the microsystem, mesosystem, exosystem, and macrosystem. These layers involve differing levels of impact from direct influences to more indirect influences on the individual. At a later point, Bronfenbrenner added the conceptualization of the chronosystem to encompass the evolving interconnected nature of the person—environment process over time (Bronfenbrenner, 1989).

As Bronfrenbrenner's theory development continued, the role of interactive process became increasingly important. His work began to indicate that behavioral outcomes are often the result from the interplay between individual and environment effects. In his bioecological theory (Bronfrenbrenner & Ceci, 1994), he noted that, in developmental terms, that the actualization of inherited human genetic propensities are shaped through several interacting elements of the individual's environment. Bronfrennbrenner deemed these interactions proximal processes, in that the manner in which inherited genetic attributes (genotypes) transform and shape developmental outcomes (phenotypes) is in many ways due to the influence of the interacting elements within an individual's environment (Bronfrenbrenner & Ceci).

For instance, personality characteristics have been noted as primarily genetic, and have been shown to influence couple relationship satisfaction and stability (e.g., Donnellan, Conger, & Bryant, 2004). Additionally, links have been shown between personality characteristics and income (Haller & Thomas, 1962; Ordu, 2009), personality, income, and alcohol use (Cooper, Frone, Russell, & Mudar, 1995; Keyes, & Hasin, 2008), and depressive symptoms and income (Frerichs, Aneshensal, & Clark, 1981; Prause, Dooley, & Huh, 2009).

In relation to couple and family programming, personality characteristics have also been associated with attitudes toward, and access to help-seeking (Reevy & Maslach, 2001; Tsan & Day, 2007). Associations between personality and help-seeking behaviors and attitudes have also been shown to be mediated by gender (Reevy & Maslach, 2001), and also influenced by income level (Gourash, 1978; Keller, & McDade, 2000; Ooms & Wilson, 2004).

Thus, genetically driven personality traits may interact with the certain stressors of the lower-income environment (e.g., financial worry, underemployment, unemployment) to increase the risk of relationship difficulty, or exacerbate factors known to increase relationship difficulty (alcohol abuse, and depression), taking a toll on the relationship, and potentially affect couples perceptions and attitudes toward seeking help. These interactions highlight the interactional nature of proximal processes, as genetic factors (i.e., gender and personality) may interact with aspects of the lower-income environment to influence relational outcomes, and help-seeking behaviors. Therefore, Human Ecological Theory helps to highlight the nuanced nature of the interconnection between individual genetic, relational aspects, and the different environments in which the

individual and the relationship is embedded as influencing the overall quality and stability of the relationship.

As a depiction of the interacting systems and influences, a trickledown effect may illustrate the interchange between these multiple systems as they potentially influence the relational dyad over time. Influences at the larger, societal macrosystem level such as a recessive economy, may result in the loss of a job, cut in pay, or increased job scarcity at the exosystem, or city/community level. The loss in job then could influence interactions in the most immediate environment of the family in terms of increased worry, concern, and couple arguments over financial issues. These arguments could intensify over time if the issue is not resolved, which may be representative of the challenges of many couples managing economic hardship. The recessive economy in the macrosystem may also impact increased crime rates and less community cohesion in neighborhoods at the exosystem, perhaps limiting couple external sources of support. Thus, factors present at the most expansive and abstract level, the macrosystem, can trickledown to impact more immediate contexts such as the couple and family relationships in the microsystem.

In these terms, environmental contexts may play important and perpetual roles in the development and maintenance of couple relationships, and in the potential processes and outcomes of these relationships. As stated by Cutrona and colleagues (2003), "a weak relationship may persist intact in a supportive environment, whereas a strong relationship may deteriorate if it is embedded in an environmental context that continually assaults the ties that bind individuals" (p. 389). Economic challenges and hardships with their associated impact could represent potentially potent assailants on binding ties in couple and family relationships.

Thus, the human ecological framework offers a valuable perspective of investigating how external forces may influence couple relationships, and how these external forces are interpreted by the couple in their relationship. A human ecological perspective suggests that stress felt from outside the relationship (i.e., job loss, job scarcity, limited resource access), and inside the relationship (i.e., increased frustration and stress, couple hostility, and arguing) disrupt relationship quality (Wilson et al., 1997), and the broader social contexts in which couple relationships exist are shaped by multiple interacting and influencing contexts (e.g., societal, community, couple, and individual influences). For relationship partners managing financial hardship, economic stress presents a large piece of shaping these contexts (Belle, 1983).

Family Stress Theories, Economic Difficulty, and Couple Relationships

Family stress models and theories also help gain insight as to what factors may influence the processes and outcome of a couple or family managing a stressful situation; what factors might help and what factors might hurt. A stressor is something that holds the potential of creating disruption and change in the family or couple. Naturally, different stressors may have different levels of intensity, and may be classified as normative or nonnormative. Stressors also may have different periods of duration; some with clearly defined ending points, and with others, uncertainty may exist regarding when the impact of the stressor will subside (Boss, 2002; Malia, 2006). Couples managing limited financial means may be faced with more of the latter challenge. Stressors related to limited economic resources may have been present for some time, and there may be uncertainty about, or be resignation to the idea that, these sources of stress do not have an immediate solution, or will ever end.

Perceptions of stressors may be different for couples managing limited financial means than couples with greater means. For instance, early Family Stress Theory work was enhanced by Hill's (1949) ABCX model of family stress. In this model, stressful events are managed in families according to interactions between varying degrees of family resources, and different family perceptions of the stressful event, which combine to produce an outcome (Karney & Bradbury, 1995; Malia, 2006). McCubbin and Patterson (1982) added to, and expanded, Hill's ABCX model to add a temporal feature, as the impact of stressful events on the family could change over time. Their double ABCX model takes into account how each component of the model may change in meaning and perception over time. In this manner, the meaning that each partner attaches to the stressful event becomes an emerging process, as initial responses to the event (in terms of coping styles utilized or resources available) shape subsequent responses to the event or future events.

For instance, one potentially potent source of stress for couples managing economic difficulty may be stress pile-up. Stress pile-up is identified as the accumulation of stressors or stressful events, perhaps over a short period of time. As initial attempts to manage a stressful situation do not produce effective results with the stressful impact still present, stress pile-up can occur (Malia, 2006; Karney & Bradbury, 1995). Thus, couples and families may become worn down through such a process, and adopt an overall fatalistic view of ever overcoming presenting stressors.

This illustration could be particularly relevant to couples managing repeated or persistent bouts with financial difficulty, and in particular, relationship partners hovering around, or below the national poverty threshold. Couples managing extreme levels of

poverty often experience chronic poverty conditions that often do not make drastic improvements over time. Chronic poverty, as opposed to episodic poverty, has been associated with more powerful direct effects on couples and families (Barnett, 2008; McLoyd, 1990). As such, stressors or challenges confronting the couple are not represented by one or multiple crisis events, but rather a continual state of living that may see relative "ups" and "downs" but never find an adequate solution. This process may have a powerful influence on the way in which stressors are perceived as individuals and families managing chronic poverty may grow "accustomed to thinking in terms of failure rather than success" (Grimes & McElwain, 2008, p. 221). This may be particularly important as family stress, especially chronic stress, has been associated with various forms of psychological distress, and even aggressive behaviors in couples (see Frye & Karney, 2006). Family stress models indicate that family perceptions act as a strong mediating factor between financial strain and psychological and emotional distress, and therefore, relationship health (Barnett, 2008).

One particularly understudied source of stress for lower-income couples are more micro level stressors such as daily hassles. Daily hassles are any number of day-to-day struggles that negatively impact family life and can include couple arguments, financial concerns, transportation trouble, and bad weather. Couples managing economic difficulty may experience an array of hassles on an almost daily basis. These daily hassles could include struggles with rent and utility bills, buying food, finding childcare, or finding sufficient transportation from place to place. Microstressors, such as daily hassles can be particularly deleterious when there is an overall lack of positive experiences to counteract their influence. The positive experiences encountered for couples faced with financial

difficulty may not be able to reach the level of counteractive power necessary to relieve stress felt from daily hassles (Malia, 2006; MacLean, 1976).

The Contextual Model of Family Stress

Boss (2002) went on to further expand the ABCX models described earlier. Boss (2002) placed the ABCX model within three internal and five external contexts acting as influencing factors on the manner in which stressful situations are perceived and managed. Boss' model attempts to account for the more broad influences on the family stress management process within specific contexts, and thus, was entitled the Contextual Model of Family Stress. The three internal contexts represented in Boss' model are the structural, psychological, and philosophical factors present within the couple or family. The five external contexts are represented by heredity, development, economy, history, and culture, and are evidenced by larger, and more abstract-level influences (Boss, 2002; Malia, 2006).

By addressing the contextual processes that may influence the family stress experience, Boss' model is able to address how factors such as socioeconomic change, family history, and outside sources of support have an impact on the stress process. For example, the current economic recession in the U.S. may present an array of difficulties pertaining to couples managing financial strain. Rising unemployment rates, limited resources, and limited social supports to families are only a few contributions to the stressful experience. In developmental terms, "rising out" of poverty conditions may be particularly difficult. Many families experience a cyclical and intergenerational transmission of poverty (Harris, 1996; Shlonsky, 1984). Current economic and social

conditions (i.e., the economy context) may interact with family poverty cycles (i.e., the development context) to create unique challenges for couples managing chronic financial strain.

Examining these external factors such as the ones just described in interaction with internal factors may also shed further light on this process. Couples and families managing financial strain often experience elevated levels of psychological distress such as depression (Barnett, 2008; Conger et al., 1990) (the internal psychological factor), low levels of social and material sources of support (Belle, 1983; Simons, Lorenz, Wu, & Conger, 1993) (the structural internal factor), and fatalistic attitudes toward the current situation and the future (the philosophical internal factor) (Grimes & McElwain, 2008). Thus, the Contextual Model of Family Stress presents various potential sources from which financial strain impact couple and family relationships.

In general, contemporary family stress theories suggest that more severe stressful circumstances would have the most damaging impact on couples with limited economic, structural, and social support resources (Conger, et al., 1990; Karney & Bradbury, 1995; Liker & Elder, 1983; Ooms, 2002). Relationship quality would be most likely damaged as relationship resources are unable to meet the demands presented by the stressful situation (Karney & Bradbury, 1995; Liker & Elder, 1983). Thus, this discussion provided on family stress theory perspectives in relation to couples and families managing financial strain help identify potential factors contributing to greater relationship decline or greater resiliency. Yet, although family stress theories provide important information on how financial strain may impact couple relationships, in some ways they may fall somewhat short in explanatory power. For example, critiques of

family stress theories cite that although family stress perspectives aid in pointing toward important external and internal sources of stress, and acknowledge how the role of resources and perceptions might change over time, these theories do not describe adequately what processes might bring about such changes (see Karney & Bradbury, 1995). The attention of this paper will now turn to a model representing, in many ways, a specific adaptation of family stress and human ecological theories addressing couples and families experiencing economic strain.

The Family Stress Model and Economic Difficulty

In the 1980s Rand Conger and colleagues developed the Family Stress Model. Much of the conceptualization of the model was shaped out of the seminal research done by Glen Elder and others investigating changes in families during the depression and contemporary findings relating to economic stress and families (Conger, Reuter, & Conger, 2000). Out of this longitudinal data regarding families in the depressions era Liker and Elder (1983) reported that disputes over financial strain raised the level of marital tension over time, income loss increased personal instability in men, and that these effects were most pronounced in families with limited resources.

Additionally, Liker and Elder (1983) noted that greater degrees of marital tension were associated with elevated rates of marital instability in terms of separation and divorce. Chronic economic hardship in these families was associated more strongly with marital tension. These researchers reported the continued disadvantage of depression related economic stressors felt in these couples up to the World War II era, in many cases, 20 or more years after data was initially collected.

Consistent with family stress theories, Liker and Elder (1983) noted that couples with relatively weak marital bonds before economic pressures were felt experienced more detrimental outcomes related to marital quality. Stronger marital bonds, in these terms, would be considered a resource to manage economic pressure. Similarly, Liker and Elder indicated that working class couples were perhaps more likely to experience more severe economic pressure due to a limited supply of resources compared to mounting financial pressure.

Other research at the time was also examining socioeconomic factors in relation to relationship quality and stability. Yet, many of these studies yielded conflicting results; some noted associations between economic stress, couple resources and relationship quality, while others found no significant associations (e.g., Atkinson, Liem, & Liem, 1986; Larson, 1984; Perrucci & Targ, 1988). Conger and colleagues (1990) suggested that much of this research at the time investigating economic stress and marital relationships lacked the capacity to test which couple interactional mechanisms might exacerbate the influence of economic stressors. They noted that measures obtaining information on couple behavioral interactions would be more likely to offer descriptive information on how economic stress affects partner evaluations of the relationship.

Conger and colleagues initiated a longitudinal study involving 451 families living in north-central Iowa from 1989 to 1992. The project, entitled the Iowa Youth and Families Project, was conducted in this area of the country at this point in time as many rural Iowa families were experiencing extreme economic hardship due to the recessive farm economy during the 1980s that wreaked havoc on families in the area, many of whom were dependent upon agriculture revenue. Original "versions" of the Family Stress

Model began to appear in published literature in the early 1990s. The Family Stress Model utilizes information from many theoretical backgrounds including ecological and family stress theories. The model considers biological, psychological, environmental, and social resources or challenges that contribute to reductions or intensifications of economic stress processes in families (Conger at al., 2000).

Family Stress Model study findings have highlighted associations of marital partner behaviors in association with economic stress. Conger and colleagues built on prior research investigating specific couple behavioral interactions associated with disruptions in marital quality and stability. A number of findings supported the notion that couple interactions high in negativity (e.g., anger, contempt) produced more threats to marital quality and stability over time (Gottman, 1979; Gottman & Krofoff, 1989; Hahlweg, Revenstorf, & Schindler, 1984).

Conger and colleagues sought to describe the impact of economic stress on marital conflict and marital quality through investigations of couple interactional behaviors. The Family Stress Model postulates that economic stressors are associated with increased frustration, anger, and emotional distress related to managing such stressors. Conger and colleagues have consistently shown through Family Stress Model testing connections between economic stress and financial strain with increased hostility and decreased warmth and supportive behaviors in couples, which also influenced marital quality. These findings have generally shown to be more pronounced in men (husbands) (Conger et al., 1990; Conger & Elder, 1994; Conger, Elder, Lorenz, & Simons, 1994; Conger et al., 2000; Lorenz, Conger, Simon, Whitbeck, & Elder, 1991; Matthews, Wickrama, & Conger, 1996).

In part, some of these findings on increased hostility and decreased warmth in couples managing economic stress may be due to how these stressors shape attention, time, and support in the relationships. Distressed couples have been shown to be more likely to reciprocate negative behaviors (Gottman, 1979; Matthews et al. 1996). Couples managing financial strain may be consistently bothered by day-to-day frustrations, difficulties paying bills, and meeting basic needs, and may see these frustrations vented in the relationship as arguments, concern, and desperation related to money and finances ensues. Findings supporting Conger and colleagues work indicate that financial problems distract marital partner's attention away from focusing on the relationship, decreasing marital quality (Conger at al., 2000; see also Simons et al., 1993).

Such implications are important to consider through family stress and ecological lenses as well. The couple relationship is often seen as the primary support system for romantic relationship partners, potentially acting as a resource against stress (Beach & Gupta, 2006; Julien & Markman, 1991). In addition, healthy couple relationships can act as buffers against negative life events, mental health issues, and physical health deterioration (Karney & Bradbury, 1995; Gottman, Levenson, 1992; Leinonen, Solantaus, & Punamaki, 2002). These theoretical underpinnings and research findings support the work of researchers and practitioners seeking to identify effective means through which to help couples managing financial strain pursue healthy and satisfying relationships.

Therefore, the Family Stress Model helps to specify conceptual information from ecological, family stress, and other theories to address the mechanisms through which couples managing financial strain might experience alterations in relationship quality.

Family Stress Model findings indicate that couples experiencing financial hardship and related stress may show increased levels of hostility and reduced warmth in interaction with one another, thereby reducing relationship satisfaction. These interactions may be heavily influenced by each partners' frustrations related to financial strain, as partner energy is expended managing money concerns and attending to worry while limiting time devoted to the couple relationship.

Economic Difficulty and Seeking CRE

This study is in many ways, truly exploratory. That is, although substantial information exists regarding factors threatening relationship satisfaction, very little information is known about factors associated with couples' decisions to attend programs to boost relationship satisfaction, such as CRE services. In addition, there is an overall limited amount of empirical information relating to how factors associated with relationship quality may also be associated with attitudes and perceptions of CRE services, particularly for couples in lower-income circumstances (Larson, 2004; Ooms & Wilson, 2004).

As mentioned, there is some evidence that that couples of limited financial means are very interested in relationship education (e.g., Johnson et al., 2002), value relationship health (Ooms & Wilson, 2004), and due to stressors related to financial hardship, may be at higher risk for relational difficulty potentially enhancing the benefits of CRE services (Halford, et al., 2006). Yet, couples managing financial hardship may maintain unique perceptions about relationship education or experience unique challenges to "get in the door" of these programs.

This manuscript cites evidence that stressors related to economic pressures and hardships may be associated with increased stress, hostile, and aggressive behaviors, along with limited "positivity" and relationship support for couples with limited financial means. This study posits that factors associated with relationship distress and stability, are also associated with couple attitudes toward seeking relationship-help and enhancement through CRE services. This study also posits that attitudes toward CRE are shaped by surrounding contexts of the couple relationship, such as income-related stressors. Thus, this study utilizes a generalized framework of the Family Stress Model informed by human ecology and family stress theories assessing how factors known to be related to relationship quality (stress, negative affect, and relationship aggression) are associated with attitudes toward CRE, and how these associations may differ by relationship partner circumstances (income, education, and relationship status).

CHAPTER II

REVIEW OF LITERATURE

Marriage, Divorce, and Recent Family Formation Trends: The Need for Couples Services

Recent estimates indicate that approximately 45%-50% of marriages end in divorce (Raley & Bumpass, 2003). Divorce has shown to have various forms of impact on both divorcing partners and children. In fact, over half of all divorces occur in families with children under the age of 18. Divorced adults tend to report greater health problems, lower self-concept and more psychological distress as compared to married adults (Amato, 2000; Amato, 2001). Children from divorced families are more likely to experience a divorce themselves, and tend to score lower on measures of academic achievement, social competence, and self-concept than children living with two parents (Amato, 2000, Amato & Booth, 1997) (citation). In addition, to the extent that divorcing couples exhibit high levels of distress and discord, the quality of the parents' relationship has also shown to be predictive of the quality of the child's future romantic relationships (Conger, Cui, Bryant, & Elder, 2000).

Marriage has been shown to provide several protective functions for marital partners including better physical health, increased emotional support, and improved positive outlook (Campbell, 1993; Kiecolt-Glaser & Newton, 2001; Waite & Gallagher, 2000; Wright, 2005). Also, married individuals report higher levels of personal happiness, higher income levels, and greater financial security. Increased financial well-being is associated with numerous benefits for relationship partners and children (Waite & Gallagher; Wright, 2005). Recently, relationship characteristics of one's partner have all been associated with increased relationship satisfaction in samples of married and committed couples (Allemand, Amberg, Zimprich, & Fincham, 2007; Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002).

Data citing trends in family formation of disadvantaged populations in this country point toward several important areas of concern related to the current heightened focus on families in lower-income circumstances in terms of increased funding to provide for and augment CRE efforts for couples of limited financial means. Ooms (2002) and Ooms and Wilson (2004) have provided a summary of these trends. They note that the poor are at greater risk of being single parents, and the rise in single parenthood among the poor has driven up program costs of welfare and Medicaid. Single-parent households are more likely to experience economic challenges in that they are five times more likely to be poor. The rise in children living in single parent households has more than doubled since 1970. This increase has been most noted for Whites.

Additionally, children raised in single-parent households are at greater risk for poverty, behavior issues, dropping out of school, and getting pregnant in the teen years than children raised by two biological parents. Children born to single parents are more

likely to be long-term welfare dependents, as currently above 50% of parents on the welfare program are not married (Ooms, 2002).

In addition, in general, separation, divorce, and occurrences of other relationship disruptions are much higher among women in lower-income brackets and who have less than a high school education. Also, it appears marital and relational quality are on the decline over the past few decades, and some evidence suggests that couples in lower-income circumstances are more likely to experience relationships and marriages that are lower in quality and unsatisfying (Fein, Burnstein, Fein, & Lindberg, 2003; Johnson et al., 2002; Karney et al., 2003; Ooms & Wilson, 2004). This summary of findings highlights the growing public concern in terms of social policy and social cost related to family formation trends among those with limited financial means and financial stability (Ooms, 2002).

Thus, there exists ample evidence on which to substantiate programs designed to strengthen couple relationships for those who choose to participate (Markman & Halford, 2005; Stanley et al., 2008). Various organizations and institutions are now involved in such efforts. Yet, although some information is emerging, there is very little known about marriage and other romantic relationships in lower-income couples which information could greatly enhance the work of CRE providers, and other couples practitioners and researchers.

However, the outlook is not all doom and gloom. Information currently available on romantic relationships and marriage in lower-income couple relationships points towards several encouraging factors related to those who work with couples, and several

areas in need of further understanding. It is to this information that this discussion will now turn.

Romantic Relationship Trends Among Unmarried, Lower-income Couples

Nationally representative and in-depth longitudinal studies have focused on relationship characteristics, specifically in unmarried parents. The Fragile Families and Child Wellbeing Study (FFCWB) and the Time, Love, Cash, Care, and Child Study (TLC3) are two examples. The *fragile* part of the title in the FFCWB study is descriptive of some of the challenges faced by unmarried parents that contribute to the greater likelihood of relationship dissolution, and the family part of the title refers to the notion that romantically involved lower-income couples who have a child together, although not married, represent a growing family form (Carlson, McLanahan, & England, 2004; Sorensen, Mincy & Halpern, 2000; Waller & Swisher, 2006). These studies centered around couple relationships (married and not married) at the time of the birth of the first child for the union, and follow-ups were conducted one year, three years, and five years later (Carlson et al., 2004; Ooms & Wilson, 2004).

The initial findings of the studies were perhaps somewhat surprising and encouraging. Results indicated that the unmarried parents were strongly connected to each other, and reported elevated affection for one another at the time of the birth of their child. Also, parents placed high value on marriage indicating that they held high hopes for the future of their relationship. Over 70% of the mothers and 90% of the fathers in the FFCWB study indicated that the chances that they would marry were 50% or greater (Carlson et al., 2004; Ooms & Wilson, 2004; Parke, 2004).

However, the initial findings, although encouraging, were somewhat fleeting. At the one-year follow-up point, only 15% of couples cohabiting at the time of the birth had married. Of those who had been in visiting or dating relationships at the one-year follow-up, 32% reported cohabiting, 14% reported still in the dating stage, 5% had married, and 50% were no longer romantically involved (Carlson et al., 2004; Ooms & Wilson, 2004).

Obstacles to continuing long-term relationships were also reported. Unmarried parents were significantly younger (6 to 7 years younger than married parents), and were more likely to have children from more than one partner than the married parents. Unmarried parents also reported low-levels of confidence and resources of being able to support themselves and their children. Most fell in the poor or near-poor categories, with limited education levels, little work experience and skills, and low levels of community support (Parke, 2004).

Unwed parents who did not marry or discontinued romantic involvement reported that the two largest obstacles for not continuing the relationship fell into the categories of financial concerns and relational concerns (Carlson et al., 2004; Ooms & Wilson, 2004). Unwed parents reported a heightened need for greater security before taking such a serious step such as marriage (e.g., steady job and income, enough financial means to place a down payment on a home, and pay for a wedding) (Carlson et al., 2004). In terms of relational obstacles, unwed parents reported greater concerns about the strength, commitment, and durability of their relationship, citing issues related to emotional immaturity of partners and distrust, specifically pertaining to sexual fidelity (Carlson et al., 2004; Ooms & Wilson, 2004). In fact, relational aspects in unwed couples appeared particularly potent, as greater relationship quality was associated with greater likelihood

of relationship progression to cohabitation or marriage, even greater than the influence of employment (Carlson et al., 2004; Parke, 2004).

The findings cited by these two large-scale studies focusing on unmarried parents point toward several important areas of focus for those who work in CRE and other couples related work. Particularly, the birth of a child may be an effective target time for couples to receive couples programming, as program facilitators could build on the strengths of these relationships in that the connectedness, affection, and hopeful nature of couples were reportedly high at the childbirth point in time. In addition, these findings highlight the vast array of challenges and obstacles present for unwed, lower-income couples. Particularly, results suggest that relationship facets were important in determining couple relationship outcomes, and relationship services should focus on building couple skill-sets to promote trust and commitment. Programs targeting lower-income and unwed parents should also recognize and focus on the economic needs and challenges of couples, and provide external support services to the couple to combat the deleterious nature of these challenges including financial skills training, job training, and community support integration (Carlson, McLanahan, England, & Devaney, 2005; Ooms & Wilson, 2004).

Married Couples and Economic Difficulty: An Overview

Less overall is known about married lower-income couples (Ooms, 2002; Parke, 2004). Research conducted under contract of the Administration for Children and Families, and a few other studies have produced an emerging body of findings related to married couples in lower-income circumstances. Highlights of these findings indicate that

lower-income married couples are more likely to enter marriage with children, have lower levels of education, less stable employment, and use more government assistance programs than married couples of higher income groups (Fein, 2004). Demographic profiles show that of married, lower-income couples, over half are Latino, and about 47% are white. African Americans constitute only about 1% of this group (Fein, 2004).

Additionally, lower-income married couples are younger at marriage than higher income couples. Lower-income couples also tend to be at earlier stages of their careers when marrying, and as a result experience lower wages. Generally, lower-income couples marry younger and have shorter relationships than those in higher income brackets (Fein, 2004). Finally, lower-income individuals are just as likely to marry as others, but experience a greater risk of instability (Fein, 2004; Ooms & Wilson, 2004).

All of these findings and reports on romantic relationships of couples of limited financial means, married and unmarried, evidence the relevance of CRE programs designed to strengthen and enrich the relationships of those who make the choice to participate. However, as these types of programs expand and grow the practice may outrun the reach of the research. Gaps in what we know about couples in lower-income circumstances may impede overall CRE effectiveness (Halford, 2004; Hawkins & Fackrell, 2010).

Numerous arguments have been made that tailored programs fit to the needs of lower-income couples are a necessity (e.g., Dion, 2005; Ooms, 2002; Ooms & Wilson, 2004; Stanley et al., 2008). Some have commented that learning more about the factors that influence how couples perceive CRE represents a logical and basic step to increasing

the reach, and overall design effectiveness of such programs (Larson et al., 2008; Morris et al., 1999).

Additionally, very little is known about the interactional qualities of couples of limited financial means. Fein (2004) noted that there is much to learn about the characteristics of lower-income couples that impact relationship quality, relationship outcomes, and resource access. These investigations should address both potential couple strengths and vulnerabilities. In addition, comparisons of these influencing factors are needed between couples of limited income and more affluent couples (Fein, 2004; Knox & Fein, 2009).

This review will now turn to addressing factors that have been well documented as contributing to relationship well-being, and how these factors have been shown to be affected by socio-economic status (SES). Additionally, a discussion is provided on how these relationship and SES factors may be associated with relationship partner attitudes toward CRE. Learning more about how these relationship factors are associated with attitudes toward CRE programming, and how they are potentially moderated by gender, income, education, and relationship status adds depth to how to market and design CRE programming specifically designed to the needs of couples in differing circumstances.

Specifically, learning more about CRE attitudes can aid to enhance promotional efforts, which have been cited as areas of needed improvement (Morris et al., 1999; Roberts & Morris, 1998). Investigating factors that are predictive of more positive attitudes versus more negative attitudes allow for more specifically designed promotional campaigns that instigate more positive appraisals of CRE programs in order to reach

more potential participants. The factors discussed in the following sections are: stress, negative affect, and intimate partner aggression (IPA).

Stress, Economic Difficulty, and Close Relationships

Larger-level Economic Stress Impact and Empirical Direct Links

Connections between economic prosperity or hardship and couple and family relationships have been the topic of discussion for many years. At the larger level, trends in national and international economic conditions have been shown to influence family formation patterns, work roles, work schedules, and resource access. As the impact of these larger level economic trends and conditions are felt in couple and family relationships, the potential exists to both shape and alter interactions at the more immediate couple level (Freeman, Carlson, & Sperry, 1993; Rettig, Danes, & Leichtentritt, 1997; Solantaus et al., 2004; Strazdins, Clements, Korda, Broom, & D'Souza, 2006; White & Rogers, 2000). In a related manner, it could be inferred that the recent recessive economic state in this county over past years has had an impact on family and couple relationships.

Various studies and reports have noted how factors related to economic stress potentially disrupt and dampen the quality of couple relationships as well as threaten personal well-being (Brinkerhoff & White, 1978; Clark-Nicolas & Gray-Little, 1991; Conger et al., 1990; Conger, Reuter, & Elder, 1999; Dakin & Wampler, 2008; White & Rogers, 2000). Some studies report negative associations between income level and economic-related stressors (e.g., financial management issues, worry, job instability, etc.) with marital quality (Clark-Nicolas & Gray-Little, 1991; Conger et al., 1990; Dakin &

Wampler, 2008; Furdyna, Tucker & James, 2008; White & Rogers, 2000). However, focusing on direct links between income level and relationship quality fails to capture other potent factors that are also associated with relationships in lower-income couples. Focusing on additional mechanisms allows for the enhancement and improvement of prevention and intervention efforts aimed at assisting couples managing economic difficulty to experience healthy relationships.

Economic Difficulty and the Chronic Stressor State

Many lower-income couples experience economic stress in a chronic state rather than in an episodic or acute state. Often, families living in poverty become accustomed to the idea that the family living condition will not improve due to the continuous or chronic nature of economic stressors. Stressors tend to pile-up without signs of resolution, and potentially intensify issues and worries already present. In this respect, the impact of chronic stress has been noted to be more severe than acute stress, and exert a more powerful influence on couples and families (Barnett, 2008; Freeman et al., 1993; McLoyd, 1990; Scaramella, Sohr-Preston, Callahan, & Mirabile, 2008).

As an example, Scaramella and colleagues (2008) investigated stress in low-income families both affected by Hurricane Katrina and those not affected by the disaster. They found no statistically significant differences in stress-related factors across pre and post assessments (before and after the hurricane) in the Katrina affected group. This finding was surprising to the authors as they noted, "for the most impoverished families, the incremental increase in felt stress associated with the events of Hurricane Katrina may be insignificant as compared to the chronic stress associated with poverty" (p. 538).

Many lower-income couples struggle with challenges related to the inability to meet basic needs, and these struggles have been noted to spill over into the couple relationship. Reports utilizing The Family Stress Model indicate that the economic strain felt by relationship partners is likely to incite anger, frustration, and increased hostility while reducing warmth and supportive behaviors in the relationship (Conger et al., 1990; Conger & Elder, 1994; Liker & Elder, 1983; Freeman et al., 1993). Low-income couples managing elevated economic stress are also more likely to report depression and other forms of psychological distress (Conger & Elder, 1994; Dakin & Wampler, 2008). All of these factors have been identified as threats to relationship quality (Conger et al. 1990; Freeman et al., 1993; Kinnunen & Feldt, 2004).

Economic Difficulty and Resource Access

Family stress and ecological theories highlight the various contextual influences in which couple relationships are embedded. In this sense, challenges for low-income couples are much more than worries about money (McLoyd, 1990; Wadsworth & Santiago, 2008). Low-income couples may experience reduced access to personal, social, and environmental resources than couples of greater economic means (Cattaneo & DeLoveh, 2008; Gallo, Bogart, Vranceanu, & Matthews, 2005; Mistry, Lowe, Benner, & Chieb, 2008). In terms of personal resources, lower-income couples may experience fewer coping resources with which to manage frustrations and worry. Economic stress in low-income families has been associated with less productive coping mechanisms and greater presence of psychological symptoms (Wadsworth & Santiago, 2008).

An overall lack of effective coping mechanisms and access to resources potentially renders the couple vulnerable to an array, or "piling-up" of stressors from various sources. Commenting on this phenomenon, Clark-Nicolas and Gray-Little (1991) noted, "lower economic status seems to engender a state of vulnerability that also renders the marriage more susceptible to other stressors" (p. 653). As the stressors pile-up, the couple my find little left to dedicate to the relationship and little resources through which to confront the stressors, and therefore harmful influences may become more potent in taking their toll on the couple relationship.

In addition, coping resources and mechanisms in lower-income couples may rapidly deplete as couples experience continued unsuccessful attempts to better their situation (Grimes & McElwain, 2008; Rettig et al., 1997). In some cases, couples experiencing chronic economic stress may express an overall lack of control over their situation, and elevated feelings of hopelessness, as increased stress has been found to be associated with lower levels of internal locus of control and reduced feelings of self-sufficiency (Bollini, Walker, Hamann, & Kestler; Dakin & Wampler, 2008; Rettig et al., 1997).

Economic Difficulty: Surrounding Contexts and Stress

Ecological theory ideas also points toward other relevant contexts in which low-income couples may live that potentially mitigate couple stress. One of these important contexts may be the neighborhood environment. Low-income couples and families are more likely to live in neighborhood environments presenting more risks to family and child well-being, including increased substance using behavior and violence (Duncan,

Duncan, & Strycker, 2002; Ellen & Turner, 1997). Roosa et al. (2005) reported that families who lived in high-risk neighborhoods reported more stressful events than families living in low-risk neighborhoods.

High-risk neighborhood environments have also been linked to poorer health outcomes. Recent study findings denote a strong connection between impoverished conditions, stress, and health outcomes (Cohen, Doyle, & Baum, 2006; Keenan, Gunthorpe, & Grace, 2007; Kristenson, Eriksen, Sluiter, Starke, & Ursin, 2004). These factors are important to consider as those with limited financial means are known to have unhealthier lifestyle practices, and various findings cite the interrelationship between health, stress, and relationship quality (Cattell, 2001; Kiecolt-Glaser & Newton, 2001 Kristenson et al., 2004).

Economic Difficulty, Stress, and Couple Relationship Conclusions

This section underscores the importance of assessing for stress when investigating influencing factors on couple relationships of different financial means, and as a mechanism through which couples connect with relationship resources. More evidence exists citing the use of subjective measures of economic stress as associated with factors such as relationship quality and stability (e.g., Conger et al., 1990; Conger & Elder, 1994; Fox & Chancey, 1998). Yet, some researchers are citing the benefit and importance of using objective measures of economic conditions as indirect and direct influences on couple relationships and outcomes (White & Rogers, 2000). This study utilizes two different sets of variables that are commonly utilized to assess SES. Variables for both male and female partners were created to assess differing levels of income and education.

Additionally, stress measures have been able to successfully differentiate between high and low risk groups, and assess for particularly potent influences on family stress (Fisher, Fagot, & Leve, 1997). However, little evidence exists of utilizing a reputable global stress measure to assess whether relationship partner stress is associated with attitudes toward couple resources such as CRE programs. Such an assessment would provide a window into factors associated with decisions to attend.

Also, stressors more common to lower-income couples may make attending programs such as CRE more difficult (Ooms & Wilson, 2004). The pile-up, or perpetual nature of job insecurity, job scarcity, financial worry, transportation issues, and childcare arrangements may have a strong bearing on how low-income partners perceive CRE programs and other potentially helpful services. In some cases, the perceived benefits may not be "worth" the effort of attending. Thus, assessing for how stress is associated with couple attitudes toward CRE, and how these associations may differ by income level and education level, helps service providers know how to frame and market such programs to enhance their "good side", or highlight their positive benefits to allow for more couples to find personal value in attending such programs and potentially strengthening their relationship.

Hypothesis 1: Greater levels of stress will be associated with more negative attitudes toward CRE. 1a. Relationship partners in the lower income group will report greater levels of stress, which will be associated with more negative attitudes toward CRE. 1b. Greater levels of stress will be higher among male relationship partners associating with more negative attitudes toward CRE.

