

FINANCIAL PLANNING FOR RETIREMENT:
SPOUSAL COMMUNICATION
AND COLLABORATION

By

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Abstract: Numerous investigations can be found in the retirement planning literature. However, no studies have appeared that have examined how married individuals communicate and collaborate with one another when making decisions about the future. In this dissertation, three different established areas of literature are combined to assess how married individuals make their financial plans for retirement. Some 682 married individuals completed a questionnaire about how they make retirement decisions with their spouses. Of particular interest were differences between couples who collaborate with one another, and those in which one spouse serves as the primary planner. The findings from the investigation were illuminating. The tendency to collaborate was more often seen among respondents who had been married longer, had higher incomes, were good communicators, and who had shared goals and values. Findings also revealed that couples who collaborate are more likely to experience positive communication patterns, exhibited increased levels of task involvement, and perceive a more positive future for themselves in retirement. This investigation is significant because it is a multidisciplinary first step toward understanding marital decision making patterns in this important real-world domain.

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CHAPTER I

INTRODUCTION

Half of the adults in the United States that financially plan and save for retirement are in a committed relationship—either as a married spouse or cohabitant. Despite this fact, little has been known about how couples *plan together* for the future. Most of the existing research on financial planning for retirement has focused on individuals—primarily due to the difficulties associated with collecting data from couples in a committed relationship. Although the literature review associated with this dissertation focuses on what is known about couples and retirement planning, it also describes studies that discuss the way individuals plan and save for the future given that individuals—not couples—have been the primary unit of analysis in most empirical investigations.

This literature review of retirement planning practices was carried out from two different, yet related, research perspectives. The first involves looking at couples and how they plan for retirement from a *collaborative cognition* viewpoint. Collaborative cognition is a relatively new area of psychology that involves examining how couples or partners help one another when solving problems and making decisions in real-world domains (Meegan & Berg, 2002; Strough & Margrett, 2002). Existing work in this area has examined, for instance, how spouses make complicated medical treatment decisions

together, how they plan to run errands and execute daily activities, and how they divide their labor and delegate responsibilities when engaged in everyday events. One goal of this work has been to identify the strategies couples use when making decisions and solving problems, and to determine whether their efforts would be more efficient than those of a single individual working alone. Another goal of this line of work has been to examine how the support of one's partner facilitates or hinders the problem solving or decision making process.

In addition to looking at retirement planning and saving from the perspective of collaborative cognition, in this document the topic was also examined from a second perspective—that of couples' *patterns of communication*. Over the past three decades, researchers from the field of communication sciences have developed a number of different theoretical models that describe how couples communicate, and the extent to which different patterns of communication are differentially effective and satisfying for both members of the dyad. By viewing couples' retirement planning as a joint activity, it should be possible to identify the extent to which some couples are better than others when it comes to engaging in interpersonal discourse.

By examining financial planning for retirement from these dual (collaborative cognition and communication) perspectives, the hope is that it will be possible to learn new lessons about how couples experience the planning process. The working assumption in this regard is that couples who are better communicators will also be more effective in cognitive collaborations with one another (i.e., making decisions, solving problems). Furthermore, it is expected that effective collaboration will be associated with higher levels of satisfaction with the planning process, and perhaps, better planning

outcomes (i.e., higher saving rates; superior investment strategies). In this document it is seen whether this last assumption holds true—that is, that enhanced collaboration is associated with more efficient planning. Either way, one could certainly argue that better patterns of communication should be linked to higher levels of participant satisfaction.

Although the focus of this review is on couples and their planning practices, the majority of investigations that are cited involve work that focuses on individual planners, in light of the dearth of studies published on the planning practices of couples.

The Retirement Planning Challenge

The focus of this document is on couples and the extent to which they collaborate when it comes to the important task of retirement planning. But first, a brief review of the literature on the general topic of retirement is in order.

Planning for retirement and making future life decisions can be challenging, whether it be alone or with a spouse. The challenges that come with retirement planning are complex, in part, due to the wide range of investment options offered and the motivational difficulties associated with saving for the future (Benartzi & Thaler, 2007). Another challenging point is that many individuals have difficulties managing their money, because their discretionary income simply does not allow them to save sufficiently for old age (Hershey, Jacobs-Lawson, McArdle, & Hamagami, 2007). A third difficulty is that many individuals face is the uncertainty associated with retirement planning. There may be questions as to how long the retirement period will be, how various volatile and unpredictable investment markets will behave, and uncertainties associated with future medical costs. Each of these considerations contribute to make

retirement investing a complex process. As such, these challenges when it comes to retirement planning warrant further discussion.

High levels of confidence in planning for retirement is not something that many working adults have had, particularly when it comes to envisioning how much they will need to save by the time they retire. In general, around 50 percent of workers are fairly confident they will have enough money for retirement; however, 28 percent are not confident at all and only 21 percent are not too confident about having enough savings for retirement (Helman, Adams, Copeland, & VanDerhei, 2013). One reason many workers lack confidence when it comes to retirement planning is that they lack a reasonable degree of financial literacy which, in turn, can leave them unsure about what the future will hold.

Some individuals tend to fall into lower levels of involvement when it comes to planning and saving for the future. A recent study conducted by Lusardi (2012) found that in general, individuals lack reasonably appropriate levels of financial literacy. This is especially true for women (Shim, Xiao, Barber, & Lyons, 2009). According to Hershey, Jacobs-Lawson, and Austin (2013) women tended to fall short when it comes to retirement planning and saving involvement because, on the whole, they tend to have less in the way of financial knowledge than men, and they also tend to have lower incomes. One possible outcome for women given these generally low levels of financial literacy is that once they enter retirement they will be at a greater risk of living in poverty due to insufficient savings—a situation caused, in part, by underestimating how much would need to be saved for old age.

Young adults are another group who—although they are able to discuss their financial expectations—display low levels of financial literacy. An article by Lusardi, Mitchell, and Curto (2010) assessed young adults' correct responses to a set of simple financial questions and found that they were able to produce few correct answers, which suggests they had limited levels of financial literacy. According to Kopusko and Hershey (2014) literacy training during childhood and adolescence is critically important, and the lack of such training has resulted in many young working adults lacking the basics when it comes to financial planning for the future. In fact, Kopusko & Hershey (2014) found that college students who learned about personal finances as a child had more optimistic perceptions of their life in retirement relative to those who know less about finances. Both the Lusardi et al. (2010) and Kopusko and Hershey (2014) studies imply that parents should ideally teach their children to become financially literate at an early age so that in future generations financial planning for retirement will not be viewed as such a daunting task.

Another challenge associated with financial planning for retirement involves difficulties related to the complexity of different retirement plans. The source of the difficulty in this regard is that many individuals lack the general knowledge necessary to make sound investment decisions (Kopusko & Hershey, 2014; Lusardi, 2012; Lusardi et al., 2010). Many investment plans require individuals to allocate their money across dozens of different options, which makes the decision of knowing which options are best exceedingly difficult. Another investing challenge involves understanding the timing of when investments should be made during the course of one's working life. It is best to start saving early, but this is often difficult for young adults who frequently do not have

sufficient discretionary income to save, or do not have the necessary knowledge and skills to save efficiently for the future. Next, research on collaborative cognition will be reviewed, with a particular focus on existing empirical investigations.

Collaborative Cognition

This section of the dissertation discusses collaborative cognition, which can range from the mundane (involving day-to-day decisions such as running errands), to the significant (such as making important medical decisions when one's spouse has an illness). This literature is broad in scope, in part because the methods used tend to be quite varied, in order to study a variety of different topics, from memory tasks, to health, to financial planning for retirement.

Everyday Problem Solving

A literature review article by Meegan and Berg (2002) examined collaborative everyday problem solving. The authors concluded that collaborative dyads, and especially married couples who collaborate, tend to do better on different everyday problem-solving tasks than individuals who work on their own. The authors pointed out that the context of collaboration among dyads could vary, with some studies focusing on work-related contexts and others focusing on tasks pertaining to their spousal relationships. Solving everyday problems, according to the authors, does not necessarily have to happen the same way among all dyads. In some cases, problem solving can be used to combine tasks in a more efficient way to benefit individuals throughout the course of a day. After some time, however, collaborative processes may change as dyads

get to know one another better and begin to understand how to more efficiently solve everyday problems collectively.

In one empirical investigation on the topic, Kimbler and Margrett (2009) examined older married adults' patterns of collaboration on everyday problems. The mean age among participants in this study was 71 years. All couples completed a three-hour problem solving session in conjunction with other couples who were matched in terms of their demographic characteristics. Each member of a dyad was then assigned to work either with their own spouse, or with a person they did not know. The condition in which the collaborative task was completed with one's own spouse benefitted participants most, presumably because they were familiar with one another's strengths, weaknesses, and problem solving styles. In addition, when examining differences between genders, the authors found that women were more sociable than their male counterparts. In cases in which couples had been married for a particularly long time, it appeared that they already knew what worked best in terms of collaborating, and therefore, they were found to be less social with each other. In contrast, in cases in which a participant was working with an unknown individual, they would become more sociable when engaged on the task, because they would have to learn about their partner's strengths and weaknesses through the process of interaction.

In a 2007 paper, Berg and Upchurch suggested that future studies should be conducted that examine collaborative cognition in daily events. An investigation by Berg, Wiebe, and Butner (2011) did just that by giving both individuals in spousal dyads daily diaries to record their activities for two weeks regarding the way they coped with a chronic illness. Participants were told to report several different things in their diaries,

including the most stressful component of the day, whether the experience of the day with one another was positive or negative, in what ways they coped with the chronic illness, and how the couples collaborated with one another. The researchers found that collaborative communication and coping required a great deal of discussion between the spouses, even if these discussions were not always positive. The researchers also found that coping with a chronic illness not only affected the sick individual, but it also affected the relationship with the individual's spouse. For example, when a spouse was experiencing negative affect, the other spouse was also likely to experience negative affect.

Strough, Cheng, and Swenson (2002) examined older adults and their preferences for collaboration in everyday problem solving situations. They found that older adults preferred to work alone rather than with others on tasks that were linked to particular gender roles (e.g., housework tasks versus home repair tasks). For example, women preferred to work alone if engaged in doing household-related tasks, such as preparing meals, but would be more likely to ask for assistance from their husband if they were required to do some type of household maintenance repair. In tasks that were not gender-role specific, older adults were more likely to ask their partner for help than younger individuals. In contrast, for tasks in which the everyday problem was not gender specific, older adults preferred to complete the task by themselves rather than working with others. The researchers concluded that these findings might be due to the fact that study participants were drawn from a Western culture in which individualism is emphasized, which would explain why they preferred to work independently. Of particular relevance to the present investigation, Strough et al. (2002) found that on tasks such as finances and

meal preparation, married couples preferred to work together, because those activities affected both spouses equally.

Strough and Margrett (2002) also examined collaborative cognition in older adulthood. In that paper, collaborative cognition was described as interactive minds, or a form of socially-shared cognition. This study was important, because adults typically make decisions with others, in part, to involve them in their plans and goals. Involving others in the decisions making process could also serve to enhance one's memory, by making another aware of important things that need to be recalled in the future. This can be especially important when individuals get older and their memory becomes more fragile. Thus, collaborating with another on tasks could be an influential strategy when it comes to successful aging in later adulthood. In their review of the marital literature, Strough and Margrett (2002) found that collaboration on day-to-day activities was not particularly uncommon.

In sum, among studies that compare the collaborative cognition practices of middle-aged and older adults on everyday tasks, it has been found that older adults work better together than middle-aged individuals, because older adults are often veterans when it comes to interpersonal collaboration. Other research suggests that when individuals are asked about their preference for working with an unacquainted individual or one that they are comfortable with, individuals prefer to work with those with whom they are comfortable. By doing so, familiar dyads typically outperformed unacquainted dyads.

Health

As an intellectual process, collaborative cognition does not focus solely on day-to-day events, but it can also be beneficial when individuals seek to make important life decisions. A study by Stephens, Rook, Franks, Khan and Iida (2010) focused on diabetic patients and the influence of diabetes on dietary adherence. Two different types of support from the spouses of the diabetic individuals were examined—positive support and negative support. Investigators found that over one-third of participants were actively involved in their spouses' decisions regarding dietary adherence. Overall findings from the study demonstrated that if the healthy spouse was being negative (i.e., exhibiting negative affect with regard to dietary matters), then it would lead to lower adherence levels, for the ill partner compared to situations in which the healthy spouse was more positive. In a positive supportive context, the ill spouse was often found to oblige and maintain the prescribed daily diet. It was recognized that some spousal effects might change over time, especially because adhering to a diabetic diet is difficult. Therefore, some healthy spouses might have started out with positive attitudes shortly after diagnosis, but ended up exhibiting negative affect later in the course of the disease. In cases in which the ill spouse did not adhere to the prescribed diet, then there was an increased likelihood that the healthy spouse would end up exhibiting more negative attitudes.

Memory

Memory has also been examined as it relates to the area of collaborative cognition (Margrett, Reese-Melancon, & Rendell, 2011). These researchers examined collaborative dialogues with middle-aged ($M_{\text{age}} = 52$ years) and older couples ($M_{\text{age}} = 73$ years). In this

investigation, the researchers focused on prospective memory, which is the ability to remember to do things in the future. Findings revealed that married partners often worked on memory tasks together, which is a result that is consistent with research on social behavior (Kimbler & Margrett, 2009). With regard to the use of different memory strategies, Margrett et al. (2011) found that spouses try to encode the to-be-remembered information by actively rehearsing it with one another. Another finding was that spouses relied primarily on each other when it comes to prospective memory tasks. However, relying on one's spouse only works in cases in which the spouse has a good memory, and it has already been established that memory performance declines with age. Based on what we already know about age-related memory declines, it was not surprising that middle-aged adults in the study performed better on prospective memory tasks than older adults. However, the investigators also found that in cases in which the couples "pushed each other" during the study, they were likely to perform better on the task. Teaching each other how to do well on the memory task (i.e., advising one's partner) was also found to be important. In cases in which one of the individuals struggled, often that individual would either ask his or her spouse for help, or encourage the more successful spouse to step up his or her level of participation.