Couple Interactional Quality: The Role of Affect

Studies investigating couple interactional process have sought to identify patterns and characteristics that impact relational distress (Gottman, 1998; Heyman, 2001). Over time, important findings have emerged distinguishing the interactional patterns between distressed and nondistressed couples. Although interactions vary across couples, the hallmark of interaction patterns among distressed couples has emerged as *negativity* (Gardner & Wampler, 2008; Griffin, 1993). Numerous studies investigating couple interactional patterns have shown elevated levels of negative affect and negative verbal and nonverbal behaviors in couples classified as distressed (Burman, Margolin, & John, 1993; Gottman & Levenson, 1992; Griffin, 1993; Levenson & Gottman, 1985; Revenstorf, Vogel, Wegener, Hahlweg, & Schindler, 1980).

Reciprocation of Negativity: Distressed and Nondistressed Couples

Additionally, findings show that distressed couples are more likely to reciprocate negativity and hostility, often producing what has been deemed a vicious cycle affecting relationship satisfaction (e.g., Levenson & Gottman, 1985). Reviews of this body of literature by Heyman (2001) and Gottman (1998) note that distressed couples are more likely to begin conversations with hostility, maintain elevated levels of hostility throughout the conversation, reciprocate hostility, produce lower ratios of positive behavior to negative behavior, and experience greater health consequences and physiological arousal than nondistressed couples. All of these factors are noted to affect relationship quality in couples (Gottman, 1998).

Yet, nondistressed couples experience periods of negativity and hostility. What is it about nondistressed couples that leads to reduced risk for negative relationship outcomes? This is more than simply not doing what distressed couples do (Heyman, 2001). Evidence suggests that although nondistressed couples do experience negativity and hostility, it is the *way* in which these factors are managed in the interaction that contributes to more positive relationship experiences. For example, Burman et al. (1993) noted that nondistressed couples displayed negative behavior patterns similar to the distressed couples in the study, but they were able to exit patterns of negativity more quickly. Also, these researchers suggested that the overall ratio of positive behavior to negative behavior is higher in nondistressed couples than in distressed couples. Distressed couples have been shown to more quickly escalate negativity than nondistressed couples, leading to amplified risk of relationship distress and dissolution (Gottman, 1998; Heyman, 2001; Revenstorf et al., 1980).

The Role of Affect in Relationship Outcomes: A Dyadic Concept

Further examination of research on patterns of emotion and behaviors in couple communication reveals additional evidence of the impact of affect in the couple interactional process. Couples researchers have noted the salience of affect as an important predictor of marital disruption, and divorce (e.g., Carrere & Gottman, 1999; Griffin, 1993, 2003; Smith, Vivian, & O'Leary, 1990). Additionally, researchers have noted that the affective factors of couple communication allow for more intricate views of the quality of the relationship. Along these lines, investigations of affective couple interactions have shown to be more representative of current relationship quality than the verbal content of the communication or the communication skills of the relationship

partners (Bradbury & Karney, 1993; Gottman, 1979; Johnson et al. 2005; Smith et al. 1990). Affect quality associations in couples may be related to the truly dyadic nature of affect in the relationship. Griffin (2003) noted that affect in couple relationships is not determined by the affect states of both partners individually, but that the couple affective state is represented at the relationship level. This conceptualization of couple affect is of particular importance in scientific investigations (Griffin).

Research on couple interactions over the past 30 years have given way to considerable gains in information regarding affective influences on couple relationships. Various studies have shown that couple interaction patterns marked by negative affect are associated with lower relationship satisfaction (Burman et al., 1993; Levenson & Gottman, 1985; Smith et al., 1990). As negative affect is reciprocated in couple interactions, the negativity can carry over from discussion to discussion, creating an additive, vicious, cyclic pattern of negative emotionality impacting relationship quality (Bradbury & Karneyt, 1993; Levenson & Gottman, 1995). Additional findings indicate that patterns of negative affect in couples are predictive of future relationship dissolution over time (Carrere & Gottman, 1999; Gottman & Levenson, 1992). Thus, affective patterns shape the content and context of the relationship in that couple interactions are associated with the quality of the current relationship and fluctuations in relationship quality over time. As noted by Gottman and Levenson (1985), "the quality of interaction defines the quality of the marriage" (p. 91).

Absorbing Nature of Negativity in Couple Interaction

Gottman (1998) posits patterns of reciprocated negative affect represent "absorbing states" (p. 179) for distressed couples. In this sense, negativity in some distressed couples becomes an infectiously addictive state that once entered, is extremely challenging to leave. In addition, Gottman, Swanson and Murray (1999) note that all marriages potentially can enter "dark side" or "bright side" (p. 16) interactional exchanges. Which "side" is entered may depend more on baseline interactional states at the start of the interaction/discussion. To adapt this idea, the strength (or lure) of the particular interaction exchange for the particular couple may depend on patterned or "normal" interactional exchanges for a particular couple. For example, exchanges of negative affect are more common, or more stable, for distressed couples, and therefore, are engaged more often.

As noted earlier, couples in lower-income circumstances may be more at risk for relationship distress and lower relationship quality (Conger et al., 1990; Dakin & Wampler, 2008; Johnson et al., 2002). Thus, couples of limited financial means may be more likely to exhibit the interactional patterns more representative of distressed couples characterized by reciprocated negativity, and, likewise, these patterns would have a negative impact on relationship quality, and potentially dampen perceptions of relationship help services. In these terms, some of the unique personal, couple, and environmental stressors present in lower-income couple and family relationships would be likely to impact exchanges of negative affect and thereby influence the quality of the relationship and perceptions of resources designed to benefit the couple relationship.

Contextual Influences on Couple Affectual Exchange

Ecological and Contextual Stress theories highlight the importance of various influencing factors on negative affect of relationship partners and, subsequently, affectual exchanges. For example, community and neighborhood conditions, personal characteristics, and stressful circumstances have been shown to impact displays of negative affect (Rotton & Dubitsky, 2002; Scheier, Miller, Ifill-Williams, & Botvin, 2001).

In addition, financial strain and employment instability and difficulty have been associated with greater levels of psychological distress, including greater risk for depression. Symptoms more commonly managed by individuals with elevated psychological distress and depression include flat, "low" affect, and negative displays of affect (Conger et al., 1990; Conger & Elder, 1994; Dakin & Wampler, 2008; Kinnunen & Feldt, 2004; Pierce, Frone, Russell, & Cooper, 1994).

Further, studies have noted the impact of work distress on affectual exchanges in close relationships, particularly in lower—SES relationship partners. Krokoff, Gottman, and Roy (1988) investigated the translation of work distress into the couple relationship at home in blue-collar and white-collar workers. They found higher rates of negative affect reciprocation while observing problem-solving discussions for those in blue-collar job situations than in white-collar jobs.

In addition, Repetti (1989) found that job distress and workload were related to the interactions of marital partners in a sample of air traffic control workers. Also, this study found that support on the part of the spouse after particularly stressful workdays

moderated the impact of workload on marital interactions, in that more spousal support was associated with more social withdrawal and less anger. The author noted that perhaps spousal support, in terms of positive encouragement may lead to more healthy emotional recuperation for husbands by supporting husbands' time to unwind after stressful workdays, and therefore limit the exchange of negativity (Repetti). Thus, the influences of neighborhood factors at the community level, the work—home interaction, and the influence of psychological distress and depression at the individual level all are potentially associated with more pronounced exchanges and reciprocations of harmful negative affect cycles in lower-income couple relationships.

The Negativity Pile-up Phenomenon

Additionally, work distress and other related stressors may influence lower-income couples' ability to adequately address and manage potentially negative interactions and issues as they arise. For example Gottman, Swanson, and Murray (1999) created a related theoretical idea entitled the "marital negativity detector." This theory indicates that couples with higher negativity thresholds may not address problematic issues as they arise in the relationship, and thus negativity accumulates embedded in the relationship. Couples with low negativity thresholds address potentially problematic issues as they come up in order to prevent negativity escalation.

In a related manner, Krokoff (1991) found that although humor can at times be a positive resource for couples, blue-collar couples were more likely than white-collar couples to use humor to "brush off" or minimize negative affectivity while communicating. Krokoff found that in blue-collar couple interactions, humor preceded

and followed the partner's tension and anger, while noting that feigning humor allows husbands to approach negativity and conflict without having to take responsibility for these emotions. Thus, couples in lower-income circumstances may be more likely to use mechanisms such as humor to brush over relationship issues and manage relationship affect, increasing couple negative thresholds and accumulating and stagnating reciprocations of negative affect in the relationship over time.

These negativity accumulations and reciprocations, when coupled with a lack of positivity and increased frustration and irritability as described earlier, hold potential harmful influences on relationship well-being, including increased risk of violent acts (Beach, Martin, Blum, & Roman, 1993; Fox ,Benson, DeMaris, & Van Wyk, 2002; White & Rogers, 2000). In a related manner, negative affect has been associated with increased alcohol consumption as a means to regulate negative emotion, and as described earlier, increased alcohol consumption has been linked with several relationship issues including increased risk of relationship aggression and violence (Cunradi, Caetano, & Schager, 2002; Frone, Barnes, & Farrell, 1994; Peirce, et al., 1994). In this sense, contextual factors may combine to extract positive affect from low-income couple communication and problem-solving, leaving couples more vulnerable to ineffective communication styles (Bradbury & Karney, 2004).

Economic Difficulty and Couple Affect Conclusions

This section has highlighted the importance of assessing for affect influences when investigating couple relationships. Far less is known about how affect influences lower-income couples specifically, and how affect is potentially related to relationship

help-seeking services in lower vs. higher income couples. This study utilizes an affect variable constructed from real-time streams of affect data collected through ratings of each relationship partner. These ratings have been shown to be reliable measures of one's own affect during an interaction episode (Gottmam & Levenson, 1985).

Various study reports have shown negative affect reciprocity as a consistent and important predictor of relationship satisfaction (e.g., Beach et al., 1993; Gottman, 1999). Knowing more about how affect relates to couple attitudes toward CRE, can help program facilitators to more effectively attract and retain program participants. Heightened levels of stress, strain, worry, and psychological distress often present in lower-income couples may increase levels of negative affect in couple interactions and "negatively color" the benefits of attending relationship programs such as CRE, as well as influence the manner in which couple discussions of potentially attending CRE are managed (Hawkins & Fackrell, 2010; Ooms & Wilson, 2004). In addition, learning more about couple affectual quality can help CRE and other couple programs aid lower-income couples to regulate emotion, learn soothing techniques, and open up more productive dialogues, all of which have been shown to be important skills in healthy relationship functioning (Gottman, 1999; Hicks, McWey, Benson, & West, 2004).

Hypothesis 2: Greater levels of negative affect will be associated with more negative attitudes toward CRE. 2a. Relationship partners in the lower income group will report greater levels of negative affect associating with more negative attitudes toward CRE. 2b. Greater levels of negative affect will be noted in male relationship partners associating with more negative attitudes toward CRE.

Economic Difficulty, Couple Relationships, and Intimate Partner Aggression (IPA)

Income-related stressors may influence the risk of IPA in the couple relationship. Consistent findings show strong relationships between job insecurity, low-income, and elevated risk of IPA (Cunradi, et al., 2002; Fox, et al., 2002; Rennison & Planty, 2003; Straus, 1990). Longitudinal research indicates that particularly men in low-SES circumstances are more likely to initiate acts of IPA than men of other groups (Magdol et al., 1997). Additionally, some research suggests that factors such as race and education also influence risk of IPA, yet further investigation shows income as the strongest predictor above and beyond the influence of race, education status or employment status (Cunradi et al., 2002; Rennison & Planty, 2003).

Environmental Stress and Resources: Frustration Eruption Propensity

In particular, social stressors associated with negative life events and conditions are highly related to incidents of IPA (e.g., Gelles, 1987, 1989). Family stress and ecological theories point towards the interaction between individual, relational, and environmental factors that influence increased stress, and therefore, increase the risk of IPA. For example, job instability, financial insecurity, role shifts, individual life experiences, and impoverished conditions have all been associated with increased relationship violence risk (Bassuk, Dawson, & Huntington, 2006; Cunradi et al., 2002; Gelles, 1994; McKenry, Julian, & Gavazzi, 1995).

Factors associated with social and environmental stressors in couples can be "vented" in the form of IPA. Economic stressors have been associated with increased hostility and psychological distress in relationship partners (e.g., Conger et al., 1990;

Conger & Elder, 1994), and therefore rend partners tired, irritable, frustrated, and worried, and increase the risk of relationship aggression (Fox et al., 2002; White & Rogers, 2000). This risk is intensified in couples experiencing prolonged states of unemployment, chronic poverty, and elevated alcohol abuse, particularly increasing perpetrating behavior in men (Bassuk et al., 2006; Kinnunen & Feldt, 2004; McKenry et al., 1995).

Coping resources have been shown to mediate the influence of stress on relationship violence. In this respect, the quality of the relationship or the coping skills possessed by the relationship partners can act as either a resource preventing violence or a risk factor increasing violence risk (McKenry et al., 1995). Findings show poor relationship quality has been associated with increased IPA, and couple coping skills have been shown to mediate the influence of stress on relationship quality, and IPA incidents (Bodenmann, 1997; Bodenmann & Cine, 2005; Fox et al., 2002; McKenry et al., 1995; White & Rogers, 2000).

Other reports also show that couples in lower-income circumstances may have limited coping resources in which to manage stress and other relationship threats. Also, couples of limited financial means often experience less relational (relationship quality), social, and environmental support resources than couples of greater means. These limited resources may be associated with both personal and environmental influences in that those from lower-SES backgrounds may have experienced greater exposure to violence in childhood, exhibit depressive symptoms, struggle with alcohol addiction, and employ aggressive tactics in marital disputes, all of which increase the risk for relationship

violence (Cattaneo & DeLovaeh, 2008; Cunradi et al., 2002; Gelles, 1994; McKenry et al., 1995).

A close look at this literature shows IPA links with several other influencing factors that may be particularly pertinent to the experience of couples managing financial struggles. The elevated stressor influences often confronting couples in lower-income circumstances appears to be at the root of these interrelationships. Various links have been shown between different potential stressors, and increased risk for IPA, including relational (relational discord), environmental stressors (economic strain, unsafe and impoverished community and neighborhood environments), personal experiences (family-of-origin influences, personality issues, psychological distress), and substance using behaviors, particularly where the male partner consumes, or consumes large amounts and the female partner does not (Cunradi et al., 2002; Eby, 2004; Gelles, 1989; Grana, 2001; Marshal, 2003; Pan, Neidig, & O'Leary, 1994; Quigley & Leonard, 2000). Thus, the links between stress and IPA potentially radiate through various influential aspects of the couple relationship, raising various concerns for both individual and relationship health.

Intimate Partner Aggression and Economic Difficulty Conclusions

The above noted findings underscore the heightened need to investigate IPA when studying and working with couples in lower-income circumstances as a potentially strong influence on relationship health. As noted, the unique and potent nature of stressors present in lower-income couple relationships may influence partner behaviors, and may boil over and "erupt" into incidents of IPA, or place partners at greater risk for IPA.

Noted family stress expert Murray Straus (1990) pointed out that, "low income and low status…are indicators of even more stress" (p. 196), and these factors alone greatly influence levels of stress that create unhealthy behaviors such as violence and other forms of aggression in couple relationships.

Adequate assessments of IPA in couple relationships allows for CRE and other couples programmers to identify important threats to the well-being of couple relationships, particularly for those couples experiencing economic hardship and stress. Investigating IPA influences on couple attitudes toward CRE for those in lower-income circumstances assists those implementing such programs to provide services that are more in-line with needs related to healthy relationship functioning.

In general, CRE programs are lacking of material that assess for and address IPA, which is essential in programs designed for lower-income couples, and protecting relationship partner safety (Halford, Markman, Kline, & Stanley, 2003; Olson, Larson, &Olson-Sigg, 2009; Stanley, Pearson, & Kline, 2005; Stanley et al., 2008). In the majority of cases, CRE does not represent an effective treatment method for couples with even moderate issues related to physical violence. Thus, adequately assessing for IPA behaviors and maintaining working relationships with domestic violence experts are important areas of effective practice for CRE providers (Olson et al., 2009; T. Ooms personal communication, November 4, 2009). Hence, training CRE personnel on how to assess for IPA in potential program participants, and on how to make effective referrals to relationship aggression specialists is an important means through which to provide effective services based on the needs of the couple.

In addition, and in particular, psychological aggression may play a large role in influencing couple decisions to participate in CRE programs. For instance, simply bringing up the topic of attending a relationship program may be more "risky" for partners in relationships where psychological control and aggression are present. Also, individuals who have psychologically aggressive partners may be reluctant to attend CRE programs in fear that program material may bring up, or incite, relationship issues that potentially could exacerbate episodes of psychological aggression in the relationship. Hence, attitudes toward CRE programming may be associated with differing levels of IPA in the couple relationship, specifically within the context of psychological aggression. Assessing for IPA, and in particular psychological forms of IPA, may be principally important in shaping partner attitudes toward CRE where such behaviors are more of challenge in the relationship.

Hypothesis 3: Greater levels of psychological aggression will be associated with more negative attitudes toward CRE. 3a. Relationship partners in the lower income group will report greater levels of psychological aggression associating with more negative attitudes toward CRE. 3b. Male partners will report more displays of psychological aggression associating with more negative attitudes toward CRE.

The Field of CRE: Recent Progress and Pitfalls

Although, much progress and improvement have characterized the field of CRE, there remains much to learn on how to successfully market and develop effective programs for lower-income couples. The information reviewed above helps to delineate particular important areas to assess for and cover in such programs, and how such factors

may interact with income and related stressors to affect couple attitudes toward attending CRE. This discussion now turns to highlighting some of the current gaps in couples services through an exploration of a brief history of the field of modern CRE study and programming, and what is known about relationship help-seeking and prevention in such programs and related services.

The Rise of Modern CRE: The CRE and Government Relationship

In response to some of the trends described earlier (i.e., high divorce rates, high rates of relationship instability among lower-income couples, effects of relationship quality and instability on children, etc.) the Temporary Assistance for Needy Families (TANF) program was instituted in 1996. One of the central goals of TANF was to promote both the formation and maintenance of two-parent families and households. In collaboration with TANF, five years later the federal government launched the Healthy Marriage Initiative. The Healthy Marriage Initiative has been conducted under the direction of the Administration for Children and Families (ACF), housed within the U.S. Department of Health and Human Resources. The TANF program has served as a major source of funds for the Healthy Marriage Initiative. For example, in 2006, the U.S. government awarded $150 million in grants to aid the service delivery and implementation of relationship education programs. To date, the Healthy Marriage Initiative has provided funds to numerous state, local, and community services aimed at offering programs to teach skills to couples in order to form and sustain healthy relationships (Halford et al., 2008; Knox & Fein, 2009).

An important effort of the Healthy Marriage Initiative has been a large research agenda implemented by ACF including the synthesis of information, program evaluations, and specifically, random assignment evaluative work to test the effectiveness of relationship education programs targeting low-income couples. Two of these major research efforts have been the Building Strong Families Project (BSF) and the Supporting Healthy Marriages Project (SHM). Both projects were launched in response to the FFCWB study and other related studies described earlier, but in particular, the BSF.

The BSF project was initiated in 2002 by ACF with a nine-year project operation duration. The BSF project relies on a rigorous longitudinal design with random assignment (treatment and control groups). Couples eligible to participate had a child under the age of three months, or were expecting a child. Additionally, for participation eligibility, couples had to be unmarried and romantically involved, or married after the conception of the child. Data was then collected at three time points: baseline, 15 months after program enrollment, and when the child of the couple reaches the age of three (Dion et al., 2008; Knox & Fein, 2009).

These BSF evaluations are currently being conducted at various sites across the nation. These sites represent seven regions across the U.S. To be selected as a BSF site, each location had to complete a pilot phase indicating successful implementation of program model guidelines. The seven selected BSF sites in which BSF maintains cooperative agreements are: Atlanta, Georgia: Georgia Building Strong Families; Baltimore, Maryland: Baltimore Building Strong Families; Baton Rouge Louisiana: Family Road Building Strong Families; Florida: Healthy Families Plus, Indiana: Healthy Couples, Healthy Families Program, Oklahoma: Family Expectations, and Texas:

Building Strong Families Texas. Preliminary findings have shown evidence of several areas of program success, yet more detailed information on program evaluation is scheduled for release in mid-2011 (Dion, 2005; Dion & Hershey, 2010; Knox & Fein, 2009; R. Dion, personal communication, November 11, 2009).

The BSF aims to provide information on whether supporting the marital aspirations of low-income unwed couples enhances the overall well-being of their children through providing in-depth couple services through various program models. All BSF programs are guided by specific sets of eligibility criteria, and a common program treatment model. Program models all include three different components: group instruction in relationship skills, individual-level program support from assigned family coordinators, and referrals to additional support services as needed (i.e., legal issues, employment). Relationship skills emphasized through the BSF model are topics covered by many marriage and relationship education programs, including communication, conflict management, emotional intimacy, and recognizing problem areas in the relationship (Dion et al., 2008; Knox & Fein, 2009).

The SHM project was launched in 2003. SHM programs target married, low-income couples. Less is known about married couples in lower-income circumstances. The SHM project is testing whether relationship education support for low-income married couples can reduce elevated divorce and instability rates, enhance marital quality, and improve child well-being. The SHM is the first multisite, rigorous evaluation study of CRE for married low-income couples (Dion, 2005; J. Miller, personal communication, November 11, 2009; Knox & Fein, 2009).

The SHM project is testing relatively intense and comprehensive program models developed for working with low-income couples. In particular, the project assesses the effectiveness of programs that provide instruction and support to improve relationship skills. The SHM program model also includes links to services that may help low-income couples address barriers to healthy marriage, such as problems with employment, health, stress, or housing insecurity. In addition, the model includes extended marriage education activities that reinforce the relationship skills taught in the program. Thus, the SHM project is studying the effects of marriage education approaches of the program model on primarily low-income, married couples. The initial report of this project's findings are due out in late 2010 (Dion, 2005; J. Miller, personal communication, November 11, 2009; Knox & Fein, 2009).

The SHM has partnered with eight agencies to administer the SHM program model across the country. These sites are: University of Central Florida in Orlando, Florida; Catholic Charities, Wichita, Kansas; University Behavioral Associates, Bronx, New York; Public Strategies, Oklahoma City, Oklahoma; Community Prevention Partnership, Reading, Pennsylvania; Health and Human Services Commission, Austin, Texas; Becoming Parents Program, Seattle, Washington; Center for Human Services, Shoreline, Washington (Dion, 2005).

Finally, ACF has partnered with several Community Healthy Marriage Initiatives (CMHI) across the country. These programs are designed to promote healthy marriage, parent training, and the well-being of children at more local and community levels. Various faith-based, government agencies, and non-profit organizations are collaborators, yet the scope of programming and targeting populations vary from program to program in

these community programs. Many are based on well-researched relationship education programs that are now producing adaptations for working with low-income populations such as the Premarital Relationship Enhancement Program (PREP), Practical Application of Intimate Relationship Skills (PAIRS), and Relationship Enhancement (RE) (Dion, 2005; Halford et al., 2008).

Relationship Help-Seeking Behaviors and CRE: Where We Are and Where are We Going

Despite the recent surge of research and implementation, providing sound CRE programming for low-income couples is still in its infancy (Dion, 2005; Halford, 2004; Hawkins & Fackrell, 2010; Knox & Fein, 2009). The above highlighted programs through ACF will no doubt provide a wealth of information to those working with CRE, specifically those who work with and target low-income couples. Yet, the BSF and SHM projects essentially assess programming based on a comprehensive and resource heavy models, and community initiative program designs, backgrounds, models, resources and areas of focus vary. Thus, in a broad sense, there is still much to learn on how to effectively implement CRE with low-income couples, especially for smaller, community programs found outside of the scope of funding at the national level.

Little has been reported on successfully recruiting low-income couples to CRE programs. Markman et al. (2006) note that potentially the biggest challenge in working with CRE with low-income couples and men in particular is "getting people in the room" (p. 426). Numerous authors who work with or who frequently study CRE have noted that, although CRE programs are growing in terms of variety and availability, largely many couples do not attend CRE programs, and at-risk couples, including low-income couples

and couples of diverse backgrounds are not in attendance. These barriers may be represented in terms of lack of access, knowledge, or individual and couple characteristics that impede couples from attending. And foremost, these barriers can impede high risk couples, who are in greatest need, and could greatly benefit from couples programming from receiving such services (Dyer & Halford, 1998; Halford, 2004; Halford, Markman, & Stanley, 2008; Larson, 2004; Markman & Halford, 2005; Markman et al., 2006; Olson et al., 2009; Ooms & Wilson, 2004; Stanley, Amato, Johnson, & Markman, 2006; Wilson & Halford, 2008).

Program experience suggests that marketing to, and recruiting low-income couples may represent the biggest barrier to CRE success. Preliminary findings suggest that couples attending the BSF programs reported hopefulness, skepticism, nervousness, and hesitation about what to expect from the program and about attending in general which had an impact on the initial decision to attend and to return (Dion et al., 2008). The larger, strongly supported CRE programs (BSF, SHM) and others focusing on low-income families (Supporting Father Involvement) are experiencing success as far as program goals in helping couples and families achieve more satisfying relationships and in retaining program participants who attend initial program sessions (C. Cowan, personal communication, November 15, 2009; J. Miller, personal communication, November 11, 2009; Myrick, Ooms, & Patterson, 2009; R. Dion, personal communication, November 11, 2009).

Also, program experiences have been found in low-income men, that once they initially attend CRE programs they tend to relax and become active participants (Dion et al., 2008; Dion & Hershey, 2010; J. Miller, personal communication, November 23,

2009; T. Ooms, personal communication, November 6, 2009). Hence assessing initial barriers, such as how low-income couples perceive CRE, and attitudes towards such programs, and factors that influence these factors, represents an important means through which to effectively shape program design and marketing to achieve more effective recruitment and retention results by assisting couples to take that initial step to "walk through the door."

Programs funded through ACF may also have access to helpful resources, monetary and otherwise, that aid program recruitment and implementation. Surely, smaller, community and local level programs would not have access to as many resources (Hawkins & Fackrell, 2010; T. Ooms, personal communication, November 6, 2009). Yet, little information is available, in a more general sense, providing information applicable across various programs to support CRE recruitment and implementation efforts with lower-income couples, and how these efforts may need to be adapted by assessing potential differences in lower income vs. couples of greater means, as well as differences in married vs. unmarried couples (Halford, 2004; Kinnunen & Feldt, 2004; Theun & Laerum, 2005).

Relationship Help-Seeking and the Preventative Nature of CRE: Bridging the Gap

Help-seeking behaviors for couple and relationship issues are generally minimal. Rarely do distressed couples seek help such as marital counseling until they begin seriously considering divorce. Only approximately 37% of couples in the divorce process report seeking counseling, and only 19% of married couples sought out counseling or therapy services for their relationship (Gottman & Gottman, 1999; Johnson et al., 2002).

In general, women are more likely than men to engage in help-seeking behaviors, and this holds true in seeking relationship counseling or therapy (Addis & Mahalik, 2003; Dienhart, 2002; Doss, Atkins, & Christensen, 2003; Moynehan & Adams, 2007).Yet, the value placed on close relationships is evident as issues related to marriage and family account for the primary motive for those seeking psychological services (Bradbury, 1998).

These findings highlight the need for the preventative nature and focus of CRE programs. Often, the longer couples experience distress, the more embedded those issues become, and the more difficult treatment becomes. CRE programs implement skills that aid couples to avoid such issues before they begin (Olson et al., 2009). However, very little is known about how couples go about selecting CRE as a form of relationship help or enhancement. In a recent study, Doss, Rhoades, Stanley, and Markman (2009) found that of the 77 couples in the sample that had sought relationship enrichment or assistance, 41 attended relationship workshops or retreats, and 49 read relationship help books. Their findings showed that couples generally sought help from relationship workshops or relationship books as their first resource, where a lesser amount of couples sought relationship therapy as their first resource.

However, little is known about factors that might be associated with couples' decisions to participate in CRE. Such base-level factors such as perceptions, attitudes, and considerations of CRE programs shed light on what couples think about CRE and what the potential benefits might be for their relationship. What little research that has done in this area focused on these perceptions in younger groups such as adolescents, and has been coupled with attitudes toward marriage in general (Duncan, Box, & Silliman,

1996; Larson et al., 2008; Martin, Specter, Martin, & Martin, 2003; Silliman & Schumm, 2004). At the basic level, an individual's or couple's attitudes, intentions, and considerations can influence subsequent behaviors to act (Ajzen & Fishbein, 1980; Bringle & Byers, 1997). It is proposed in this study, that couple attitudes toward CRE are associated with several factors that have been well documented as influencing relationship satisfaction (stress, negative affect, relationship aggression). These associations may be related to some of the unique challenges faced by lower-income relationship partners.

The Delicate Research to Practice Balance: When are we Ready to Make the Jump?

What little we do know about high-risk couples such as couples of limited financial means in relation to CRE is encouraging. The state-wide surveys previously mentioned indicate that low-income couples are interested in CRE as a means of strengthening the couple relationships, even more so than couples of higher income levels. A growing body of research is also suggesting that, although CRE is primarily preventative in focus, some high-risk, distressed couples are attending and benefitting from CRE services (DeMaria, 2005; Dion & Hershey, 2010; Halford et al., 2008; J. Miller, personal communication¸ November 23, 2009; Hawkins & Fackrell, 2010; Stanley et al., 2006).

Very recently, Hawkins & Fackrell (2010) published a metanalysis from the small pool of outcome research done specifically with CRE programs with lower-income populations. Their results showed small to moderate effect sizes in improving the couple relationship, and these results were shown to mirror those of studies done assessing CRE

effectiveness with middle-income couples (Hawkins & Fackrell). Certainly, these recent reports are positive and encouraging, but there is still much work left to do.

Commenting on the recent expanding focus and advancement in the field of CRE, Halford (2004) noted, "it is an exciting time to be working in couple relationship education" (p. 564). This time in the field has been deemed both the best of times and the worst of times: the best of times in terms of the advancement, attention, and progression recently defining the field, and the worst of times in the sense that there is still much work to do in terms of evaluating program effectiveness and increasing programming foci both in terms of breadth and specificity (Hawkins & Fackrell, 2010; Larson, 2004).

Halford (2004) noted the delicate balance in terms of studying and implementing CRE in that, "there is an understandable tension between our desire to know more before we develop clear directions in relationship policy and the need to address the pressing social problems of relationship distress and divorce" (p. 559). This study intends to aid in adding clarity on where to place the emphasis in this balance in assessing how various factors relevant to the couple relationship are associated with attitudes toward CRE, and how these attitudes may differ by gender, income, education, and relationship status.

Adding Specificity: The Study of CRE Attitudes

Stress, negative affect, and psychological aggression as highlighted in the above sections all have shown associations with relationship quality. It was thereby hypothesized in this study that stress, negative affect, and relationship aggression all would be negatively correlated with relationship quality. Conventional wisdom would indicate that couples who have a high degree of relationship quality would not be as

interested in attending a CRE program; not seeing the need to do so when having a primarily satisfying relationship. Couples not seeing the need for improvement or enhancement through assistance from an outside source may well be a barrier to seeing a program such as CRE as helpful (W. Goddard, personal communication, March, 9, 2010).

In a related manner, dating and cohabiting couples, especially if the relationship was formed relatively recently, along with recently married couples, have been noted as holding more idealistic expectations of the relationship (Hawley & Olson, 1995; Stafford & Merolla, 2007; Stanley, Rhoades, & Markman, 2006). Additionally, relationship satisfaction has been shown to decline over the first years of marriage, and even well into the life of the marriage (Halford, Sanders, & Behrens, 2000; Kurdeck, 1993). Thus, married couples, potentially due to lower relationship satisfaction levels, perceivably could hold more positive attitudes toward CRE than couples who are unmarried. This association may also differ by gender. However, the answer to this question remains largely unanswered.

Finally, education level, although known to be strongly connected with income, may also uniquely contribute to relationship partner attitudes toward CRE (W. Goddard, personal communication, March 9, 2010). Some findings from the BSF study show that lower education level was associated with a lower probability of attending the program (Dion & Hershey, 2010). Similarly, attitudes toward CRE programming may also be affected by education level. Education level also may affect attitudes toward CRE differently by gender. Yet, information relating to this issue has not yet been discovered.

This is the first known study to investigate factors associated with attitudes toward CRE, and how these factors may vary by gender, income, education, and relationship status in a primarily lower-income sample. This study offers a multi-method approach in that both self-reported attitudes toward CRE and observer-rated attitudes toward CRE are assessed in accordance with study predictors and moderators. Utilization of observational methods in addition to self-report methods is advantageous as increased validity in social science research has been noted through the utilization of observational methods (Babbie, 2001, Gottman & Notarius, 2000). This type of design allows for comparisons to be made between how relationship partners respond to questions relating to attitudes toward CRE programs in a pencil and paper format, and how relationship partner attitudes are rated by trained observers as they discuss the topic.

Potentially, study predictor and moderator association with attitudes toward CRE may differ as assessed in the privacy of a research laboratory room completing a questionnaire as opposed to discussing the topic with one's partner. In addition, the different methods used to assess attitudes toward CRE may each provide unique information related to relationship partner attitudes toward CRE and how these attitudes are shaped. It is proposed that this investigation can benefit the work of those striving to provide CRE to diverse populations.

Rationale for the Proposed Study

Recent research suggests that low-income couples are interested in receiving CRE services to benefit their romantic relationships. Also, recent monetary allocations have granted large increases in funding CRE programs working with lower-income couples.

Yet, largely lower-income couples are absent in such programs, and limited evidence exists regarding the effectiveness of such programs. The research reviewed here suggests that many lower-income couples experience unique challenges that potentially threaten relationship quality and stability. The literature reviewed here points toward three potent factors disrupting low-income couple relationships, which are stress, IPA, and negative affect. Yet, little is known on how these factors may also color couple attitudes towards CRE, limiting access to such programs, and affecting perceptions of the benefit of such programs. Some researchers are suggesting that investigating factors that influence couple's decisions to participate in CRE such as attitudes and considerations of CRE programming are needed to aid in recruitment and program development. To date, research has not directly examined the influence of potentially important factors that are associated with considerations and attitudes of CRE, and how the effect of these factors may vary by gender, income, education, and relationship status.

For instance, how might attitudes toward CRE be different by income, in married versus unmarried couples, and in males versus females? In addition how might stress, IPA, and negative affect, differentially influence attitudes towards CRE by education, relationship status, and gender? Learning more about the impact of these factors and how they potentially vary for couples in different circumstances is of benefit to those who both study and facilitate couples programming to more accurately tailor program recruitment and design to increase program benefits.

The purpose of the study is to assess the association of stress, affect, relationship aggression, and relationship quality on attitudes toward CRE, and assess how income, education, relationship status, and gender may moderate these associations.

Specifically, the study seeks to answer several questions:

1. Are there significant associations between stress, affect, psychological aggression, and relationship quality with both self-reported and observer-rated attitudes toward CRE?
2. Are there significant differences between stress, affect, psychological aggression, and relationship quality associations with both self-reported and observer-rated attitudes toward CRE across relationship partners in different income groups?
3. Are there significant differences between stress, affect, psychological aggression, and relationship quality, associations with both self-reported and observer-rated attitudes toward CRE across relationship partners in different education groups?
4. Are there significant differences between stress, affect, psychological aggression, and relationship quality, associations with both self-reported and observer-rated attitudes toward CRE across relationship partners who are married vs. unmarried?
5. Are there significant gender differences in stress, affect, psychological aggression, and relationship quality associations with both self-reported and observer-rated attitudes toward CRE?
6. What variables (stress, affect, psychological aggression) show the greatest associations with relationship quality?
7. How is relationship quality related to attitudes toward CRE?

8. How do the associations of stress, affect, psychological aggression, and relationship quality differ when attitudes toward CRE are measures in self-report format versus observer ratings?

Hypotheses

Study hypotheses were tested in relation to both self-reported and observer-rated attitudes toward CRE. Based on the preceding review of literature the following study hypotheses were formulated:

Stress, Income, and Gender

1. Greater levels of stress will be associated with more negative attitudes toward CRE. 1a. Relationship partners in the lower income group will report greater levels of stress associating with more negative attitudes toward CRE. 1c. Greater levels of stress will be more pronounced in male relationship partners associating with greater negative attitudes toward CRE.

Affect, Income, and Gender

2. Greater levels of reported negative affect will be associated with more negative attitudes toward CRE. 2a. Relationship partners in the lower income group will report greater levels of negative affect associating with more negative attitudes toward CRE. 2c. Greater levels of negative affect will be more pronounced in male relationship partners associating with greater negative attitudes toward CRE.

Relationship Aggression, Income, and Gender

3. Greater levels of psychological aggression will be associated with more negative attitudes toward CRE. 3a. Relationship partners in the lower income bracket will report greater levels of psychological aggression associating with more negative attitudes toward CRE. 3c. Male partners will report more displays of psychological aggression associating with more negative attitudes toward CRE.

Relationship Quality

4. Greater levels of relationship quality will be associated with more negative attitudes toward CRE.

Relationship Status

5. Unmarried couples will report more negative attitudes toward CRE than married couples. This negative relationship will be particularly pronounced for males.

Education

6. Relationship partners in the lower education group will primarily have more negative attitudes toward CRE.

Overall Pooled Partner Data and Attitudes Toward CRE

7. When assessing pooled partner data, overall differences will be found in participant attitudes toward CRE by gender, income, and education.

Self-report vs. Observer Rated Attitudes Toward CRE

8. Differences will be noted in testing the association of stress, negative affect, psychological aggression, and relationship quality in the analyses between the self-reported attitude toward CRE variable versus the observer-rated attitude toward CRE variable.

CHAPTER III

METHODOLOGY

Participants

Participants in this study were recruited from the city of Stillwater, Oklahoma and from surrounding areas. Since the population of Stillwater is estimated at just under 50,000 residents, Stillwater is neither considered rural nor metropolitan, but is considered a micropolitan area (M. Rupp, Personal communication, April 2, 2010). Funding for this study was provided through the Administration for Children and Families to Dr. Brandt Gardner and Ms. Kelly Roberts. Participation criteria was set to recruit heterosexual partners in a committed relationship (married or otherwise), and between the ages of 18 and 35. In order to comply with funding agency requirements and the purpose of the study, targeted efforts were made to recruit relationship partners in lower income brackets.

Project personnel distributed fliers and other information about the study and study requirements for participation to Medicaid approved clinics, county health department offices, housing authority offices, Dollar Tree and Dollar General Merchandise Stores, and Laundromats in the area. The fliers and project information contained a phone

number for potential participants to call if interested in participating in the study. When participants called the phone number on the flier, they were screened for study requirements, and given more information about the study, including the requirement that both relationship partners were required to attend the research session. Once participation eligibility had been determined, an appointment date and time for the couple to come to the research laboratory to complete the study procedure was settled upon based on facility availability and the relationship partners' schedules. A reminder call was also made the day before the couples' scheduled appointment for participation.

The final sample consisted of 99 couples. Of the couples, 66 couples reported that they were single (dating, cohabiting) and 33 reported that they were married. Among the partners' education level, 70% were without a college degree, while 30% were college graduates. 62% reported an annual income below $35,000 and 38% reported income above $35,000. Among the couples, 2% were Asian or Pacific Islander, 8% were African American or Black, 4% were Hispanic or Latino, 8 % were American Indian or Alaska Native, and 77% were Caucasian. Relationship partner study participant age ranged from 18-35, with a mean of 23.9 (*SD*=4.32). For a detailed summary of sample demographic characteristics, see Table 1.

Procedure

Recruitment of study participants began after receiving university IRB approval (for IRB approval letter copy see Appendix H).The data utilized for this study are part of a larger, multi-method study instigated to investigate recruitment barriers to CRE in low-income couples. This data was collected in response to a large grant through the

Administration for Children and Families awarded to Dr. Brandt Gardner and Ms. Kelly Roberts to study the previously mentioned phenomenon. The data utilized here are part of the observational component of this larger, grant-funded study. The author served as the project coordinator for the duration of the observational component of the study, and oversaw all data collection and project implementation of this portion of the study.

Upon their arrival, participant couples were escorted by project personnel into the waiting area of the Human Development and Family Science Observational and Coding Laboratory on the campus of Oklahoma State University. To begin, participants provided informed consent and then completed a battery of questionnaires including a demographics form in separate rooms.

Following the completion of the questionnaires, couples engaged in two recorded conversations. The order of conversations was rotated for every couple consecutively so as to avoid any type of effect by having one conversation before the other (Heyman, 2001). For the conversation of focus here, couples were asked: "Discuss the pros and cons of attending a relationship education program to as applied to your relationship." Immediately following the couple discussions, couples were taken into an adjoining room furnished like a small living room, where they were instructed to relax, read magazines, and/or talk for 30 minutes. Couples were recorded during this period.

Following the resting period, partners then participated in a video-recall procedure where they, watched the video of their two interaction sessions and used a continuous response measure (Biocca, David, & West, 1994) to provide a moment-by-moment report of how positively or negatively they were feeling during each moment of

the conversation. Such ratings have been shown to be extremely reliable and valid measures of how one feels during an interaction episode (Gottman & Levenson, 1985). At the completion of the video-recall procedure participants were thanked for their time, and debriefed by project personnel to assess whether the research protocol introduced any problems into the couples' relationship.

Measures

Demographics. A demographic survey was administered to collect information on age, gender, relationship status, income, educational status, race/ethnicity, as well items assessing the participant's attitude towards CRE programming. Dummy codes were created for income (0=income reported below $15,000, 1=income greater than $15,000), education (0=less than college degree, 1=college degree and above), and for relationship status (0=unmarried, 1=married) for use in testing interactions. The median education category across male and female relationship partners was the category "some college." Thus, the dichotomization was made to include those in the "higher" education group as having a college degree and above, and those in the "lower" education group as having less than a college degree.

Since all partners in the study were not married, and did not report the same income and education, dummy codes were created separately for male and females. Since one of the main overall purposes of the study was to test whether differences emerged relating to income, $15,000 was established as the threshold for the "lower" income group as an attempt to capture the experience of those living in more chronic poverty conditions. U.S. census guidelines set the poverty level at $14,366 for households with at least two people under 65 years of age, and $11, 161 for households with one person

under the age of 65 (U.S. Census, 2010). Thus, the threshold set in the study is similar to that set by national poverty guidelines. See Table 1 below for more detailed sample information.

Table 1

Demographic Summary of Study Sample

Demographic Item	Males	Females
Age	*M*=23.97	*M*=23.52
Married	33.3%	33.3%
Cohabiting	24.2%	24.2%
Dating	43.4%	43.4%
Income-		
-Less than $15,000	44.4%	52%
-$15,000-$35,000	25.3%	26.5%
-$35,000-$55,000	20.2%	10.2%
-$55,000-$75,000	10.4%	6.1%
-$75,000 +	4%	5.1%
Education-		
-Less than high school	4.2%	2.1%
-High school graduate	12.5%	5.3%
-Some college	49%	53.7%
-Trade/Technical/vocational training	3.1%	3.2%
-College graduate	20.8%	28.4%
-Postgraduate work/degree	10.4%	7.4%
Race		
-Asian or Pacific Islander	2.1%	2.1%
-African American	8.2%	5.2%
-Hispanic or Latino	5.2%	3.1%
-American Indian or Alaska Native	9.3%	7.3%
-White or Caucasian	75.3%	81.3%
-Middle Eastern or Arab	0%	1.0%

Self-reported affect. A continuous-response measure was utilized in conjunction with a video recall procedure (Biocca, David, & West, 1994) to obtain continuous self-report data on the individuals' affective experience. For the purpose of this analysis, partners were seated at separate computers where they were able to watch their

conversation relating to the pros and cons of attending CRE programming. As they watched the recorded conversation, partners rated how positively or negatively they felt moment-to-moment during the interaction episode discussing CRE programming as they watched the recording of their conversation. This rating scale was made on a computer that displayed a colored 9-point vertical scale (1=*high negativity*, 9=*high positivity*; see Griffin 1993, 2003; see also Gardner & Wampler, 2008), with the mouse used to provide the appropriate rating along the scale. Such ratings have been shown to be reliable measures of one's own affect during and interaction episode (Gottmam & Levenson, 1985).

Utilizing these continuous ratings of partner affect, a negativity variable of affect was created. Through specialized software, such continuous affect data can measure and depict affect flexibility in three different ways, including the range of emotional responses (dispersion), the changes in emotional reaction (transitions per minute), and the persistence of a specific emotional response (mean durations-per-event, Hollenstein, 2007). In this case, to assess affect negativity for this study, a measure was derived from State Space Grids (SSG) analysis to ascertain the amount of time the partner spent in the negative region (negative duration) of the grid (Hollenstein, 2007). The affect measure was attained using a SSG produced with the Gridware software (Lewis, Lamey, & Douglas, 1999). The seconds in the negative affect region were converted to minutes for use in study analysis.

Global Stress. The Derogatis Stress Profile (DSP; Derogatis, 1987) was utilized to measure global stress in the study participants. The DSP is a 77-item, multidimensional, self-report measure of stress (e.g., "I get into frequent arguments"; "Most things I do I see

as a challenge"; Sometimes I feel hopeless about the future"; "I tend to be impatient"; "I have trouble relaxing"). Items are answered on a 0-4 scale (0=*not at all true of me*; 1=*slightly true of me*; 2=*moderately true of me*; 3=*very true of me*; 4=*extremely true of me*). The instrument assesses stress as a function of three main domains: environmental events, emotional responses, and personality mediators. The DSP consists of 11 subscales that measure salient aspects of these three principle domains. The 11 subscales are combined to achieve a global measure of stress. A total stress score for each partner was computed using a T-score transformation (Derogatis, 2000) that sums all three domains of the questionnaire. Internal consistency reports of the DSP combined scores are good, with Cronbach's alpha coefficients above .90 (McLaughlin, Cormier, & Cormier, 1988). Norms for the DSP are based on a large nonclinical sample of adults (Derogatis, 1987).

Relationship Quality. The Revised Dyadic Adjustment Scale (RDAS; Busby, Crane, Larson, & Christensen, 1995) was utilized to assess the quality of the couple relationship. The RDAS is a shortened version of the Dyadic Adjustment Scale (Spanier, 1976), shortened from 32 to 14 items. The RDAS has also been described as "an improved version of the DAS that can be used to evaluate dyadic adjustment in distressed and nondistressed relationships" (Busby et al., 1995, p. 305). The RDAS consists of 14 items where participants indicate their agreement and frequency according to the item (e.g., agreement on religious matters, career decisions, sex relations; frequency of activities engaged together, quarrelling, or considerations of separation). Responses are marked on a Likert-type scale ranging from (e.g., 0=*always disagree* to 6=*always agree*; 0=*never* to 6=*all the time*). Scores on the RDAS range from 0-69, with the cutoff point between distressed and nondistressed couples set at 48 (Busby et al., 1995). The

instrument has reported good internal consistency, with Cronbach's alpha coefficients of .90 (Busby et al., 1995; Crane, Middleton, & Bean, 2000).

Psychological Aggression. Relational aggression was measured utilizing the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The CTS2 measures relational aggression on five different scales (Negotiation, Psychological Aggression, Physical Assault, Sexual Coercion, and Injury). For the purposes of this study of assessing relationship aggression, the psychological aggression scale was utilized. CRE is contraindicated with couple issues of even moderate physical domestic violence. Hence, assessing for physical assault does not represent a particularly relevant addition to the model in this context of investigating influences on partner attitudes toward CRE.

The psychological aggression subscale is utilized to assess both verbal and nonverbal incidents of aggression in relationship partners (e.g., "I insulted or swore at my partner," "I shouted or yelled at my partner," "I stomped out of the room or house or yard during a disagreement"; Straus et al., 1996; Vissing, Straus, Gelles, & Harrop, 1991). Adequate internal consistency has been reported for the psychological aggression scale (Cronbach's alpha =.79; Straus et al., 1996). Consistent with the scoring recommendations of Straus et al. (1996), responses were assigned a value corresponding to the midpoint (*never = 0; once = 1; twice = 2; 3–5 times = 4; 6–10 times = 8; 11–20 times = 15; more than 20 times = 25; not in the past year, but it has happened before = 0*) of each frequency category and then summed to provide the subscale score of the frequency of psychological aggression incidents over the past year.

Self-reported Attitude Toward CRE. Two methods were utilized to assess participant attitudes toward CRE and tested in the two different model building procedures. One model building procedure tested the associations of global stress, negative affect, psychological aggression, and relationship quality on a combination of self-report items from the demographics questionnaire (See Appendix A). The second model building procedure tested the associations of these variables on an observational rating measure designed to assess attitudes toward CRE in the relationship partners (See Appendix B).

In the first model building process, a self-report attitude toward CRE dependant variable was tested in association with the study independent variables. Six items from the demographics survey were selected to represent self-report participant attitude toward CRE (e.g., "Would you consider using relationship education, such as workshops or classes, to strengthen your relationship?; For you personally, how likely would you be to seek help if you thought your committed relationship was in trouble?") (See Appendix A). Items were coded so that higher scores were indicative of a more positive appraisal of CRE. Scores from the selected items were summed for each partner to be used in analysis. The Cronbach's alpha coefficient for these items for males in the sample was computed at .70, and .66 for females in the sample.

Observer-rated Attitude Toward CRE. In the second model building process, an observational rating scale of attitudes toward CRE was used as the dependant variable in association with study independent variables. Observational coding was conducted on the 99 relationship partner conversations in which study participants were asked to discuss the pros and cons of attending a relationship education program as applied to their own

relationship. Since observational coding of this particular topic is nonexistent, an observational measurement scale using Likert-type items was created to observationally assess and rate partner attitudes toward CRE (Appedix B). The observational scale utilizes items representative of particular behaviors (verbal or otherwise) that indicate a more favorable or less favorable attitudes toward CRE. This measure was constructed based on related literature aimed at assessing perceptions and attitudes toward CRE-related programming and programming types in a survey format (i.e., Duncan et al., 1996; Duncan & Wood, 2003; Silliman, 1987; Silliman, 1992; Silliman & Schuum, 2004). The scale was constructed in that higher scores were indicative of more positive attitudes toward CRE.

Four undergraduate students in human development and family science were recruited via departmental announcements to assist in conducting the observational ratings. All observational rating was supervised by the author of this manuscript and Dr. Brandt Gardner. Observational rating training began with a series of meetings to review the observational rating scale and discuss the objectives of the rating procedure. A descriptive codebook of what each representative rating might "look like" in relationship partner conversations and behaviors was also distributed and discussed in these training meetings (Appendix C). Observers then began rating sample interactions of couples who were used in project pilot procedures, but were not part of the study. During these group meetings, discussions were held regarding the rating of the relationship partner attitudes, and to specifically review any points where consensus between group members was not strong. Once the group had reached a consensus during these group discussions of a maximum of one point differential between raters, the observers were ready to begin

rating study participant attitudes on their own. Observers were randomly paired into two groups and each pair of observers was randomly assigned roughly one half of the sample with which to provide ratings. Once the observers began rating on their own, additional group meetings were held every two to two-and-a half weeks to assess and maintain reliability among the observers.

Each observer watched a couple interaction once rating one partner (focusing on only one partner), and then watched the interaction a second time to rate the attitude of the other partner. In training, observers were instructed to listen to what was being said, how it was being said, and behaviors that would give indications of the relationship partner's attitude toward CRE so as to assess both the verbal and nonverbal content of the partner's attitude. Thus observers provided a rating for each item on the attitude scale, and summed the scores of all ratings to create a total observational attitude toward CRE score for each relationship partner utilized in study analyses.

In terms of inter-rater reliability, all observers independently coded approximately 20% of the relationship partner conversations. The intra-class correlation (ICC) coefficient was the inferential statistic used to determine interobserver reliability. The ICC is designed to assess for the rate of agreement between two or more raters using continuous or interval level data controlling for systematic bias among raters (Henry, Berg, Smith, & Florsheim, 2007; Shrout & Fleiss, 1979; Streiner, 1995). ICC coefficients were also chosen over an estimate such as the Kappa coefficient (Cohen, 1960, 1968) because they are ideal when investigating estimates of base rate coding and sums of ratings, and given the nature of scaled ratings made in this study the ICC is preferred over

Kappa (Hops, Davis, & Longoria, 1995; Futrell, 1995; Johnson, 2002; Lahey, Downey, & Saal, 1983; McGraw & Wong, 1996).

The ICC may be conceptualized as the ratio of between-groups variance to total variance. In this procedure, a two-way mixed model analysis most appropriately matched the circumstances since all raters rated all relationship partners (in the 20% of the interactions used to calculate reliability), and, as such, the raters were not randomly selected from a population of raters. The raters, in this case, represent the fixed effect, and the rating scores on the five different items represent the random effect. In addition, since variation in ratings was of interest in observer ratings, the absolute agreement between ratings was used in analysis to assess whether raters assigned the same absolute rating on the five different items across the relationship partners (Futrell, 1995; McGraw & Wong, 1996; Shrout & Fleiss, 1979). Finally, both single measure reliability, assessing the reliability of a typical single rater, and average measure reliability, assessing the reliability of mean ratings of all raters were calculated and examined in this study. ICC analysis was conducted using SPSS 17.0.

The ICC is interpreted similarly to the Kappa statistic in that correlations from .01-.20 indicate slight agreement, correlations from .21-.40 indicate fair agreement, correlations from .41-.60 indicate moderate agreement, correlations from .61-.80 indicate substantial agreement, and correlations above .80 indicate almost perfect agreement (Futrell, 1995; Landis & Koch, 1977; Vierra & Garnett, 2005). For male ratings, the ICC for single measure reliability was calculated at .62 ($p < .0001$) and the ICC for average reliability was .99 ($p < .0001$). For female ratings, the ICC for single measure reliability was .64 ($p < .0001$) and for average reliability was .99 ($p < .0001$). Thus, the inter-rater

reliability for single measure reliability (reliability of a single rater) fell in the substantial agreement category for both males and females, and the average measure reliability (reliability of mean ratings for all raters) fell in the category of almost perfect agreement. Due to the substantial agreement among raters, the totaled rating scores for each pair of raters (one pair rating one half of the sample, and the other pair the other half) were averaged and combined to be utilized as the observational attitude towards CRE dependent variables for both male and female partners in model testing. A summary of all measures used, corresponding authors, and reliability information is presented below in Table 2.

Table 2.

Summary of Study Variables, Measures, and Internal Consistency

Variables	Method of Measurement	Author(s)	α/Intraclass Correlation (ICC)
Global Stress	Derogatis Stress Profile	Derogatis, 1987	α= .90; McLaughlin, Cormier, & Cormier, 1988
Negative Affect	Continuous Response	See Biocca, David, & West, 1994; Levenson & Gottman, 1985	See Biocca, David, & West, 1994; Levenson & Gottman, 1985
Relationship Quality	Revised Dyadic Adjustment Scale	Busby, Crane, Larson, & Christensen, 1995	α= .90; Crane, Middleton, & Bean, 2000
Psychological Aggression	Revised Conflict Tactics Scale	Straus, Hamby, Boney-McCoy, & Sugarman, 1996	α= .79; Straus, Hamby, Boney-McCoy, & Sugarman, 1996

Male Income[a]	Demographic Survey Item	Roberts & Gardner, 2005	
Female Income[b]	Demographic Survey Item	Roberts & Gardner, 2005	
Male Education[c]	Demographic Survey Item	Roberts & Gardner, 2005	
Female Education[d]	Demographic Survey Item	Roberts & Gardner, 2005	
Relationship Status[e]	Demographic Survey Item	Roberts & Gardner, 2005	
Self-Report Attitude Toward CRE	Summed Survey Items	Roberts & Gardner, 2005	α Males= .70, α Females= .66
Observer-Rated Attitude Toward CRE	Attitude Towards Relationship Education Observer Rating Scale	Burr & Gardner, 2009	Male ICC= .62, Female ICC= .64

[a]Male income: 0 = *less than $15,000,* 1 = *more than $15,000.* [b]Female income: 0 = *less than $15,000,* 1 = *more than $15,000.* [c]Male Education: 0 = *less than college degree*, 1 = *college degree or above.* [d]Female education: 0 = *less than college degree*, 1 = *college degree or above* . [e]Relationship status: 0= *unmarried*, 1 = *married.*

Analyses

Descriptive Statistics Measurement

Analyses were conducted computing the mean, standard deviation, and skewness statistics for all independent variables in the study. These statistics appear below in Table 4. Additionally, the Pearson product-moment correlation was computed between all independent variables to assess the strength of these relationships. The bivariate correlations appear below in Table 5. Information on bivariate correlations was also used to confirm prior research indicating the negative association between stress, negative affect, relationship aggression with relationship quality in this sample. In analysis procedures, all model testing and correlation analyses were conducted in Mplus version 5.21 using maximum likelihood estimation to adequately manage points of missing data.

The Actor-Partner Interdependence Model (APIM)

The Actor-Partner Interdependence Model (APIM) is designed to assess interdependence in interpersonal relationships. Often in interpersonal relationships, such as couple relationships, the emotions and behaviors of one partner affect those of the other partner. When data are interdependent in nature utilizing the individual as the unit of analysis can lead to inaccurate results. Thus, investigations where non-independent observations are present, it is more appropriate to treat the dyad as the unit of analysis. The dependent variables in both sets of analysis (self-reported attitudes and observer-rated attitudes) in this study were significantly correlated between relationship partners (self-report attitudes toward CRE, $r = .21$, $p < .05$; observed ratings of attitudes toward CRE, $r = .35$, $p < .01$), and it was also predicted that the independent variables would be

highly correlated between partners, thus, emphasizing the need to utilize the dyad as the unit of analysis (Cook & Kenny, 2005; Kenny, 1996; Kenny, Kashy, & Cook, 2006).

The APIM allows for the individual measures to be retained, as they are nested within the dyad. Since measures of relationship partners are often correlated, the APIM adjusts for the correlation between relationship partner independent variable correlations. If not modeled properly, data that is dyadic in nature might present multicollinearity issues. However, adjusting for the correlation between partner variables helps to reduce the risk of multicollinearity-related problems. As another feature, the APIM also adjusts for the correlation between the disturbance terms of each partner's dependant variable (Kenny et al., 2006; Laursen, 2005).

The two principal facets of the APIM are the actor effects and the partner effects. Actor effects measure the effect of one's own characteristics on his or her own outcome. Partner effects are defined as the effect of a partner's characteristics on one's outcome. As mentioned, the APIM takes into account the associations between variables. Thus, the actor effects are measured controlling for partner effects and partner effects are measured controlling for actor effects (Cook & Kenny, 2005; Kenny et al., 2006).

The APIM also allows for testing of moderating effects through multi-group analysis utilizing structural equation modeling (SEM) software and techniques, and chi-square difference testing to detect differences when certain paths were constrained as opposed to when they were not in model analyses. In many cases, the size of an actor or partner effect can vary depending on the value of an additional variable. Using SEM techniques is advantageous in analyzing the APIM in that the associations in the model can be tested simultaneously controlling for the other associations in the model. In this

study, no latent variables were used, thus the sample size requirements for latent variable SEM do not apply (Cook & Kenny, 2005; Kenny et al., 2006).

Model Analyses Procedures

This study analyzed APIM models predicting both male and female partner attitudes toward CRE in two general sets of analyses; predicting self-reported partner attitudes toward CRE, and predicting observer-rated partner attitudes toward CRE. Actor and partner effects (for male and female partners) were assessed from each partner's measures of stress, negative affect, relationship quality, and psychological aggression to the criterion variables of male and female attitude toward CRE (in separate analysis for self-reported attitudes and observer-rated attitudes).

Due to the highly exploratory nature of this study, each predictor (global stress, negative affect, relationship satisfaction, and psychological aggression) were first each tested in individual APIM analyses without controlling for the other variables following APIM procedures (Kenny et al., 2006) as predictors of attitudes toward CRE. This analysis was conducted separately for the self-reported and observer-rated dependant variables. All main effects were tested using the conventional probability level of $p < .05$. Yet, considering the exploratory nature of the study, and difficulty in detecting interaction effects in field data with small sample sizes, a more liberal probability value was set at $p < .10$ for testing moderating effects (gender, male and female income, male and female education, relationship status) and differences in actor and partner paths (Bernard, 2000; Henkel, 1976; McClelland & Judd, 1993; Warner, 2008).

Additionally, a challenge of exploratory research is to effectively balance study parameters so as to avoid committing both Type I and Type II errors. Yet, perhaps more

relevant to the exploratory design is to avoid the probability of committing Type II error in order to more efficiently detect effects when they are present. One method in which to do this is to raise the alpha level. Thus, through raising the alpha level to .10 to test for interaction effects and differences in actor and partner paths, the probability of committing type II error is reduced, and more adequate hypotheses can be derived for future research testing in this area (Jaeger & Halliday, 1998; Siegal & Castellan, 1988). Trends toward significance in moderating effects were reported up to the $p < .12$ level so as to gain a more thorough estimate of effects through which to conduct future hypothesis testing in future analysis without greatly over-extending the more liberal $p < .10$ alpha value set in detecting moderating effects, and increasing the likelihood of results due to error or chance alone.

First, tests were conducted for each individual predictor (stress, negative affect, psychological aggression, and relationship quality) APIM across gender related to the model background parameters of exogenous variable mean, exogenous variance, residual variance, and intercept differences. This initial step is beneficial in two ways: 1. By standardizing across parameters (accepting a constraint) where significant model differences are not noted in chi-square difference testing allows the researcher to achieve more parsimonious fit according to the data before assessing significance of model paths (or differences in model paths), as just identified models provide limited information regarding model detail, and 2. Testing constraints in model background parameters allows the researcher to examine differences in potentially substantive study information (e.g., mean and intercept). Following the exploratory nature of this study, these differences in the substantive nature of model background parameters may be of

particular interest as they allow for investigations of base-level differences, and help point toward information in future hypothesis testing (R. Larzelere, Personal Communication, July 3, 2010).

Model nesting assessing unconstrained models against models where these parameters were constrained was used to examine potential differences using a chi-square difference test ($p < .10$). Background parameter constraints were tested individually, and those parameters whose equality did not result in significant model differences were retained for further testing.

Second, with relevant constraints in place, differences in male and female actor and partner effects were also tested for each individual predictor APIM in a similar manner using the chi-square difference test ($p < .10$) (Kenny et al., 2006). Additionally, at this step with relevant constraints in place, main effects (actor and partner effects) were tested simultaneously for significance in each individual APIM predictor model. Significant main effect paths at the $p < .05$ level were retained for testing in the final model controlling for other significant predictors. Thus, the final model was created in a step-by-step, model building fashion. This step-by-step procedure was conducted separately for models assessing self-reported attitudes toward CRE and observer-rated attitudes toward CRE.

APIM analysis utilizing the SEM method is written in the form of two linear equations (in denoting the two dependant variables by gender). Y_m is the male partner's attitude toward CRE (both self-reported and observer-rated analyzed separately), and Y_f is the female partner's attitude toward CRE (both self-reported and observer-rated analyzed separately), X_m is the male relationship partner's predictor variable (stress, negative

affect, relationship quality, and psychological aggression analyzed in individual APIM analyses), and X_f is the females partner's predictor variable (stress, negative affect, relationship quality, and psychological aggression analyzed in individual APIM analyses). Thus, each linear equation contains an effect for both the actor and partner effect where *a* signifies the actor effect, *p* signifies the partner effect, and *E* signifies the disturbance or error for each equation. The general equations for the analyses conducted in the study are provided below following the method outlined by Kenney et al. (2006):

$$Y_m = a_m X_m + p_{mf} X_f + E_m,$$

$$Y_f = p_{fm} X_m + a_f X_f + E_f.$$

A general depiction of each individual predictor APIM appears below in Figure 1.

Figure 1.

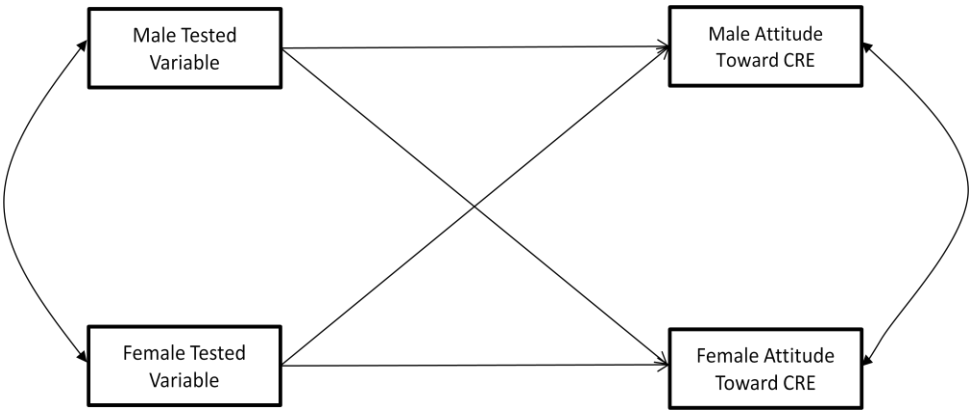

Figure 1. General individual predictor (male, female) APIM tested for each variable of interest (global stress, affect, relationship quality, and psychological aggression) at each model building step.

Third, the APIM for each predictor was tested using multi-group analyses (by relationship status—unmarried vs. married; both male and female reported income—

below $15,000 and above $15,000; both male and female reported education—less than college degree and college degree and above) to test for differences between these groups. Tests in these multi-group analyses were conducted in each individual predictor APIM between groups related to exogenous variable mean, exogenous variance, residual variance, and intercept differences. Nested models assessing unconstrained models versus models where these parameters were constrained were used to examine potential differences between groups using a chi-square difference test ($p < .10$). Background parameter constraints were tested individually, and those parameters whose equality did not result in significant model differences were retained for further testing.

Following testing for differences in background parameters, differences in male and female actor and partner effects were also tested for each individual predictor APIM in the multi-group analysis to assess for differences in these paths between groups in a similar manner ($p < .10$) (Kenny et al., 2006). This step-by-step procedure was conducted separately for models assessing self-report attitudes toward CRE and observer-rated attitudes toward CRE. Only those results most substantive to the direction of the study are reported in the results section. However, summary tables of findings related to multi-group analyses in testing for moderator differences and differences in actor and partner paths are presented in Appendix D.

Fourth, final model testing (resulting from findings of individual predictor APIM analyses) was first conducted separately predicting either self-reported attitudes toward CRE or observed ratings of attitudes toward CRE. Main effects that were significant ($p < .05$) in models testing individual predictors in APIM analysis were assessed simultaneously in final models separately for self-reported and observer rated attitudes

toward CRE. Those main effects maintaining significance at this step were then combined into one final APIM testing main effect significance assessing for associations between predictors and both self-reported and observer-rated attitudes toward CRE in the same model.

Sixth, and finally, in the final exploratory step, to gain a general view of sample characteristics, the data were analyzed pooling relationship partner data in multiple regression to assess overall differences in study participants in attitudes toward CRE by gender, income, education, relationship status, gender x income, gender x relationship status, relationship status x gender, relationship status x income, education x gender, education x income, and education x relationship status. These regressions were conducted separately for self-reported attitudes and observer-rated attitudes toward CRE. Summary tables of the results of these sets of multiple regressions are provided in Appendix E.

Power Analyses

Power analysis allows for an assessment, according to study parameters, to determine if the null hypothesis will be rejected, when, in fact, it is false; the probability of detecting a significant effect. Power is directly related to Type II error, or β, and is represented as 1-β, or the probability of not rejecting the null hypothesis when it is false. Statistical power is determined by the effect size, sample size, and significance level (α level) (Cohen 1988, 1992).

Kenny et al . (2006) explain that in order for power to be estimated in APIM analysis adjustments are needed for the level of multicollinearity in the predictor variables, the correlation between the outcome variables, and the level of nonindepedence

in the data. The estimated effect size is also adjusted by the level of multicollinearity. These adjustments are made based upon the correlations between actor and partner predictor variables (in this case male and female partners), and the correlation between the outcome variables (male and female dependant variables). Kenny et al. (2006) outline a formula from which to make adjustments for both multicollinearity and nonindependence in the data. This formula is represented by:

$$\sqrt{\left[\frac{1-r_x^2}{2}\right]}\sqrt{\left[\frac{(r_x+1)^2}{(1+r_y)}\pm\frac{(1-r_x)^2}{(1-r_y)}\right]}$$

,

Where r_x is the correlation between the predictor variables, and r_y is the correlation between the outcome variables.

Also, Kenny et al (2006) indicate that the sample size also needs to be corrected by the degree of nonindependence in the data. The formula for adjusting the sample size for nonindependence according to Kenny et al. (2006) is $2n/(1 + r_x^2)$, where n = the number of dyads, and r_x^2 = the correlation between predictor variables. This adjusted sample size is then used in power computation.

Cohen (1988; 1992) suggested "benchmarks" for effect sizes from which to detect significance. Cohen proposed benchmarks related to the effect size *r*, or the Pearson correlation, as .10 is a small effect, .30 is a medium effect, and .50 is a large effect. The sensitivity of the test to detect a medium sized effect (.30) was utilized as the adjustable effect size in this analysis. Thus, as described by Kenney et al. (2006) .30 was selected as

the effect size to be adjusted by the level of nonindependence and multicollinearity in the data to assess power.

Power above .80 is referred to as strong (Cohen, 1988). Thus, following the above outlined formula and example provided by Kenny et al. (2006, p. 180), adjustments were made for multicollinearity, nonindependence, and sample size related to the data, effect size, and sample size for this study. Results of this power analysis according to the individual APIM and dependant variable assessed (self-reported or observer-rated) are presented below in Table 3.

Table 3.

Analyses Power Computations Adjusted for APIM

APIM Variable Assessed	Power for Self-Reported Attitude Toward CRE APIM Analysis	Power for Observer-Rated Attitude Toward CRE APIM Analysis
Global Stress	.981	.974
Negative Affect	.984	.984
Relationship Quality	.953	.924
Psychological Aggression	.966	.950

Table 3. Power computations presented separately by APIM analysis with corresponding dependant variable pair.

CHAPTER IV

FINDINGS

Descriptive Statistic Results

Independent variable means, standard deviations, standard error of the mean, skewness, kurtosis, and relevant standard errors are displayed below in Table 4

Table 4.

Independent Variable means, standard deviations, skewnes, and kurtosis

Variable	Mean	Std. Deviation	Std. Error of Mean	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
M Rel. Quality	50.24	6.27	.63	-.61	.243	.443	.481
F Rel. Quality	49.75	7.84	.788	-.37	.243	.406	.481
M Stress	42.6	10.59	1.08	-.04	.246	.376	.488
F Stress	42.33	9.13	.93	-.44	.245	-.098	.485
M Psych. Agg.	20.35	19.47	1.99	1.0	.246	.479	.488
F Psych Agg.	25.3	26	2.65	1.5	.246	2.85	.488
M Neg. Affect	1.63	1.85	.193	1.35	.251	1.79	.498
F Neg. Affect	1.91	2.69	.282	2.27	.253	6.18	.5
Male CRE Attitude	15.73	2.7	.273	-.271	.244	-.242	.483

Self-Report							
Female CRE Attitude Self-Report	17.05	2.5	.255	-.329	.245	.013	.485
Male CRE Attitude Observed	10.33	3.14	.317	-.649	.244	-.015	.483
Female CRE Attitude Observed	11.31	2.89	.392	-1.15	.244	1.19	.483

Table 4. Descriptive variable information provided: mean, standard deviation, standard error of the mean, skewness, kutosis, and relevant standard error statistics.