As described earlier, it is clear that collaborative cognition is used in a variety of different contexts. We will now turn attention to what is known about couples and the extent to which their collaborative efforts differ as a function of socio-demographic individual difference dimensions.

Demographic Influences on Collaborative Cognition

Are the types of couples who collaborate with one another demographically different from those who do not? In addressing this question, Mienaltowski (2011) argued that older adults tend to be better collaborators than middle-aged adults, because the former have different (and presumably, more efficient) strategies for making decisions together. Moreover, older adults have been found to value working with their spouses when engaging in collaborative tasks, more so than middle-aged adults (Strough & Margrett, 2002). And collaborative cognition with other individuals can help to maintain levels of cognitive functioning even in the face of age-related declines (Strough & Margrett, 2002). A different study revealed that women perceived that working on a task with their spouse to be a more satisfying and positive experience than working with an unfamiliar man (Margrett & Marsiske, 2002). However, there is a dearth of research that has examined demographic differences beyond age in terms of how couples collaborate with one another.

Summary of Collaborative Cognition

Collaborating with one's spouse is important in a marriage, because in all likelihood, it stands to enhance levels of communication satisfaction between the partners. Another reason collaborative cognition may be important is that it could enhance the quality of couples' planning efforts. Collaborative decision making may also be important because it provides for a sense of shared goals, and on that basis, it can lead to enhanced feelings of closeness between members of the dyad.

Despite the potential benefits of collaborative cognition identified above, to date, there have not been any published studies on the incidence rates of collaboration. Of

particular value would be knowing the percentage of couples that collaborate in the context of a committed relationship, and how frequently cognitive collaboration takes place. On the basis of these observations, the following research questions could profitably be examined in future investigations:

1. What proportion of married individuals report they are collaborators when it comes to retirement planning, versus couples who are non-collaborators?
2. Do married individuals who collaborate with one another in making everyday decisions also collaborate with one another when it comes to long-term retirement planning decisions?
3. Are individuals who are more satisfied with their marriage more likely to collaborate with one another than couples who are less satisfied?

Communication among Married Couples

High quality communication is an important part of a relationship between married individuals, because it results in high levels of interpersonal satisfaction (Cornwell, 2012; Henry, Berg, Smith, & Florsheim, 2007). Certainly, keys to high quality communication involve a relationship dynamic in which both members of the dyad share equally with one another, and feel comfortable expressing their thoughts and feelings. In this section of the dissertation, the literature on spousal communication is explored, with a focus on patterns of communication, social support, and communication satisfaction.

Fitzpatrick and Indvik (1982) examined three main types of couples (traditional, separate, and independent) and their general patterns of marital communication. Traditional couples were defined as those who followed traditional

gender roles and who enjoyed doing things together. Separate couples, in contrast, also followed typical gender roles; however, separate couples seemed to be “emotionally divorced” from one another, with both individuals lacking an appropriate level of expressive communication. Finally, independent couples tended to be flexible in terms of their gender role adherence. These couples placed an emphasis on not only connecting with each other, but also on having personal autonomy. Fitzpatrick and Indvik also found that some couples were “mixed,” in which one spouse might be traditional, whereas the other might have a separate or independent orientation. One key finding from this research was that in cases in which wives were non-communicative with their husbands, the relationship between members of the dyad would suffer. This is because husbands are generally non-communicative and have difficulties expressing their feelings, and in cases in which a wife is *also* non-communicative, then neither member of the dyad is effective at establishing a meaningful dialogue. The researchers concluded that in order to maintain a strong relationship, couples need to be assertive in their communication and negotiate the instrumental and expressive aspects of their life together.

Social support has also been identified as an important key to effective communication in marriages, because it can serve to reduce stress. Cornwell (2012) examined patterns of communication among older adults (ages 57-85) and found that spousal support was essential to high quality communication, especially when there were frequent interactions between spouses. Social support in that study was defined as having “informational, instrumental, and especially emotional forms of support. These types of support enhance well-being because they facilitate coping and adaptation and therefore help buffer against the stresses of negative events” (Cornwell, 2012, p. 229). Cornwell

also found that couples who had frequent communication interactions were more likely to view their spouses as confidants. It was also found that by and large, older adults received an adequate amount of social support from their spouses. However, when needed, they can find additional external support from others, such as friends, family members, and co-workers. Indeed, the stress reduction function of social support can not only increase subjective well-being, but also, one's level of perceived happiness.

Allen, Baucom, Burnett, Epstein, and Rankin-Esquer (2001) examined spousal relationships among couples who had been remarried and compared them to individuals that were in their first marriage. The researchers found that couples in their second marriage were more likely to make shared decisions than couples who had not previously been remarried. It was also found that spouses tend to exhibit a similar degree of avoidance or withdrawal from their partners irrespective of whether they are in their first or second marriage.

Compared to non-married individuals, married individuals have been shown to have superior physical and psychological health, as long as the married couples are satisfied in their relationship (Robles & Kiecolt-Glaser, 2003). However, in cases in which the marriage is unstable, it can result in health problems for the couple. Robles and Kiecolt-Glaser pointed out that marital conflict is a natural part of marital distress, which can lead to psychological impacts such as depression. Marital conflict can also affect individuals' physical health by leading to cardiovascular disease, high blood pressure, and impaired endocrine and immune system functioning. These health concerns are important because having a healthy mind and body are essential to being able to effectively adapt to environmental changes.

As previously mentioned, spousal support is essential when it comes to maintaining a high-quality relationship, but the need for spousal support increases during times of distress. Hagedoorn, Dagan, Puterman, Hoff, Meijerink, DeLongis, and Sanderman (2011) conducted a couples study in the Netherlands in which they examined the impact of spousal support on relationship satisfaction among patients who have colorectal cancer. In cases in which social support was judged to be high for both members of the dyad, the quality of the relationship was also perceived to be high. Moreover, in high-quality relationships there was a greater likelihood of receiving spousal support when needed. However, among couples who did not have sufficient social support from their spouse prior to the cancer diagnosis, then following the diagnosis, spousal engagement was found to increase. Some cancer patients were also found to engage in what the researchers referred to as “spousal protective buffering,” which is an attempt to hide what the patient is thinking and feeling about the situation. Patients with high levels of spousal support were found to have lower levels of spousal protective buffering, which means that these couples tended to be more open with each other. Paradoxically, in cases in which a couple had a high level of spousal support prior to the cancer diagnosis, the quality of support remained high even if the healthy spouse was not particularly helpful when it came to managing the illness.

Couples have also been found to differ in terms of how they engage each other as a function of whether or not they have had a child together. Iafrate, Bertoni, Donato, and Finkenauer (2012) examined the way both young and mature couples cope with stress in their everyday lives (i.e., daily hassles). In this study, “mature” couples were operationally defined as those who had a child together, whereas “young” couples had

not. Participants were asked questions about dyadic coping and the quality of their relationships. Interestingly, younger couples saw themselves as being more similar to their spouses than mature couples. Moreover, mature couples were found to be more understanding with one another, whereas younger couples were found to hold more stereotypical beliefs about how partners should relate to one another in a marriage. The authors suggest that this difference may be due to younger couples wanting to conform to stereotypes associated with being a “husband” and a “wife.” These normative stereotypes can be particularly useful early in a relationship, when individuals are seeking to establish a sense of belonging with their significant other. As a relationship matures, however, and couples begin to learn about each other’s strengths and weaknesses, they begin to transition from stereotype understanding to partner-specific understanding (Iafrate et al., 2012).

Taken together, the findings from the above studies reveal a number of important points about couples’ communication. First, the work of Fitzpatrick and Indvik (1982) on different types of couples revealed that those spousal types communicated *differently* with one another. Second, social support was found to be a critical factor when it comes to communication. This was seen in the work of Cornwell (2012), who demonstrated that both spousal and non-spousal support increased one’s perceived levels of happiness. This was also seen in the work of Hagedoorn et al. (2011), who found that social support influenced communication in health situations in which one spouse had been diagnosed with cancer. Third, cases in which a relationship with a spouse is unstable can result in psychological or physical health problems, such as high blood pressure or cardiovascular disease (Robles & Kiecolt-Glaser, 2003). Finally, work by Iafrate et al. (2012)

demonstrated that young and mature couples differ in the way they approach communication in a relationship. Young couples are more likely to follow cultural standards regarding how one should act in a relationship (i.e., stereotypes), whereas mature couples' communication is more likely to reflect a higher degree of partner-specific understanding. In sum, the research above suggests that communication in the context of a close relationship is unique, and in certain ways different from more general patterns of communication.

In the following section of the document, the focus shifts to examine couples' collaboration and communication in the specific context of financial and retirement planning tasks.

Retirement Planning

As pointed out above, in numerous life domains couples have been shown to be quite collaborative in making decisions (Meegan & Berg, 2002). One important issue that has received little attention in the financial and retirement planning literature is how couples collaborate and communicate with one another when it comes to different types of planning tasks (e.g., organizing financial records, meeting with financial planners, and conducting long-range financial projections). The extant literature focuses primarily on the demographic and psychological characteristics of couples who plan for retirement. Work by Feldman and Beehr (2011), Szinovacz and DeViney (2000), and Hershey and Mowen (2000) have all discussed different facets of retirement planning between individuals. These studies and others are reviewed in the following paragraphs.

Using existing theories of individual decision making, Feldman and Beehr (2011) suggested that working adults go through three phases when making retirement decisions. The first phase is for the worker to imagine the future. Being future-oriented is a successful predictor of the likelihood of planning for retirement. Image theory (Beach, 1998; Beach & Mitchell, 1987) and social identity theory (Ashforth, 2001), both require individuals to imagine themselves in the future, and therefore, support this first point. The second phase in Feldman and Beehr's model was for the worker to assess aspects of the past. At this stage, the worker considers such things as the career choices he or she has made, how much has been saved previously, and the types of attitudes (i.e., beliefs) they have developed toward planning and saving. Life-course theory (Elder, 1998a), career stage theories (Super, 1990), disengagement theory (Atchley, 1977), and person-environment fit theory (Felman & Vogel, 2009) have all been used to support the existence of the "taking-stock" that occurs during this second phase. This is because each of these theories in some way focuses on how individuals view their careers and the choices they have made. The third phase of the Feldman and Beehr's model is for the worker to consider the timing of his or her retirement transition. At this stage, working adults try to determine the optimal time to exit the workforce by considering whether they can afford to retire and maintain their standard of living, taking into account the various push and pull factors (Shultz, Morton, & Weckerle, 1998) associated with the decision to either retire or stay in the workforce. Both economic theories (Modigliani & Brumberg, 1954) and motivational theories (Shultz et al., 1998) have been invoked to support the existence of this stage. Feldman and Beehr concluded that there needs to be more theoretically-driven research on retirement decision making. It has been empirically

established that couples attempt to retire together (Henkens, 1999; Henkens & van Solinge, 2002), but this work tends to be lacking when it comes to a strong psychological framework. What is needed are communication studies that examine the ways different types of couples collaborate to make workforce exit decisions, and the types of negotiations that take place as part of that process.

The following section of this review focuses on socio-demographic predictors of financial planning for retirement.

Socio-demographic Predictors of Planning

Socio-demographic predictors of retirement planning are informative because they help us to understand which types of individuals are likely to make forward-thinking personal financial decisions. One key predictor of the tendency to plan and save is household income. In numerous investigations, income has been shown to be linked to financial planning activities and retirement saving contributions (Adams & Rau, 2011; Grable & Lytton, 1997; Petkoska & Earl, 2009; Stawski, Hershey, Jacobs-Lawson, 2007). In part, this is due to having sufficient disposable income necessary to make long-range financial investments (Hershey, Jacobs-Lawson, and Austin, 2013).

Research has also shown that married couples are more likely to plan and save for retirement when both individuals are employed (Hopper, 1995). In recent decades, proportionally more women have joined the workforce, which on the one hand is positive because it gives them opportunities to plan and save independently from their husbands. However, from a decision-making perspective, dual-earner couples face unique challenges not faced by their single counterparts. Notably, they have to coordinate the types of planning and saving decisions they make. Whether one spouse serves as the

primary investment decision maker or both spouses share in the responsibility, it is important for couples to have a joint vision of how they will plan and save, and what their retirement is likely to look like. Hopper (1995) found that women who had higher levels of income and education were more likely to have a stronger influence in making retirement decisions compared to their lower income/education counterparts. Moreover, higher educated, high income spouses were more likely to have higher levels of involvement with major (non-retirement) financial decisions. These are important findings because both financial and non-financial decisions can be a significant source of conflict among couples.

Research has also shown that financial risk tolerance varies as a function of gender and marital status. Yao and Hanna (2005) found that men are more risk tolerant than women. Specifically, single men are more risk tolerant than married men and single women are more risk tolerant than married women. Furthermore, single individuals tend to be more risk tolerant than married couples. Yao and Hanna point out that these gender differences are important because women live longer than men, and thus, it is important to assume an appropriate level of risk in order to amass an appropriate nest egg. Yao and Hanna also suggest that women should learn more about making financial investments so that they can use that expertise to secure a sufficient pool of resources for retirement. Also with regard to marital status, it is important to recognize that single individuals have all of the control over their saving decisions (and thus, their level of risk exposure). However, married couples can potentially face conflicts in cases in which one spouse is more financially conservative than the other when it comes to investing.