The reader should note that both male and female partner variables for psychological aggression and negative affect exhibit marked skewness, as well as the dependent variable for the observer rated female attitudes toward CRE. However, in viewing the histogram for the observer-rated female attitude towards CRE dependent variable, the amount of skewness appears to be only moderate. Overall, truly normal distributions are rare in social science data (Micceri, 1989). The debate over "rules of thumb" regarding the skewness statistic appear to be far from over. Generally, if the skewness statistic is above 2 or -2 the distribution is said to be significantly skewed, with values above 3 or -3 showing extreme skewnesss. Others point toward more conservative levels in the skewness statistic, with values above 1 or -1 indicating the distribution is skewed (Bulmer, 1979; Miles & Shelvin, 2000; Murphy, 1982). Also, when testing marked skewness, when dividing the skewness statistic by the standard error of skewness and the result is above 2.0, the distribution is said to be skewed (De Vaus, 2002).

The decision to move forward with marked skewness in predictor variables was made due to the meaning of the scores within the distribution. For instance, a score of zero on the psychological aggression measure indicates no instances of psychological aggression over the past year as reported by the partner, and a score of zero for the negative affect variable indicates that less than one minute, or no time at all was spent in "negativity" during the conversation as reported by the partner. Thus, a fair amount of relationship partners reported limited instances of psychological aggression over the past year, and limited amounts of time spent in negativity during the conversation. Since these zero-values, or near-zero values were meaningful, analyses was carried forth. Certainly, there are drawbacks to regression analysis conducted with significantly skewed variables.

These drawbacks are also discussed in the limitations section. Histograms of all study variables are provided in Appendix F.

However, more importantly pertaining to multiple regression assumptions (APIM analyses based on multiple regression in this study), is that the residuals (predicted minus observed values) are normally distributed (Crown, 1998; Field, 2009; Pedhazur, 1997). Thus, the residuals for each multiple regression conducted in the study analyses (e.g., male self-report attitude toward CRE regressed on both male and female global stress; female self-report attitude toward CRE regressed on both male and female global stress, etc.) were plotted in graphical format using SPSS 17.0 to investigate the multiple regression assumption that the residuals are normally distributed. In viewing these graphs, there did not appear to be any major divergence from this assumption. Histograms and Q-Q plots of all of the multiple regression study analyses residuals are presented in Appendix G.

Bivariate correlations are presented below in Table 5.

Table 5.

Bivariate correlations among study independent variables

Variable	M Rel. Quality	F Rel. Quality	M Stress	F Stress	M Psych. Agg.	F Psych. Agg.	M Neg. Affect	F Neg. Affect
M Rel. Quality	1							
F Rel. Quality	.52**	1						
M Stress	-.31**	-.23*	1					
F Stress	-.4**	-.55**	.33**	1				
M Psych. Agg.	-.3**	-.26*	.18	.13	1			
F Psych Agg.	-.36**	-.49**	.27*	.34**	.44**	1		
M Neg. Affect	-.26*	-.18	.26*	.09	.31**	.2	1	
F Neg Affect	-.26*	-.29**	.29**	.38**	.11	.36**	.25*	1

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

Notably, the bivariate correlations presented here primarily confirm previous research in that stress, psychological aggression, and negative affect, are associated with decreased relationship quality with one exception, in that male negative affect was not significantly negatively correlated with female relationship quality. Additionally, strong positive correlations were found between female negative affect and stress in males and females, and between female negative affect and female reported psychological aggression. Male negative affect was also strongly and positively correlated with male psychological aggression. Bivariate correlations results show fair amounts of interrelation among the predictor variables.

Results of Self-Reported Attitudes Toward CRE APIM Analyses

Substantive Results Relating to Testing Differences in Background Parameters

The most substantive results relating to the testing for differences in model background parameters in the different analyses revealed interesting differences in self-reported attitudes toward CRE by gender, and to some degree, relationship status. In testing differences in model background parameters in the global stress APIM analyses, results showed differences when the intercept was constrained by gender, male education level, and relationship status. For instance, when the intercept was constrained across gender in the global stress analysis, a significant difference was found ($\chi^2_D(1)=6.43$, $p <$ .01; male intercept=13.76, female intercept=18.35). This suggests that when holding constant the variables for both male and female global stress, female partners, on average, reported more positive attitudes toward CRE.

Also, in the global stress analyses, a trend toward a significant difference was noted when the intercept was constrained across male education levels ($\chi^2_D(2)=4.5$, $p =$ .11). These results were particularly pronounced for the female partners (female intercept, male-reported no college degree group—20.41; female intercept male-reported college degree group—15.11). Interestingly, these results suggest that when controlling for both male and female global stress, females who have a male partner without a college degree reported, on average, more positive attitudes toward CRE.

Also, a significance difference was found in the global stress analyses across relationship status when the intercept was constrained ($\chi^2_D(2)=6.41$, $p=.04$). These differences were most pronounced in men (men unmarried intercept=11.12, men married

intercept=17.74). This result suggests that controlling for both male and female global stress, married men, on average, reported more positive attitudes toward CRE.

A similar pattern was found in the negative affect analyses. When the intercept was constrained across gender a significant difference was found ($\chi^2_D(1)=11.08$, $p < .01$; male intercept=15.58, female intercept 17.24). This result suggests that when controlling for both male and female negative affect, females, on average, reported more positive attitudes toward CRE.

Finally, a similar pattern was found in the psychological aggression analyses when the intercept was constrained across gender ($\chi^2_D(1)=10.75$, $p < .001$; male intercept=15.8, female intercept=17.73). This result suggests that when controlling for both male and female psychological aggression, females, on average, reported more positive attitudes toward CRE. A trend toward significant mean differences was also found by gender, showing a higher mean level psychological aggression reported by females ($\chi^2_D(1)=3.67$, $p=.06$; male psychological aggression, $M=20.36$, female psychological aggression, $M=25.25$).

Also, a significant difference was found when constraining the intercept across relationship status ($\chi^2_D(2)=5.83$, $p=0.05$). This difference was most pronounced in males (males unmarried intercept=15.33, males married intercept=17.44). This result suggests that when controlling for both male and female psychological aggression, married men, on average reported more positive attitudes toward CRE.

Thus, the exploration of substantive findings in background parameters showed, that controlling for independent variables in several study analyses, females reported, on average, more positive attitudes toward CRE, and unmarried men, on average, reported

more negative attitudes toward CRE than the married men, unmarried women, and married women.

All significant differences in background parameters are not reported in this results section. The reader is directed to the tables in Appendix D that show all differences in background parameters by the specific predictor variable and dependent variable analyzed. The path results, and differences in actor and partner paths in the self-reported attitude toward CRE analyses are reported below by hypothesis. Only significant path statistics are reported in this section. The reader is directed to Table 6 for an overall depiction of significant and non-significant paths for study findings related to the self-reported attitude toward CRE APIM analyses.

Results for Hypothesis 1: Greater levels of stress will be associated with more negative attitudes toward CRE. 1a. Relationship partners in the lower income group will report greater levels of stress associating with more negative attitudes toward CRE. 1b. Greater levels of stress will be more pronounced in male relationship partners associating with greater negative attitudes toward CRE.

The results for hypothesis one were primarily not supported. When tested simultaneous in APIM analysis, the paths from male and female global stress to male and female self-report attitude toward CRE were not significant at the $p < .05$ level. Also, no significant differences were noted when testing moderation by either male or female reported income.

Additionally, no significant differences were noted between the actor effects across global stress analyses. Male effects were no stronger than female effects, and vice versa. However, an interesting pattern in partner path differences was found in global

stress analyses investigating gender differences. When constraining the partner paths to be equal across gender a significant difference was noted ($\chi^2_D(1)=3.62$, $p = .06$). In viewing the results, the path from male stress ► female self-reported attitude toward CRE was negative, and the path for female stress ► male self-reported attitude toward CRE was positive. Yet, neither of these paths was significant at the $p < .05$ level individually. These results suggest that perhaps for female partners, more stress in male partners may be transmitted as more resistance, or more difficulty when addressing the relationship, thus dampening attitudes toward CRE in female partners, and for male partners, more distress and stress detected in their female partners may be associated with more positive attitudes toward CRE.

Results for Hypothesis 2: Greater levels of reported negative affect will be associated with more negative attitudes toward CRE. 2a. Relationship partners in the lower income group will report greater levels of negative affect associating with more negative attitudes toward CRE. 2b. Greater levels of negative affect will be more pronounced in male relationship partners associating with greater negative attitudes toward CRE.

The results for hypothesis two were primarily not supported. When testing the paths from male and female negative affect to male and female self-reported attitudes toward CRE, these paths did not reach significance at the $p < .05$ level. In terms of differences by income, no significant differences were noted in the actor effects, but a trend toward significance was noted by male-reported education ($\chi^2_D(3)=5.69$, $p=0.12$).

Results showed that the partner paths were in opposite directions, where the female negative affect ► male self-reported attitude toward CRE was positive, and male negative affect ►female self-reported attitude toward CRE was negative. Interestingly,

these results were more pronounced in the higher male-reported income group where the path for female negative affect ► male attitude toward CRE reached significance (β=.26, p=.05)

These results suggest for those in the male-reported higher income group, greater female negative affect is significantly associated with more positive attitudes toward CRE in males, and greater reported male negative affect, to a lesser degree, is associated with more negative attitudes toward CRE in females. Perhaps males in the higher reported income group see CRE services as a potential opportunity for their female partners to improve personal characteristics such as in their affect, tone, and demeanor, thus, holding more positive attitudes as females report more negative affect as male partners see this could improve the relationship. Additionally, perhaps females see negative affect in their male partners as a sign of increased difficulty and challenge regarding relationship issues and topics, or relationship help services. Thus, in light of all the trouble that might result in discussing such topics, a dampening of female partner attitudes towards CRE may result.

Also, when assessing differences in the magnitude of actor effects (e.g., male negative affect ► male attitude toward CRE), no significant differences were noted in these paths by gender. Yet, a significant difference was noted in the partner paths (χ^2_D (1)= 4.15, p =.05). Results showed that the partner paths were in opposite directions, where the male negative affect ► female self-reported attitude toward CRE was negative, and female negative affect ► male self-reported attitude was positive. However, these partner paths did not reach significance individually at the $p < .05$ level.

Results for Hypothesis 3:Greater levels of psychological aggression will be associated with more negative attitudes toward CRE. 3a. Relationship partners in the lower income bracket will report greater levels of psychological aggression associating with more negative attitudes toward CRE. 3b. Male partners will report more displays of psychological aggression associating with more negative attitudes toward CRE.

The results for hypothesis three were partially supported. When testing the APIM paths of male and female psychological aggression to male and female self-report attitude toward CRE, the actor effects (e.g., male psychological aggression ►male attitude toward CRE) were not significant, however, the partner path from male self-reported psychological aggression to female self-reported attitude toward CRE was negative and significant (β= -.31, p< .01). This path was retained for testing in the final model.

These results suggest that males who display more psychological aggression may have female partners who maintain more negative attitudes toward CRE. This may be that females may see attending CRE programming as environments that might incite or exacerbate psychologically aggressive behaviors in their partner, dampening the view of such services in female relationship partners.

When investigating differences by male and female-reported income level, results showed no difference in actor paths, however a trend towards a significant difference was found at the p < .10 level for the partner paths when these paths were constrained across male-reported income groups only (χ^2_D (3)=6.1, p=.11). Interestingly, and contrary to the study hypothesis, these results were particularly pronounced in the higher male-reported income group. Results showed that the partner path for male reported psychological

aggression ►female self-reported attitude toward CRE was significant and negative (β= -.40, $p < .01$) for the male-reported higher income group.

However, in viewing the results, the path for male reported psychological aggression ►female self-reported attitude toward CRE was also significant in the male reported lower income group (β= -.27, p=.05). These results suggest that greater reported male psychological aggression is significantly associated with more negative attitudes toward CRE in females in both the male-reported lower and higher income groups. These partner effects indicate that perhaps female partners see CRE as an activity that potentially could exacerbate psychological aggressive behavior in their partner, thus dampening their view of such services.

Results for Hypothesis 4: Greater levels of relationship quality will be associated with more negative attitudes toward CRE.

Results for hypothesis four were not supported. Results across the APIM analyses showed no support for the association between relationship quality and attitudes toward CRE. These associations did not significantly differ by gender, male and female-reported income, male and female-reported education, or relationship status.

Results for Hypothesis 5. Unmarried couples will report more negative attitudes toward CRE than married couples. This negative relationship will be particularly pronounced for males.

The results for hypothesis five were partially supported. As noted, when constraining the intercept in both the global stress and psychological aggression APIM analyses differences were noted in relationship status. In particular, when controlling for

the independent variables in the particular model (i.e., male and female global stress or male and female psychological aggression), on average, unmarried men reported more negative attitudes toward CRE.

As far as differences in model paths by relationship status, these were only noted in the global stress APIM analysis. No differences were found in testing the equality of actor paths, but a trend towards a significant difference was found at the $p < .10$ level for the partner paths when these paths were constrained across relationship status ($\chi^2_D(3)=6.0$, $p=.10$). Results showed that the partner path for male stress ►female attitude toward CRE) was significant ($\beta= -.26$, $p=.04$) for the unmarried group. Interestingly, results showed the partner paths in the unmarried group to be in opposite directions, where the path for female stress ► male self-reported attitude toward CRE was positive, and the path for male stress ►female self-reported attitude toward CRE was negative.

These paths were not near significant in the married group. These results suggest for unmarried partners, greater female stress is marginally associated with more positive attitudes toward CRE in males, and greater reported male stress is significantly associated with more negative attitudes toward CRE in females. For unmarried males, although maintaining overall more negative attitudes towards CRE than unmarried females, this becomes slightly less negative as female partners experience more stress. Perhaps males see CRE as an opportunity for their female partners to receive help for their own personal struggles, and this help could benefit the relationship overall. For females, perhaps more stress in male partners takes the form of more resistance and difficulty regarding relationship-related topics, thus dampening attitudes toward CRE services from the female viewpoint.

Results for Hypothesis 6. Relationship partners in the lower education group will primarily have more negative attitudes toward CRE.

The results for hypothesis six were partially supported. However, as previously noted, in the global stress APIM analysis constraining the intercept across male-reported education level resulted in a significant difference, showing that when controlling for male and female global stress, on average, females whose male partner had less than a college degree reported more positive attitudes toward CRE than females whose male partner did have a college degree.

In terms of path differences by education level, differences were noted in both the global stress and negative affect APIM analyses. In the global stress analyses by male-reported education no differences were not noted in the actor paths, but a significant difference was noted in partner paths between the male-reported education groups (χ^2_D (3)=7.89, p = .05). These results were particularly pronounced in the male reported no college degree group, where the partner paths were in opposite directions, and the path for male stress ►female attitude toward CRE was significant (β= -.34, p < .01).

These findings suggest that for relationship partners where the male reported no college degree, greater female stress was marginally associated with more positive attitudes toward CRE in male partners, and more male stress was significantly associated with more negative attitudes toward CRE in female partners. Males in the less than college degree group may see CRE as a means through which their female partners can manage individual difficulties better (e.g., stress, frustration) and therefore, improve the relationship, therefore bolstering their view of CRE services. Females with male partners reporting less than a college degree may see heightened stress in their male partner

vented through negativity that may be exacerbated when discussing the relationship or changing the relationship through CRE services, thus dampening female partner attitudes toward CRE.

In the negative affect APIM analyses by male-reported education significant differences were also noted. A trend toward a significant difference was found ($p < .10$) for actor paths ($\chi^2_D(3)=7.1$, $p = .07$) across both male-reported education levels. These results were more pronounced in the male reported no college degree group, showing the actor effect for male negative affect ► male attitude toward CRE to be significant (β= -.25, $p< .05$).

These results suggest that for relationship partners in which the male reports an education level less than a college degree, and particularly for males, reported negative affect is associated with more negative attitudes toward CRE. It may be for this group that, for males, more pronounced negativity dampens the benefits of, or overshadows the potential positive side of attending CRE. This negativity may be related to reduced opportunities, or other environmental stressors that often characterize those with limited education.

Also in the negative affect analyses, a trend towards a significant difference was noted in the partner paths across male-reported education levels ($\chi^2_D(3)=7.1$, $p = .07$). These results were more pronounced in the male-reported no college degree group, where the partner path for male negative affect ►female self-report attitude toward CRE was significant (β= -.28, $p < .05$). The partner paths were also noted to be in opposite directions where the path for female reported negative affect ►male attitude self-

reported attitude toward CRE was positive, and the path for male reported negative affect ►female attitude toward CRE was negative.

These findings suggest that for the group in which the male partner reported less than a college degree, more reported negative affect in females was marginally associated with more positive attitudes toward CRE, and more reported negative affect in males was significantly associated with more negative attitudes toward CRE in females. Perhaps in the lower education group males see CRE as an opportunity for their female partners to improve their attitude and demeanor, strengthening the relationship, and improving attitudes of such programs. Yet, more pronounced, perhaps females in this group see heightened negative affect in male partners as a sign that this negativity would only be furthered and prolonged when focusing on the relationship and relationship improvement in CRE-type programming, thus dampening their attitude of such programs.

Table 6.

APIM Analysis	Path			
	Actor (M ►M)	Actor (F►F)	Partner (M►F)	Partner (F►M)
Stress				
-Main Effects	-	-	-	-
-By Male Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Female Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Male Education				
College Degree	-	-	-	-
No College Degree	-	-	β= -.34**	-
-By Female Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Relationship Status				
Married	-	-	β= -.26*	-
Unmarried	-	-	-	-
Negative Affect				
-Main Effects	-	-	-	-
-By Male Income	-	-		
Higher	-	-	-	β=.26*
Lower	-	-	-	-
-By Female Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Male Education				
College Degree	-	-	-	-
No College Degree	β= -.25*		β= -.28*	
-By Female Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Relationship Status			-	
Unmarried	-	-	-	-

Married	-	-	-	-
Relationship Quality				
-Main Effects	-	-	-	-
-By Male Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Female Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Male Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Female Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Relationship Status				
Married	-	-	-	-
Unmarried	-	-	-	-
Psychological Aggression				
-Main Effects	-	-	β= -.31**	-
-By Male Income				
Higher	-	-	β= -.40**	-
Lower	-	-	β= -.27*	-
-By Female Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Male Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Female Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Relationship Status				
Married	-	-	-	-
Unmarried	-	-	-	-

Table 6. Overall path results for self-reported attitudes toward CRE analyses. *Note*. *$p < .05$, **$p < .01$, ***$p < .001$.

Final Model Testing: Self-Reported Attitudes Toward CRE

Reviewing the findings of the analyses conducted in the individual predictor APIM analyses (not controlling for other study predictors), the only significant path ($p <$ .05) that was found was in the psychological aggression model predicting female attitude toward CRE from male psychological aggression (β= -.31, p< .01). Thus, this predictor emerged as the strongest path out of all model testing in predicting self-reported attitudes toward CRE. The amount of variance explained in the female attitude toward CRE dependant variable was approximately 8%, but this amount was not significant (R^2=.08, p= .13). The amount of variance explained in the male attitude toward CRE dependant variable was 1%, and this amount was not significant (R^2= .01, p= .62). These results were found including all paths in the psychological aggression APIM, but controlling for relevant background parameter constraints (as described before). Overall, model fit was acceptable ($\chi^2(1)$=1.35, p= .25; CFI=.96; RMSEA=.06; SRMR=.14) (Hu & Bentler, 1999; Keiley, Dankoski, Dolbin-MacNab, & Liu, 2005).

Figure 2.

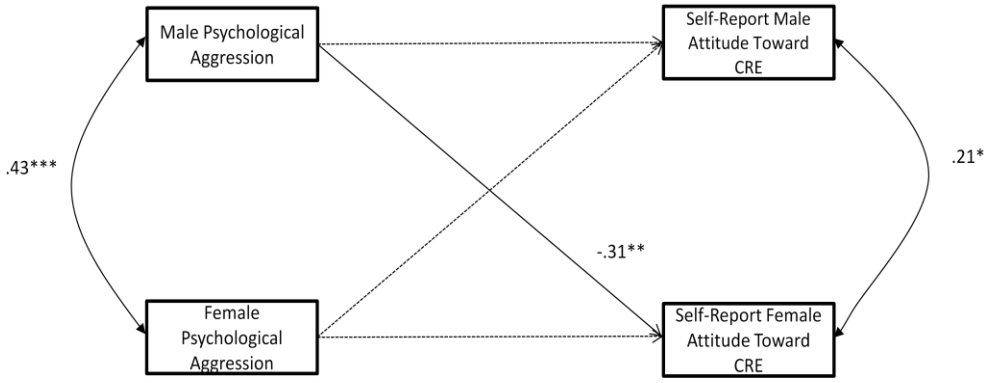

Figure 2. Results of the final tested model based on prior exploratory APIM with the self-reported attitude toward CRE dependant variables. Nonsignificant paths represented by a dashed line. Note. Standardized coefficients reported: * $p < .05$, ** $p < .01$, *** $p < .001$.

Results for Hypothesis 7. When assessing pooled partner data, overall differences will be found in participant attitudes toward CRE by gender, income, and education.

The results for hypothesis seven were partially supported. Some model findings did show differences by gender in that females reported more positive attitudes toward CRE, and those in the higher education group reported more positive attitudes. However, income nor the different interactions were not significant in any of the models analyzed. These findings are reported below, and an overall table of results is presented in Appendix E.

Pooled Data Regression Analyses: Self-Report Attitudes Toward CRE

In the final exploratory analysis step the dyadic data was pooled between partners in multiple regression procedures to assess for overall differences in attitudes toward

CRE by gender, income, relationship status, education, and interactions among gender and income, gender and relationship status, relationship status and income, education and gender, education and relationship status, and education and income. The results presented here were found conducting the multiple regressions using the pooled male and female self-reported attitudes toward CRE as the dependant variable.

In the first model, the self-reported attitude toward CRE variable was regressed simultaneously on gender (0=male, 1=female), income (0=low, 1=high), and the multiplicative gender x income. The full model R^2 was significantly greater than zero (R^2=.06, p= < .01), however, only the variable for gender reached significance individually (β=.23, p= .02). These results suggest than females, overall held more positive attitudes toward CRE, but income was not significantly related, nor did income interact with gender to influence participant attitudes toward CRE.

In the second model, the self-reported attitude toward CRE variable was regressed simultaneously on gender (0=male, 1=female), relationships status (0=unmarried, 1=married), and the multiplicative gender x relationship status. The full model R^2 was significantly greater than zero (R^2=.07, p= < .01), however, only the variable for gender reached significance individually (β=.30, p < .001). These results suggest that females overall held more positive attitudes toward CRE, but relationship status was not significantly related, nor did gender interact with relationship status to influence participant attitudes toward CRE in this sample.

In the third model, the self-reported attitude toward CRE variable was regressed simultaneously on relationships status (0=unmarried, 1=married), income (0=low, 1=high), and the multiplicative relationship status x income. The full model R^2 was not

significantly greater than zero (R^2=.01, p= .83), and none of the variables entered reached significance individually. These results suggest that relationship status, income, nor the interaction of relationship status with income were significantly associated with attitudes toward CRE in this analysis.

In the fourth model, the self-reported attitude toward CRE variable was regressed simultaneously on education (0=less than college degree, 1=college degree), income (0=low, 1=high), and the multiplicative education x income. The full model R^2 was not significantly greater than zero (R^2=.01, p= .19), and only the education variable reached significance individually (β= .28, p = .05). These results suggest that those with a college degree have significantly more positive attitudes toward CRE, yet neither income, nor the interaction of education and income status significantly associated with attitudes toward CRE in this sample.

In the fifth model, the self-reported attitude toward CRE variable was regressed simultaneously on education (0=less than college degree, 1=college degree), relationship status (0=unmarried, 1=married), and the multiplicative education x relationship status. The full model R^2 was not significantly greater than zero (R^2=.02, p= .23), and only the education variable trended toward significance individually (β= .21, p = .06). These results suggest that those with a college degree have marginally more positive attitudes toward CRE, yet neither relationship status, nor the interaction of education and relationship status significantly associated with attitudes toward CRE in this sample.

In the sixth model, the self-reported attitude toward CRE variable was regressed simultaneously on education (0=less than college degree, 1=college degree), gender (0=male, 1=female), and the multiplicative education x gender. The full model R^2 was

significantly greater than zero (R^2=.07, p < .001), and the education variable trended toward significance (β= .18, p = .08), while the gender variable reached significance (β= .30, p < .001). These results suggest that those with a college degree have marginally more positive attitudes toward CRE, and females have significantly more positive attitudes toward CRE, yet the interaction of education x gender was not significant.

Results of Observer-Rated Attitudes Toward CRE APIM Analyses

Substantive Results Relating to Testing Differences in Background Parameters

The most substantive results relating to the testing for differences in model background parameters in the different analyses revealed interesting differences in observer-rated attitude toward CRE by gender, male-reported income, and relationship status. The substantive nature of testing constraints in background parameters emerged primarily in the psychological aggression APIM testing.

For instance, in the psychological aggression APIM analysis in examining gender differences, a significant difference was noted in constraining the exogenous means across gender (χ^2_D (1)=3.67, p=.05). Results showed females as reporting a higher degree of psychological aggression (male psychological aggression, M=20.30, female psychological aggression, M=25.40).

Also, in psychological aggression APIM analyses by male-reported income, a trend toward a significance was noted when constraining the residual variance across both income groups (χ^2_D (2)=5.78, p=0.06). Interestingly, results showed that male and female reported psychological aggression accounted for 26% (R^2=.26) of the variance in the observer-rated male attitude toward CRE in the higher male-reported income group.

This value was significant at the $p < .01$ level. These results suggest that psychological aggression may play more of a role in shaping male attitudes toward CRE for those reporting and income of more than $15,000 annually.

Additionally, in psychological aggression APIM analyses by relationship status, a trend toward a significant difference was noted when constraining the residual variance across married and unmarried partners ($\chi^2_D(2)=4.54$, $p= .10$). Results showed that male and female reported psychological aggression accounted for 13% ($R^2=.13$) of the variance in the observer-rated male attitude toward CRE for married males. This amount of variance accounted for points toward psychological aggression as a potential shaping mechanism of attitudes toward CRE in married men. However, although male and female psychological aggression accounted for 13% of the variance in married males' attitude toward CRE, this value was not significant at the $p < .05$ level.

Thus, the exploration of substantive findings in background parameters pointed toward an association between male and female psychological aggression particularly for men in the higher male-reported income group, and for married men. As noted previously, all significant differences in background parameters are not reported in this section. The reader is directed to the tables in Appendix D that show all differences in background parameters by the specific predictor variable and dependent variable analyzed. The path results, and differences in actor and partner paths in the ovserver-rated attitude toward CRE analyses are reported below by hypothesis. Only significant paths are reported in this section. The reader is directed to Table 7 for a more overall picture of significant and non-significant paths related to the observer-rated attitude toward CRE analyses.

Results for Hypothesis 1. Greater levels of stress will be associated with more negative attitudes toward CRE. 1a. Relationship partners in the lower income group will report greater levels of stress associating with more negative attitudes toward CRE. 1b. Greater levels of stress will be more pronounced in male relationship partners associating with greater negative attitudes toward CRE.

The results for hypothesis one were not supported. Associations between male and female global stress and male and female observer-rated attitudes toward CRE were not significant at the $p < .05$ level. These associations were not noted to differ by either male or female-reported income group. No differences were noted in the magnitude of actor and partner effects by gender or income.

Results for Hypothesis 2. Greater levels of reported negative affect will be associated with more negative attitudes toward CRE. 2a. Relationship partners in the lower income group will report greater levels of negative affect associating with more negative attitudes toward CRE. 2b. Greater levels of negative affect will be more pronounced in male relationship partners associating with greater negative attitudes toward CRE.

The results for hypothesis two were not supported. Associations between male and female negative affect and male and female observer-rated attitudes toward CRE were not significant at the $p < .05$ level. These associations were not noted to differ by either male or female-reported income group. No differences were noted between the magnitude of actor and partner effects by gender or income.

Results for Hypothesis 3. Greater levels of psychological aggression will be associated with more negative attitudes toward CRE. 3a. Relationship partners in the lower income bracket will report greater levels of psychological aggression associating with more negative attitudes toward CRE. 3b. Male partners will report more displays of psychological aggression associating with more negative attitudes toward CRE.

The results for hypothesis three were partially supported. Results showed that psychological aggression model actor effects were not significant (e.g., male psychological aggression ►male observer-rated attitude toward CRE). There was also no noted difference in the magnitude of the actor effect by gender. However, a significant partner effect was noted from female reported psychological aggression to male observer-rated attitude toward CRE (β= -.31, p= .01). This path was retained for testing in the final model. These results suggest that females who report more psychological aggression may have male partners who maintain more negative attitudes toward CRE. This may be that males may see attending CRE programming as environments that might incite or exacerbate psychologically aggressive or blaming behaviors in their partner, dampening the view of such services in male relationship partners.

Differences were also noted in psychological aggression APIM analyses by both male and female-reported income group. In the analysis by male-reported income, a significant difference was noted in actor effects across income group ($\chi^2_D(3)$= 8.13, p=.04). Results showed that both the male actor effects (male psychological aggression ►male attitude toward CRE) were significant in both male-reported income groups, but in opposite directions (male-reported lower income group, β= -.28, $p < .05$; male-reported higher income group, β= .26, $p < .05$).

These findings suggest that male relationship partners in the two different income groups experience differences in the way that reported psychological aggression is associated with their own attitudes toward CRE. For male relationship partners in the lower male-reported income group, perhaps increased resistance is present in that CRE is seen as an activity through which they would be required to change, or be instructed to change their behavior and way of interacting with their partner, dampening their view of such programming. For male relationship partners in the higher male-reported income group, perhaps less resistance may be present, and they may see CRE as an opportunity to learn new skills and new ways to interact with their partner to improve their relationship.

A significant difference was also noted in the partner paths by male-reported income ($\chi^2_D(3)=12.3$, $p < .01$). These results were more pronounced in the higher male-reported income group, with the path from female psychological aggression to male observer-rated attitude toward CRE reaching significance ($\beta= -.56$, $p < .001$). Results showed these partner paths to be in opposite directions, where the path for female reported psychological aggression ► male observer-rated attitude toward CRE was negative, and the path for male reported psychological aggression ►female attitude toward CRE was positive.

These findings suggest that for male partners in the higher male-reported income group, increases in psychological aggression in their female partners were associated with more negative attitudes toward CRE. Perhaps, males in this group see CRE as an avenue through which to incite, sustain, and exacerbate bouts of psychological aggression in their female partners. Male relationship partners in this group may also see CRE material as an

opportunity for their female partners to "point the finger" and place blame for relationship issues on them.

In regards to female-reported income, no differences were noted in actor paths across the female-reported income groups. However, a trend towards a significant difference was found when the partner paths were constrained to be equal across female-reported income groups ($\chi^2_D(3)=6.46$, $p=0.09$). Particularly, results showed that in the female-reported higher income group, the partner effect of female psychological aggression to male attitude toward CRE was significant ($\beta= -.32$, $p < .05$).

These results suggest that for males with female relationship partners reporting an income over $15,000, increases in their female partner's psychological aggression is associated with more negative attitudes toward CRE. Similar to other results, male relationship partners in the female-reported higher income group may see CRE services and activities through which to create and exacerbate issues related to psychological aggression in their female partners.

Results for Hypothesis 4. Greater levels of relationship quality will be associated with more negative attitudes toward CRE.

Results for hypothesis four were partially supported. Differences in relationship quality associations with attitudes toward CRE were primarily found by male-reported income. A significant difference was found in the actor paths across male-reported income groups ($\chi^2_D(3)=7.87$, $p < .05$). Results showed that for the male-reported lower income group the path between male relationship quality and male attitude towards CRE was significant ($\beta=.32$, $p < .05$). These results suggest that for male relationship partners reporting and income of $15,000 or less, increases in relationship quality are associated

with more positive attitudes toward CRE. Perhaps male relationship partners in this group see their relationship as something that can be improved upon, and see CRE as a means through which to sustain, enhance, progress the relationship quality they are currently experiencing.

Also, a trend toward a significant difference was noted in the partner paths by male-reported income ($\chi^2_D(3)=7.26$, $p=.06$). These results were more pronounced in the male-reported lower income group. Results showed that the partner path for female relationship quality ►male observer-rated attitude toward CRE was negative, and the path for male relationship quality ►female observer-rated attitude toward CRE was also negative for the male-reported lower income group. However, neither of these partner paths reached significance at the $p < .05$ level individually. Yet, interestingly, both of these paths are negative indicating more relationship quality is marginally associated with more negative attitudes toward CRE in the male-reported lower income group.

Perhaps males reporting an income less than $15,000 experience more pleasant effects (e.g., increased cohesion, communication, sexual satisfaction) as their female partners are more satisfied with the relationship, thus seeing less of a need to attend CRE services or other couples-related services. However, interestingly, as reported previously, a positive actor path was found between relationship quality and attitude toward CRE for men in the lower-income group when assessing actor path differences. Perhaps, for men, differences in their own versus their partner's assessment of the quality of the relationship play an important role in determining attitudes toward CRE between the two male-reported income levels.

Results for Hypothesis 5. Unmarried couples will report more negative attitudes toward CRE than married couples. This negative relationship will be particularly pronounced for males.

Results for hypothesis five were primarily unsupported. Differences in observer-rated attitudes toward CRE by relationship status were primarily noted in the global stress APIM analyses. A trend toward a significant difference was found in testing the equality of actor paths across relationship status ($\chi^2_D(3)=6.61$, $p=.09$). Results showed these differences were more pronounced for married partners than unmarried partners, and in particular, married men. The path for male stress ►male attitude toward CRE was negative and significant ($\beta= -.43$, $p < .01$) in the married group.

These results suggest for married partners, and in particular married men, more stress is associated with more negative attitudes toward CRE. For married partners, and particularly men, life stressors may outweigh the benefits of attending CRE services, where CRE may be perceived as one more item with which to manage, or may been seen as an additional source of stress in terms of having to take additional time to focus on the relationship.

Results for Hypothesis 6. Relationship partners in the lower education group will primarily have more negative attitudes toward CRE.

Results for hypothesis six were primarily unsupported. In fact, some results were contrary to those hypothesized in that stronger effects were found for higher education groups. Differences in the observer-rated attitudes toward CRE by male and female-reported education were primarily found in the psychological aggression APIM analyses.

A trend toward a significant difference was found in the partner paths between psychological aggression and attitudes toward CRE by male-reported education (χ^2_D (3)=6.74, p=0.08). Results showed that for the male-reported no college degree group, associations between female psychological aggression and male attitude towards CRE, and male reported psychological aggression and female attitude toward CRE to be somewhat stronger than the corresponding paths in the male-reported college degree group. Yet, none of these paths were significant individually, thus presenting limitations in interpretability.

Also, a trend toward a significant difference was found in the actor effect associations of psychological aggression with observer-rated attitudes toward CRE by female-reported education (χ^2_D (3)=7.41, p=0.06). Results showed that the two actor paths (male psychological aggression ►male attitude toward CRE, female psychological aggression ►female attitude toward CRE) in the female-reported higher education group were both significant, but in opposite directions (β= .32, p < .05; β= -. 30, p < .05). These results suggest that in the female-reported higher education group increases in self-reported psychological aggression were associated with more positive attitudes toward CRE in males, and more negative attitudes in females. Perhaps males who have relationship partners who have a college degree see CRE as a means through which to learn new skills to manage their aggression and frustration, and perhaps match the skills of their educated partners, thus improving their view of CRE. Perhaps females who have a college degree feel more comfortable with their level of knowledge and skill-level to manage challenges, and see less of a need for CRE services.

Additionally, a significant difference was found when constraining the partner paths to be equal between the two female-reported education levels (χ^2_D (3)=9.7, $p < .05$). Results showed that for the female-reported higher education group the two partner paths (female psychological aggression ►male attitude toward CRE, male psychological aggression ►female attitude toward CRE) were significant, but in opposite directions (β= -.50, $p < .0001$; β= .32, $p < .05$). These findings suggest that for those in the female-reported higher education group increases in female psychological aggression are significantly associated with more negative attitudes toward CRE in male partners, and increases in male psychological aggression are associated with more positive attitudes toward CRE in females.

Perhaps these differences may be due to the differing purposes and goals that men and women see and have for CRE services. Perhaps male relationship partners in this group see CRE programs as inciting psychological aggression in their female partners; bringing up topics that potentially are sensitive, thus dampening attitudes toward CRE in males. Yet, women in this group may see CRE as an opportunity for their male partners to learn new skills to better manage their communication style and frustration to improve the overall relationship, thus boosting attitudes toward CRE in female partners.

Table 7.

APIM Analysis	Path			
	Actor (M ►M)	Actor (F►F)	Partner (M►F)	Partner (F►M)
Stress				
-Main Effects	-	-	-	-
-By Male Income				
Higher	-	-	-	-
Lower	-	-	-	
-By Female Income				
Higher	-	-	-	-
Lower	-	-	-	
-By Male Education				
College Degree	-	-	-	-
No College Degree	-	-	-	
-By Female Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Relationship Status				
Married	β = -.43**	-	-	-
Unmarried	-	-	-	-
Negative Affect				
-Main Effects	-	-	-	-
-By Male Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Female Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Male Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Female Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Relationship Status				
Unmarried	-	-	-	-

Married	-	-	-	-
Relationship Quality				
-Main Effects	-	-	-	-
-By Male Income				
Higher	-	-	-	-
Lower	β=.32	-	-	-
-By Female Income				
Higher	-	-	-	-
Lower	-	-	-	-
-By Male Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Female Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Relationship Status				
Married	-	-	-	-
Unmarried	-	-	-	-
Psychological Aggression				
-Main Effects	-	-	-	β= -.31**
-By Male Income				
Higher	β= .26*	-	-	β= -.56***
Lower	β= -.28*	-	-	
-By Female Income				
Higher	-	-	β= -.32**	-
Lower	-	-	-	-
-By Male Education				
College Degree	-	-	-	-
No College Degree	-	-	-	-
-By Female Education				
College Degree	β= .32*	β= -. 30*	β= .32*	β= -.50***
No College Degree	-	-	-	-
-By Relationship Status				
Married	-	-	-	-
Unmarried	-	-	-	-

Table 7. Overall path results for observer-rated attitudes toward CRE analyses. *Note*. *$p < .05$. **$p < .01$. ***$p < .001$.

Final Model Testing: Observer-rated Attitudes Toward CRE

Reviewing the findings of the analyses conducted in the individual predictor APIM analyses (not controlling for other study predictors), the only significant path ($p <$ .05) found was predicting observer-rated male attitude toward CRE from female psychological aggression (β= -.31, p< .01). Thus, this predictor emerged as the strongest path out of all model testing in predicting observer-rated attitudes toward CRE. The amount of variance explained in the male attitude toward CRE dependant variable was approximately 8%, but this amount was not significant (R^2=.08, p= .10). The amount of variance explained in the female attitude toward CRE dependant variable was approximately1%, and this amount was not significant (R^2= .01, p= .67). Overall, model fit was acceptable ($\chi^2(2)$=.278, p= .87; CFI=1.0; RMSEA=.001; SRMR=.04) (Hu & Bentler, 1999; Keiley, Dankoski, Dolbin-MacNab, & Liu, 2005).

Figure 3

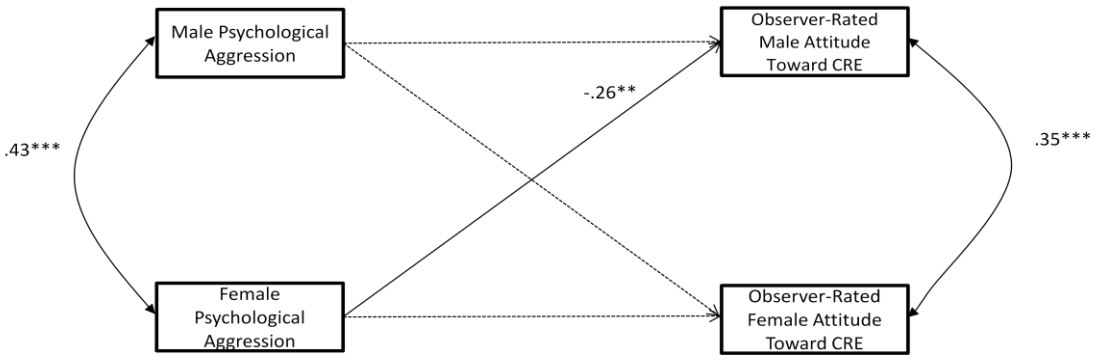

Figure 3. Results of the final tested model based on prior exploratory APIM with the observer-rated attitude toward CRE dependant variables. Nonsignificant paths represented by a dashed line. Note. Standardized coefficients reported: * p< .05, ** $p <$ .01, *** $p <$ .001.

Results for Hypothesis 7. When assessing pooled partner data, overall differences will be found in participant attitudes toward CRE by gender, income, and education.

The results for hypothesis seven were partially supported. Some model findings did show differences by gender in that females reported more positive attitudes toward CRE, and those in the higher education group reported more positive attitudes. However, income nor the different interactions were not significant in any of the models analyzed. These findings are reported below, and an overall table of results is presented in Appendix E.

Pooled Data Regression Analysis: Observer-rated Attitudes Toward CRE

In the final exploratory analysis step the dyadic data was pooled across relationship partners in multiple regression procedures to assess for overall differences in attitudes toward CRE by gender, income, relationship status, education, and interactions among gender and income, gender and relationship status, relationship status and income, education and gender, education and relationship status, and education and income. The results presented here were found conducting the multiple regressions using the pooled male and female observer-rated attitudes toward CRE as the dependant variable.

In the first model, the observer-rated attitude toward CRE variable was regressed simultaneously on gender (0=male, 1=female), income (0=low, 1=high), and the multiplicative gender x income. The full model R^2 was not significantly greater than zero (R^2=.02, p= .07), and only the variable for gender reached significance individually (β=.25, p= .02). These results suggest that females overall held more positive attitudes toward CRE, but income was not significantly related, nor did income interact with gender to influence participant attitudes toward CRE.

In the second model, the observer-rated attitude toward CRE variable was regressed simultaneously on gender (0=male, 1=female), relationships status (0=unmarried, 1=married), and the multiplicative gender x relationship status. The full model R^2 was not significantly greater than zero (R^2=.03, p= .15), and none of the variables reached significance individually, suggesting that gender, relationship status, nor the interaction of gender with relationship status were significantly associated with observer-rated attitudes toward CRE in this analysis.

In the third model, the observer-rated attitude toward CRE variable was regressed simultaneously on relationships status (0=unmarried, 1=married), income (0=low, 1=high), and the multiplicative relationship status x income. The full model R^2 was not significantly greater than zero (R^2=.01, p= .55), and none of the variables entered reached significance individually. These results suggest that relationship status, income, nor the interaction of relationship status with income were significantly associated with observer-rated attitudes toward CRE in this analysis in this sample.

In the fourth model, the self-reported attitude toward CRE variable was regressed simultaneously on education (0=less than college degree, 1=college degree), income (0=low, 1=high), and the multiplicative education x income. The full model R^2 was not significantly greater than zero (R^2=.02, p= .43), and none of the variables entered reached significance individually. These results suggest that education, income, nor the interaction of education with income were significantly associated with observer-rated attitudes toward CRE in this analysis in this sample.

In the fifth model, the self-reported attitude toward CRE variable was regressed simultaneously on education (0=less than college degree, 1=college degree), relationship

status (0=unmarried, 1=married), and the multiplicative education x relationship status. The full model R^2 was not significantly greater than zero (R^2=.03, p= .19), and only the education variable was significant individually (β= .23, p = .03). These results suggest that those with a college degree have more positive attitudes toward CRE, yet neither relationship status, nor the interaction of education and relationship status significantly associated with attitudes toward CRE in this sample.

In the sixth model, the self-reported attitude toward CRE variable was regressed simultaneously on education (0=less than college degree, 1=college degree), gender (0=male, 1=female), and the multiplicative education x gender. The full model R^2 was not significantly greater than zero (R^2=.02, p = .08), and only the gender variable reached significance (β= .18, p < .05). These results suggest that females have significantly more positive attitudes toward CRE, yet education and the interaction of education x gender was not significant in this analysis.

Results for Hypothesis 8. Differences will be noted in testing the association of stress, negative affect, psychological aggression, and relationship quality in the analyses between the self-reported attitude toward CRE variable versus the observer-rated attitude toward CRE variable.

Results for hypothesis seven were supported. Differences in background parameter patterns, overall main effects, and actor and partner paths were noted between the two sets of analyses assessing predictor variable associations with self-reported and observer-rated attitudes toward CRE. Interestingly, the exact opposite partner paths were significant in the different sets of analyses. These differences in results potentially

highlight the different components "tapped" when measuring partner attitudes toward CRE. A discussion of the combined main effects model follows here.

Results: Combined Self-Report and Observer-Rated Attitude Towards CRE Models

Combined Self-Report and Observer-Rated Main APIM Path Model

An overall final step assessing the principal paths from male and female predictor variables to male and female attitudes toward CRE was to create a combined APIM utilizing both sets of dependent variables (male and female self-reported attitudes toward CRE and male and female observer-rated attitudes toward CRE) regressed on the predictor variables that reached significance when assessed with only one set of dependant variables. Thus, this model regressed both self-reported male and female attitudes toward CRE, and male and female observer-rated attitudes toward CRE on male and female reported psychological aggression, which were the variables that reached significance when only one set of dependant variables were assessed. In this combined APIM, the disturbance terms between each set of dependant variables were freed to correlate, and the predictor variables were correlated according to APIM procedures.

With the combined APIM analysis, a chi-square difference test in nested models was used to assess for differences by gender in background parameters (exogenous variances, exogenous means, residuals, and intercept) individually. Chi-square difference testing in nested models to assess for differences by gender in background parameters revealed significant differences when the intercept ($\chi^2_D(1)=7.41$, $p=0.06$), exogenous variances ($\chi^2_D(1)=9.89$, $p<0.01$), and exogenous variable means ($\chi^2_D(1)=4.01$, $p < .05$)

were constrained to be equal. Thus, these parameters were allowed to vary in final combined APIM analysis.

With these constraints in place, a final combined main path APIM analysis was conducted. Both paths that reached significance when assessed with one set of dependant variables also reached significance when assessed with both sets of dependant variables in the combined APIM model. The path from male reported psychological aggression to self-reported female attitude toward CRE was significant (β= -.29, p < .01), and the path between female reported psychological aggression to the observer-rated male attitude toward CRE was significant (β= -.27, p < .01). Overall, model fit was acceptable ($\chi^2(3)$= 1.23, p= .75; CFI=1.0; RMSEA=.001; SRMR=.09) (Hu & Bentler, 1999; Keiley, Dankoski, Dolbin-MacNab, & Liu, 2005).

Figure 4.

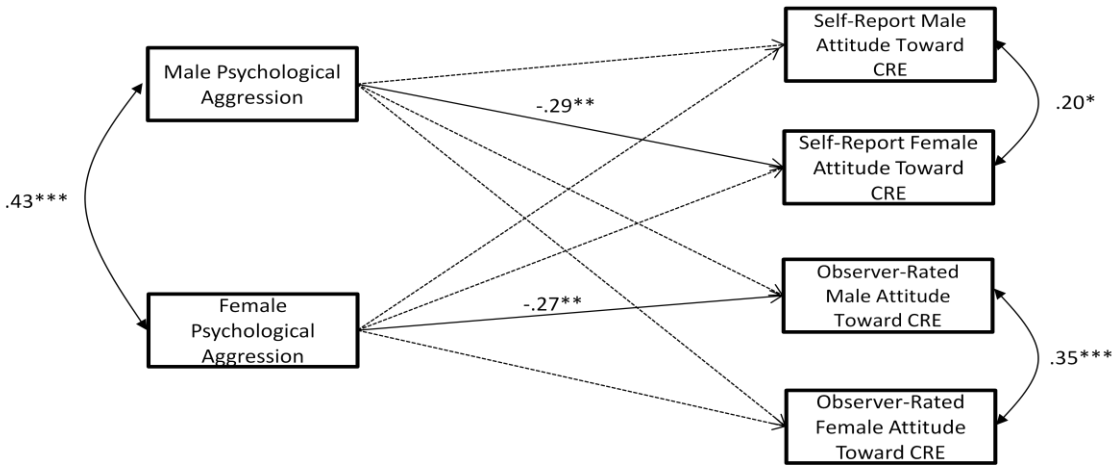

Figure 4. Results of the overall final combined APIM with the self-reported and observer-rated attitude toward CRE dependant variables. Nonsignificant paths

represented by a dashed line. Note. Standardized coefficients reported: * $p < .05$, ** $p < .01$, *** $p < .001$.

CHAPTER V

CONCLUSION

This was the first known study to assess whether factors well known to be associated with relationship quality and predictive of couples not present in CRE programming (stress, negative affect, and psychological aggression), are also associated with relationship partner attitudes toward CRE, and assess whether these associations differ by relationship circumstances. Both self-reported and observer-rated partner attitudes toward CRE were utilized in the analyses. Largely, the study hypotheses were not confirmed with some limited exceptions. For the most part, direct associations of stress, negative affect, and psychological aggression were not found with relationship partner attitudes toward CRE. And, in addition, relationship quality was not found to be significantly and negatively associated with attitudes toward CRE in this study of relationship partners. These different predictors, on the whole, did not greatly differ by income, education, or relationship status, with some exceptions. However, some interesting main effects did emerge in APIM testing, as well as some interesting patterns in moderating effects. Also, as hypothesized, main effects and moderating effects varied between the self-reported and observer-rated attitudes toward CRE in separate APIM analyses.

Overall Findings Summary

Overall, findings point towards differences in partner paths by gender, particularly in the global stress and negative affect analyses by male education, male income, and relationship status in that increases in stress and negative affect were more indicative of more negative attitudes toward CRE in female partners, but increases in stress and negative affect were more indicative of more positive attitudes toward CRE in males. These patterns were found, primarily in the self-report attitudes analyses. Also, in the observer-rated attitude analyses, a few more actor path differences emerged, especially for male partners in that increases in stress were associated with more negative attitudes toward CRE particularly for unmarried males, increases in relationship quality were associated with more positive attitudes towards CRE for males in the male-reported lower-income group, and increases in psychological aggression were associated with more negative attitudes toward CRE for males in the lower male income group, and more positive attitudes toward CRE in the higher male income group.

Also, several partner path differences were found across the sets of the psychological aggression APIM analyses. Interestingly, results were more pronounced in the female higher education group, and higher male income group. Notably, when the significant paths were combined in the final APIM, the exact opposite partner paths were significant and negative, where more psychological aggression in males was associated with more negative self-report attitudes toward CRE in the self-report dependant variable, and more psychological aggression in females was associated with more negative attitudes toward CRE in the observer-rated attitudes toward CRE dependant variable.

Also, in general, more positive attitudes toward CRE were found in females, and more negative attitudes were found to be more pronounced for unmarried males. The pooled multiple regression analyses also showed some differences by education, with those in the college degree group showing more positive attitudes toward CRE in a number of the regression models. Key findings from both sets of analyses are discussed below in more detail, as well as a discussion of differences that emerged from both sets of analyses, and findings from the combined analysis.

Key Findings From the Self-Reported Attitudes Towards CRE Set of Analyses

Most interestingly, what emerged from findings from the set of self-reported attitudes toward CRE analyses were the overall absence of actor effects on self-reported attitudes toward CRE, and the presence partner effects. Additionally, the nature of the partner effects seemed to differ by gender, and, in some ways, income and relationship status.

For instance, in the global stress APIM analyses, partner path differences emerged by gender in that positive associations between female stress and male attitude toward CRE, and negative associations between male stress and female attitudes toward CRE were found; partner path differences, but in opposite directions. Additionally, in the global stress APIM by male education, for those in the lower male education group findings showed partner path differences in that a positive association was found between female stress and male attitude toward CRE, and a strong negative association was found between male stress and female attitude toward CRE. Finally, in the global stress APIM by relationship status, for those in the unmarried group, a positive association was found between female stress and male attitude toward CRE, and a negative association between

male stress and female attitude toward CRE. Noticeably, the associations by gender were in opposite directions; female ►male was positive, and male ►female was negative.

Similar patterns were found in the negative affect APIM analyses. In the negative affect APIM by gender partner path differences were found in that female negative affect was associated with more positive attitudes toward CRE, and male negative affect was negatively associated with female attitudes toward CRE. Also, contrary to hypothesized relationships, in the male-reported higher-income group a more pronounced positive association was found between female negative affect and male attitude towards CRE, and a negative association between male negative affect and female attitude toward CRE than those in the lower male-reported income group. Finally, in the negative affect APIM by male-reported education, path differences were noted in that for relationship partner in the lower-education group female negative affect was associated with more positive attitudes toward CRE in males, and male negative affect was negatively associated with attitudes toward CRE in females. Again, as in the stress APIM analyses, the associations by gender were in opposite directions; female ►male was positive, and male ►female was negative.

These findings suggest gender differences, and in some relationship partner circumstances, that more stress and negative affect in the female partner is associated with more positive attitudes toward CRE in males, and more pronounced, more stress and negative affect in male partners is associated with more negative attitudes toward CRE in males. These partner paths were shown to differ by male-reported income, male-reported education, and relationship status.

It may be that these differences in partner paths by gender highlight different motivational factors for male and female relationship partners to attending CRE. Perhaps, particularly for male relationship partners in the lower-education group, higher-income group, and unmarried group CRE programming is seen as an opportunity for their *partner* to gain new knowledge, skills, and information on how to manage their negativity, stress, and frustrations. In this manner, CRE may be seen by male partners as a source through which they can "fix" their female partners. Thus, male partners may see CRE as a resource to help their female partner, or fix their partner, and therefore help the relationship, boosting attitudes toward CRE in male partners. Also, CRE may be seen by men in these groups as a resource to learn how to better take care of their partner, and better care of the relationship by learning how to more adequately address the needs of their female partners as they detect increases of negativity and frustration.

Female relationship partners in these groups may see increases of negativity, frustration, and distress as signs of resistance in their male partners to attending CRE services. Female partners also potentially see increased negative demeanor and frustration as characteristics that could then be prolonged, and even exacerbated as their male partners attend a program to exclusively discuss the relationship, thus dampening female attitudes.

Model results in testing the psychological aggression APIM revealed a somewhat discrepant pattern than that just described in the stress and affect models. Interestingly, and running counter to study hypotheses, in the male-reported higher-income group, a more pronounced negative association was found between both female-reported psychological aggression and male attitude toward CRE, and between male-reported

psychological aggression and female attitude toward CRE. This finding perhaps suggests that both males and females with more psychologically aggressive partners may hold more negative views of attending CRE in that perhaps the program material may incite, or even exacerbate incidents of psychological aggression in the other partner potentially damaging the relationship. These paths were more pronounced for the higher-income group.

Key Findings From the Observer-Rated Attitudes Toward CRE Set of Analyses

The set of analyses conducted utilizing the observer-rated dependant attitude variables also revealed a number of partner path differences across gender and relationship circumstances, yet the directionality was in some ways different form the analyses conducted on the self-report attitude data. Also, a fair amount of actor path differences were found in this set of analysis. Actor effect differences were more pronounced for male relationship partners.

For instance, in the global stress APIM by relationship status a stronger negative actor effect was found between male stress and male attitude toward CRE for the unmarried group. This suggests, that for this sample, perhaps stress holds a greater negative influence on attitudes toward CRE for unmarried men. Actor path differences by gender also emerged in the relationship quality and psychological aggression model analyses by male-reported income in that increases in relationship quality were positively associated with attitudes toward CRE for men in the lower-income group, increases in psychological aggression were associated with more positive attitudes toward CRE in the male-reported higher income group, and increases in psychological aggression were associated with more negative attitudes toward CRE in the lower-income group.

Interestingly, the strength of female actor paths were not as pronounced in these analyses pointing towards the connection with income and relationship status and attitudes toward CRE primarily in male relationship partners.

Several differences in partner paths were also noted in the analyses conducted with the observer-rated partner attitudes toward CRE. For instance, in the relationship quality APIM by male-reported income stronger paths were found in the lower-income group in marginal negative relationships between male and female relationship quality and attitudes toward CRE. In the psychological aggression APIM analyses by male-reported income showed a strong negative relationship between psychological aggression in females and attitudes toward CRE in males, and a marginal positive relationship between male psychological aggression and female attitudes toward CRE in the higher-income group. A similar pattern was found in the psychological aggression APIM by female-reported education for the higher-education group.

These partner path differences suggest interesting differences by gender, education, and income, particularly in the psychological aggression APIM analyses. Interestingly, in the higher-income groups, and the higher-female education group the association of female psychological aggression to male attitude toward CRE is strong and negative, whereas the path from male psychological aggression to female attitude toward CRE is positive.

As stated previously, perhaps male relationship partners see CRE services as an opportunity for their female partners to better manage their own characteristics in order to better the relationship. In this case, perhaps females see CRE as an opportunity for their male partners to learn new ways to manage psychological aggression and learn more

effective ways of interacting. Male relationship partners, however, perhaps see CRE services as an environment to inflame and exacerbate bouts of psychological aggression in their female partners, and perhaps, be sought as the source of blame for relationship trouble. Thus, men with more psychologically aggressive partners may see CRE as an environment that could quickly turn hostile. Interestingly, in both sets of analyses psychological aggression appears to be more strongly associated with attitudes toward CRE in relationship partners in the higher-income and education groups.

Key Differences in Findings from Both Sets of Analyses

In addition to some of the actor and partner path differences described in the above sections, overall trends emerged in terms of differences between the two sets of analyses. For instance, in the self-reported attitudes analyses several results showed differences in the intercept for males and females pointing towards more positive attitudes toward CRE for females. This finding is related to previous findings showing women have more positive appraisals of seeking help or assistance for the relationship through such sources as relationship counseling (Addis & Mahalik, 2003; Doss et al., 2003). This finding was also supported in the pooled multiple regressions with gender emerging as a significant predictor in several of the models showing women with more positive attitudes across analyses in both the self-reported and observer-rated attitudes.

Also, in the self-reported attitude analyses, intercept differences were also noted by relationship status. Most notably results showed that unmarried males held more negative attitudes toward CRE than married males. This finding is reflective of the literature discussing relationship commitment. Study results have shown that men in dating and cohabiting relationships have markedly lower-levels of commitment to their

partners than men who are married (Stanley, 2002, Stanley, Whitton, & Markman, 2004; Whitehead & Popenoe, 2002). Thus, unmarried men may show less positivity toward a program such as CRE designed the benefit the relationship due to overall lower commitment.

In terms of the analyses conducted with the observer-rated attitudes, more pronounced differences emerged in variance accounted for by gender and relationship circumstance. Differences in variance accounted for was primarily evidenced in male relationship partners. For instance, stress, negative affect, and relationship quality accounted for more variance in married male attitudes toward CRE than unmarried males. In addition, stress and psychological aggression accounted for more variance in male attitudes toward CRE in the higher male-reported income group. Particularly notable, the amount of variance accounted for by psychological aggression (male and female) in male attitudes toward CRE variable for the higher-income group was significant.

These findings suggest that, to some degree, stress and negative affect, and more substantially, psychological aggression, may be more connected with attitudes toward CRE among married men in the higher-income group. Non significance of variance accounted for in the stress, negative affect, and relationship quality APIM analyses make these results difficult to interpret. Findings related to the psychological aggression APIM analyses are discussed further at a later point in this document. Further investigation is needed to more systematically tease out these associations, to better assess how these factors are associated with CRE attitudes, and how these associations may vary between married and unmarried men, and other factors such as income.

The findings related to education group and attitudes toward CRE across the two sets of analyses are more difficult to interpret. Some findings in this study show differences by male-and female-reported education group. The pooled multiple regression analyses showed that education emerged as a significant predictor in two of the models pointing towards more positive attitudes toward CRE in the higher-education group. Perhaps those who have obtained a college degree have more positive attitudes toward education in general, and since CRE is in many ways advertised as an "education-like" experience, or skill-gaining experience, those with more positive attitudes towards education in general may also see CRE in a more positive light (W. Goddard, Personal Communication, March 9, 2010). Yet, this is a question that merits much more investigation.

Discussion of Combined Self-Reported and Observer-Rated Attitude Analysis

Certainly, most noted from both the final models conducted with each set of dependant variables independently, and the combined self-reported and observer-rated attitude analysis were the associations of psychological aggression partner effects on attitudes toward CRE. Interestingly, the exact opposite partner effects emerged as significant in relations to the two sets of dependent variables: male psychological aggression ►female attitude towards CRE in the self-reported analysis, and female psychological aggression ►male attitude towards CRE in the observer-rated analysis. Both paths were negative. Perhaps, to some degree, both male and female relationship partners see CRE as an environment to ignite and exacerbate psychologically aggressive behaviors in their partner, dampening attitudes toward CRE.

Explanations regarding these two opposite partner paths that emerged as significant predictors in different sets of dependant variables may have more to do with how the different sets of dependant variables were measured in relation to literature on how relationship satisfaction is constructed in men and women, and the couple communication literature. For example, some researchers have suggested that relationship satisfaction is constructed differently for men and women. For women, relationship satisfaction is often more of a global picture of the relationship, whereas for men relationship satisfaction is often more affected by the immediate, or more recent past history of the quality of the relationship. For these reasons, some suggest that women are a better "barometer" of the relationship due to their often more substantial and realistic beliefs pertaining to the relationship (Acetilli, 1992; Bradbury, Fincham, & Beach, 2000; Fowers, 1991; Hassebrauck & Fehr, 2002; Kurdek, 1993). Hence, self-report measures, in many ways, help provide a more global assessment of the relationship, thus, as men report, on average, more psychological aggression, women may be less inclined to think positively of CRE programs as program content and material, or simply bringing up the idea of attending, could incite more psychologically aggressive behaviors in their male partners.

Observed interactions may be more depictive of relationship quality for men as the quality of the conversation may be more evident of the more recent past history of the relationship. Thus, men who have female partners who are, on average, more psychologically aggressive when observed in interaction with their partner may be less inclined to display positive attitudes toward CRE, as recent experiences with their more psychologically partners may have shaped their appraisal of the relationship, thereby

shaping their attitude toward attending programs focused on the relationship. The couple communication literature also supports the notion that men who have female partners who are more psychologically aggressive (e.g., more cutting, critical, etc.) tend to have lower relationship quality (e.g., Swann, Rentfrow, & Gosling, 2003), which may also be connected with men's attitudes to attend relationship programming, as these programs might exacerbate critical and aggressive behaviors in female partners.

Overall, the differences in findings noted by the different dependent variables analyzed points toward future development in studying, measuring, and assessing attitudes toward CRE in romantic partners. In this case, the different forms of measurement (self-report and observation) perhaps tap into different aspects of the couple relationship in association with the predictor variables. Future research should further explore how different means of measuring attitudes toward CRE are associated with different facets of couple relationships, individual characteristics, and contextual components to gain greater meaning and insight as to how these attitudes are shaped.

Also, interestingly, the significant partner paths found in the combined model appears to be more pronounced in the higher-income groups. As cited previously, lower-income has been predictive of lower relationship quality, limited resources, and elevated relationship aggression. Perhaps different forms of relationship aggression may be more predictive of differences in attitudes and attendance of CRE and other relationship-oriented programs across SES-level, where physical aggression may be more predictive of more negative views and less attendance in lower-SES couples, and psychological aggression may be more predictive of more negative views and less attendance in higher-SES groups. This is a question warranting further examination.

Connections and Directions: Relating Theory to Findings

Somewhat surprisingly, overall there was relatively little difference between the male and female lower and higher income groups, and the male and female lower and higher education groups across all APIM analyses, even with relatively high percentages of men and women in the lower-income groups in the sample. Additionally, stress was relatively unrelated to attitudes toward CRE in the multi-group analyses by income and education. There are a number of potential explanations as to why these findings did not emerge. Three are discussed here.

First, family stress and family ecological theories highlight how the nature of context, and the interaction among and between contexts exerts influence on individuals and couples (Boss, 2002; Bradbury & Karney, 1993; Bradbury & Karney, 2005). Thus, the specificity of context utilized in this study most likely did not possess the sensitivity to detect the specific nature of both surrounding and relational contextual features. For instance, this study utilized dichotomous variables (lower and higher income and education groups) to test for moderation. But simply examining income and education by group does not indicate specifically if there are differences related to job stress, unemployment, neighborhood conditions, and couple resources such as family-of-origin experiences, communication style, and supportive behaviors.

Also, the variables utilized in the present study lacked the sensitivity to assess for how proximal processes (Bronfenbrenner &Ceci, 1994) influence couple relationships, and therefore, partner attitudes toward CRE. For instance, further explorations of how genetically influenced factors (genotypes) such as personality and disposition interact with facets of the lower-income environment and experience to influence relationship

quality and attitudes toward relationship programming (phenotypes) are needed. In this manner, more nuanced investigations of how genetic characteristics are moderated by contextual facets to influence couple relationship quality and stability, and attitudes toward relationship programs can further our understanding of how to effectively reduce barriers to attending couples programming.

In addition, the global stress measure utilized in this study may not have been sensitive enough to capture the stress-related experiences of the sample. Stress has been cited and exerting a more indirect influence on couple relationship, influencing the couple through mechanisms such as communication, coping, and support (Bodenmann, 1997). Further examination should be given to utilizing more specific instrumentation to better assess the more specific stressful contexts relevant to individuals and couples in relation to attitudes toward CRE.

Second, family stress and ecological theories highlight not only stressors and risks, but also highlight resources and resiliency (Boss, 2002, Orthner, Jones-Sanpei, & Williamson, 2004). For instance, in this sample, although many of the participants reported lower-income, a fair amount reported also having received some college education, and thereby, were fairly educated, and perhaps, would have access to more social and personal resources than other couples. A more detailed examination of how strengths and resources affect relationship partner attitudes toward CRE is warranted.

Third, in a related manner, simply because relationship partners are of lower income and education, may not necessarily mean they have higher stress, higher negativity, and lower relationship quality. Simply put, lower income couples may be relatively satisfied with their situation. Relationship partners may possess or have access

to other important resources that offset the deficits associated with lower income and lower education. For example, lower income individuals may have close romantic, and other family and social relationships which are highly satisfying that counteract some of the negative influences related to economic pressure and strains (Conger, Reuter, & Elder, 1999; Dyk, 2005; Seccombe, 2002). Thus, in promoting the awareness of relationship risk factors to influence couple decisions to attend CRE, promotion and implementation efforts need also give attention to strengths present and highlight the importance and benefits of building on those strengths (Morris et al., 1999; W. Goddard, Personal Communication, March 9, 2010). Increased conceptual attention to couple strengths and resiliency in terms of program design, recruitment, and implementation is needed.

Findings in Relation to Future Directions

Although many of the moderating effects summarized in this section were based on marginal levels of significance ($p < .10$), which differs from the more traditional $p < .05$ significance level used in most social science literature, the exploratory findings in this study point toward a trend that may shed light on the manner in which relationship partners seek relationship enrichment or relationship help. More pronounced in these study findings is the more *dyadic, partner-level,* or *interactional* process that influences partner attitudes toward CRE. Largely absent were findings showing female predictors of female attitudes, and male predictors of male outcomes. These results highlight the importance of how one's attitude toward CRE is shaped by one's partner, and how this shaping process may differ by gender.

Seeking out enrichment or help for one's relationship may be managed differently than seeking out individual enrichment or help. Since the goal of relationship programming is primarily to treat and help the *relationship*, benefits are greater as both partners are in attendance, and both partners have agreed to attend. Thus, attitudes toward and attendance of such programs are more of a "we" process than a "me" process, punctuating the potency of the influence of one's partner in determining the outcome.

Little is known about the process that relationship partners undertake in seeking relationship enrichment and relationship help. Yet, the reality is that in most relationships one partner may have a more positive appraisal of such program and have a greater desire to attend than the other partner. Hence, relationship partners may disagree on the merit of the program, the necessity of the program, and on whether attendance would be beneficial. The propensity of these disagreements also may be moderated by other factors such as SES, gender, and other contextual factors.

In this sample, 33% of males and 47% of females report that they either strongly agree or agree with the statement "my partner and I might disagree about whether to attend relationship classes," and 39% of lower-income respondents (below $35,000) indicated that they either strongly agree of agree with this statement, whereas 42% reported some level of agreement with this statement in the higher income respondents (above $35,000). Perhaps, not surprisingly, females see a potential disagreement about attending a relationship class with their male partners more than males do with their female partners. As mentioned, in general, women are more likely than men to engage in help-seeking behaviors, and this holds true in seeking out relationship counseling or therapy (Addis & Mahalik, 2003; Doss et al., 2003). However, across income-level there

appears to be a substantial amount of relationship partners perceiving a potential disagreement with their partner about attending CRE.

In essence, attending relationship programming and discussing the option of attending appears to be more of a dyadic process that may be associated both with relationship partners' attitudes of such programs, and with future attendance. Most pronounced in this study, was that psychological aggression in one's *partner* appears to be associated with attitudes toward CRE. However, many of the variables in this study, although known to associate with relationship quality, may have fallen short of capturing the context and dyadic processes (e.g., dyadic coping and social support) through which attitudes toward CRE and CRE attendance are shaped and based. This line of thought points toward the question: "What other important factors and dyadic processes might play a role in relationship partner attitudes toward CRE and CRE attendance, and how might these different factors interact with one another and interact with contextual features?" Further investigation on the topic is warranted.

Future Directions in Practice and Research

Highlighting future directions to potentially progress the work of couples researchers and practitioners is an important area of consideration when conducting research related to relationship programming. Based on study findings and the above cited literature a few implications for those working in CRE programming and other couples programming, as well as implications for couples researchers are presented below.

Implications for Practitioners. Large state level surveys have shown primarily positive views of CRE in respondents, some even showing that low-income respondents held more positive views of CRE than those in higher-income circumstances (Johnson et al., 2002; Karney et al., 2003; Schramm et al., 2003). However, those in lower-income groups largely are not in attendance in CRE programs, and this discrepancy may be due to relationship risk factors, and other contextual factors. In this study, stress appeared to marginally influence attitudes toward CRE by relationship status, and negative affect and psychological aggression appeared more influential on attitudes in higher income groups. Connections between attitudes and subsequent behaviors have been documented in related programming for couples such as couples counseling (Bringle & Byers, 1997). Yet, it appears that the connection between attitudes and behaviors is not entirely straightforward, and this connection may be more elusive to track in higher-risk couples.

As mentioned, the decision to attend relationship programming appears to be more of a relationship level process. Higher-risk groups may not possess the dyadic competencies in coping and support as couples of lower-risk, and higher-risk couples also may experience reduced access to support sources outside the relationship. Accordingly, higher- risk couples may not be aware of potential risks for relationship difficulty. As stated by Halford et al. (2006), "such factors might prompt attendance if couples knew of their risk" (p. 160). Efforts designed to bridge the gap between attitudes and action may be an effective method for increasing attendance in at risk couples through highlighting couple risk as well as couple strengths.

Talking with Couples. Reports prepared by those studying CRE implementation at a national level have indicated that maximizing efforts to recruit both relationship

partners at the same time appears to be effective in increasing attendance in CRE programs, especially for couples of lower financial means (Dion & Hershey, 2010; National Healthy Marriage Resource Center, 2008). CRE recruiters should utilize these opportunities not only to talk with relationship partners about risks for relationship difficulties, but also to highlight benefits that can be gained, as well as highlight the skills/topics covered in the program. Perhaps, a more effective method would be to have couples who have attended CRE programming before help recruit other couples and highlight their "real life" benefits gained from the program.