Ryack (2011) discussed the impact financial education has on working adults' level of financial risk tolerance in families by examining differences in the risk profiles of parents and their college student children. In addition to examining age differences, Ryack also searched for gender effects. He found that irrespective of age, men had a higher financial risk tolerance than women, and male parents had a greater financial risk tolerance than their wives. It was also found that if college students were trained to be financially literate when growing up, they tended to be more risk tolerant as adults. This last finding suggests that financial lessons learned as a child can help to establish an appropriate level of risk tolerance later in life.

Other investigations have shown that married women were more likely to plan for retirement than women in a cohabitating relationship (cf., Mock & Cornelius, 2007). However, Pienta and Hayward (2002) found no difference in the likelihood of planning for retirement as a function of one's legal cohabitation status. Furthermore, married couples are more likely to save for retirement than single individuals (Yuh & Olson, 1997). One reason married or cohabitating women might be more likely to plan for retirement than single individuals is that the very act of being in a relationship might stimulate planning and saving behaviors via some form of social influence (Moen, Huang, Plassmann, & Dentinger, 2006). In support of this point, Moen et al. (2006) point out that this is especially true in cases in which the husband was already planning for the future at the time he became married.

Szinovacz and DeViney (2000) also examined marital characteristics and the extent to which they are related to couples' retirement decisions. Specifically, the investigators looked at how much couples had saved financially, and whether they had

discussed how long they should stay in the workforce (which depended largely on whether they had sufficient retirement funds). One finding from this study was that in cases in which husbands were older than their wives, they were more likely to postpone retirement until their wives were eligible for Social Security benefits. In contrast, wives more often postponed their retirement because they felt they had more to save in order to support themselves in their (relatively) longer lifespan. Szinovacz and DeViney (2000) also found that in cases in which wives got sick, their husbands would be more likely to retire sooner than planned. This situation often put couples in jeopardy of having insufficient savings for the entire (lengthened) retirement period. However, employed wives would not necessarily retire early to care for sick husbands, which the investigators suggest could be due to wives being more efficient at timesharing when simultaneously maintaining home, work, and caregiving responsibilities.

Based on the above review, it is clear that socio-demographic factors have an important impact on retirement planning tendencies. However, no published studies have appeared in the literature that have focused on collaborative cognition and communication in the area of retirement planning. In future investigations it would be particularly valuable to know which types of married individuals are most likely to collaborate with one another when it comes to planning for retirement. It would also be valuable to know which types of task-specific communication commonly takes place among spouses. Specifically, the following question could profitably be examined:

4. What demographic characteristics of married individuals (e.g., age, educational level, length of marriage) are related to the likelihood of engaging in collaborative cognition?

In the following section of this document, the focus shifts to examine the psychological predictors of retirement planning.

Psychological Predictors of Planning

A number of psychological individual difference dimensions have been shown to predict financial planning for retirement including one's level of: financial knowledge, future time perspective, risk tolerance, and financial goal clarity, among others.

Financial knowledge has been demonstrated to be a critical predictor of the quality of one's retirement decision making efforts (Hilgert, Hogarth, & Beverly, 2003; Howlett, Kees, Kemp, 2008; Kim, Kwon, & Anderson, 2005; Lusardi & Mitchell, 2007b). A study by Hershey, Walsh, Read, and Chulef (1990) compared two groups of individuals who differed in financial knowledge: novices and expert financial planners. Both groups completed the same task that involved making decisions about a hypothetical IRA investment. Hershey et al. found that expert participants completed the task with greater ease, they took less time to reach a decision, and they also used more goal-directed information search strategies. A similar study was also conducted by Hershey and Walsh (2000) with three groups of individuals: untrained college students, trained college students (novices who attended a financial training session), and expert financial planners. All participants were asked to individually make a series of six hypothetical retirement investment decisions. As expected, the quality of novices' investment decisions were not as good as those produced by members of the other two groups. However, the surprising finding was that the quality of the trained novices' decisions were *better* than the experts. The authors explained that novices tended to focus more on the data in the scenarios when generating their solutions, whereas the experts

tended to use heuristics (i.e., rules of thumb), developed over years of experience, to arrive at their decisions. These two studies provide clear examples of the way in which financial knowledge influences the quality of individuals' retirement planning decisions. Beyond decision quality, individuals who are more financially literate tend to have higher levels of investment knowledge, which has been associated with higher levels of savings behaviors (Grable & Lytton, 1997; Lusardi & Mitchell, 2007a) and retirement wealth (Behrman, Mitchell, Soo, & Bravo, 2010).

In other investigations, women have been shown have lower levels of financial knowledge than men (Almenberg & Säve-Söderbergh, 2011; Hershey, Jacobs-Lawson, & Austin, 2013; Lusardi & Mitchell, 2008; Shim, Xiao, Barber, & Lyons, 2009). The fact that women have been shown to have lower levels of financial literacy (Goldsmith, Goldsmith, & Heaney, 1997; Alexander, Jones, & Nigro, 1998), suggests that in the marital context they may choose to become reliant on their husbands to be the primary financial planner. Indeed, this pattern of involvement is consistent with a traditional household division of labor in which men manage finances (this is particularly true among older couples who exhibit more traditional sex-role behaviors). Another possible reason why men are more likely to be the primary financial planners in a household is because they exhibit higher levels of numeracy (the ability to perform basic mathematical calculations) than their wives (Smith, McArdle, & Willis, 2010). However, because married women tend to outlive their spouses, they have been found to increase their financial knowledge and skills late in marriage, in anticipation of the need to assume the role of "planner" during widowhood (Hsu, 2011).

Future time perspective is another psychological variable that has been shown to influence mental budgeting and household finance decisions (Antonides, Manon de Groot, & Raaij, 2011). In a study of retirement investing, Hershey and Mowen (2000) found that along with other psychological variables, one's future time perspective (envisioning the future) predicted the likelihood of one's financial preparedness for retirement. This finding was important because in order to be an effective personal financial planner, individuals needed to imagine where they see themselves in the future in order to develop a plan that met their needs. A similar study by Jacobs-Lawson and Hershey (2005) found that individuals with greater levels future time perspective "are associated with more aggressive saving profiles" (p. 338). Low levels of future time perspective, in contrast, were not predictive of engaging in saving behaviors.

Continuing with the theme of future time perspective, the Consideration of Future Consequences scale (Strathman, Gleicher, Boninger, & Edwards, 1994) was used in a study by Howlett, Kees, and Kemp (2008) to predict 401(k) plan enrollment. These authors found that future time perspective interacted with financial knowledge to determine the types of individuals who were (and were not) predisposed to invest in a workplace saving plan. Other work (Ellen, Wiener, & Fitzgerald, 2012) suggests that the ability to visualize one's future self (Markus & Nurius, 1986) has an effect on retirement preparedness. Ellen et al. reported that individuals who were able to describe detailed and vivid visions of future life were more likely to have engaged in financial planning activities for retirement. Thus, the ability to mentally extrapolate one's life trajectory appears to be linked to the tendency to engage in adaptive planning behaviors. The concept of future time perspective has also been linked to marital status, which has

implications for the retirement planning and savings context. Specifically, married individuals demonstrate a longer time perspective than single individuals, perhaps because they feel more connected to a shared future experience (Knoll, Tamborini, & Whitman, 2012). That enhanced time perspective could facilitate a higher level of involvement in financial and retirement planning activities.

Turning to a different psychological dimension, financial risk tolerance has been shown to be linked to the way in which individuals plan for retirement. Interestingly, people's level of risk tolerance has changed historically over recent decades, as a function of changes in the economic climate in the United States. Specifically, Yao, Hanna, and Lindamood (2004) studied risk tolerance levels between 1983 and 2001 and found that the "willingness to take some risk fell from 1983 to 1989, did not change from 1989 to 1992, increased in 1995, increased again in 1998, then decreased in 2001" (p. 249). The authors were able to link these fluctuations in personal levels of financial risk tolerance to economic boom times and minor recessions that took place over the roughly 20 year time frame. In terms of the present review, the important take-away message is that personal investment decisions are guided by individuals' predispositions to risk (i.e., risk tolerance; risk aversion), which in turn, are influenced by changes in the macro-economic climate. In a similar vein, Grable (2000) was able to show that individuals who were more positive about the economy had higher levels of risk tolerance than individuals who tended to be pessimistic. In that same investigation, married individuals were found to be more risk tolerant than single or divorced respondents.

From an individual investor perspective, one's level of risk tolerance is predictive of how aggressively one is likely to be when making retirement investments. Risk

tolerant individuals are more likely to invest in stocks and other high-risk investment vehicles, whereas risk averse individuals are more likely to invest in bonds and low-risk investment opportunities. Of particular relevance to this review, empirical studies have shown that women tend to be more financially risk averse than men (Gilliam, Goetz, & Hampton, 2008; Roszkowski & Grable, 2010). In fact, this sex-difference in risk even extends to financial professionals and wealthy private banking customers (Halko, Kaustia, & Alanko, 2012). This could mean that in the marital context, differences in the willingness to accept investment risk could become a key source of interpersonal conflict. One might expect harmony to dominate in situations in which both a husband and wife are either both risk averse, or both risk tolerant.

Goals are invaluable in providing individuals with a sense of motivation to reach desired outcomes (Austin & Vancouver, 1996). This is especially true when it comes to retirement planning. Stawski, et al. (2007) examined retirement goal clarity as a determinant of working adults' motivation to plan and save for retirement. The overall finding was that "savings contributions were well predicted by planning activities..., planning is adequately predicted on the basis of goal clarity and goal clarity is reasonably accounted for by age" (Stawski et al, 2007, p. 26). Similar findings regarding the importance of goals in retirement planning have been reached in a study of small business owners (McCullough, 2012). Thus, retirement goal clarity has been empirically implicated as a key component in the retirement planning process. Another study by Hershey, Brown, Jacobs-Lawson, and Jackson (2001) examined retirees' perceptions of important decisions made in preparation for retirement. It was found that 39.5% of retirees cited "financial issues" as the most important decision domain, followed by

health issues, and then work, career and employment issues. Other work by Duncan, Mitchell, and Morgan (1984) suggests that one can clarify (and thus, be better prepared to meet future) retirement goals by working with a financial professional. By doing so, the professional can help the investor to navigate difficult issues such as changes in investment and tax laws, and put in place strategies for investing in a volatile economic climate.

In looking at the research literature, what has yet to be identified is whether the psychological variables described above differ among couples who collaborate with one another and couples who are in a non-collaborative relationship. Thus, the following research questions are posed:

5. In cases in which there is a difference in financial literacy across spouses, is the more financially literate spouse more likely to serve as the primary financial planner? On a related note, among marriages in which spousal financial literacy levels are similar, do both members of the dyad share in the financial decision-making responsibilities?
6. Are married individuals who have similar levels of financial literacy (and future time perspective; risk tolerance; retirement goal clarity) more likely to collaborate with one another when it comes to retirement planning than couples who are dissimilar along those various dimensions?

Extent of Planning and Saving

Planning for retirement is a task many Americans have to do in order to achieve their ideal lifestyle. When it comes to financial planning for retirement, typical planning

activities include things such as: seeking out relevant financial information (books, brochures, internet), calculating one's net worth, estimating how much will be needed in retirement, and determining whether one's future streams of retirement income (pension, Social Security, personal savings) will be sufficient to meet one's future financial needs. An Employee Benefit Research Institute Issue Brief examined involvement in financial planning among working adults in preparation for retirement (Helman et al., 2013). An interesting finding was that "seven in ten (69 percent) indicated they did some type of financial planning for retirement" (Helman et al., 2013, p. 27). Another finding from that investigation was that only two percent of workers identified planning and saving for retirement as the most important problem adults face today. These were important findings if one hopes to understand whether couples are planning sufficiently for their future retirement needs.

American adults have been saving less than in previous years. According to the Retirement Confidence Survey (2013b), in 2013, 66 percent of workers were saving for retirement, which is less than in 2009 when 75 percent of Americans were saving. That same study also revealed that the decrease in saving was primarily in households where the income was below \$35,000. Also, younger to middle-aged adults in the 25-44 year old demographic were less likely to save for retirement than workers in that same age range ten years ago. Working adults in the 45+ demographic have remained steady over the past ten years in terms of their saving for retirement (Retirement Confidence Survey, 2013a). Yet overall, personal saving rates for all purposes (including retirement) have been steadily declining since 1975, when individuals were saving about 12.5 percent of their take-home pay. By 2014, that number had dropped to just over 4 percent (Federal

Reserve Bank, 2014). It remains to be seen whether couples who collaborate with one another in planning for retirement save more (or less) than spouses who approach the task independently.

The perceived importance of planning and saving for retirement lead many to become anxious and worried about having sufficient financial resources in old age. Individuals who worry about retirement finances are less likely to have saved for the post-employment period (Neukam and Hershey, 2003). A different study (Hayhoe, Cho, DeVaney, Worthy, Kim, Gorham, 2012) demonstrated that anxious individuals tended to engage in fewer financial management behaviors than their non-anxious counterparts. A more applied article (Gutierrez, Hershey, & Gerrans, 2011) suggested that concerns about retirement planning were not just limited to how much one has saved, but they also extended to the act of seeking out financial planning assistance. Gutierrez et al. found that a substantial percentage of working adults have had anxieties about engaging a financial advisor based on concerns associated with disclosing sensitive financial information, or concerns linked to the advisor negatively evaluating the client for not having saved enough. Indeed, when it comes to financial planning for retirement there seems to be no shortage of fears, worries, concerns, or issues that might lead one to become anxious.

In light of the research outlined above, the following empirical questions involving couples and the extent of planning and saving can be posed:

7. Is there a difference in the amount of retirement-related financial planning activities that are engaged in by collaborative and non-collaborative married individuals?

8. Is there a difference among collaborative and non-collaborative married individuals in the amount they contribute annually to a retirement savings plan?
9. Is there a difference among collaborative and non-collaborative couples in how worried they are about adequately financing their retirement?

Present Study

In the present study, a sample of married individuals were administered a questionnaire to examine their policies and practices when it comes to retirement planning activities with their spouse. Individuals were queried about not only their financial planning behaviors, but also their general patterns of communication and collaboration. Moreover, they were administered psychological questions related to their future time perspective, risk tolerance, and financial knowledge. Finally, they were asked to complete a list of demographic questions.

The set of hypotheses listed below are formulated in relation to collaborative cognition in the context of retirement planning. These hypotheses are grouped into three different sets. The first examines the incidence of retirement planning collaboration among married individuals. The second set examines the factors that determine whether members of a dyad are likely to collaborate with one another (i.e., the antecedents to collaborative planning). Finally, the third set of hypotheses focus on the outcomes associated with engaging in collaborative cognition when planning for retirement.

The Incidence of Collaborative Cognition

1. The first research question (**H1**) sought to determine the percentage of study respondents who reported collaborating with their spouse on retirement-based financial planning tasks, and the percentage who reported that they or their spouse was the primary financial planner for their family. This first hypothesis will determine whether the proportion of collaborators/non-collaborators differs from .50, which will be evaluated using a chi-square test. Subsequent to this, respondents who indicate their spouse is the primary planner will be dropped from all analyses, leaving respondents who indicated they were themselves the primary planner or they were in a collaborative planning relationship. This distinction will form the basis for the two primary groups used in this investigation, which is a variable that will hereafter be referred to as CNC (i.e., collaborative/non-collaborative).

Antecedents of Collaborative Cognition

In order to assess the variables that are antecedents of collaborating with one's spouse, a hierarchical binary logistic regression model will be computed. Respondents' collaborative/non-collaborative (CNC) status will serve as the criterion, and eleven different demographic and psychological variables will serve as covariates. Four demographic indicators will be entered into the model on the first step, and seven psychological indicators will be added to the model in step two. In evaluating the model the overall chi-square statistic will be considered, in addition to the Nagelkerke *R*-

squared value and odds ratios for covariates. The rationale for the different covariates in the model is found in the bullet points below.

- It will first be determined whether four demographic variables—age, educational level, length of marriage, and respondent’s income—are related to the tendency to collaborate with one’s spouse on financial and retirement planning tasks. In previous investigations, all four of these indicators have been shown to be predictive of retirement planning tendencies, which is why they are being included in the first step of this analysis. These four covariates in the model represent **H2**, **H3**, **H4**, and **H5**.
- On the basis of the arguments contained in the review article on collaborative cognition by Meegan and Berg (2002), it is predicted that individuals who collaborate with their spouses on everyday decisions—as measured using two subscales of the Perceptions of Collaboration Questionnaire (PCQ Berg et al., 2006)—will also collaborate with one another when it comes to making long-term retirement planning decisions. **H6** will use a 4-item subscale designed to measure the extent to which one’s spouse hinders the respondent when making every day decisions. **H7**, in contrast, will use a 3-item subscale that taps the extent to which one’s spouse complements the individual when making every day decisions. An odds ratio that is less than one is expected for the “spouse hinders me” subscale covariate, and an odds ratio of more than one is expected for the “spouse complements me” subscale covariate. This implies that having a complementary spouse will be positively related to collaboration and having a hindering spouse will be negatively related to collaboration.

- On the basis of the arguments advanced by Strough and Margrett (2002) regarding “shared minds” and collaborative cognition, it is expected that married individuals who are more satisfied with their marriage—based on scores on the 4-item Couples’ Satisfaction Index (CSI; Funk & Rogge, 2008)—will be more likely to collaborate with one another when it comes to financial planning for retirement (**H8**).

Therefore, on the basis of a binary logistic regression analysis that uses CNC as the criterion, it is expected that a significant odds ratio greater than one will be observed, which would mean that a one unit increase in CSI (marital satisfaction) would be associated with an increase in the likelihood of collaborating with one’s spouse.

- It is unclear whether respondents who have high levels of self-rated financial knowledge (**H9**), future time perspective (**H10**), financial risk tolerance (**H11**), and retirement goal clarity (**H12**) will be more or less likely to be retirement planning collaborators (as measured by CNC) relative to individuals with low values on these four dimensions. This is because there is no existing literature to suggest whether or not these variables will be positively or negatively related to individuals’ collaboration status. Therefore, no *a priori* directional predictions are made regarding these four psychological measures. These four hypotheses will also be tested using a binary logistic regression model with CNC serving as the criterion.

Hypotheses Involving Outcomes Associated with Collaborative Cognition

In addition to examining the antecedents of collaboration, it is important to look at various outcomes associated with having collaborated with one's spouse. Toward this end, the following thirteen hypotheses will be tested.

- Based on the assumption that collaborating with one's spouse will facilitate action, it is expected that individuals who collaborate (as measured by CNC) will have engaged in more retirement planning tasks than individuals who do not collaborate with their spouses (**H13**). Planning task involvement will be assessed using a measure that taps involvement in seven different planning domains including: health, financial, social, housing, estate planning, leisure and recreation, and post-retirement employment. This measure, which was developed specifically for this dissertation and is hereafter referred to as Retirement Planning Involvement (RPI), asked respondents to indicate whether they had or had not engaged in planning in each of the seven domains. It is predicted that mean scores from an independent samples *t*-test will reveal that collaborators have engaged in more planning dimensions than non-collaborators.
- Based on the assumption that collaborating with one another will facilitate communication about planning (**H14**), it is expected that relative to non-collaborative individuals, collaborative individuals (as measured by CNC) will more frequently discuss their financial plans for retirement with their spouse (as measured by a single-item indicator with seven communication frequency options from "never" to "daily"). An independent samples *t*-test will be used to evaluate group differences in the frequency of planning communication.

- Research has shown that marital satisfaction and high quality communication is associated with low levels of marital conflict (Geff & de Bruyne, 2000; Butzer & Kuiper, 2008). On that basis, it is expected that individuals who collaborate with one another on retirement planning tasks (**H15**), who have high levels of marital satisfaction (**H16**), high levels of shared goals and values (**H17**), and high quality communication about retirement (**H18**) will experience low levels of interpersonal retirement planning conflict. For these hypotheses, interpersonal retirement planning conflict scores (as measured using the Retirement Communication Conflict Scale; RCCS) will be regressed on CNC, scores on the Couples Satisfaction Index (Funk & Rogge, 2007), the Shared Goals and Values scale (Archuleta 2008), and scores from a newly developed 4-item Spousal Communication about Retirement (SCR) scale. A multiple regression analysis will be used to test these hypotheses; an inverse relationship is expected between the predictors and the criterion resulting in negative beta coefficients.
- Based on the findings from Hershey, Henkens, and Van Dalen (2010), which demonstrated that social support from one's spouse was indirectly related to financial planning activities, it is predicted that individuals who collaborate with their spouse (as measured by CNC) will have higher scores on the Stawski et al. (2007) Financial Planning Activity scale than individuals who do not plan collaboratively for retirement (**H19**). An independent samples *t*-test will be used to evaluate this hypothesis.
- The next test will evaluate whether collaborators (as measured by CNC) contribute more of their discretionary household income to a retirement saving plan than non-

collaborators (**H20**). As there are no a priori findings to suggest one group would be saving more than the other, this hypothesis will be tested using a two-tailed independent groups *t*-test.

- A recent industry report (Voya Retirement Research Institute, 2014) revealed that married individuals are more confident in their financially-based retirement plans than single or divorced individuals. On that basis one might expect that those who plan for retirement alone would be more worried about achieving their financial goals and expectations. Therefore, it is predicted that collaborative individuals (as measured by CNC) will be less worried about adequately financing their retirement (as measured by a single-item financial worry indicator) than non-collaborative individuals (**H21**). One reason this might be the case is that sharing task responsibilities with another is likely to enhance one's level of self-assurance, while at the same time diminishing psychological worry. A one-tailed independent samples *t*-test will be used to assess this prediction.
- One retirement investigation revealed that making decisions with one's spouse facilitates planning and the formation of expectations about retirement (Pienta, & Hayward, 2002). On that basis, it is hypothesized that collaborators (as measured by CNC) will have lower levels of retirement-related metacognitive difficulties compared to non-collaborators (**H22**). The Gutierrez & Hershey (2012) metacognitive difficulty construct is designed to assess cognitive difficulties individuals have in thinking about planning for retirement. A directional independent samples *t*-test will be used to test this hypothesis.

- One of the scales administered to respondents included questions drawn from the Personal Report of Communication Apprehension measure developed by McCroskey (1982). It was posited that married individuals who are apprehensive with their spouse about communication issues will be less likely to collaborate on retirement issues (**H23**). Therefore, a directional *t*-test will be calculated in which the mean score for collaborators (as measured by CNC) is predicted to be larger than the mean for non-collaborators.
- The next hypothesis will explore whether collaborators' expectations of quality of life in retirement is superior to the expectations of non-collaborators (**H24**). It is speculatively hypothesized that this might be the case given that collaborating with another would likely lead to a shared vision of retirement, and that shared perspective, in turn, would more easily be envisioned. Therefore, a directional *t*-test will be used to assess this prediction using the Gutierrez and Hershey (2014) Satisfaction with Life in Retirement scale as the dependent variable. It is expected that the mean score for anticipated future quality of life will be significantly higher for collaborators.
- The final hypothesis will examine whether collaborators' shared goals and values about retirement are superior to those of non-collaborators (**H25**). Based on a literature that has shown collaboration among parties leads to the strengthening of superordinate goals (Sherif, Harvey, White, Hood, & Sherif, 1961) and goal commitment (Austin & Vancouver, 1996), then it is hypothesized that scores on the Archuleta (2007) Shared Goals and Values scale will be higher for collaborators than non-collaborators.

CHAPTER II

METHOD

Pilot Investigation

A pilot investigation ($N = 59$) was conducted that included a sample of married individuals who live in the North Central Oklahoma region. For this study, convenience sampling procedures were used and all participants were within the age range of the proposed dissertation project. All scales and measures were found to be understandable by respondents, and scores on the various measures were found to be within the range of what would ordinarily be expected.

Interestingly, the percentage of individuals who reported collaborating with their spouse was 61.0%. In contrast, 16.9% of respondents reported they were the primary financial planner for their family. The remaining 22.1% of respondents indicated that: (i) their spouse was the primary planner, (ii) they planned for retirement separately from their spouse, or (iii) the couple had yet to begin planning for retirement. These latter three groups of respondents, however, were of no interest in this investigation as the focus of the study is exclusively on (i) married individuals who collaborate with one another (as a group, referred to as *collaborators*), and (ii) married individuals who are the primary family financial planner (as a group, referred to as *non-collaborators*).

Power Analysis and Recruiting Strategy

Participants in this investigation were married, 25 to 60 year-old non-retired adults.

Inclusionary criteria for the project specified that participants must have been married for at least one year, under the assumption that during that period of time the couple will have developed a consistent policy regarding who would deal with retirement finances (i.e., the husband, the wife, or both partners). Although participants had to have been married to participate in the study, only one spouse from the marriage was eligible to complete the study. In order to ensure a sufficient sample size, a power analysis for planned comparisons was carried out using the *G*Power* program (v. 3.1, Erdfelder, Faul, & Buchner, 1996). The analysis specified a medium effect size ($d = .30$), $\alpha = .05$, and power = .85. The resulting computation revealed that 201 participants would be needed for each of the two groups (collaborators/non-collaborators), or 402 individuals in total. To ensure a subgroup analysis could be carried out (say, looking at differences in collaborators vs. non-collaborators as a function of age or gender), an oversampling margin of 50 percent was decided upon. Therefore, the minimum target sample size was determined to be 603 individuals.

Sample recruiting for this study took place using the Amazon Mechanical Turk (MTurk) crowdsourcing website and data collection was carried out using the Qualtrics questionnaire presentation software (Qualtrics, 2014). Over the past ten years MTurk has become an increasingly popular data collection tool among social scientists due, in part, to the large potential pool of American respondents (500,000+ individuals), and the low cost and great speed with which data can be collected (Marvit, 2014). Moreover, recent work has shown that the pool of MTurk workers (called “Turkers”), while not altogether

representative of the U.S. adult population, is superior to student samples and data collected using convenience sampling procedures (Berinsky, Huber, & Lenz, 2010). Relative to the population of American adults, MTurk samples tend to be somewhat younger, more heavily male, they have lower incomes, and they are somewhat more highly educated (Richey & Taylor, 2012). However, for the purposes of the proposed research these small demographic deviations should not present problems given that a reasonable number of individuals in the targeted demographic are likely to be identified.

Participants

Participants in the study were 807 adults (394 men; 413 women) and the average age of respondents was 40.64 years ($SD = 10.41$; min. = 25; max. = 60). The sample was predominantly Caucasian (81.4%), which reflects the representation of this race in the United States. For further details on participants' demographic characteristics, see Table 1. Only gender was found to covary with collaborator/non-collaborator status, with more males found among non-collaborators than collaborators ($p < .05$). Additional tests revealed that all other demographic dimensions failed to co-vary with collaborator/non-collaborator status.