The findings of this study also point toward different "selling points" to be underlined for male versus female relationship partners. Highlighting benefits and stimulating thinking through promotion and recruitment efforts regarding program may be particularly important for men, and as this study showed, unmarried men. Research and practice shows that men are more difficult to recruit to CRE, yet once they attend, they generally enjoy the program and experience personal and relational benefits (Dion & Hershey, 2010; Myrick, et al., 2009; Ooms & Wilson, 2004). Study findings here show that women held significantly more positive attitudes toward CRE, and men in general, and unmarried men had more negative attitudes than married men and the married groups. Findings from this study also showed that more stress and negative affect in females were associated with more positive attitudes toward CRE in males, suggesting that perhaps as more distress is detected in their female partners, men may show more positive attitudes toward CRE services. Helping men see how CRE skills training and services can help improve the quality of couple interactions through taking better care of

their partner and the relationship or providing the tools to "fix" or improve their relationship may be particularly effective.

For females, findings showed that increases in stress and negative affect in male partners were associated with more negative attitudes. Women may see negativity, frustration, and irritation in their male partners as signs that their partners are not interested in attending, and that doing so may further and exacerbate distress and negativity. Hence, furthered assistance and action at both the couple level and through sources outside the relationship may be beneficial. Assisting female partners in structuring conversations with their male partners about the purpose and benefits of CRE in order to help men see the importance of attending for their female partner and for the relationship may be one way to help men gain more positive views of CRE. Also, increasing opportunities for men to learn about program benefits and resources from other men who have attended also may be particularly helpful. The assumption here is made that as more positive attitudes are shaped in male partners, female partners will also experience more positive attitudes. And as mentioned, it may be that helping couples, and particularly men, in taking that first step to attend has a may be most indicative of future attendance (Dion & Hershey, 2010).

Promotion. Promotion of CRE and other family life education-related programming has been cited as an area in need of improvement (Adler-Baeder et al., 2010; Morris et al., 1999; Roberts & Morris, 1998). Morris et al. (1999) noted that promotion of CRE services may have a great influence on the decision-making process of whether or not to attend. Others have noted that promotion efforts should take place on both larger-level (i.e., mass media) and local-level scales (i.e., community and informal

social networks). (Goddard & Olson, 2004; Morris et al., 1999; Stanley et al., 2006). This study highlights how promotional efforts should also take place at the *couple* level, and that perhaps, tailoring promotion efforts by gender could be effective. Adequately structuring marketing and promotional tools to tap into how CRE services hold benefits for the relationship, and specifically for male and female relationship partners should be given further attention.

Also, more generally at the relationship level, to compete effectively for couple leisure time, CRE needs to be seen as both fun and beneficial. Programming that helps to reduce structural barriers and offer added "bonuses" such as a meals, child care, transportation, door prizes, and other small tokens have shown to be more effective in attracting especially lower-income participants (e.g., Ooms & Wilson, 2004), but promoting programming as a fun, rejuvenating, invigorating time to spend time with the relationship partner (similar to a date), rather than one more thing to add to the "to do list" would most likely result in boosting attitudes toward, and attendance of CRE across many couples (Fein, 2009; Ooms & Wilson, 2004).

Psychological Aggression and CRE Attitudes and the Unwilling Partner: Points of Thought. The findings regarding psychological aggression and attitudes toward CRE are somewhat more delicate from which to make interpretations and devise plans of action. Findings suggest that, for the most part, men and women in the higher reported income groups held more negative attitudes toward CRE as their partners reported higher levels of psychological aggression across both sets of analyses. This finding was more pronounced for male psychological aggression ►female attitude toward CRE, and female psychological aggression ►male attitude toward CRE, differently across the two

sets of analyses. Encouraging relationship partners to have discussions about attending CRE where psychological aggression is an issue in the relationship may not be the most effective means to enrich or improve relationship functioning.

In these cases, helping relationship partners who are interested in attending to find assistance may be more effective. Relationship education programs such as *Within My Reach* (www.withinmyreach.com) which provides skills and information on relationships at the individual level may help partners in attendance stimulate change within their couple relationship. Also, increasing awareness of the variety of formats (e.g., DVDs, TV, Internet) and locations (e.g., churches, private practitioners, and community programs) through which CRE are offered may help more couples managing psychological aggression and those whose partners are not willing to attend find a more suitable, and more effective method through which to receive CRE services (Adler-Baeder et al., 2010; Halford et al., 2008).

However, where psychological aggression levels are more tempered, and both partners are committed to the relationship and helping it progress, highlighting benefits of attendance and skills learned may improve couple attitudes and increase chances of attending. Couples managing minor levels of psychological aggression may find program content on more effectively managing anger, aggression, and frustration particularly helpful. Thus assessing for both psychological and physical relationship aggression are important endeavors for CRE providers to more adequately tailor program implementation to couple needs (Olson et al., 2009).

Implications for Researchers

This study points toward the dyadic nature influencing relationship partners' attitudes toward CRE and processes of deciding upon attending relationship programming. There is a great need to further assess whether dyadic processes are both associated with partner attitudes toward CRE and attendance of CRE services. Observational methods have emerged as important means for assessing dyadic behaviors in close relationships as such methods give information on interactional exchanges not filtered through the partner's interpretation (Bodenmann & Cina, 2005; Pasch, Bradbuy, & Davila, 1997). Study designs which incorporate observational methods to assess dyadic coping and couple supportive behaviors can assess whether couples with effective coping styles and positive supportive behaviors hold more negative or positive appraisals of CRE. In addition, methods utilizing longitudinal designs can also assess whether coping behaviors, supportive behaviors, communication skills, and other dyadic processes are associated with attitudes toward attending, and attendance in the future.

Additionally, researchers have called for more attention to the contextual influences on close relationships, and access to resources that potentially benefit these relationships (e.g., Karney & Bradbury, 2005). In this study limited significant findings were noted in detecting income and education moderating effects on the association between relationship quality and attitudes toward CRE. This may have occurred primarily due to three reasons: 1. The contextualized nature and the specificity of the dichotomized moderating variables may have lacked the sensitivity to fully capture the influence of the moderator, 2. The analyses did not control for other potentially important factors to relationships and relationship quality (e.g., relationship status, length of the relationship,

level of commitment, etc.), 3. Although recruitment efforts were made to target non-student lower-income couples, the setting of a university town made this difficult, and some student couples did trickle into the study sample. Student couples may have, to some degree, convoluted the meaning of "lower-income," as living in lower-income circumstances during one's time as a student is most likely qualitatively different than living in low-income circumstances outside or life as a student, where lower-income struggles may have been an issue for generations. Also, student relationship partners' reported education may also have altered the moderating effect of education, as some student couples could have been placed in the "lower-income" study group, but also may have reported "some college" as their education level, making it difficult to tease out the education effect of student versus non-student couples.

Thus, research should make concerted efforts to investigate circumstances that influence attitudes toward CRE, as well as influence factors that make attendance more or less likely. For example, this study utilized quite general income, education, and relationship status dichotomized groupings to assess whether group membership had an influence on relationship partner attitudes toward CRE. Yet, more specific measures should be utilized to assess the circumstances leading to attendance and reductions of potential barriers to attendance.

For instance, financial strain, financial stress, employment difficulty, upward mobility, neighborhood environment characteristics, support networks, the experience of cohabiting couples, and the length of the relationship would all paint a clearer picture of pathways to couples services and provide information on how to alleviate and remove barriers. Efforts should also be made to utilize sampling techniques to truly capture the

effects of SES and other contextual factors. Thus, more detailed conceptual models highlighting how specific individual, relational, and contextual factors, and the interaction between these factors (e.g., mesosystemic) are related to couples attitudes and attendance of relationship services are warranted.

Also, findings in the psychological APIM analyses point towards potential differences in attitudes toward CRE between the lower- and higher-income groups. It may be that psychological aggression may be a greater deterrent to relationship quality, and seeking and finding adequate couples services for couples of greater financial means. Further investigation is needed to assess for how different types of relationship aggression affect relationship quality and attitudes towards couples services across SES, and other noted influences on couple relationships. Such investigations can lead to greater understanding of which services are most beneficial for couples managing differing levels and types of relationship aggression, and where efforts are most needed to alleviate barriers to seeking services.

Finally, more qualitative methods are needed to specifically determine what relationship partners think about CRE and related attitudes. This study generally assessed relationship partner attitudes toward CRE, but not specifically what relationship partners think about such services. One venue that qualitative methods could be more widely utilized is at CRE events and programming. On a more general, and perhaps more simple level, little is known about what prompts couples to attend (Morris et al., 1999). Interviewing relationship partners to investigate their experience in making the decision to attend, and what factors influenced that decision can help lead to more effective

marketing and promotional strategies through which to recruit more couples. Hence, qualitative interviewing held at CRE events could shed further light on this topic.

Limitations and Conclusions

This study contains several important limitations of which the reader should be aware. The study design is cross-sectional, thus, no claims can be made about causal relationships. Perhaps, the most significant limitations in the current study pertain to the small couple sample size. Such a small sample of couples presents analytical issues, especially when testing moderating effects, and as such, these results should be interpreted carefully, and also should be replicated with a different, larger sample. Sample size issues may have also led to increased Type II error, specifically in testing multi-group differences, and should thereby be interpreted with caution. Also, these analyses were performed utilizing all measured variables, which may have resulted in pronounced measurement error (although reported reliability was good). Future analyses should utilize larger sample sizes allowing for latent variable SEM procedures, which estimate models with multiple measures of variables, and adjust for measurement error.

This study also found limited significant main effects as associating with partner attitudes toward CRE despite excellent power. This may be due to the nature of the relationship factors assessed in this study, and the sensitivity of some of the study variables. For instance, psychological aggression was the only form of relationship aggression assessed, but other forms of relationship aggression (e.g., physical, sexual) may associate more strongly with attitudes toward CRE. Similarly, stress was measured at the global level, but perhaps more specific stressful experiences (e.g., relationship

stress, work stress) may associate more strongly with attitudes toward CRE. Also, and as previously mentioned, incorporating control variables known to be important to relationships (e.g., length of the relationship, commitment, etc.) may have allowed for more specific assessments of the paths in the APIM analyses. In a related manner, although significance was found in some of the analyses conducted in the study, the effect sizes were relatively small. These results should also be replicated in a different and larger sample.

In addition, this study, to explore potential associations with relationship partner attitudes toward CRE, and moderating effects, involved conducting several different analyses which increases the risk of finding associations that may be due to chance or random error. Therefore, the results should be interpreted with caution, especially when interpreting results based on an alpha level greater than .05.

Additionally, as mentioned, some of the variable distributions (in particular the negative affect and psychological aggression variables), and examination of some of the residual distributions for the regression model contained some evidence of skew which may have altered the computation of model parameters and the regression coefficients. Future investigations involving these variables should consider using variable transformations in order to minimize the effects of skewness on model results.

Additionally, the sample, although primarily lower-income, represents very limited cultural and ethnic diversity. Ethnic and cultural diverse groups have been cited as widely underrepresented in CRE programs, and thus learning more about attitudes towards CRE across ethnic groups warrants further attention (Adler-Baeder et al., 2010;

Ooms & Wilson, 2004). Also, and as mentioned, the sensitivity and specificity of the measures used in this study to detect group effects, and stress effects may have fallen short. More sensitive and specific measures, and more nuanced sampling techniques should be utilized in the future.

Yet, as limited information exists on this type of dyadic analysis, limited previous literature on the topic of attitudes towards CRE, and utilizing both self-report and observational assessments of attitudes towards CRE, the exploratory nature of this study provides some ground work for those who wish to further investigate the processes through which couples seek assistance for their relationship and how these processes may differ by relationship circumstances.

Despite the apparent limitations, this study makes a unique contribution to our continued understanding of the relationship enrichment-seeking and help-seeking processes of romantic relationship partners. These findings add to a small, but growing body of literature pointing towards effective mechanisms through which to recruit and provide sound relationship education for couples who choose to attend.

Over 50 years ago when addressing the challenges of marriage and family life education, Landis (1957) posed the question, "Now, where, specifically, are we going?" (p. 247). Most likely this author would be pleased at the accomplishments made in the field as it is currently. However, as is usually the case, more work is needed to connect more couples with the assistance of CRE services which are showing supported evidence of helping couples achieve more healthy and satisfying relationships.

The specificity referred to by Landis (1957) is still very much the case of needed attention today. Further study in the area of how individual relationship partner, couple-level, and broader contextual experiences are associated with attitudes toward relationship programming, and how these attitudes are specifically connected with program attendance for couples across different circumstances can greatly support efforts in aiding couples in finding relationship assistance and enhancement, with the hopes of creating more widely spread healthy and satisfying couple and family relationships.

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APPPENDICES

APPENDIX A

SURVEY ITEMS USED TO ASSESS PARTNER ATTITUDES TOWARD CRE

If you knew an unmarried couple that was considering marriage, would you recommend that they attend pre-marital education classes?

a. Yes

b. No

c. Not Sure

Would you consider using relationship education, such as workshops or classes to strengthen your relationship?

a. Yes

b. No

c. Not sure

I would feel bad if I thought I needed marriage or relationship education classes.

a. Strongly agree

b. Agree

c. Disagree

d. Strongly disagree

My family has always solved its own problems without any outside help.

a. Strongly agree

b. Agree

c. Disagree

d. Strongly disagree

For you personally, how likely would you be to seek help for ANY type of personal problem that was upsetting you?

a. Very likely

b. Likely

c. Not very likely

d. I would never seek help

For you personally, how likely would you be to seek help if you thought your committed relationship was in trouble?

a. Very likely

b. Likely

c. Not very likely

d. I would never seek help

APPENDIX B

OBSERVATIONAL PARTNER ATTITUDE TOWARDS CRE SCALE

Partner ID_____

Date/Rater_____

Item	Not Focused	Somewhat Focused	Focused	Very Focused
Rate how focused the participant was on the topic of CRE	1	2	3	4

Item	Very Unhelpful	Unhelpful	Helpful	Very Helpful
Rate how helpful the participant perceives CRE could be to their relationship	-2	-1	1	2

Item	Very Negative	Somewhat Negative	Positive	Very Positive
Rate how positive/negative the participant views CRE	1	2	3	4

Item	Not Harmful at All	Somewhat Harmful	Harmful	Very Harmful
Rate how harmful the participant perceives CRE could be to their relationship	2	1	-1	-2

Item	Not Likely at All	Somewhat Likely	Likely	Very Likely
Rate how likely the participant would be to participate in a CRE program	1	2	3	4

Totaled Partner Score_____

APPENDIX C

RATING SOURCEBOOK UTILIZED TO TRAIN RATERS ON RATING SCHEME AND SYSTEM

Focus Item

A partner is:

1) Given a rating of **1, (Not Focused)** if…

- The partner tries to end their conversation about CRE after 2 and ½ minutes and…
  - …the partner barely stayed on topic in the first place.
- The partner is never on topic re: CRE

2) Given a rating of **2, (Somewhat Focused)** if…

- The partner tries to end their conversation about CRE after 5 minutes and…
  - … the partner mostly stays on topic.

OR…

- The partner ends their conversation about CRE after 2 and ½ minutes and…
  - … the partner stays on topic very well, and are just fast talkers that wrap things up quickly.

3) Given a rating of **3, (Focused)** if…

- The partner tries to end their conversation about CRE after 5 minutes and…
  - … the partner mostly stays on topic.

OR…

- The partner tries to end their conversation about CRE after 7 minutes or longer and…
  - … the partner sometimes stays on topic.

4) Given a rating of **4, (Very Focused)** if…

- The partner tries to end their conversation about CRE after 7 minutes or longer and…
  - … the partner mostly stays on topic.

Helpfulness Item

1) A partner is given a rating of **-2; perceiving CRE as very unhelpful,** if…

- …the partner makes repeated remarks about it being a "waste of time", "useless", "pointless"

-A partner with this rating may roll his/her eyes, or make faces mocking CRE.

-You won't hear them describing **any** positives at all about CRE.

2) A partner is given a rating of **-1; perceiving CRE as unhelpful,** if…

- …the partner makes more negative remarks than positive. (Think about a slight balance towards the negative.)

-A partner with this rating may be less rude, but still say it's not for them.

-You won't hear them describing many positives about CRE.

3) A partner is given a rating of **1; perceiving CRE as helpful,** if…

- …the partner makes more positive remarks than negative. (Think about a slight balance towards the positive).

4) A partner is given a rating of **2; perceiving CRE as VERY HELPFUL,** if…

- …the partner makes many positive remarks and few, if any, negatives. (Remember they are told to discuss pros and cons, so if they struggle to find cons, but easily list many pros, this could be their rating.).

Positive/Negative Views of CRE Item

A partner is:

1) Given a rating of **1, (Very Negative)** if…

- The partner makes multiple negative comments about CRE or therapy and makes no positive comments.
    - The partner may say something such as, "These programs can't help" or "I can't see how this kind of thing can be applied to all couples."

2) Given a rating of **2, (Somewhat Negative)** if…

- The partner makes more negative comments about CRE or relationship help than positive comments.
    - They may say negative comments such as above, but they will also say some positive remarks.

3) Given a rating of **3, (Positive)** if…

- The partner makes more positive comments about CRE or relationship help than negative comments.
    - They may say comments such as "I suppose it is a good thing that people do this."

4) Given a rating of **4, (Very Positive)** if…

- The partner makes multiple positive comments about CRE or relationship help and makes no negative comments.
    a. The partner may say something such as "CRE is for everyone!" "These are good for people to participate in." "I can't think of anything bad about this."

Harmful Item

A partner is:

1) Given a rating of **-2, (Very Harmful)** if…

- The partner makes multiple comments about CRE or relationship help services being dangerous, and makes no comments about how it will help.
    - The partner may say something such as "These do more harm than good."/"I bet many folks don't have problems until they do this."

2) Given a rating of **-1, (Harmful)** if…

- The partner makes many more comments about CRE or therapy being harmful than helpful, but he/she will still mention perhaps once how some parts of it may help.
    - Think of the partner's perspective as balancing towards harmful on a 2/3 ratio.

3) Given a rating of **1, (Somewhat Harmful)** if…

- The partner makes more comments about CRE or relationship help being more harmful than helpful, but he/she will still mention a few times how some parts of it may help.
    - Think of the partner's perspective as balancing towards harmful on a 51/49 ratio.

4) Given a rating of **2, (Not Harmful at All)** if…

- The partner makes no comments at all about CRE being harmful and makes comments about how it is helpful or could be helpful.

Likely to Participate Item

A partner is:

1) Given a rating of **1, (Not Likely at All)** if…

- The partner's comments about CRE or relationship help are distant (In other words they mention it being for others, but not for them), but most importantly a partner makes multiple comments such as, "Well it's not for us." "…never for us." "We'll never do this." "I would never go."

2) Given a rating of **, (Somewhat Likely)** if…

- The partner mentions CRE and relationship help as options for others, but may say once that they are ok with it for themselves. They may seem "neutral to it".

3) Given a rating of **3, (Likely)** if…

- The partner makes more comments about CRE or relationship help as being more helpful than harmful, but he/she will still mention a few times how some parts of it may help.
    - Think of the partner's perspective as balancing towards harmful on a 51/49 ratio.

4) Given a rating of **4, (Very Likely)** if…

- The partner makes enthusiastic comments about participating in CRE or relationship help.
    - Partner makes comments such as "We should do this!" "This would be good for us." "Let's look into going."

APPENDIX D

TABLES REPORTING MULTI-GROUP DIFFERENCES IN MODERATING EFFECTS AND ACTOR AND PARTNER PATHS BY APIM

Summary of Moderator Findings in Global Stress APIM analysis Self-Reported Attitudes Toward CRE Dependant Variable

	Moderator					
Global Stress APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	-	-		-	
-Intercept	$\chi^2_D(1)=6.43$, $p < .01$	-	-	$\chi^2_D(2)=4.5$, $p = .11$	-	$\chi^2_D(2)=6.41$, $p=.04$
-Exogenous Variance	$\chi^2_D(1)=2.316$, $p=.13$	-	-		-	
-Exogenous Means	-	-	-		-	
-Actor Path Differences	-	-	-		-	
-Partner Path Differences	$\chi^2_D(1)=3.62$, $p = .06$	-	-	$\chi^2_D(3)=7.89$, $p = .05$	-	$\chi^2_D(3)=6.0$, $p=.10$

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

Summary of Moderator Findings in Negative Affect APIM analysis Self-Reported Attitudes Toward CRE Dependant Variable

	Moderator					
Negative Affect APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	-	-	-	-	-
-Intercept	$\chi^2_D(1)=11.08$, $p < .01$	-	-	-	-	-
-Exogenous Variance	$\chi^2_D(1)=13.36$, $p < .001$	$\chi^2_D(3)=4.21$, $p=.12$	$\chi^2_D(2)=12.41$, $p < .01$	-	-	-
-Exogenous Means	-	-	-	-	-	-
-Actor Path Differences	-	-	-	$\chi^2_D(3)=7.1$, $p = .07$	-	-
-Partner Path Differences	$\chi^2_D(1)=4.15$, $p =.05$	$\chi^2_D(3)=5.69$, $p=0.12$	-	$\chi^2_D(3)=7.1$, $p = .07$	-	-

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

Summary of Moderator Findings in Relationship Quality APIM analysis Self-Reported Attitudes Toward CRE Dependant Variable

	Moderator					
Relationship Quality APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	-	-	-	-	-
-Intercept	-	-	-	-	-	-
-Exogenous Variance	$\chi^2_D(1)=6.654$, $p=.01$	-	-	-	-	$\chi^2_D(2)=6.94$, $p=.03$
-Exogenous Means	-	-	-	-	-	-
-Actor Path Differences	-	-	-	-	-	-
-Partner Path Differences	-	-	-	-	-	-

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

Summary of Moderator Findings in Psychological Aggression APIM analysis Self-Reported Attitudes Toward CRE Dependant Variable

	Moderator					
Psychological Aggression APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	-	-	-	-	-
-Intercept	$\chi^2_D(1)=10.75$, $p < .001$	-	-	-	-	$\chi^2_D(2)=5.83$, $p=0.05$
-Exogenous Variance	$\chi^2_D(1)=9.87$, $p < .01$	$\chi^2_D(2)=5.99$, $p=0.05$	$\chi^2_D(2)=8.78$, $p=0.01$	-	-	$\chi^2_D(2)=5.73$, $p=0.06$
-Exogenous Means	$\chi^2_D(1)=3.67$, $p=.06$	-	-	-	-	-
-Actor Path Differences	-	-	-	-	-	-
-Partner Path Differences	$\chi^2_D(1)=2.86$, $p=0.9$	$\chi^2_D(3)=6.1$, $p=.11$	-	-	-	-

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

Summary of Moderator Findings in Global Stress APIM analysis Observer-Rated Attitudes Toward CRE Dependant Variable

	Moderator					
Global Stress APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	$\chi^2_D(2)=6.00$, $p = .05$	-	-	-	$\chi^2_D(2)=4.66$, $p=.10$
-Intercept	-	-	-	-	-	-
-Exogenous Variance	-	-	-	-	-	-
-Exogenous Means	-	-	-	-	-	-
-Actor Path Differences	-	-	-	-	-	$\chi^2_D(3)=6.61$, $p=.09$
-Partner Path Differences	-	-	-	-	-	-

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

Summary of Moderator Findings in Negative Affect APIM analysis Observer-Rated Attitudes Toward CRE Dependant Variable

	Moderator					
Negative Affect APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	$\chi^2_D(2)=4.97$, $p=.08$)	-	-	-	$\chi^2_D(2)=5.24$, $p = .07$
-Intercept	-	-	-	-	-	-
-Exogenous Variance	$\chi^2_D(1)=13.46$, $p < .0001$	-	$\chi^2_D(2)=12.43$, $p < .01$	-	-	-
-Exogenous Means	-	-	-	-	-	-
-Actor Path Differences	-	-	-	-	-	-
-Partner Path Differences	-	-	-	-	-	-

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

Summary of Moderator Findings in Relationship Quality APIM analysis Observer-Rated Attitudes Toward CRE Dependant Variable

	Moderator					
Relationship Quality APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	$\chi^2_D(2)=6.67$, $p=.06$	-	-	-	$\chi^2_D(2)=6.43$, $p<.05$
-Intercept	$\chi^2_D(1)=2.91$, $p=.09$	-	-	-	-	-
-Exogenous Variance	$\chi^2_D(1)=6.65$, $p<.01$	-	-	-	-	-
-Exogenous Means	-	-	-	-	-	-
-Actor Path Differences	-	$\chi^2_D(3)=7.87$, $p<.05$	-	-	-	-
-Partner Path Differences	-	$\chi^2_D(3)=7.26$, $p=.06$	-	-	-	-

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

Summary of Moderator Findings in Psychological Aggression APIM analysis Observer-Rated Attitudes Toward CRE Dependant Variable

	Moderator					
Psychological Aggression APIM	Gender	Male Income	Female Income	Male Education	Female Education	Relationship Status
-Residual Variance	-	$\chi^2_D(2)=5.78$, $p=0.06$	-	-	-	$\chi^2_D(2)=4.54$, $p=.10$
-Intercept	-	-	-	-	-	-
-Exogenous Variance	$\chi^2_D(1)=9.75$, $p<.01$	$\chi^2_D(2)=5.63$, $p=0.06$	$\chi^2_D(2)=8.73$, $p=0.01$	-	-	$\chi^2_D(2)=5.78$, $p=.06$
-Exogenous Means	$\chi^2_D(1)=3.67$, $p=.05$	-	-	-	-	-
-Actor Path Differences	-	$\chi^2_D(3)=8.13$, $p=.04$	-	-	$\chi^2_D(3)=7.41$, $p=0.06$	-
-Partner Path Differences	$\chi^2_D(1)=3.81$, $p=0.05$	$\chi^2_D(3)=12.3$, $p<.01$	$\chi^2_D(3)=6.46$, $p=0.09$	$\chi^2_D(3)=6.74$, $p=0.08$	$\chi^2_D(3)=9.7$, $p<.05$	-

Note: Moderating effects and differences between actor and partner paths assessed at $p < .10$

APPENDIX E

SUMMARY TABLES OF POOLED PARTNER MULTIPLE REGRESSION RESULTS

Summary of Multiple Regressions Assessing Pooled Partner Data on Self-Reported Attitudes Toward CRE

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Gender	1.26	.54	.23*															
Income	.06	.53	.10															
Gender x income	.13	.75	.21															
Gender				1.63	.46	.30**												
Relationship Status				.72	.55	.13												
Gender x relationship status				-.89	.79	-.13												
Relationship status							-.08	.90	-.01									
Income							-.27	.51	-.05									
Relationship status x income							.59	1.06	.10									
Education										1.57	.80	.28*						
Income										-.03	.49	-.01						
Education x income										-1.10	.95	-.18						
Education													1.16	.61	.21			
Relationship Status													.46	.58	.08			
Education x relationship status													-1.01	. 90	-.15			
Education																1.00	.57	.18
Gender																1.59	.46	.30**
Education x gender																-.70	.80	-.10
R^2	.06**			.07**			.005			.009			.02			.07**		

Note: **p* < .05. ***p* < .01.

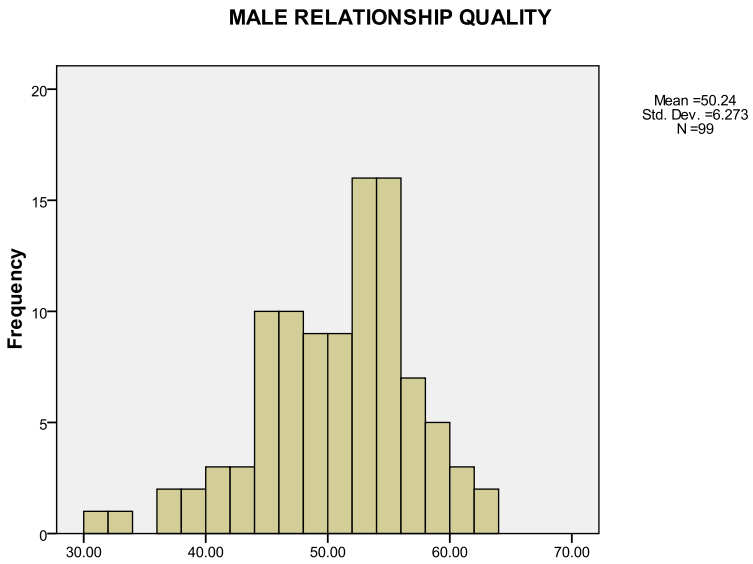
Summary of Multiple Regressions Assessing Pooled Partner Data on Observer-Rated Attitudes Toward CRE

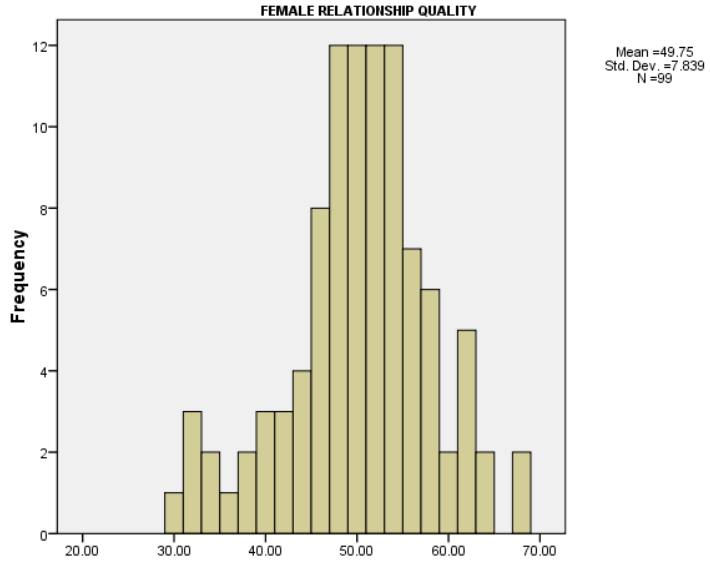
	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Gender	1.48	.62	.25*															
Income	.54	.60	.09															
Gender x income	-.75	.85	-.11															
Gender				.80	.54	.13												
Relationship Status				-.25	.64	-.04												
Gender x relationship status				.53	.91	.07												
Relationship status							1.10	1.0	.18									
Income							.52	.56	.09									
Relationship status x income							-1.66	1.17	-.25									
Education										1.44	.89	.23						
Income										.11	.55	.02						
Education x income										-1.18	1.08	-.18						
Education													1.46	.68	.23*			
Relationship Status													.24	.64	.04			
Education x relationship status													-1.63	1.0	-.22			
Education																.57	.65	.09
Gender																1.05	.53	.18*
Education x gender																-.16	.91	-.02
R^2		.04			.01			.01			.02			.03			.04	

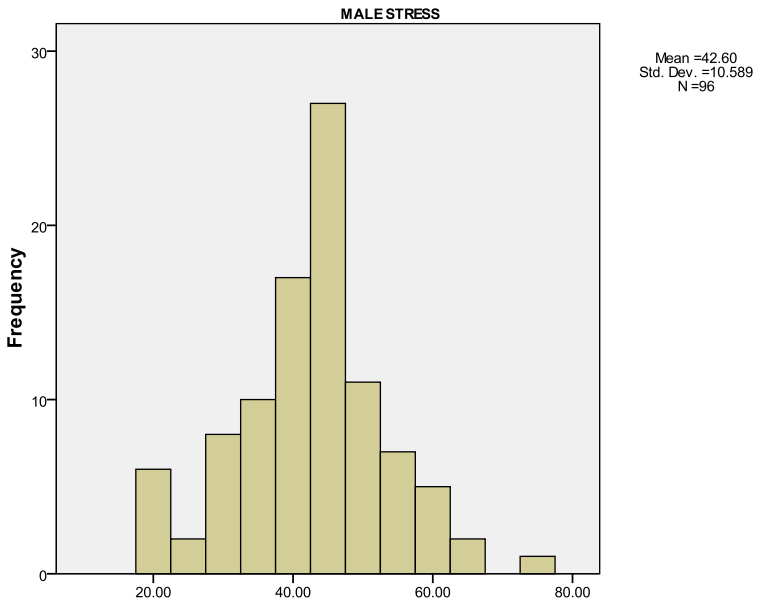
Note: $*p < .05$. $**p < .01$.