In terms of an incentive for participation, each participant was compensated \$0.50 for his or her time, which is slightly more than the average payment made to a Turker (\$1.38/hour is the median MTurk rate; Horton & Chilton, 2010). Participants were offered somewhat more than the average payment as a way of attracting older individuals to the study, as their data is somewhat more difficult to obtain. Most individuals completed the survey within 15-20 minutes.

Table 1

Percentages, Mean Scores, and Standard Deviations (in parentheses) for the Demographic Characteristics of Collaborators, Non-Collaborators, and Members of the Full Sample

Demographic Variable	Non-Collaborators (<i>n</i> = 210)	Collaborators (<i>n</i> = 472)	All Participants (<i>N</i> = 682)
Age	<i>M</i> = 41.46 (10.36)	<i>M</i> = 40.58 (10.53)	<i>M</i> = 40.85 (10.48)
Gender			
Male	60.5%	47.5%	48.5%
Female	39.5%	52.5%	51.5%
Educational Level (in years)	<i>M</i> = 15.32 (2.08)	<i>M</i> = 15.20 (2.05)	<i>M</i> = 15.17 (2.06)
Less than 12 years	1.0%	0.4%	0.6%
High school or equivalent	5.7%	10.08%	9.2%
Some College	22.9%	18.4%	19.8%
Associates Degree	7.1%	13.6%	11.6%
B.A. or B.S. Degree	45.2%	38.3%	40.5%
M.A. or M.S. Degree	14.3%	16.1%	15.5%
Ph.D. or M.D. Degree	3.8%	1.7%	2.3%
Other	0.0%	0.6%	0.4%
Race			
African American	6.7%	7.0%	6.9%
American Indian/Alaska Native	1.9%	0.4%	0.9%
Asian	5.7%	5.7%	5.7%
Caucasian	80.0%	81.8%	81.2%
Multiracial	3.3%	2.3%	2.6%
Other	2.4%	2.8%	2.6%
Ethnicity			
Hispanic or Latino	9.5%	6.6%	7.5%

(continued)

Demographic Variable	Non-Collaborators (<i>n</i> = 210)	Collaborators (<i>n</i> = 472)	All Participants (<i>N</i> = 682)
Number of Dependents	<i>M</i> = 1.27 (1.70)	<i>M</i> = 1.10 (1.28)	<i>M</i> = 1.15 (1.42)
Number of Years Married	<i>M</i> = 11.09 (9.62)	<i>M</i> = 11.83 (10.06)	<i>M</i> = 11.60 (9.92)

Procedure

In order to participate in the study, individuals must have been pre-registered with Amazon Mechanical Turk. The study was advertised on the MTurk website under the title “A Survey about Retirement Planning.” Turkers who were interested in completing the survey were directed to a link on the Qualtrics online survey website. Before beginning, participants were asked three screening questions (about their age, retirement status, and marital status) to ensure they were eligible to participate in the investigation. If they did not meet the inclusionary criteria, they were not able to take the survey and were redirected back to the Amazon Mechanical Turk homepage. If their answers to all three questions met inclusionary criteria, then they were eligible to complete the survey and they were directed to the informed consent page (see Appendix A). Once consent was provided, participants completed the survey (see Appendix B). When they finished the set of questions they were led to the debriefing (see Appendix C). Each respondent received his or her \$0.50 compensation in the form of Amazon.com credit.

In order to ensure participants were attending to the questions and responding in a mindful and serious fashion, eight validity check items were embedded in the questionnaire. If a participant missed four or more of the validity items their data were excluded from the study and they were not paid for their time. As a further check on the quality of responding, the amount of time it took for participants to complete the survey was considered. If participants took less than eight minutes to complete the questionnaire, then their data would be excluded from the dataset. However, no participants were found to have taken fewer than eight minutes to complete the measure, therefore, none were removed from the investigation on the basis of time.

The data were collected from MTurk in three separate batches over a three week period. The first batch involved collecting data from 600 participants. Twenty-two individuals were removed from the sample because they either entered invalid payment confirmation codes or they failed to correctly answer the validity items. This left a valid sample of 578. Frequencies were computed to ensure there was an equal distribution of men and women and the age distribution covered the desired age range. Based on these analyses it was determined that more men and individuals in the 44-60 age range were needed. The remaining two samples included 236 additional respondents who were selected specifically for their age and gender characteristics. Seven of these individuals were removed from the study due to a failure to adequately answer the validity check items. Thus, the final sample included 807 individuals, which is well above the calculated N_{\min} of 603 participants that were needed, as determined by the *a priori* power analysis.

List of Scales and Measures

Collaborating/Non-Collaborating Couple Status (CNC). One critical measure in this study was whether individuals classified themselves as collaborators or non-collaborators when it comes to planning for retirement with one's spouse. Toward this end, respondents were asked to indicate whether: (i) they were the primary financial planner in their family, (ii) both spouses were co-planners, (iii) their spouse was the primary financial planner, (iv) the spouses both planned individually for retirement, or (v) they had yet to begin planning for retirement. Importantly, only those who indicated their planning status as group 1 (primary solo planner) or group 2 (collaborative planner) were of interest in the present investigation. Those who indicated they were primary solo

planners are to as *non-collaborative couples*; those who indicated they shared planning responsibilities are referred to as *collaborative couples*.

Perceptions of Collaboration Questionnaire. This 12-item scale was developed by Berg et al. (2006). Responses to items on this questionnaire are made using a 5-point Likert-type format (1 = Strongly Disagree, 5 = Strongly Agree). The reliability for this scale was not previously disclosed by the authors, however, when the internal consistency reliability was tested in the present investigation it was found to be quite low. In fact, a confirmatory factor analysis suggested that five of the twelve items should be eliminated. A subsequent factor analysis of the remaining seven items revealed that they formed two different independent factors: one 4-item subscale that measured the extent to which “one’s spouse hinders his/her partner” (e.g., “*My spouse and I avoid working together as it brings conflict to our marriage*”) and a second 3-item subscale that measured the extent to which “one’s spouse complements his/her partner” (e.g., “*I make better decisions when my spouse and I work together*”). Higher scores on each of the subscales reflect greater levels of spousal hindrance or spousal complement, respectively. The Cronbach’s alpha for the hindrance subscale was 0.77 and the alpha for the complement subscale was right at threshold at 0.69. Note that all scales and measures are shown in Appendix D.

Couples Satisfaction Index (CSI-4). This short 4-item scale was introduced in Funk and Rogge’s (2008) article that examined a broader pool of 32 items designed to tap marital satisfaction. The 4-item scale, which Funk and Rogge found to have adequate psychometric properties, uses a 5-point Likert-type response format (1 = Strongly Disagree, 5 = Strongly Agree). A sample item is: *I have a warm and comfortable relationship with my partner*. In this investigation, the coefficient alpha for this scale was

found to be 0.97. Higher scores suggest respondents are more satisfied with the quality of their relationship.

Self-rated Financial Knowledge. This 3-item scale has previously been used in studies by Jacobs-Lawson and Hershey (2005) and Hershey et al. (2007). It is a self-rating of how much the respondent knows about financial planning and saving for retirement. A sample item from this scale is: *I know a great deal about financial planning for retirement.* This scale uses a 5-point (1 = Strongly Disagree, 5 = Strongly Agree) Likert-type response format and it has been shown to be predictive of individuals' retirement saving efforts. In this study, the coefficient alpha value for this scale was 0.87. Higher scores on the scale indicate individuals have higher levels of self-rated financial knowledge.

Future Time Perspective. This 5-item scale was previously used in the Gerrans and Hershey (2013) and Kopusko and Hershey (2014) investigations. The scale examines the extent to which individuals have a present or future orientation to time. Responses are made using a 5-point Likert-type format (1 = Strongly Disagree, 5 = Strongly Agree). A sample statement from the measure is: *I enjoy thinking about how I will live years from now in the future.* In previous investigations, this scale has been shown to be predictive of individuals' retirement goals and financial knowledge. In the present investigation the coefficient alpha for this measure was found to be 0.85. Higher scores suggest individuals are more future oriented; lower scores indicate a present orientation.

Financial Risk Tolerance. This 4-item scale was developed by Jacobs-Lawson and Hershey (2005). It is designed to measure participants' preferred level of risk when it comes to investing for retirement. It too used a 5-point (1 = Strongly Disagree, 5 =

Strongly Agree) Likert-type response format. A sample statement from this scale is: *I am willing to risk financial losses*. In previous research, this scale has been shown to be predictive of how aggressively individuals save for retirement. The coefficient alpha value for this scale was 0.84. Higher scores indicate individuals are more likely tolerate financial risk when making financial planning and investment decisions.

Retirement Goal Clarity. This 5-item scale developed by Stawski et al. (2007) is designed to examine the extent to which people think about and set savings goals for retirement. The scale used a 5-point Likert-type format (1 = Strongly Disagree, 5 = Strongly Agree) and a sample item from the measure is: *I set clear goals for gaining information about retirement*. Stawski et al. (2007) demonstrated that having clear goals can motivate working adults to plan and save for the future. In this study the scale was found have a coefficient alpha value of 0.85; high scores suggest respondents have clear goals for retirement.

Retirement Planning Involvement (RPI). This measure is designed to tap respondent involvement in seven different planning domains (health, financial, social, housing, estate planning, leisure and recreation, and post-retirement employment). The measure includes seven items, each of which is scored dichotomously indicating involvement or not. Thus, the minimum score of zero indicates no planning involvement and the maximum score of 7 indicates planning involvement in all seven domains. The internal consistency reliability for this measure using the Kuder-Richardson 20 statistic was 0.64.

Frequency of Planning Communication. This single-item indicator was developed specifically for this investigation. Respondents were asked “*How often do you*

talk with your spouse about your financial plans for retirement?” The following seven response options were provided: 0 = Never, 1 = Once every few years, 2 = Once a year, 3 = Twice a year, 4 = Monthly, 5 = Weekly, 6 = Daily. Thus, the minimum possible score is zero and the maximum score is 6, with larger scores reflecting more frequent retirement communication.

Retirement Communication Conflict Scale (RCCS). This single-item indicator was developed specifically for this investigation. Respondents were asked the following question: *“Please describe the nature of your communication with your spouse when you discuss issues related to financial planning for retirement.”* Five response options were provided which were as follows: 0 = We NEVER agree with one another when it comes to financial planning decisions, 1 = We RARELY agree with one another when it comes to financial planning decisions, 2 = We SOMETIMES agree with one another, but we also frequently disagree, 3 = We USUALLY agree with one another and have similar perspectives, and 4 = We ALWAYS agree with one another and have perspectives that are similar (Caps contained in original for emphasis).

Shared Goals and Values. This 4-item scale was introduced into the literature in a dissertation by Archuleta (2008). It was designed to assess the extent to which couples agree on issues related to their future financial goals and values. Responses are made using a 5-point (1 = Strongly Disagree, 5 = Strongly Agree) Likert-type format. A sample item from this scale is: *We have similar financial goals.* The internal consistency reliability for this scale is well above threshold ($\alpha = 0.87$). Higher scores on this measure are indicative of greater agreement in financial goals and values.

Satisfaction with Spousal Communication about Retirement. This 4-item scale was developed specifically for this investigation. It is designed to tap the extent to which married individuals are satisfied with their spousal communications about retirement planning issues. This scale uses a 5-point (1 = Strongly Disagree, 5 = Strongly Agree) Likert-type format. A sample item from this scale is: *I am comfortable voicing my opinions with my spouse about our goals for retirement.* The internal constancy reliability is 0.85. Higher scores on this measure indicate higher levels of satisfaction regarding communication about retirement planning.

Financial Planning Activity Scale. This 6-item scale is derived from Stawski et al. (2007). It focuses on the extent to which people prepare for retirement by seeking out information on investing and engaging in instrumental planning activities (e.g., calculating one's net worth). Responses are made using a 5-point Likert-type format (1 = Strongly Disagree, 5 = Strongly Agree). A sample item is: *I have tuned into television or radio shows on investing or financial planning.* This scale has previously been shown to be predictive of retirement savings behaviors; in the present study it was found to have a coefficient alpha value of 0.84. Higher scores on this scale indicates participants are more highly engaged in various financial planning activities.

Retirement Saving Contributions. Each respondent was asked to indicate the percentage of his or her annual household income that was allocated to a retirement saving plan during the past twelve months (not including Social Security taxes). Twelve response options were provided from a score of 0 (no contributions during the past year) through 11 (contributions of more than 25%).

Retirement Savings Worry. This single-item indicator was used to assess the extent to which respondents had concerns about their financial future after leaving the workforce. Specifically, the item read “*How worried are you about adequately financing your retirement?*” The five response options for this item ranged from a score of 0 (not at all worried) to 4 (extremely worried).

Retirement Metacognition. This recently developed 5-item scale was introduced into the literature by Gutierrez and Hershey (2012). It is designed to assess the extent to which individuals have difficulties in thinking about issues related to financial planning for retirement. It uses a 5-point (1 = Strongly Disagree, 5= Strongly Agree) Likert-type response format, and a sample item is: *I find that I often postpone thinking about financial planning for retirement.* Internal consistency reliability for this scale in the present study was 0.90. Higher scores indicate more difficulties related to thinking about retirement.

Personal Report of Communication Apprehension Short Form (PRCA-Short). Four items designed to tap communication apprehension were drawn from the widely used twenty-four-item PRCA scale (McCroskey, 1982). Furthermore, each of the four items was modified in order to apply to one’s spouse. The four items selected included questions 14, 15, 16, and 17 from the original scale. A sample item from the original scale was: *I have no fear of speaking up in conversations.* The revised form of the item was: *I have no fear of speaking up in conversations with my spouse.* Responses were made using a 5-point Likert-type response format (1 = Strongly Disagree, 5 = Strongly Agree), and the coefficient alpha value for the short form measure used in this

study was 0.73. Higher scores on this scale suggest individuals have lower levels of apprehension about communicating with their spouse.

Satisfaction with Life in Retirement. The 4-item satisfaction with life in retirement scale was recently developed by Gutierrez and Hershey (2014). It is based on the well-known satisfaction with life measure published by Diener, Emmons, Larsen, and Griffin (1985). It is designed to examine participants' anticipated future quality of life after leaving the workforce. This scale uses a 5-point (1 = Strongly Disagree, 5 = Strongly Agree) Likert-type response format. A sample item is: *I expect that in retirement my life will be close to ideal.* In this study, the coefficient alpha value for the scale was 0.88; high scores indicate individuals anticipate being more satisfied with life once they are retired.

Socio-demographic Questions. After participants completed the series of scales and collaborative cognition measures, they were asked to complete a number of demographic questions including: age, educational level, length of marriage, respondent income level, gender, occupation, household income, race, ethnic background, number of children, number of dependents, and health status. Spousal information was also collected for certain demographic items (e.g., age, educational level, income, race, and ethnicity).

Validity Items. In addition to the various scales and measures described above, eight validity items were embedded in the questionnaire. These items were drawn from (Lynam et al., 2011) and they were designed to identify participants who were either being inattentive or who were engaging in position preference scoring. A sample validity item is "*I frequently forget my middle name.*" Participants who were found to have failed

four or more of these items ($n = 29$; 3.4% of the full sample) were excluded from the investigation.

CHAPTER III

RESULTS

Once the data were collected, data transfer procedures commenced (from Qualtrics to an SPSS dataset). Frequency distributions were then generated and descriptive statistics were computed for each variable. Variables were checked to ensure that their distributional characteristics were reasonable, and to make sure that there were no outliers or distributional properties (e.g., skew, kurtosis) that would violate the basic assumptions of general linear model level statistics. Internal consistency reliabilities (Cronbach's alphas) were checked for each scale in the study, and confirmatory factor analyses were computed individually for each scale. The means, standard deviations, and degree of internal consistency reliability for all scales and measures were found to be above threshold (See Table 2).

Hypotheses Testing

Incidence and Determinants of Collaborative Cognition

The first research question was formulated to determine the proportion of collaborating and non-collaborating couples in the investigation. Again, this measure was

Table 2

Psychometric Properties of the Scales and Measures used in the Investigation.

Scale/Measure	Number of Items	<i>M</i>	<i>SD</i>	α
Collaborating/Non-Collaborating Couple	1	0.69	0.46	N/A
Perceptions of Collaboration Questionnaire (PCQ) Hinder	4	2.18	0.82	.77
Perceptions of Collaboration Questionnaire (PCQ) Complement	3	3.73	0.78	.69
Couples Satisfaction Inventory	4	4.86	1.16	.97
Self-rated Financial Knowledge	3	3.11	0.95	.87
Future Time Perspective	5	3.79	0.90	.85
Financial Risk Tolerance	4	2.81	0.90	.84
Retirement Goal Clarity	5	3.56	0.78	.85
Retirement Planning Involvement (RPI)	7	3.99	1.81	.64
Frequency of Planning Communication	1	4.11	1.31	N/A
Retirement Communication Conflict Scale (RCCS)	1	2.16	0.69	N/A
Shared Goals and Values	4	4.02	0.72	.87
Satisfaction with Spousal Communication about Retirement	4	3.92	0.75	.85
Financial Planning Activities	6	3.50	0.83	.84
Retirement Saving Contributions	1	5.12	3.03	N/A
Retirement Savings Worry	1	2.89	1.22	N/A
Retirement Metacognition	5	2.74	0.98	.90
Personal Report of Communication Apprehension (PRCA)	4	4.25	0.73	.83
Satisfaction with Life in Retirement	4	3.28	0.80	.88

based on participants' response to a question querying them as to how they planned for retirement with their spouse. The data revealed that spousal collaboration in the area of retirement planning is quite common. In fact, data from the entire sample ($N = 807$) revealed that over half of married individuals (58.5%) reported collaborating with their partner on financial planning for retirement. The next most common arrangement was one partner (either the respondent or his/her spouse) taking primary responsibility for planning (33.0%), followed by couples who each plan but do so separately (6.2%), and couples who have yet to begin planning (2.4%). To test hypothesis one, the goal was to determine whether there was a difference in the percentage of individuals who were in a collaborative relationship and those in which one spouse (or the other) was the primary planner. Thus, respondents who both planned independently and who had not yet begun planning were dropped from this analysis. A chi-square test revealed that the difference in proportions associated with collaborative planners (58.5%) and non-collaborative planners (33.0%) was statistically significant, $\chi^2(1) = 57.50, p < .001$. This finding suggests that a clear preponderance of non-retired married Americans prefer to collaborate with their partner when planning for retirement.

For the purposes of testing all remaining hypotheses, the subgroup of primary planners was restricted only to respondents who indicated that they themselves made all financial planning decisions. This reduced the sample from 807 individuals down to 682 valid respondents. Of these 682, 69.2% ($n = 472$) indicated they were collaborative coplanners with their spouse; the remaining 30.8% ($n = 210$) indicated that they were the primary family financial planner (referred to as non-collaborators).

Antecedents of Collaborative Cognition

In order to evaluate hypotheses 2-12 a hierarchical binary logistic regression model was computed. Respondents' collaborative/non-collaborative (CNC) status served as the criterion, and eleven demographic and psychological variables served as the covariates. In the first step, four demographic factors were entered into the model, and the seven psychological factors followed suit in the second step.

The initial step in the model was statistically significant, $\chi^2(4) = 18.10, p = .001$. The Nagelkerke R^2 for this analysis was .037 and 69.6% of cases were correctly classified. As seen in Table 3, three of four demographic predictors were statistically significant. Only years of education failed to account for variation in the criterion. The odds ratio for respondent age revealed that each additional year was associated with a 2.3% decrease in the likelihood of collaborating with one's spouse. In contrast, the odds ratios for both length of education and annual income were greater than one, which indicates that increases in these variables were associated with increases in the likelihood of collaboration.

The omnibus test of the model was also significant once the second block of covariates was added, $\chi^2(11) = 91.85, p < .001$. The Nagelkerke R^2 for this analysis was .178 and 72.6% of cases were correctly classified. At this stage of the analysis, four of the seven psychological covariates were found to be statistically significant. The odds ratios for two covariates—the My Spouse Hinders Me subscale of the PCQ and Self-Rated Financial Knowledge—revealed that increasing scores were associated with decreases in the likelihood of collaborating with one's spouse. Specifically, a one unit increase in the Hinder scale was associated with a 34.7% decrease in the likelihood of collaborating with

Table 3

Binary Logistic Regression Predicting Whether Respondents Collaborated with Their Spouse on Retirement Planning Issues (N = 680)

Variable	Beta Coeff. (SE)	Wald Coefficient	Wald <i>p</i> -value	Odds Ratio
STEP 1				
Age (years)	-.024 (.012)	3.978	.046	0.977
Length of Marriage	.030 (.013)	5.767	.016	1.031
Education (years)	.006 (.044)	0.021	.885	1.006
Respondent Income	.000 (.000)	9.794	.002	1.000
Nagelkerke $R^2 = .037$				

STEP 2				
PCQ Hinder	-.425 (.133)	10.257	.001	0.653
PCQ Complement	.190 (.134)	2.009	.156	1.209
Couples Sat. Index	.299 (.133)	5.063	.024	1.348
Financial Knowledge	-.614 (.160)	14.788	.000	0.541
Future Time Persp.	-.201 (.166)	1.451	.228	0.818
Fin. Risk Tolerance	-.064 (.110)	0.335	.563	0.938
Ret. Goal Clarity	.530 (.198)	7.188	.007	1.699
Constant	1.475 (1.206)	1.495	.221	—
Nagelkerke $R^2 = .178$ (Full Model)				

one's spouse. Similarly, a one unit increase in financial knowledge was associated with a 45.9% decrease in collaborating. Both the Couples Satisfaction Index and Retirement Goal Clarity scores were associated with increases in the likelihood of collaboration. Specifically, a one unit increase in CSI was associated with a 34.8% increase in the likelihood of collaboration, and a one unit increase in Goal Clarity was associated with a 69.9% increase in the likelihood of collaboration. The My Spouse Complements Me subscale of the PCQ, Future Time Perspective, and Financial Risk Tolerance all failed to emerge as reliable predictors.

In sum, seven of the eleven covariates were found to be predictive of collaboration status, with some increasing the likelihood of collaborating and others decreasing that likelihood.

Outcomes Associated with Collaborative Cognition

Hypothesis thirteen predicted that individuals who collaborate with their spouse would be involved with planning in more retirement domains than individuals who do not collaborate with their spouses. To test this hypothesis, a directional independent samples *t*-test was performed with CNC status as the grouping variable and scores on the Retirement Planning Involvement measure as the dependent variable. This hypothesis was supported, $t(680) = 2.903$, $p = .002$, $d = 0.22$; with mean scores in the hypothesized direction. That is, collaborative individuals ($M = 4.24$; $SD = 1.77$) were found to be engaged in more retirement planning domains than non-collaborative individuals ($M = 3.80$; $SD = 1.89$).

It was also predicted that individuals who collaborate with their spouses would more frequently discuss their financial plans for retirement than individuals who do not

(H14). Therefore, another one-tailed independent samples *t*-test was conducted. This hypothesis was also supported, $t(680) = 2.99, p = .001, d = 0.23$. The frequency of retirement planning discussions between collaborators ($M = 4.32; SD = 1.89$) were found to occur more often than retirement planning discussions among non-collaborators ($M = 4.01; SD = 1.35$).

It was also predicted that retirement communication conflict levels (assessed using the newly developed Retirement Communication Conflict Scale) would be inversely related to (i) collaborating with one's spouse (H15), (ii) satisfaction with one's spouse (H16), (iii) having shared goals and values (H17), and (iv) satisfaction with spousal communication about retirement (H18). A multiple regression analysis was used to explore the explanatory power of these four predictions. The omnibus *F*-test for this model was found to be significant, $F(4, 677) = 78.15, p < .01, R^2 = .32$. Each of the four predictors turned out to be statistically significant. Specifically, higher levels of marital satisfaction ($\beta = -.19$), shared goals and values ($\beta = -.18$), and spousal communication about retirement ($\beta = -.28$) were all negatively related to financial planning communication conflict. However, CNC was found to significant in the opposite direction of what had been predicted ($\beta = .07$). In sum, being a primary planner, being in a satisfying marriage, being satisfied with your communication about retirement, and having shared goals and values are all associated with low levels of retirement planning conflict.

The nineteenth hypothesis sought to determine whether individuals who collaborate with their spouse (as defined by the CNC variable) would have higher scores on the retirement-related financial planning activities scale (Stawski et al., 2007) than

individuals who don't plan collaboratively with their spouse. Contrary to expectations, a directional independent samples *t*-test failed to find support for this hypothesis, $t(680) = 2.30, p = .011, d = 0.18$. The mean score for collaborative individuals' financial planning activities ($M = 3.53; SD = .78$) was significantly less than that of non-collaborative respondents ($M = 3.69; SD = .80$). In other words, the findings were in the opposite direction of what had been expected.

Hypothesis twenty sought to determine whether retirement collaborators (as measured by the CNC variable) voluntarily saved more of their annual salary for retirement during the past year, on average, compared to individuals who did not collaborate with their spouse. A two-tailed independent samples *t*-test failed to find support this hypothesis $t(680) = .704, p = .688$. There was no significant difference between the contributions of non-collaborators ($M = 5.26; SD = 3.07$) and collaborators ($M = 5.16; SD = 3.01$). To provide the reader with a sense of how much was being saved annually, a score of 5.21 (half way between the two means) roughly equates to savings of 9.2 percent of one's annual income.

The next hypothesis regarding outcomes associated with collaborating (H21) predicted that individuals who do not collaborate with their spouses would be more worried about adequately financing their retirement than individuals who engage in a collaborative planning relationship. A directional independent samples *t*-test failed to find support for this hypothesis, $t(680) = .653, p = .257$. There was no difference in worry scores between collaborators ($M = 2.83; SD = 1.18$) and non-collaborative individuals ($M = 2.90; SD = 1.25$).

The twenty-second prediction posited that collaborative married individuals would have fewer metacognitive difficulties thinking about retirement planning than their non-collaborative counterparts. A one-tailed t -test revealed that the between-group difference was significant $t(680) = 2.09, p = .018, d = 0.16$. However, the mean scores for the two groups were in the opposite direction of what had been predicted. The metacognitive score for collaborators was 2.69 ($SD = 0.92$) and the score for non-collaborators was 2.52 ($SD = 1.01$), which reflects that fact that collaborators had *more* difficulties thinking about retirement issues.

The next hypothesis (H23) examined whether married individuals who were less apprehensive about communicating with their spouse were more likely to collaborate on retirement issues than communicatively more apprehensive respondents. A one-tailed t -test revealed support for this prediction, $t(680) = 2.45, p = .007, d = 0.19$. Collaborators' communication apprehension scores were indeed larger (indicating less apprehension) than non-collaborators (means = 4.33 and 4.20, respectively). This finding suggests that having apprehension about communicating with one's spouse could serve as an impediment to jointly working on retirement issues.