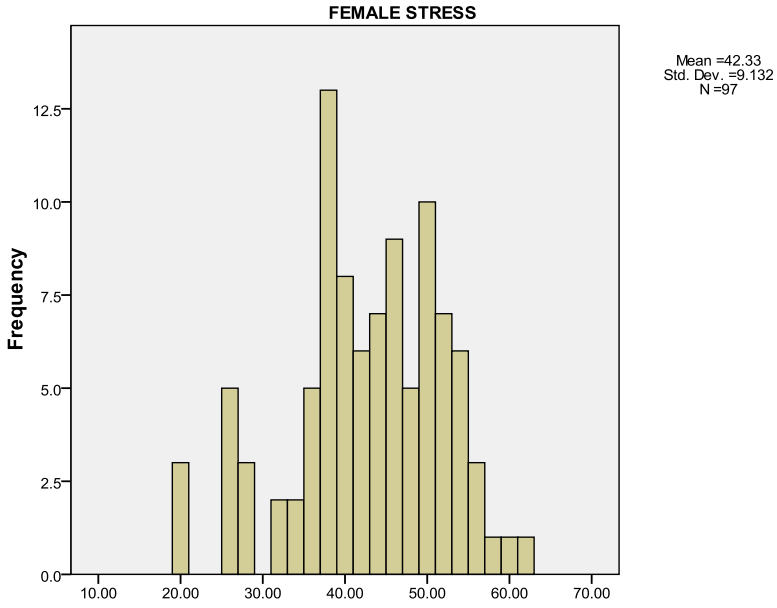
APPENDIX F

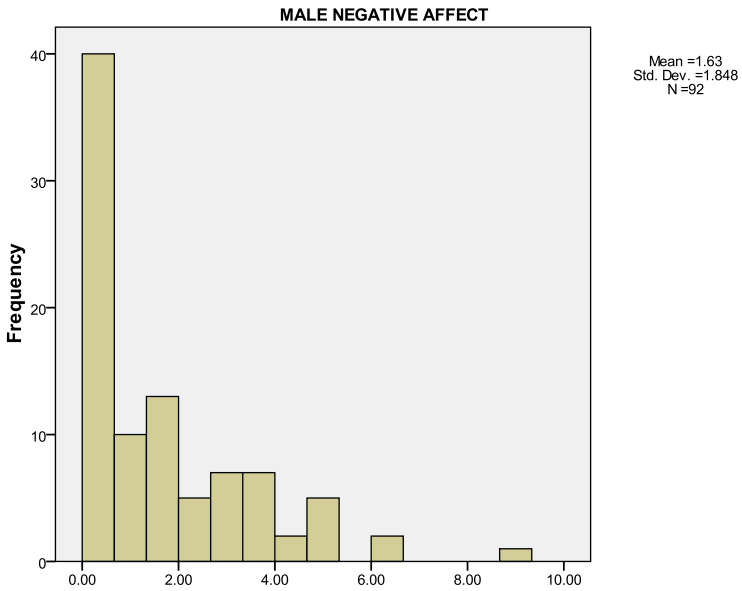
HISTOGRAMS FOR ALL STUDY VARIABLES

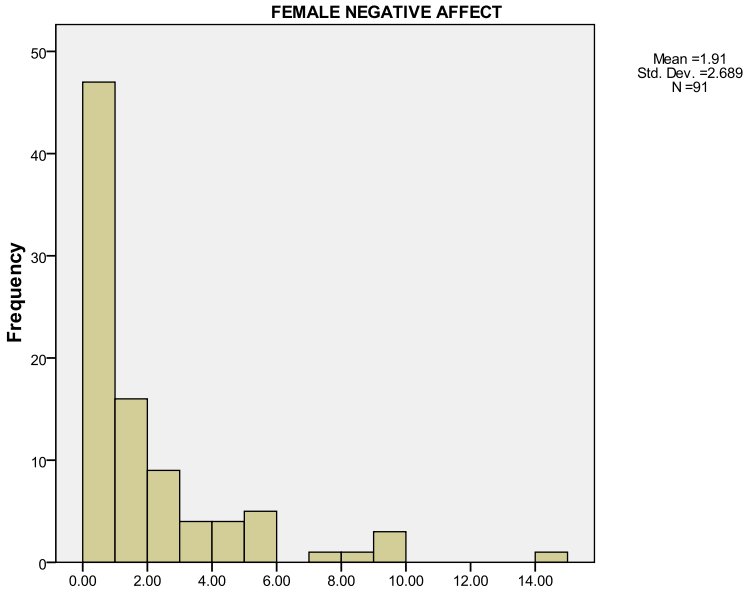


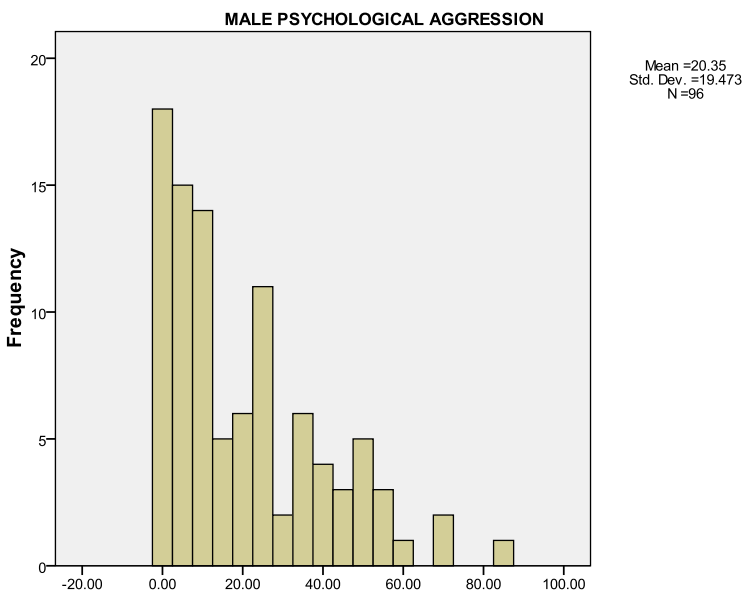


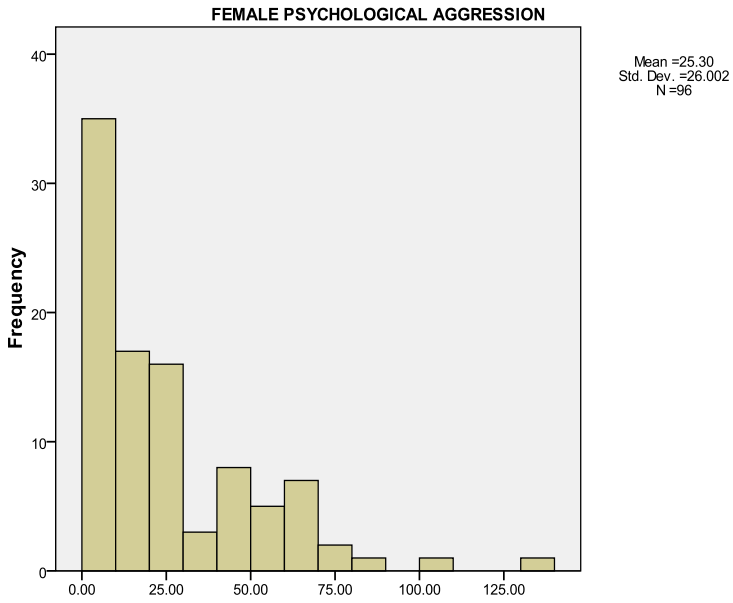

MALE STRESS
Mean =42.60
Std. Dev. =10.589
N =96
Frequency
30
20
10
0
20.00
40.00
60.00
80.00

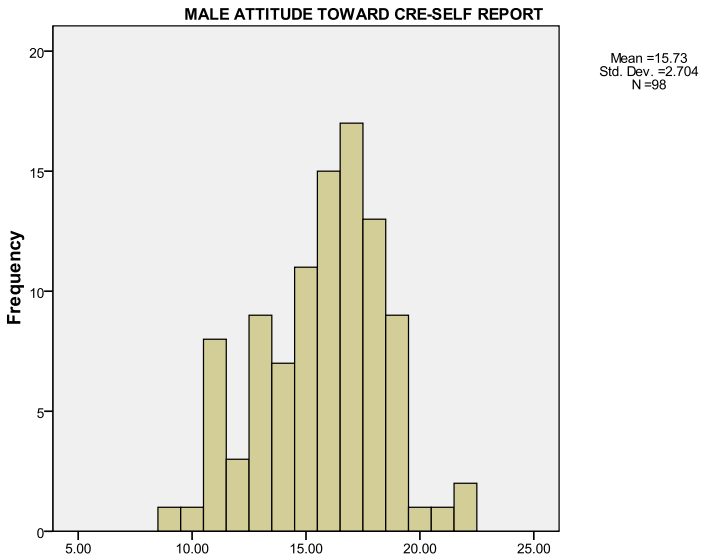

FEMALE STRESS
Mean =42.33
Std. Dev. =9.132
N =97
Frequency
12.5
10.0
7.5
5.0
2.5
0.0
10.00
20.00
30.00
40.00
50.00
60.00
70.00

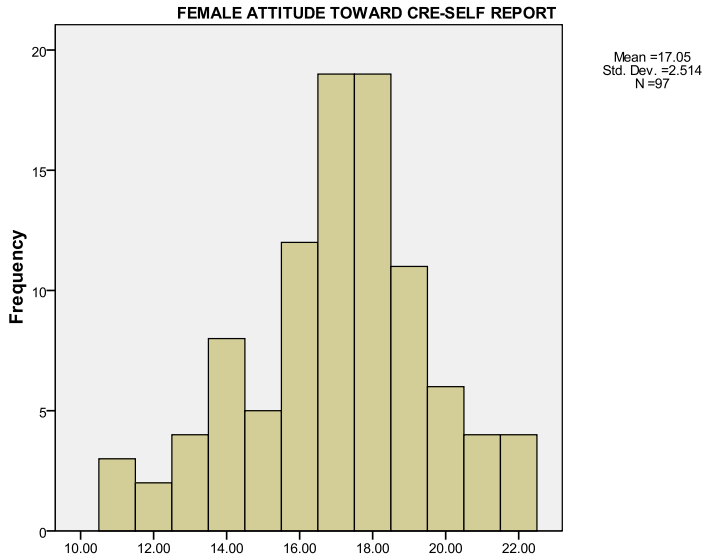

MALE NEGATIVE AFFECT
Mean =1.63
Std. Dev. =1.848
N =92
Frequency
0
10
20
30
40
0.00
2.00
4.00
6.00
8.00
10.00

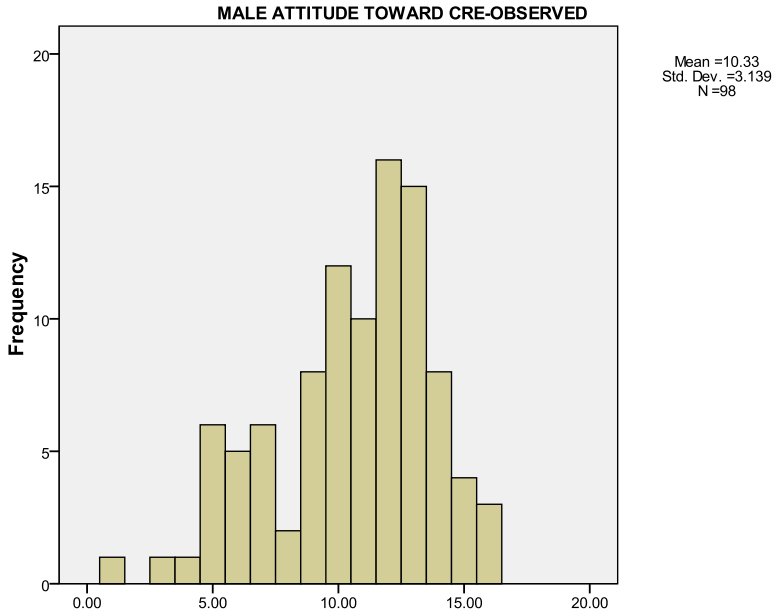

FEMALE NEGATIVE AFFECT
Mean =1.91
Std. Dev. =2.689
N =91
Frequency
0
10
20
30
40
50
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00

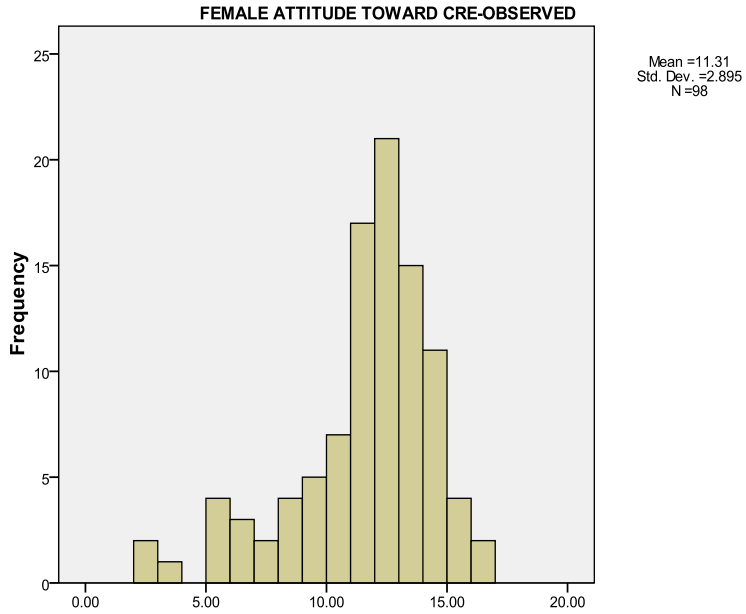

MALE PSYCHOLOGICAL AGGRESSION
Mean =20.35
Std. Dev. =19.473
N =96
Frequency
0
5
10
15
20
-20.00
0.00
20.00
40.00
60.00
80.00
100.00


FEMALE PSYCHOLOGICAL AGGRESSION
Mean =25.30
Std. Dev. =26.002
N =96
Frequency
0
10
20
30
40
0.00
25.00
50.00
75.00
100.00
125.00


MALE ATTITUDE TOWARD CRE-SELF REPORT
Mean =15.73
Std. Dev. =2.704
N =98
Frequency
0
5
10
15
20
5.00
10.00
15.00
20.00
25.00

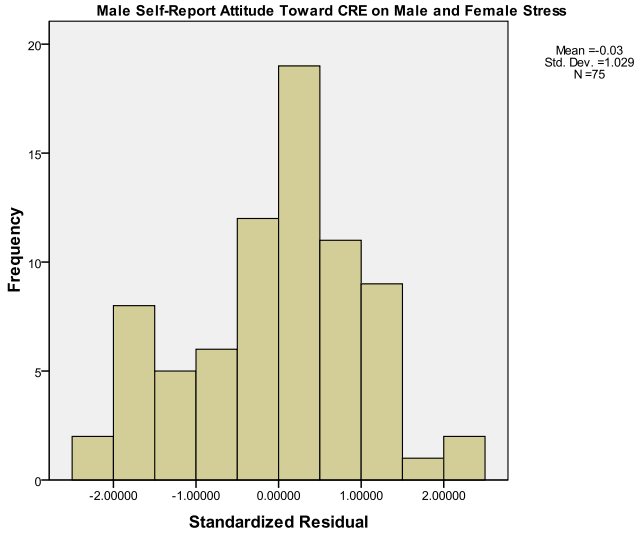

FEMALE ATTITUDE TOWARD CRE-SELF REPORT
Mean =17.05
Std. Dev. =2.514
N =97
Frequency
0
5
10
15
20
10.00
12.00
14.00
16.00
18.00
20.00
22.00

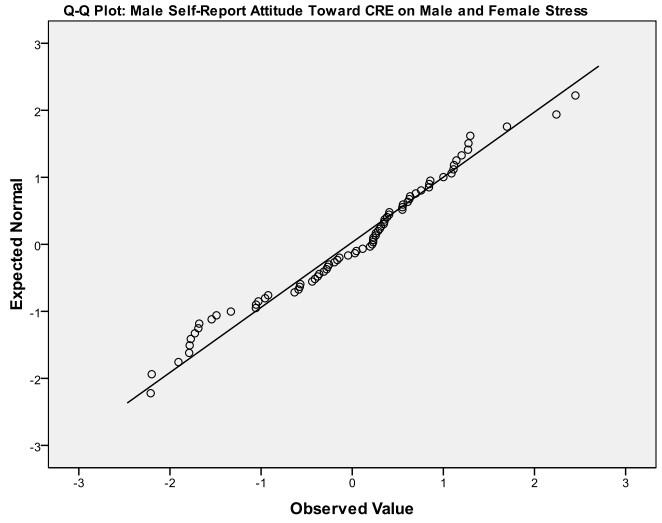

MALE ATTITUDE TOWARD CRE-OBSERVED
Mean =10.33
Std. Dev. =3.139
N =98
Frequency
0
5
10
15
20
0.00
5.00
10.00
15.00
20.00

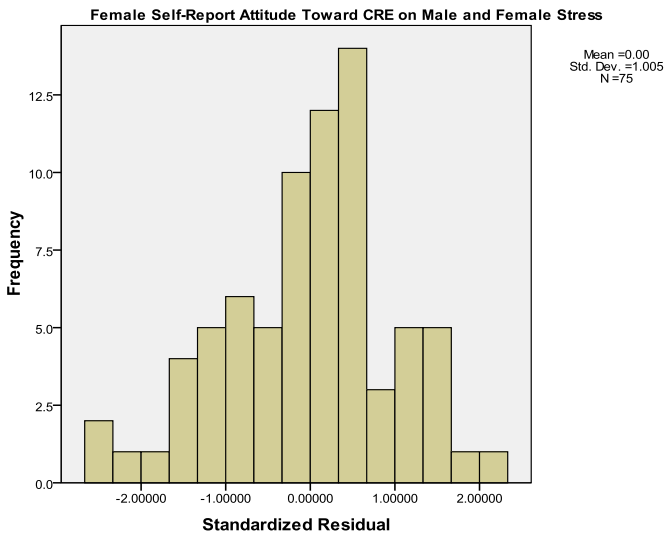

FEMALE ATTITUDE TOWARD CRE-OBSERVED
Mean =11.31
Std. Dev. =2.895
N =98
Frequency
0
5
10
15
20
25
0.00
5.00
10.00
15.00
20.00

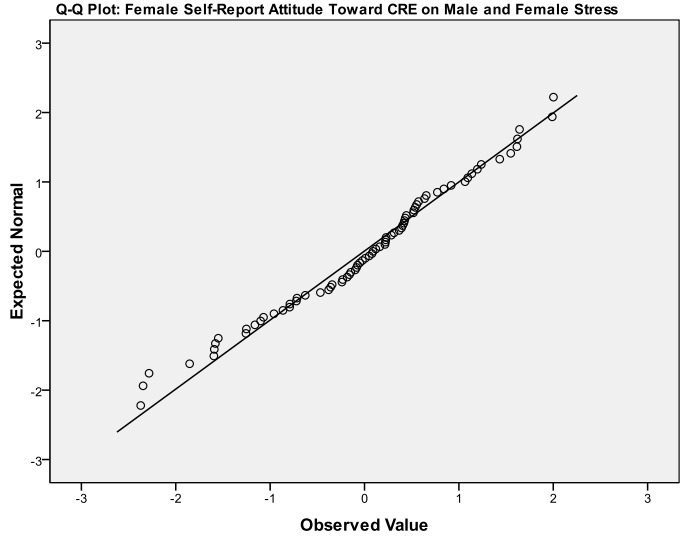
APPENDIX G

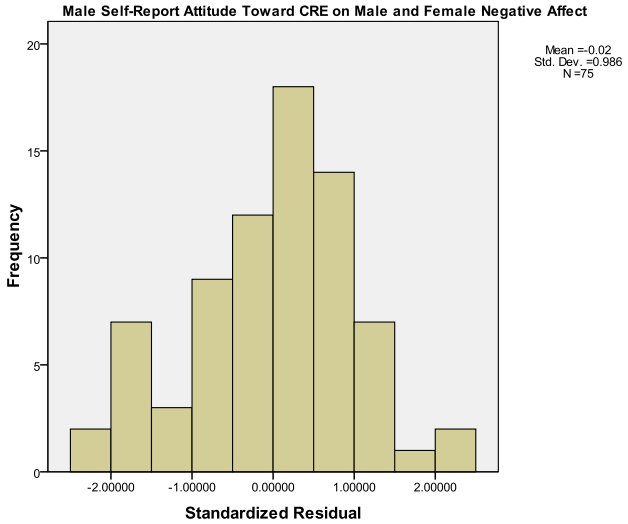
HISTOGRAMS AND Q-Q PLOTS FOR RESIDUALS OF STUDY REGRESSION ANALYSES

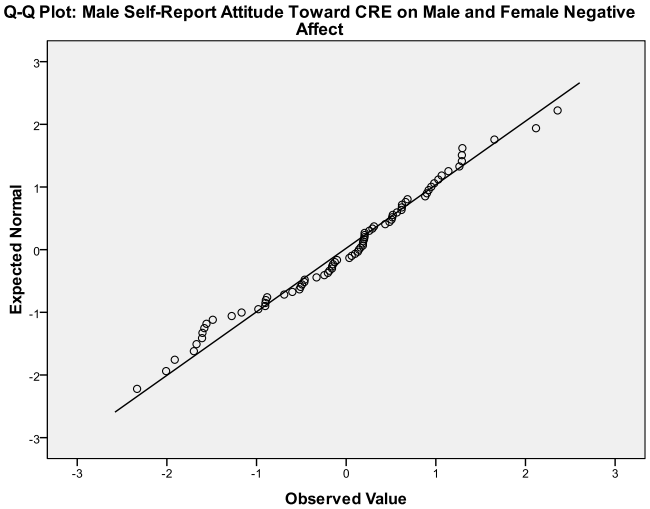


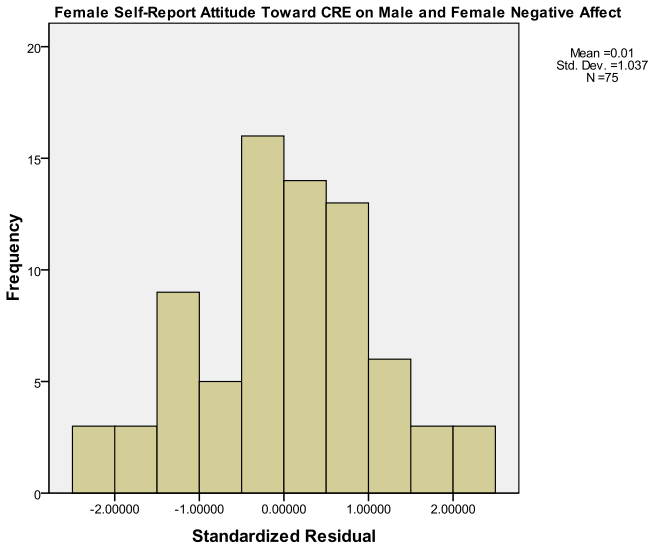


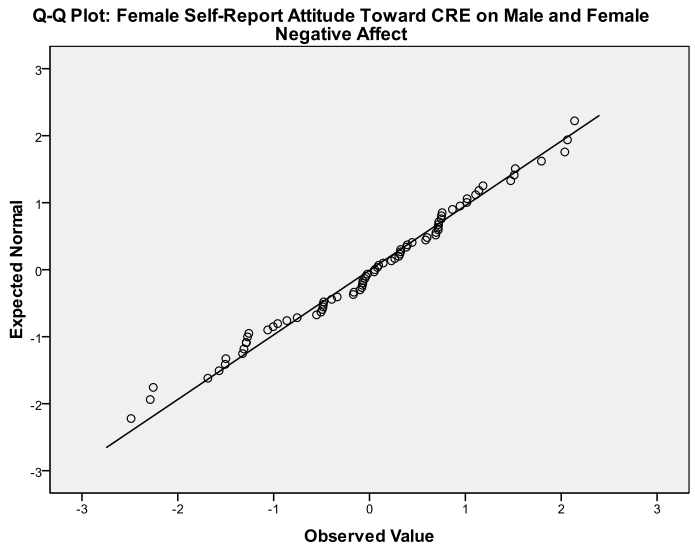

Female Self-Report Attitude Toward CRE on Male and Female Stress
Mean =0.00
Std. Dev. =1.005
N =75
Frequency
12.5
10.0
7.5
5.0
2.5
0.0
-2.00000
-1.00000
0.00000
1.00000
2.00000
Standardized Residual

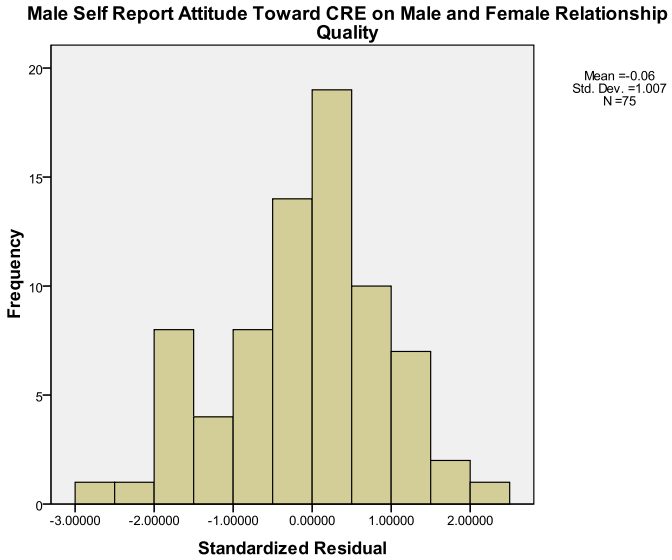

Q-Q Plot: Female Self-Report Attitude Toward CRE on Male and Female Stress
Expected Normal
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3
Observed Value

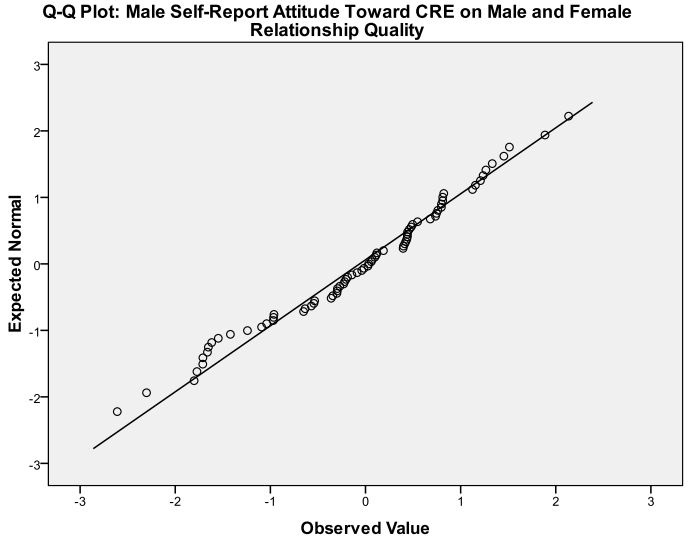

Male Self-Report Attitude Toward CRE on Male and Female Negative Affect
Mean =-0.02
Std. Dev. =0.986
N =75
Frequency
Standardized Residual
-2.00000
-1.00000
0.00000
1.00000
2.00000
0
5
10
15
20

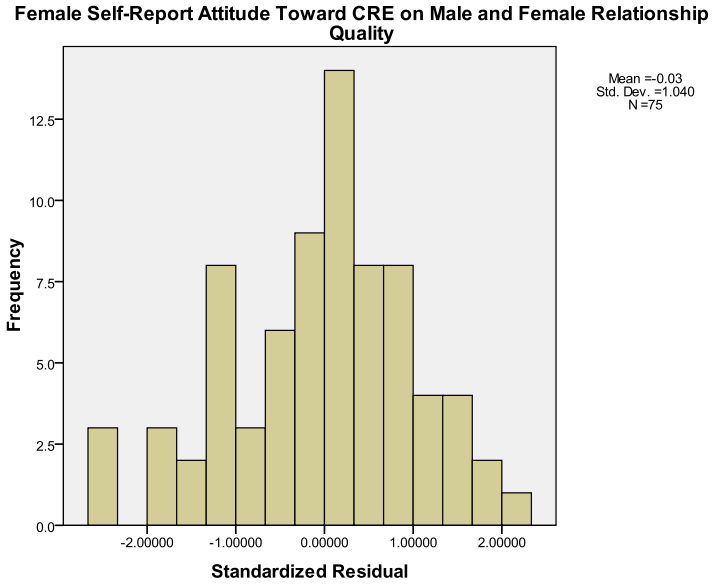

Q-Q Plot: Male Self-Report Attitude Toward CRE on Male and Female Negative Affect
Expected Normal
Observed Value
-3
-2
-1
0
1
2
3

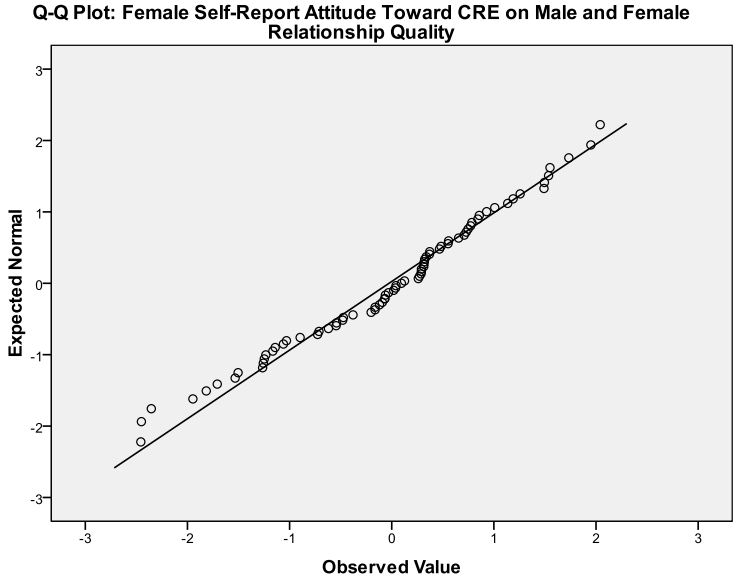

Female Self-Report Attitude Toward CRE on Male and Female Negative Affect
Mean =0.01
Std. Dev. =1.037
N =75
Frequency
Standardized Residual
20
15
10
5
0
-2.00000
-1.00000
0.00000
1.00000
2.00000

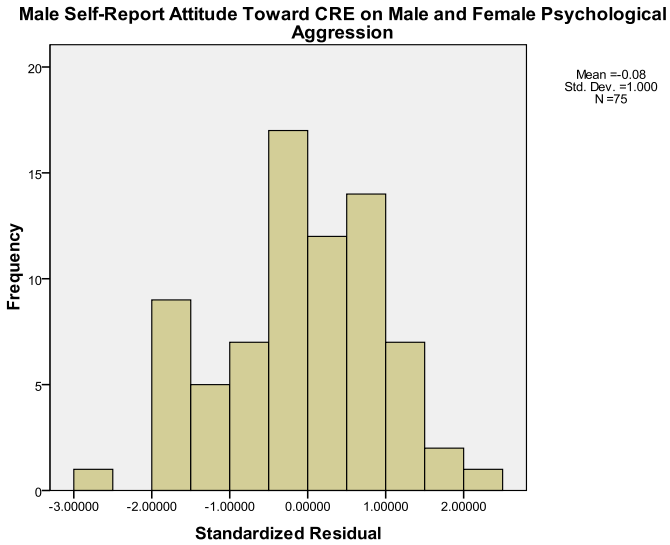

Q-Q Plot: Female Self-Report Attitude Toward CRE on Male and Female Negative Affect
Expected Normal
Observed Value
3
2
1
0
-1
-2
-3

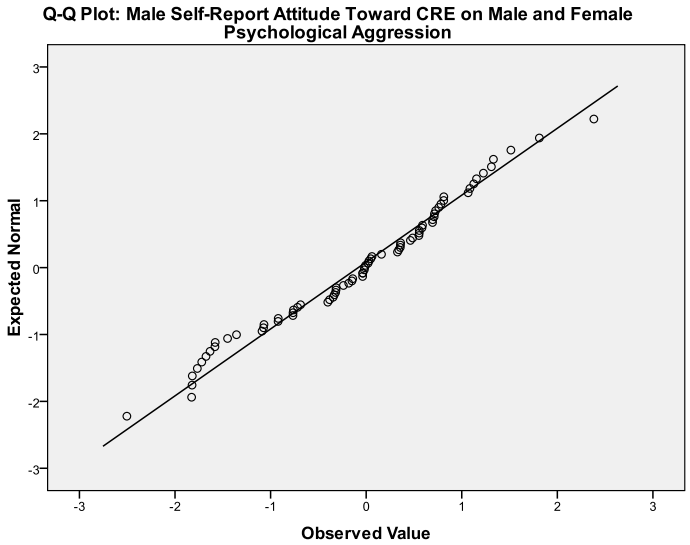

Male Self Report Attitude Toward CRE on Male and Female Relationship Quality
Mean =-0.06
Std. Dev. =1.007
N =75
Frequency
Standardized Residual
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000
0
5
10
15
20

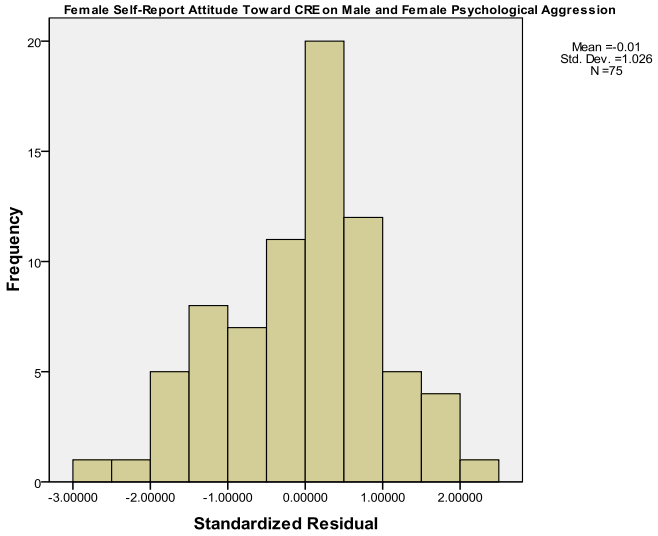

Q-Q Plot: Male Self-Report Attitude Toward CRE on Male and Female Relationship Quality
Expected Normal
Observed Value
-3
-2
-1
0
1
2
3

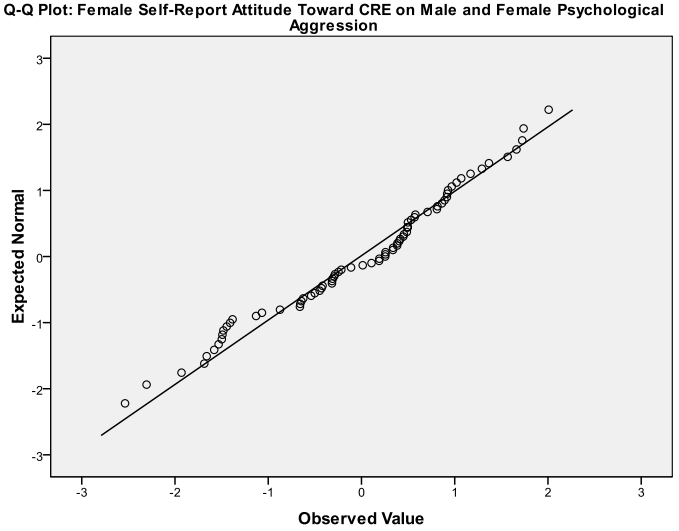

Female Self-Report Attitude Toward CRE on Male and Female Relationship Quality
Mean =-0.03
Std. Dev. =1.040
N =75
Frequency
12.5
10.0
7.5
5.0
2.5
0.0
-2.00000
-1.00000
0.00000
1.00000
2.00000
Standardized Residual

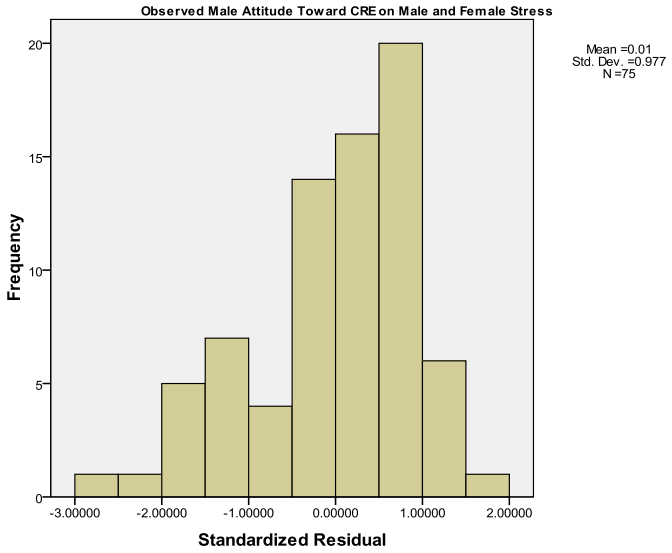

Q-Q Plot: Female Self-Report Attitude Toward CRE on Male and Female Relationship Quality
Expected Normal
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3
Observed Value

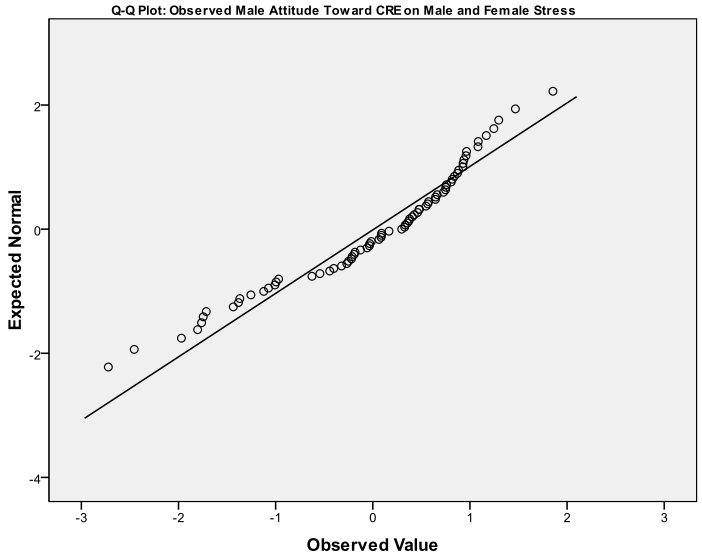

Male Self-Report Attitude Toward CRE on Male and Female Psychological Aggression
Mean =-0.08
Std. Dev. =1.000
N =75
Frequency
Standardized Residual
20
15
10
5
0
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000

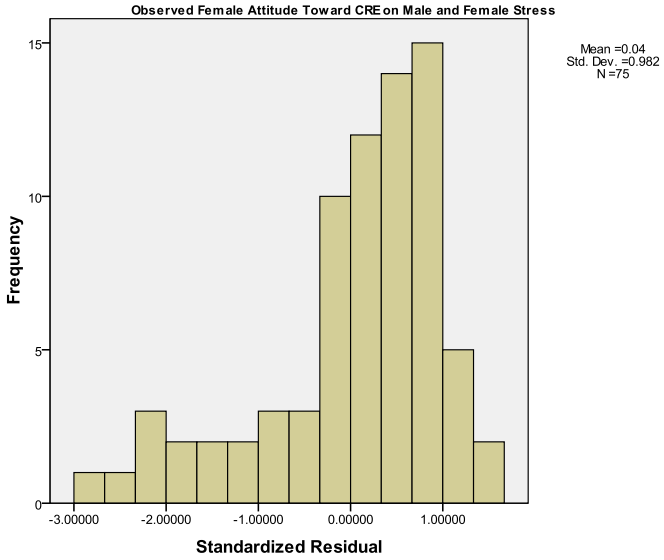

Q-Q Plot: Male Self-Report Attitude Toward CRE on Male and Female Psychological Aggression
Expected Normal
Observed Value
3
2
1
0
-1
-2
-3

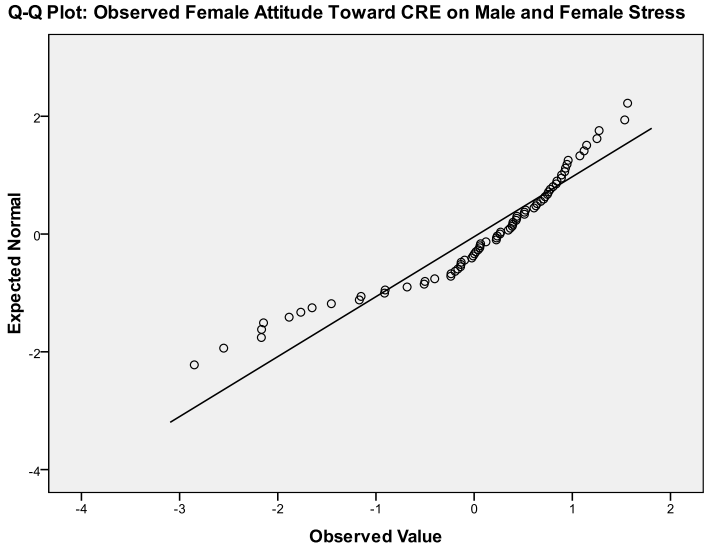

Female Self-Report Attitude Toward CRE on Male and Female Psychological Aggression
Mean =-0.01
Std. Dev. =1.026
N =75
Frequency
Standardized Residual
20
15
10
5
0
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000

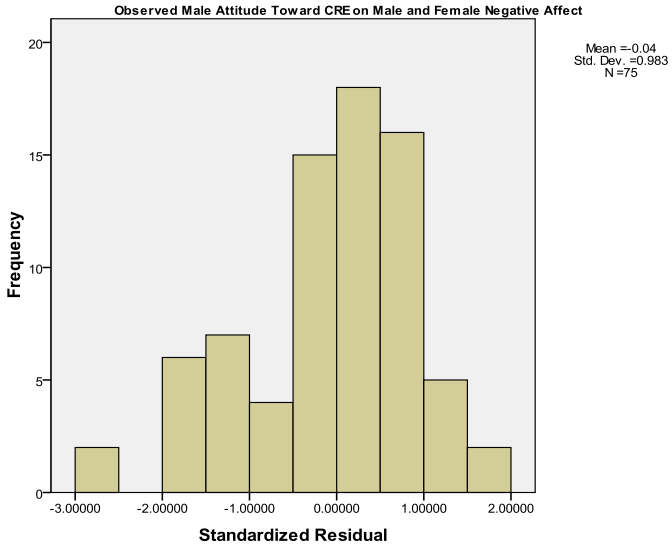

Q-Q Plot: Female Self-Report Attitude Toward CRE on Male and Female Psychological Aggression
Expected Normal
Observed Value
3
2
1
0
-1
-2
-3

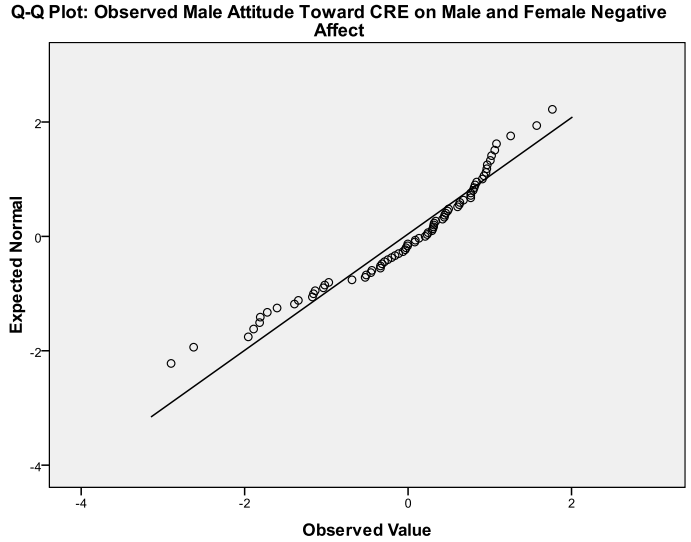

Observed Male Attitude Toward CRE on Male and Female Stress
Mean =0.01
Std. Dev. =0.977
N =75
Frequency
Standardized Residual
0
5
10
15
20
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000

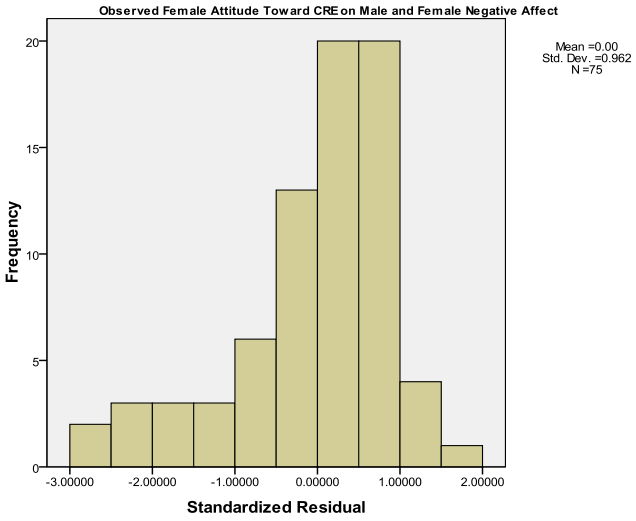

Q-Q Plot: Observed Male Attitude Toward CRE on Male and Female Stress
Expected Normal
Observed Value
2
0
-2
-4
-3
-2
-1
0
1
2
3

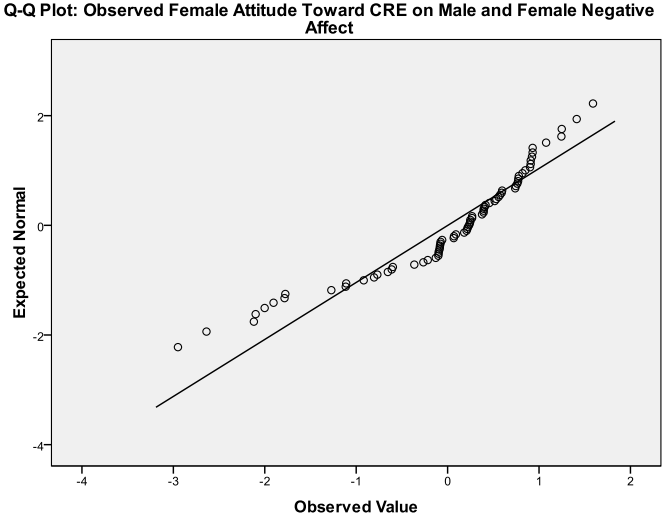

Observed Female Attitude Toward CRE on Male and Female Stress
Mean =0.04
Std. Dev. =0.982
N =75
Frequency
15
10
5
0
-3.00000
-2.00000
-1.00000
0.00000
1.00000
Standardized Residual

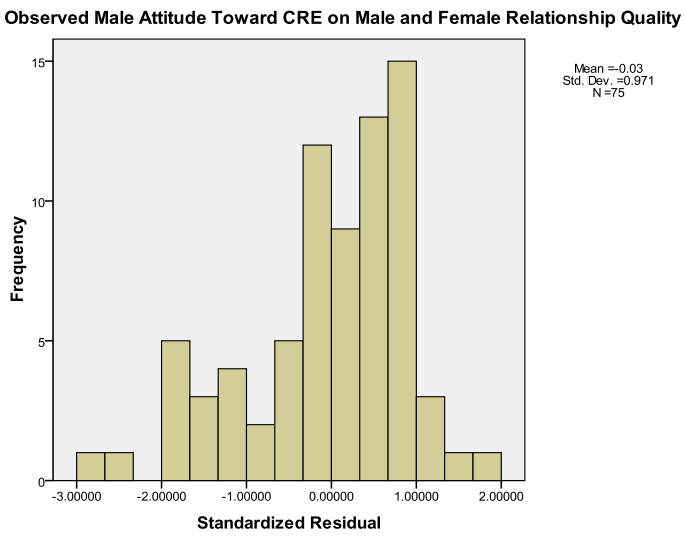

Q-Q Plot: Observed Female Attitude Toward CRE on Male and Female Stress
Expected Normal
2
0
-2
-4
-4
-3
-2
-1
0
1
2
Observed Value

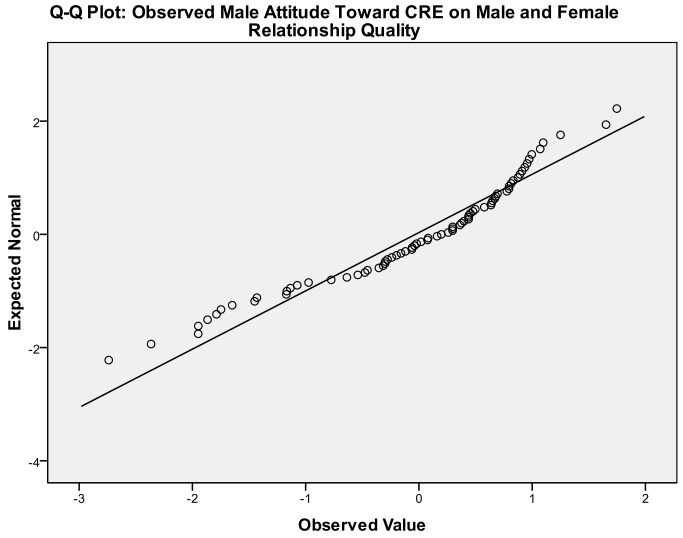

Observed Male Attitude Toward CRE on Male and Female Negative Affect
Mean =-0.04
Std. Dev. =0.983
N =75
Frequency
Standardized Residual
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000
0
5
10
15
20

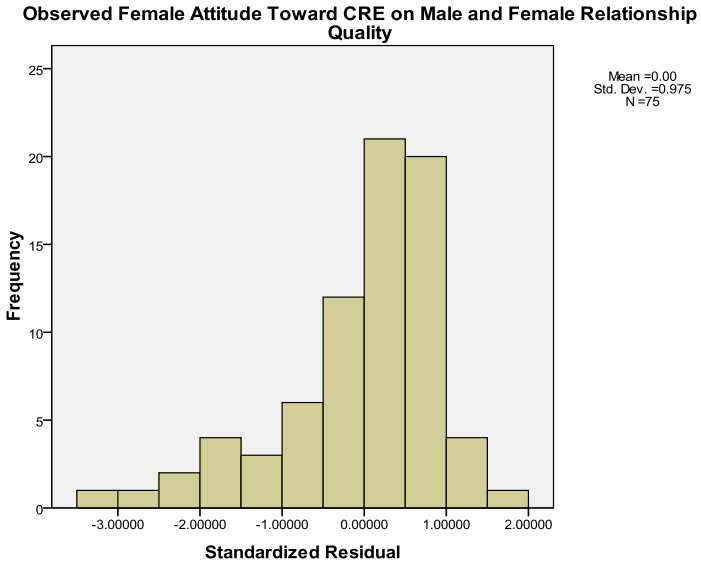

Q-Q Plot: Observed Male Attitude Toward CRE on Male and Female Negative Affect
Expected Normal
Observed Value
-4
-2
0
2

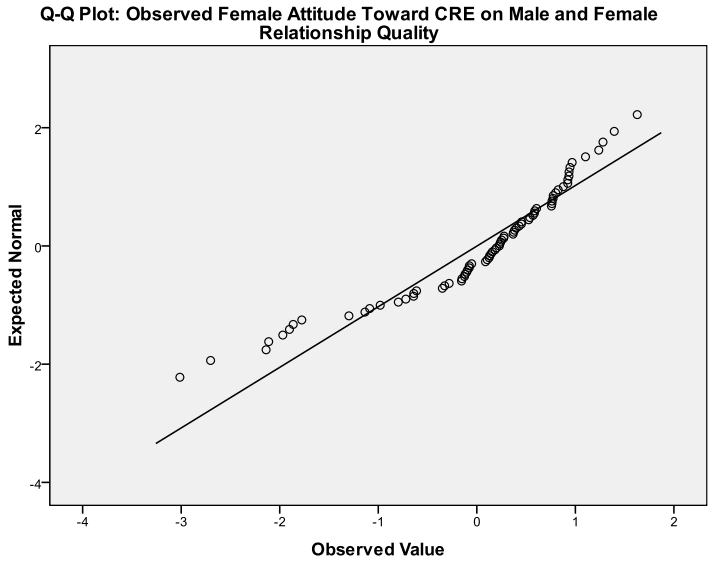

Observed Female Attitude Toward CRE on Male and Female Negative Affect
Mean =0.00
Std. Dev. =0.962
N =75
Frequency
Standardized Residual
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000
0
5
10
15
20

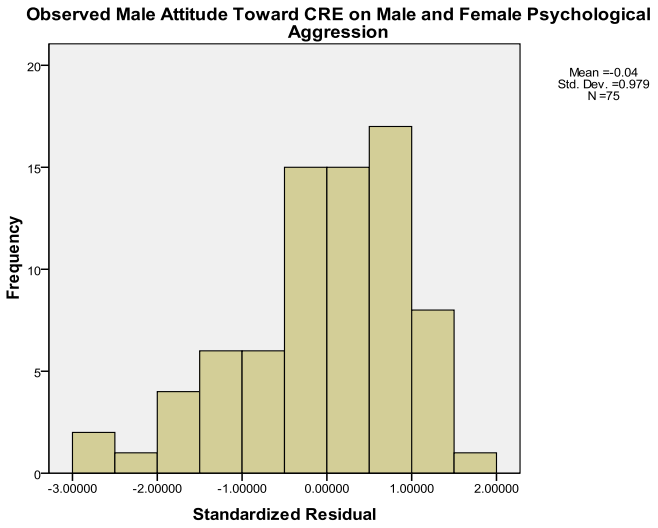

Q-Q Plot: Observed Female Attitude Toward CRE on Male and Female Negative Affect
Expected Normal
Observed Value
-4
-3
-2
-1
0
1
2

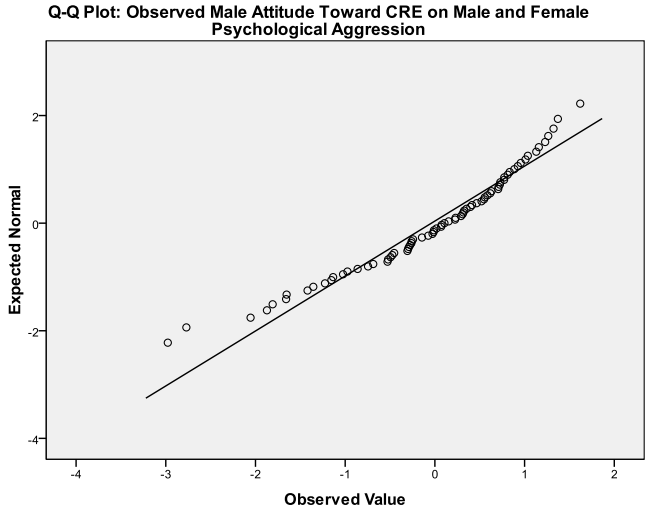

Observed Male Attitude Toward CRE on Male and Female Relationship Quality
Mean =-0.03
Std. Dev. =0.971
N =75
Frequency
Standardized Residual
15
10
5
0
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000

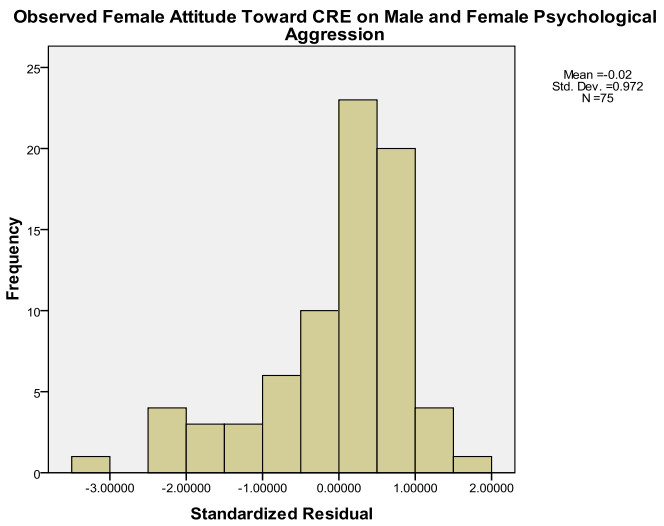

Q-Q Plot: Observed Male Attitude Toward CRE on Male and Female Relationship Quality
Expected Normal
Observed Value
2
0
-2
-4
-3
-2
-1
0
1
2

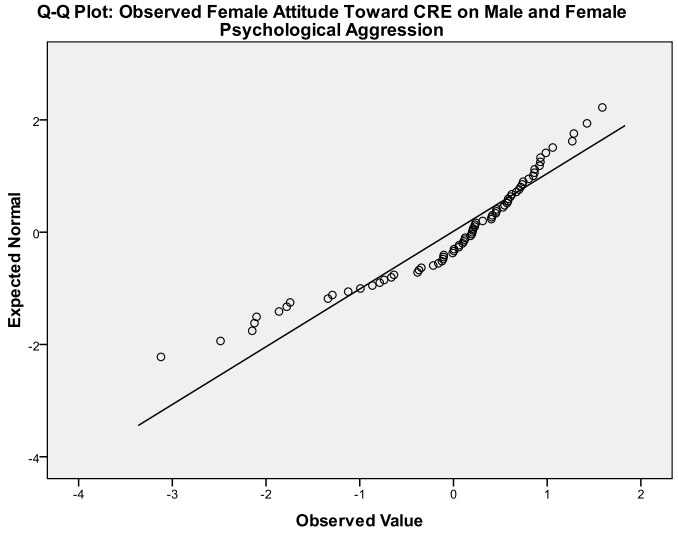

Observed Female Attitude Toward CRE on Male and Female Relationship Quality
Mean =0.00
Std. Dev. =0.975
N =75
Frequency
25
20
15
10
5
0
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000
Standardized Residual


Q-Q Plot: Observed Female Attitude Toward CRE on Male and Female Relationship Quality
Expected Normal
2
0
-2
-4
-4
-3
-2
-1
0
1
2
Observed Value


Observed Male Attitude Toward CRE on Male and Female Psychological Aggression
Mean =-0.04
Std. Dev. =0.979
N =75
Frequency
Standardized Residual
20
15
10
5
0
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000


Q-Q Plot: Observed Male Attitude Toward CRE on Male and Female Psychological Aggression
Expected Normal
Observed Value
2
0
-2
-4
-4
-3
-2
-1
0
1
2


Observed Female Attitude Toward CRE on Male and Female Psychological Aggression
Mean =-0.02
Std. Dev. =0.972
N =75
Frequency
Standardized Residual
25
20
15
10
5
0
-3.00000
-2.00000
-1.00000
0.00000
1.00000
2.00000


Q-Q Plot: Observed Female Attitude Toward CRE on Male and Female Psychological Aggression
Expected Normal
Observed Value
2
0
-2
-4
-4
-3
-2
-1
0
1
2

APPENDIX H

REVISED CONFLICT TACTICS SCALE (CTS2) COPY

No matter how well a couple gets along, there are times when they disagree, get annoyed with one another, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or are upset for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Some questions are about you and others are about your partner. Please circle the response that describes how many times these things happened in the past year. If one of these things did not happen in the past year, but it happened before that, circle "7."

CTS2 Relationship Behaviors

AutoScore™ Form

M. A. Straus, Ph.D., S. L. Hamby, Ph.D., S. Boney-McCoy, Ph.D., and D. Sugarman, Ph.D.

Client ID: _____ Partner ID: _____

Date: _____ Age: _____ Gender: ☐ Male ☐ Female

Education (highest grade completed): ☐ <12 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ >16

Race/Ethnicity: ☐ American Indian/Alaska Native ☐ Asian ☐ Black/African American ☐ Hispanic/Latino ☐ Native Hawaiian/Pacific Islander ☐ White ☐ Other

Please press hard when marking responses.

How often did this happen in the past year?	Once	Twice	3–5 times	6–10 times	11–20 times	More than 20 times	Not in the past year, but it happened before	Never
1. I showed my partner I cared even though we disagreed.	1	2	3	4	5	6	7	0
2. *My partner* showed care for me even though we disagreed.	1	2	3	4	5	6	7	0
3. I explained my side of a disagreement to my partner.	1	2	3	4	5	6	7	0
4. *My partner* explained his or her side of a disagreement to me.	1	2	3	4	5	6	7	0
5. I insulted or swore at my partner.	1	2	3	4	5	6	7	0
6. *My partner* insulted or swore at me.	1	2	3	4	5	6	7	0
7. I threw something at my partner that could hurt.	1	2	3	4	5	6	7	0
8. *My partner* threw something at me that could hurt.	1	2	3	4	5	6	7	0
9. I twisted my partner's arm or hair.	1	2	3	4	5	6	7	0
10. *My partner* twisted my arm or hair.	1	2	3	4	5	6	7	0
11. I had a sprain, bruise, or small cut because of a fight with my partner.	1	2	3	4	5	6	7	0
12. *My partner* had a sprain, bruise, or small cut because of a fight with me.	1	2	3	4	5	6	7	0
13. I showed respect for my partner's feelings about an issue.	1	2	3	4	5	6	7	0
14. *My partner* showed respect for my feelings about an issue.	1	2	3	4	5	6	7	0
15. I made my partner have sex without a condom.	1	2	3	4	5	6	7	0
16. *My partner* made me have sex without a condom.	1	2	3	4	5	6	7	0
17. I pushed or shoved my partner.	1	2	3	4	5	6	7	0
18. *My partner* pushed or shoved me.	1	2	3	4	5	6	7	0
19. I used force (like hitting, holding down, or using a weapon) to make my partner have oral or anal sex.	1	2	3	4	5	6	7	0
20. *My partner* used force to make me have oral or anal sex.	1	2	3	4	5	6	7	0
21. I used a knife or gun on my partner.	1	2	3	4	5	6	7	0
22. *My partner* used a knife or gun on me.	1	2	3	4	5	6	7	0
23. I passed out from being hit on the head by my partner in a fight.	1	2	3	4	5	6	7	0
24. *My partner* passed out from being hit on the head by me in a fight.	1	2	3	4	5	6	7	0
25. I called my partner fat or ugly.	1	2	3	4	5	6	7	0
26. *My partner* called me fat or ugly.	1	2	3	4	5	6	7	0
27. I punched or hit my partner with something that could hurt.	1	2	3	4	5	6	7	0
28. *My partner* punched or hit me with something that could hurt.	1	2	3	4	5	6	7	0
29. I destroyed something belonging to my partner.	1	2	3	4	5	6	7	0
30. *My partner* destroyed something that belonged to me.	1	2	3	4	5	6	7	0
31. I went to a doctor because of a fight with my partner.	1	2	3	4	5	6	7	0
32. *My partner* went to a doctor because of a fight with me.	1	2	3	4	5	6	7	0
33. I choked my partner.	1	2	3	4	5	6	7	0
34. *My partner* choked me.	1	2	3	4	5	6	7	0
35. I shouted or yelled at my partner.	1	2	3	4	5	6	7	0
36. *My partner* shouted or yelled at me.	1	2	3	4	5	6	7	0
37. I slammed my partner against a wall.	1	2	3	4	5	6	7	0
38. *My partner* slammed me against a wall.	1	2	3	4	5	6	7	0
39. I said I was sure we could work out a problem.	1	2	3	4	5	6	7	0
40. *My partner* was sure we could work it out.	1	2	3	4	5	6	7	0

continue on back page

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How often did this happen in the past year?	Once	Twice	3–5 times	6–10 times	11–20 times	More than 20 times	Not in the past year, but it happened before	Never
41. I needed to see a doctor because of a fight with my partner, but I didn't.	1	2	3	4	5	6	7	0
42. *My partner* needed to see a doctor because of a fight with me, but didn't.	1	2	3	4	5	6	7	0
43. I beat up my partner.	1	2	3	4	5	6	7	0
44. *My partner* beat me up.	1	2	3	4	5	6	7	0
45. I grabbed my partner.	1	2	3	4	5	6	7	0
46. *My partner* grabbed me.	1	2	3	4	5	6	7	0
47. I used force (like hitting, holding down, or using a weapon) to make my partner have sex.	1	2	3	4	5	6	7	0
48. *My partner* used force to make me have sex.	1	2	3	4	5	6	7	0
49. I stomped out of the room or house or yard during a disagreement.	1	2	3	4	5	6	7	0
50. *My partner* stomped out of the room or house or yard during a disagreement.	1	2	3	4	5	6	7	0
51. I insisted on sex when my partner did not want to (but did not use physical force).	1	2	3	4	5	6	7	0
52. *My partner* insisted that I have sex when I didn't want to (but did not use physical force).	1	2	3	4	5	6	7	0
53. I slapped my partner.	1	2	3	4	5	6	7	0
54. *My partner* slapped me.	1	2	3	4	5	6	7	0
55. I had a broken bone from a fight with my partner.	1	2	3	4	5	6	7	0
56. *My partner* had a broken bone from a fight with me.	1	2	3	4	5	6	7	0
57. I used threats to make my partner have oral or anal sex.	1	2	3	4	5	6	7	0
58. *My partner* used threats to make me have oral or anal sex.	1	2	3	4	5	6	7	0
59. I suggested a compromise to a disagreement.	1	2	3	4	5	6	7	0
60. *My partner* suggested a compromise to a disagreement.	1	2	3	4	5	6	7	0
61. I burned or scalded my partner on purpose.	1	2	3	4	5	6	7	0
62. *My partner* burned or scalded me on purpose.	1	2	3	4	5	6	7	0
63. I insisted my partner have oral or anal sex (but did not use physical force).	1	2	3	4	5	6	7	0
64. *My partner* insisted I have oral or anal sex (but did not use physical force).	1	2	3	4	5	6	7	0
65. I accused my partner of being a lousy lover.	1	2	3	4	5	6	7	0
66. *My partner* accused me of being a lousy lover.	1	2	3	4	5	6	7	0
67. I did something to spite my partner.	1	2	3	4	5	6	7	0
68. *My partner* did something to spite me.	1	2	3	4	5	6	7	0
69. I threatened to hit or throw something at my partner.	1	2	3	4	5	6	7	0
70. *My partner* threatened to hit or throw something at me.	1	2	3	4	5	6	7	0
71. I felt physical pain that still hurt the next day because of a fight with my partner.	1	2	3	4	5	6	7	0
72. *My partner* still felt physical pain the next day because of a fight we had.	1	2	3	4	5	6	7	0
73. I kicked my partner.	1	2	3	4	5	6	7	0
74. *My partner* kicked me.	1	2	3	4	5	6	7	0
75. I used threats to make my partner have sex.	1	2	3	4	5	6	7	0
76. *My partner* used threats to make me have sex.	1	2	3	4	5	6	7	0
77. I agreed to try a solution to a disagreement my partner suggested.	1	2	3	4	5	6	7	0
78. *My partner* agreed to try a solution I suggested.	1	2	3	4	5	6	7	0

APPENDIX I

DEROGOTIS STRESS PROFILE (DSP) COPY

DSP®

Name: _____ Age: _____ Sex: M____ F____ Date: _____

I.D. No: _____ Location: _____

Marital Status: Single_____ Married_____ Separated_____ Widowed_____ Divorced_____

Education: _____ Job Description: _____

INSTRUCTIONS

Below are a series of statements that describe the way some people feel about themselves. Please read each statement carefully and select one of the numbered descriptors below to indicate the extent to which the statement is true of you. Consider yourself as you **typically** behave or feel, and place the descriptor number in the open block to the right of the statement. If you change your mind, erase your first selection completely. If you have any questions, ask the technician.

DESCRIPTORS:

0 = Not at all true of me
1 = Slightly true of me
2 = Moderately true of me
3 = Very true of me
4 = Extremely true of me

1. I feel there is never enough time to get things done . . . . . ☐
2. I rarely have feelings of being trapped or caught in life . . . . . ☐
3. I feel rules were made to be broken . . . . . ☐
4. I take some time out almost every day just to relax . . . . . ☐
5. I laugh easily . . . . . ☐
6. My job provides me many opportunities for challenging and satisfying activities . . . . . ☐
7. When I am on vacation with my family I don't have as much fun as I think I should . . ☐
8. I get into frequent arguments . . . . . ☐
9. I rarely feel tense and under pressure . . . . . ☐
10. I rarely exercise . . . . . ☐
11. I feel no interest in things . . . . . ☐
12. I would like to be with my family more, but I can never seem to find the time . . . . . ☐
13. I never worry about being a "workaholic" . . . ☐
14. I believe that if you don't beat the other guy to the punch, he will beat you . . . . . ☐
15. I never sit still for very long . . . . . ☐
16. I am not very good at telling funny stories or jokes . . . . . ☐
17. I get great pleasure from the people I work with . . . . . ☐
18. I have a satisfying sex life . . . . . ☐
19. I have no problems with control of my temper . . . . . ☐
20. I am usually worried about something . . . . . ☐
21. I smoke too much . . . . . ☐
22. I rarely feel lonely . . . . . ☐
23. When I eat, I usually take my time . . . . . ☐
24. I frequently say I am going to spend less time on work, but I don't seem to be able to . . . . . ☐
25. Most things I do I see as a challenge . . . . . ☐
26. I am not very interested in hobbies or sports . . . ☐
27. I seem to be more focused on the future than the present . . . . . ☐
28. My full range of talents are not utilized on my job . . . . . ☐
29. I have a good relationship with my wife/ husband (or unmarried partner) . . . . . ☐
30. Sometimes I just feel like hitting somebody . . . ☐
31. I rarely feel nervous or uptight . . . . . ☐
32. I am in good physical shape . . . . . ☐
33. I sometimes have feelings of worthlessness . . . . . ☐
34. I rarely feel pressed for time . . . . . ☐

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DSP®

DESCRIPTORS:

0 = Not at all true of me
1 = Slightly true of me
2 = Moderately true of me
3 = Very true of me
4 = Extremely true of me

35. The more things I achieve in life the less I seem to enjoy them ☐
36. I tend to be impatient ☐
37. I sometimes just "tune out" of work and get involved in other things ☐
38. Sex is an important part of life for me ☐
39. I am frequently frustrated in my work ☐
40. Interacting with my family and friends is a great source of enjoyment for me ☐
41. I rarely have angry thoughts about people ☐
42. When I know I have something unpleasant to do I worry about it for a long time ☐
43. I don't take antacids for heartburn or gas ☐
44. I usually have plenty of energy ☐
45. I enjoy being under pressure and doing a good job on many projects at the same time ☐
46. I really look forward to my vacations ☐
47. I make a serious effort to achieve a balance between work and fun ☐
48. It is not difficult for me to unwind after work ☐
49. I really believe it is lonely at the top ☐
50. Doing my job gives me a good feeling about myself ☐
51. I have a good balance between family activities and work activities ☐
52. I get easily annoyed or irritated ☐
53. I frequently have the feeling that something bad is going to happen to me ☐
54. I believe having good health is more important than anything ☐
55. Sometimes I feel hopeless about the future ☐
56. When I am driving the car, I almost never rush through traffic ☐
57. Every day I must get something tangible accomplished or I don't feel good about myself ☐
58. I feel the most important thing in life is that you achieve something with it ☐
59. The idea of meditation or relaxation training has not had much appeal for me ☐
60. I believe you can get a lot of help from others in getting the job done in life ☐
61. There are significant parts of my job that are frankly dull and boring ☐
62. I don't interact much with friends or neighbors ☐
63. I rarely clench my fists during conversation ☐
64. I rarely let things get me anxious or tense because I know they always get worked out somehow ☐
65. I am very careful about my diet ☐
66. I sometimes have thoughts of ending my life ☐
67. When I have an appointment I rarely arrive late or at the last minute ☐
68. Once I get started on a project, I don't like to stop until I am finished ☐
69. I believe competition builds character and is good for you ☐
70. I have trouble relaxing ☐
71. I believe life is a struggle and you don't get anything for free out of it ☐
72. When I wake up in the morning, I really look forward to going to work ☐
73. I really enjoy going to parties and meeting people ☐
74. If someone expresses a stupid idea, I rarely publicly disagree ☐
75. Sometimes I feel tense and anxious for no apparent reason ☐
76. I take tranquilizers to relax or sleep ☐
77. I rarely blame myself unduly for things that go wrong ☐

Please indicate what you believe your current level of stress to be by placing an "X" on the line below.

Totally Free of Stress ●——————————● Extremely Highly Stressed

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APPENDIX J

IRB APPROVAL FORM COPY

Oklahoma State University Institutional Review Board

Date:	Thursday, February 02, 2006
IRB Application No	HE0640
Proposal Title:	Researching Recruitment Challenges in Low-Income Marriage Education Programs
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 2/1/2007

Principal Investigator(s):

Brandt Gardner
233 HES
Stillwater, OK 74078

Kelly Roberts
233 HES
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☑ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 415 Whitehurst (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sue C. Jacobs, Chair
Institutional Review Board

VITA

Brandon Kevin Burr

Candidate for the Degree of

Doctor of Philosophy

Thesis: ASSOCIATIONS OF GLOBAL STRESS, NEGATIVE AFFECT, PSYCHOLOGICAL AGGRESSION, AND RELATIONSHIP QUALITY WITH RELATIONSHIP PARTNER ATTITUDES TOWARD RELATIONSHIP EDUCATION: AN EXPLORATORY ACTOR-PARTNER INVESTIGATION BY INCOME, EDUCATION AND RELATIONSHIP STATUS

Major Field: Human Development & Family Science

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Human Development and Family Science at Oklahoma State University, Stillwater, Oklahoma in July, 2010.

Completed the requirements for the Master of Science in Human Development and Family Science at Oklahoma State University, Stillwater, Oklahoma in 2006.

Completed the requirements for the Bachelor of Science in Marriage, Family, & Human Development at Brigham Young University, Provo, Utah in 2003.

Experience:

Professional Memberships: National Council on Family Relations; Oklahoma Council on Family Relations

Name: Brandon Kevin Burr Date of Degree: July, 2010

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: ASSOCIATIONS OF GLOBAL STRESS, NEGATIVE AFFECT, PSYCHOLOGICAL AGGRESSION, AND RELATIONSHIP QUALITY WITH RELATIONSHIP PARTNER ATTITUDES TOWARD RELATIONSHIP EDUCATION: AN EXPLORATORY ACTOR-PARTNER INVESTIGATION BY INCOME, EDUCATION AND RELATIONSHIP STATUS

Pages in Study: 241 Candidate for the Degree of Doctor of Philosophy

Major Field: Human Development & Family Science

Scope and Method of Study: Quantitative

Findings and Conclusions: Couples relationship education (CRE) is a resource that has been instigated to curb divorce rates and promote healthy couple relationships. Yet, couples at higher risk for relationship difficulty, including lower-income couples, are largely underrepresented in CRE programs. Family Stress and Human Ecological theoretical underpinnings highlight how aspects of the lower-income experience can influence relationships, and also associate with relationship partners' attitudes toward CRE. This study sought to investigate how factors well-known to be associated with relationship quality might also associate with partner attitudes toward CRE, and how these associations may vary by gender, income, education, and relationship status. Partner attitudes toward CRE were measured using self-report and observational methods. Dyadic level analyses were conducted on 99 couples utilizing the Actor-Partner Interdependence model and chi-square difference testing to detect moderation. Results showed a dyadic, partner-level pattern as most pronounced as associated with attitudes toward CRE in males and females. More pronounced psychological aggression in men was negatively associated with attitudes toward CRE in females using self-report data, and more pronounced psychological aggression in females was negatively associated with attitudes toward CRE in males using observer-rated data. These partner paths differed by gender in several of the analyses. Female relationship partners, overall, had more positive attitudes toward CRE, and unmarried males had more negative attitudes toward CRE. Differences were found in predictor associations with either the self-report or observer-rated attitude toward CRE dependent variables. Implications for those who work in CRE programming and those who study couples and couples programming are provided based on study findings.

ADVISER'S APPROVAL: Dr. Brandt C. Gardner