Hypothesis twenty-four sought to determine whether collaborating individuals envisioned a more satisfying retirement for themselves than non-collaborators. A one-tailed t -test was computed to assess this prediction, which turned out to reveal a statistical trend, $t(680) = 1.60, p = .055, d = .12$. The mean for expected satisfaction with life for collaborators was 3.35 ($SD = 0.76$) and the mean for non-collaborators was 3.24 ($SD = 0.87$).

The final hypothesis (**H25**) tested whether collaborators had superior goals and values relative to non-collaborators as indexed by the Archuleta (2007) Shared Goals and Values scale. A one-tailed *t*-test was used to evaluate this prediction. Support was found for the hypothesis $t(680) = 5.95, p < .001, d = .46$. Mean shared Goals and Values scores for collaborators was 4.16 ($SD = 0.55$), compared to non-collaborators, which was 3.82 ($SD = 0.91$).

Summary

In sum, twelve of the twenty-five hypothesized effects were statistically significant in the predicted direction, and one other effect revealed a note-worthy trend. Taken together, they provide important information about: (1) how common it is for couples to collaborate with one another (i.e., incidence rate), (2) the types of individuals who are likely to collaborate with their partner on retirement planning tasks (i.e., antecedents), and (3) the impact collaborating with one's spouse has on retirement planning activities (i.e., outcomes). In the discussion section, the significance of individual hypothesized findings is addressed, and the broader implications of these findings are discussed.

CHAPTER IV

DISCUSSION

The purpose of the investigation was to bring together three different lines of research into a single empirical investigation. Toward that end, commonly studied variables from the area of *retirement planning* were incorporated into this project. Moreover, scales and measures used to investigate patterns of *spousal communication* were administered to participants. And finally, assumptions about when and why spouses collaborate with one another to carry-out everyday tasks were adopted from the area of *collaborative cognition*. Bringing together these three topics was a novel approach aimed at better understanding the dynamics that underlie real-world retirement decision making among people who are married.

In conducting this research, three primary empirical objectives were addressed. The first objective was to determine the *incidence rate* of collaboration on retirement issues among married couples. To date, no studies have appeared in the literature that suggest how common it is for couples to collaborate when charting their financial future. The second objective was to examine the *antecedents* of collaborating with one's spouse—that is, who are the types of individuals that gravitate toward working with

their companions when making long-range financial and investment decisions. The third objective was to determine whether collaborating with one's partner is beneficial. That is, does working with a spouse lead to greater planning satisfaction? Does it lead to lower levels of worry about one's future finances? Do collaborators save more money for retirement than spouses who work alone? These are all important questions that have not been addressed in the existing literature. By concentrating on questions such as these, the third focus is on the *outcomes* associated with collaborative cognition in this domain. By focusing on both antecedents and outcomes associated with collaborative retirement planning the hope was to gain a broad perspective on how and why people plan together.

The remainder of the discussion section will be organized as follows. First, the findings regarding the incidence rate of collaboration will be discussed. Second, findings regarding the antecedents of collaborative cognition will be addressed. Third, findings regarding the psychological and behavioral outcomes associated with collaborating will be described. Finally, the strengths and limitations of the investigation will be discussed before turning attention to possible future directions and the conclusion.

Incidence Rates of Collaborative Cognition

The data revealed that spousal collaboration in the area of retirement planning is quite common. In fact, over half of married individuals (58.5%) reported collaborating with their partner on financial planning for retirement. The next most common arrangement was one partner taking primary responsibility for planning (33.0%), followed by couples who each plan but do so separately and couples who have yet to

begin planning (both latter groups < 10%). Clearly, collaborating with one's partner is the modal approach to retirement preparation.

Restricting the sample to the two groups of interest for this dissertation ($N = 682$)—collaborative individuals and non-collaborative (primary) planners—it was found that 69.2% of respondents reported collaborating with their spouse and 30.8% planned alone. Importantly, a chi-square test revealed that these proportions differed from .50, which verifies that collaborating with one's spouse is the more popular option. This finding, that such a large proportion of individuals choose to share this task with their spouse, speaks to the importance of conducting research on this topic.

In the following section, attention will focus on the factors that are predictive of planning with one's spouse, or in other words, the antecedents of collaborative cognition.

Antecedents of Collaborative Cognition

One of the chief empirical objectives of this investigation was to explore the individual-level predictors of collaborative cognition in the area of retirement planning. Toward that end, a hierarchical logistic regression model was estimated that included four demographic indicators in the first block and seven psychological measures in the second block. Together, these predictors represented hypotheses two through twelve (i.e., H2 – H12).

The analysis revealed that three of the four demographic predictors were statistically significant (i.e., age of the respondent, length of marriage, and income). Increases in both length of marriage (**H4**) and income (**H5**) came out to be positively related to collaborating; increases in age (**H2**) was negatively related to the likelihood of

working with one's spouse. Wald coefficients for the analysis revealed that income was the strongest predictor of the three. It was somewhat surprising that education (**H3**) did not predict CNC, because one might expect more highly educated individuals to be more communicative, and on that basis, more likely to collaborate with their spouse. In sum, individuals who have been married longer, have higher incomes, and who are younger were more likely to engage in collaborative activities with their spouses. It seems logically inconsistent that age (in years) and length of marriage (in years) would have opposing beta weight valences (i.e., age negative; marital length positive). Yet, this was observed to be the case. Perhaps future studies could set as a goal to determine why these two indicators ran counter to one another.

The next step of the logistic regression involved testing the seven psychological predictors. This block revealed that four of the seven psychological indices were statistically significant (i.e., the My Spouse Hinders Me subscale, Self-Rated Financial Knowledge, the Couples Satisfaction Index, and Retirement Goal Clarity). Scores on the Couples Satisfaction Index (**H8**) and Retirement Goal Clarity (**H12**) were positively related to the likelihood of collaborating with one's spouse. In contrast, scores on the Spouse Hinders Me subscale (**H6**) and Self-Rated Financial Knowledge measure (**H9**) were negatively related to the criterion, which suggests that high values for these two variables are associated with a decrease in the likelihood of collaborating. Of these four significant predictors, Wald coefficients revealed that financial knowledge and the spouse hinders me subscale were particularly powerful in accounting for variance in CNC. This makes some intuitive sense, as one is unlikely to want to collaborate with a hindering spouse, and increases in financial knowledge amount to increases in expertise, which

could explain why the more expert partner takes on the task of planning for the family by himself or herself. In sum, respondents who are more satisfied with their communication, who have higher levels of retirement goal clarity, whose spouse does *not* hinder them, and who had lower levels of financial knowledge were more likely to engage in collaborative activities with their partner.

It is worth noting that three of the psychological predictors failed to reach the significance threshold. Scores on the My Spouse Complements Me subscale (**H7**), Future Time Perspective (**H10**), and Financial Risk Tolerance (**H11**) were all found to be unrelated to the criterion. Of these three, the fact that H7 failed to emerge as statistically significant was unexpected. That is because scores on the My Spouse Complements Me subscale were hypothesized to be positively related to the criterion (recall that no directional predictions were made for H10 and H11). From an applied perspective, what this means is that even if one believes that his or her spouse complements them on everyday tasks, then that does not necessarily suggest that the two partners will collaborate on all types of decision-making activities. Even among partners who complement one another, other variables (such as financial knowledge and age) may come into play to sway one of the two to serve as the primary (i.e., sole) financial planner.

Before turning to the section on outcomes associated with collaboration, it is worth mentioning that in the logistic regression analysis described above, socio-demographic indicators (block 1) only accounted for 3.7% of the variability in collaboration status. Although the predictors in block 1 collectively accounted for a significant amount of variance in collaboration status, the four significant psychological

predictors in block 2 accounted for nearly four times the amount of variance (i.e., 14.1%). This suggests that if one's goal is to identify the types of individuals who are most likely to collaborate with their partner, then it makes sense to use a combination of socio-demographic and psychological predictors.

Hypothesis Involving Outcomes Associated with Collaborative Cognition

Thirteen hypotheses were tested to examine the extent to which collaborative retirement planning among couples leads to better outcomes (with "better" being defined as more cognitively efficient, more financially appropriate, and more psychologically adaptive). An unwritten assumption of this investigation (perhaps, some might say a bias) has been that collaborating with one's spouse would be a good thing. Both members of the marital dyad would benefit from sharing task responsibilities because they would be pooling their financial expertise. This notion is consistent with the old adage: "two heads are better than one." However, the findings regarding these thirteen hypotheses failed to suggest that collaborating was, in fact, overwhelmingly beneficial.

Analyses of the data revealed that five of the thirteen outcome hypotheses received empirical support. Specifically, it was found that relative to non-collaborators, collaborators were likely to: be more involved in the retirement planning process (**H13**), have discussions about how often they plan (**H14**), have lower levels retirement communication apprehension (**H23**), have more positive expectations of quality of life in retirement (**H24**; a trend), and have a stronger sense of shared goals and values (**H25**). Certainly, these are all positive aspects of collaborative retirement planning. Being heavily involved in the planning process, not being afraid to talk about retirement issues

openly with your spouse, and having clear positive goals that lead to optimistic expectations of retirement well-being all appear to result from working with a partner on a long-range retirement plan.

Intuitively, one can surmise why each of the hypotheses listed in the preceding paragraph received support. To the extent that a couple collaborates on retirement planning issues, there is always one member of the dyad who can hold the other accountable for engaging in the task, which could lead to high levels of planning involvement (H13) and frequent discussions (H14). This is not the case if a couple relies on one spouse to carry out planning activities alone. Moreover, to the extent that a couple collaborates with one another (which naturally involves a good deal of communication), it makes sense that communication apprehension would be attenuated (H23). Finally, both H24 and H25 have to do with the formation of positive goals and expectations of the future by collaborators. Perhaps, by having a dyadic support network that emphasizes collective goal-setting, collaborative couples are able to envision a brighter future for themselves relative to married individuals who plan in isolation.

Unfortunately, there were a number of other outcome-based dependent variables in the study that failed to emerge in line with expectations. These non-significant predictions, if supported, would have greatly increased enthusiasm for interventions designed to encourage a shared approach to planning. Specifically, six of the thirteen outcome hypotheses did not turn out as predicted. No differences were observed in the scores of non-collaborators and collaborators when it came to: communication conflict when discussing financial plans (**H15**), engagement in financial planning activities (**H19**), how much the couple voluntarily contributed to a retirement plan (**H20**), whether

they worried about adequately financing their retirement (**H21**), and respondents' degree of metacognitive worry about retirement (**H22**). It is important to note that H15, 19, and H22 were, in fact, statistically significant, but the mean scores were in the opposite direction of what had been predicted, with collaborators reporting more conflict with their spouse, non-collaborative planners engaging in more financial planning activities than collaborative planners, and with collaborators experiencing greater difficulties thinking about retirement issues than non-collaborators (H22). One interpretation of these non-significant or contrary effects is that the scales and measures used to tap these constructs were insufficiently sensitive to detect group differences. Another possible explanation for why hypotheses 21 and 22 failed to emerge—both of which tapped aspects of worry or conflict—was that non-collaborative respondents, on the basis of their pride in independently planning for their family, were hesitant to share with the experimenter their worries or concerns. This, in turn, could have led them to engage in socially desirable responding, which would have inflated scores and resulted in a null outcome. But of course, the most obvious interpretation of the lack of findings was that there simply were no group differences along these six dimensions.

In sum, five outcome variables were found to be linked to collaboration status in a positive direction (including the one trend). Importantly however, the hypotheses that failed to emerge did not suggest that couples *should not* collaborate with one another. Rather, the non-significant effects merely suggested that collaborators and non-collaborators did not differ across outcome variables. This is quite different from data that might suggest collaborating with one's spouse actually hinders the planning process. In only one case was it found that collaborating had a detrimental impact on the

respondent; this was with respect to the retirement planning metacognition variable. Specifically, collaborators reported having greater difficulties thinking about planning issues compared to non-collaborators, however, the mean scores for this analysis revealed that neither group had particularly severe difficulties (means of 2.69 and 2.52, respectively). However, perhaps collaborators had greater difficulties thinking about planning issues because they had lower levels of financial knowledge.

Theoretical and Applied Implications

From a broad theoretical perspective, one might consider collaboration in the area of financial planning for retirement as serving one of two possible functions (Meegan & Berg, 2002). According to collaborative cognition theorists, one possible function of working with a spouse is task *optimization*. The idea that underlies this function is that two heads working together are better than one. That is, by bringing together the collective knowledge of both spouses, better decisions can be made. Meegan & Berg (2002) suggest that another possible function of collaborative cognition is *compensation*. That is, if one spouse is inexperienced in the decision domain, or in some way incapable of making sound decisions, then collaborating with his or her partner could serve to improve performance.

One of the key principles of a different theoretical perspective—Life Course Theory (Elder, 1998b; Elder & Shanahan, 2006; Mortimer & Shanahan, 2006)—is that of “linked lives.” The notion of linked lives refers to the idea that individuals do not live their lives in isolation, but rather, they do so in a broader social context. According to Moen and Hernandez (2009; see also Antonucci, Birditt, & Akiyama, 2009) we travel

through life in a social convoy surrounded by individuals (friends, co-workers, family members) who help to shape our behavior. A number of investigations have focused attention on the spousal dyad as the decision-making unit, because for most individuals wedlock represents one of the strongest interpersonal bonds. In fact, a study by Hershey et al. (2010) revealed the importance of spousal influences when it comes to planning for retirement. The fact that 69.2% of respondents in this investigation admitted to planning collaboratively with their partner attests to the importance of shared cognition in this real-world decision domain.

One might also consider resource theory (Wang, Henkens, & Van Solinge, 2011; Wang & Shultz, 2010) as the basis for understanding social support mechanisms. According to resource theory, our success (or lack thereof) at a task or within a domain is dependent upon the different forms of support (i.e., resources) we have at our disposal. For example, if a worker has discretionary financial resources that could be used to hire a professional retirement planner, then in all likelihood that worker will be able to make superior financial decisions compared to the decisions that would have been made had he or she been working alone. In much the same way, in the retirement planning arena, one might think of one's spouse as a resource, particularly if his or her knowledge and/or experience in making retirement decisions is superior. In this sense, working together facilitates the optimization function discussed by collaborative cognition theorists.

Strengths of this Investigation

This study was unique in a number of ways, and on that basis, it had a number of strengths. At the risk of sounding redundant, perhaps the greatest strength of the

investigation involved its hybrid nature. In retrospect, it seems particularly ambitious to attempt to bring together what amount to three separate scientific literatures—work on retirement planning, spousal communication, and collaborative cognition. By doing so, the goal was to produce scientific findings that go beyond what could have been established by researchers focusing exclusively on one or two of the three areas.

Second, this investigation involved participants who were sampled from all over the United States. This was accomplished through the use of the Amazon Mechanical Turk crowdsourcing platform. One strength of MTurk is the breadth of their pool of American respondents, which made it relatively straightforward to collect a geographically representative sample. Moreover, the sample met certain socio-demographic criteria that were important, such as a wide range of ages, a roughly equivalent distribution of genders, a range of income levels, and individuals who worked in different employment sectors. This heterogeneity associated with the sample in all likelihood led to an enhanced range of responses on the retirement and communication scales.

The third strength of this study was the fact that it had a large sample size, that is, relative to investigations typically carried out in the areas of spousal communication or collaborative cognition. This was only possible by quickly and efficiently collecting the data online and counting on the fact that the data coding process would be reliably carried out via the Qualtrics interface. By initially sampling over 800 individuals it was possible to identify subgroups of respondents who were uniquely relevant to the investigation. This was accomplished while at the same time surpassing minimum power requirements.

A final strength of this investigation included the wide array of measures that were administered to respondents. By using scales and measures from all three topic areas—collaboration, communication, and retirement—it was possible to paint a rich picture of the nature of individuals' cooperative efforts. It is hoped that this broad collection of measures will allow for numerous interesting analyses beyond those that are included in this dissertation.

Limitations and Future Directions

This investigation, like all others, is subject to certain practical and methodological limitations. The first, and perhaps the most serious, being that this study only focused on collecting data from one member of the marital dyad and not both partners. Admittedly, the use of this approach made it more convenient and cost-effective to collect the data (Moen & Hernandez, 2009). However, this approach can make it difficult to infer whether the non-participant spouse feels the same way as the respondent along the dimensions that were studied (Valentine, 1999). The extent to which this single-partner focus might have biased the quality of the data is unclear, however. In a similar vein, from a methodological perspective it is probably best to study both spouses together if one's goal is to learn how they collaborate or do not collaborate with one another. Investigating one partner in isolation probably made it difficult to elicit some of the nuances of how the partners naturally interact with one another.

A second limitation of this study is that it used a strictly quantitative methodology. By relying solely on such an approach, it is perhaps the case that some important subtleties associated with the collaborative relationship were lost. A future

study might possibly use a multi-method approach (Eid & Diener, 2006) in which qualitative and quantitative approaches to measurement are blended. For instance, it might be beneficial to have couples come into the laboratory to simulate making one or more retirement planning decisions together. Using such an approach, both quantitative and qualitative aspects of the decision-making process could be explored.

The next shortcoming of this study was that a retrospective self-report technique was employed, therefore, responses could have been swayed by certain memory biases (Lalande, 2008). Participants may have forgotten certain details about how they made retirement-planning decisions, how they collaborated with their spouse, or the precise nature of their discussions with one another. These memory biases could have contributed to some degree of error in the study. In a future study, a methodological alternative would be to have participants carefully track their retirement planning involvement over a period of time (perhaps a year or two), writing down activities—both collaborative and solo—in a diary. At the end of the investigation, the diary could be analyzed for evidence of the collaborative nature of planning involvement. Participant diary studies such as this have been found to be a good source of data, particularly with older adults (Jacelon & Imperio, 2005).

The fourth limitation is that this investigation used a cross-sectional design. In future studies it would be interesting to determine whether the effects seen in this investigation differ if data are collected longitudinally. As a developmental psychologist, it would be interesting to determine which of the two methodological approaches provide more robust and valid data.

A final limitation of this investigation is that few analyses regarding the developmental aspects of the planning process were reported. In addition to the findings that were described, it would certainly be interesting to see whether there is more collaboration (or different types of collaboration) at certain points in a couple's life compared to others. Fortunately, the dataset used for this dissertation does contain a fair amount of developmental information (partner ages, life stages, marital stages) so it will be possible to conduct some of these analyses in the future once the dissertation document has been successfully defended.

Conclusion

As stated in the introduction to this dissertation, approximately half of the adults in the United States are in a committed long-term relationship. Arguably, this alone provides sufficient justification to learn about their retirement planning practices. What was found was that collaborating with one's spouse was not uncommon at all. In fact, just over two-thirds study participants reported collaborating with their significant other when making financial planning decisions for retirement.

So just who are those married individuals who choose to work with their spouse in this important real-world domain? Overwhelmingly, they are couples who are married longer, have higher incomes, good communicative relationships, and clear goals for the future. Findings also revealed that lower financial knowledge individuals choose to collaborate with their spouse, which suggests that the decision to work together may be an attempt to optimize planning by collectively compensating for any knowledge-based shortcomings.

Is financial planning for retirement with one's spouse a good thing? The findings here are mixed. Collaboration does facilitate task involvement, positive patterns of communication, more frequent discussions with one's spouse, shared goals and values, and an optimistic view of the future. However, collaboration did not translate into more frequent or thorough planning practices, nor did it result in superior voluntary contributions to a savings plan. All in all, there do appear to be significant benefits of collaboratively planning for the future.

This study sought to address a gap in the retirement planning literature by exploring the way in which couples plan and save for the post-employment period. Toward that end, the project stands to make a real contribution to our understanding of how couples go about negotiating who will (and who will not) be involved in the planning process. One could argue that research in this area has been ignored for far too long. If that is the case, then perhaps this project represents a step in the right direction. At the very least, the data from this study suggest that this type of work appears to be a valid avenue of research that could profitably be explored more fully in the decades to come.

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APPENDICES

Appendix A — Informed Consent

Oklahoma State University, Department of Psychology

The purpose of this study is to explore how couples plan for retirement together. It is designed to help researchers better understand how individuals in married relationships make financial plans for the future.

In this study, you will complete a questionnaire about previous life planning decisions you have made and your communication with your spouse about those decisions. There are no right or wrong answers to these questions; we are only interested in your opinions. The entire session is expected to take between 15-20 minutes.

There is no deception involved in this study and your participation will not create risks beyond those encountered in everyday activities. It is expected that the data from this study will yield valuable information on the way in which individuals communicate with one another. Any data provided as a result of involvement in this study will be anonymous and kept strictly confidential. Moreover, the data collected via the questionnaire will not be individually identifiable. The data will be kept in a secure facility accessed only by the principal investigator and her supervisor. When published, it will only appear in an aggregate form and used strictly for academic research purposes.

Your participation in this survey is greatly appreciated and completely voluntary. If you so desire, you have the right to discontinue your participation in this survey prior to completion without penalty. If you have questions or comments about the study, you may contact the principal investigator, Helen Gutierrez at (405) 744-0382 (helencg@okstate.edu), or the research advisor for the project, Dr. Douglas Hershey at (405) 744-4594 (douglas.hershey@okstate.edu).

Thank you again for your assistance.

Appendix B — Questionnaire

Please provide an appropriate response to each of the following questions.

SECTION 1: Retirement Planning

1. To what extent have you and/or your spouse engaged in financial planning for retirement? Not at all 1 2 3 4 A lot

2. Who is primarily responsible for making financial and retirement planning decisions in your family?
(Circle one)

- a. I do all of the financial planning and decision making
- b. My spouse does all of the financial planning and decision making
- c. Both my spouse and I are co-planners
- d. We are individual planners (we each make separate financial plans for retirement)
- e. We are non-planners (we do not plan at all)

3. Please indicate your best guess of the percentage of financial planning and investing carried out by you and your spouse. If you share the activities equally, then indicate 50%; 50% in the space below. If your spouse does 80% of the planning then indicate 20% for you; and 80% for your spouse.

- My percentage of involvement: _____ %
- My spouse's percentage of involvement: _____ %

4. Which of the following situations best describes the way you and your spouse handle your finances?
(Circle one)

- a. My spouse and I have fully merged our finances and we make all financial decisions jointly.
 - b. My spouse and I have merged some of our finances, but we each have some of our own money that we alone are responsible for.
 - c. My spouse and I keep our finances totally separate from one another, but we talk with one another about important spending and saving decisions.
 - d. My spouse and I keep our finances totally separate from one another and we don't ever discuss spending and saving decisions.
 - e. Other (please describe)
-

5. Are you satisfied with you and your spouse's total annual household income? Not at All Satisfied 1 2 3 4 Extremely Satisfied

6. Listed below are a variety of financial planning activities. What is your level of involvement in each task? On a scale from 1-5, indicate if you have primary responsibility for the task, the same amount of responsibility as your spouse, or whether your spouse has primary responsibility.

If the statement is **NOT APPLICABLE** for you, leave the rating blank.

	I Have Primary Responsibility	Joint Responsibility	Spouse Has Primary Responsibility		
Managing/keeping track of financial paperwork and records.	1	2	3	4	5
Making decisions about how your money is invested and changing investment allocations when necessary.	1	2	3	4	5
Meeting with a financial professional.	1	2	3	4	5
Conducting calculations to determine whether your retirement savings are on track.	1	2	3	4	5
Making decisions about your long-range retirement goals (i.e., what you plan to do in retirement).	1	2	3	4	5

	I Have Primary Responsibility	Joint Responsibility	Spouse Has Primary Responsibility		
Gathering information about different types of retirement investment opportunities.	1	2	3	4	5
Talking with friends and family members about financial planning issues.	1	2	3	4	5
Preparing a written financial plan for retirement.	1	2	3	4	5
Reading books and brochures on financial planning.	1	2	3	4	5
Searching the web for financial planning information.	1	2	3	4	5

Doing the calculations necessary to assess your net worth.	1	2	3	4	5
Making decisions about specific spending and saving plans for the future.	1	2	3	4	5
Monitoring financial statements and communications from employers, savings institutions (banks, pension plans) and the social security administration.	1	2	3	4	5

		Strongly Disagree	Unsure	Strongly Agree		
7.	In terms of sharing financial planning tasks with my spouse, I am happy with our current arrangement.	1	2	3	4	5
8.	I think I am (or we are) doing a good job with financial planning for retirement.	1	2	3	4	5
9.	I think I am successful at saving for retirement.	1	2	3	4	5
10.	I spend a lot of time planning for retirement.	1	2	3	4	5
11.	My spouse thinks I am doing a good job in terms of financial planning for retirement.	1	2	3	4	5
12.	My spouse makes me want to plan for retirement.	1	2	3	4	5

13. At what age would YOU *ideally* like to retire? _____
14. At what age do YOU *realistically* expect to retire? _____
15. At what age would YOUR SPOUSE *ideally* like to retire? _____
16. At what age does YOUR SPOUSE *realistically* expect to retire? _____
17. Do you think you will have enough money to maintain your desired standard of living after you retire from the workforce? (Circle one): Yes No
18. Please describe the nature of your communication with your spouse when you discuss issues related to financial planning for retirement. (Circle one)
- We ALWAYS agree with one another and have perspectives that are similar.
 - We USUALLY agree with one another and have similar perspectives.
 - We SOMETIMES agree with one another, but we also frequently disagree.
 - We RARELY agree with one another when it comes to financial planning decisions.
 - We NEVER agree with one another when it comes to financial planning decisions.

		Not at all Agree			Strongly Agree	
19.	In planning for retirement, I have taken my future health care needs into account.	1	2	3	4	5
20.	To me, financial planning for retirement is easy.	1	2	3	4	5
21.	To my spouse, financial planning for retirement is easy.	1	2	3	4	5
22.	Planning for retirement as a married person has been an easy process.	1	2	3	4	5

23. Do you have a pension plan at work, or a retirement plan that is paid for by your employer (not including Social Security)? (Circle one): Yes No Not Applicable
(e.g., unemployed)
24. Not including what you pay in Social Security taxes, estimate the percentage of your annual household income you and your spouse voluntarily contribute to a retirement savings plan. (Circle one)
- Nothing currently
 - 1-2%
 - 3-4%
 - 5-6%
 - 7-8%
 - 9-10%
 - 11-12%
 - 13-14%
 - 15-17%
 - 18-20%
 - 21-25%
 - more than 25%

25. How worried are you about adequately financing your retirement?

- a. Not at all worried
- b. Somewhat worried
- c. Moderately worried
- d. Worried
- e. Extremely worried

SECTION 2: Collaboration with Spouse

		Not at all Satisfied			Extremely Satisfied	
1.	How satisfied are you with the quality of your communication with your spouse when it comes to planning for retirement?	1	2	3	4	5
2.	How satisfied are you with the way your retirement savings is currently being managed and invested?	1	2	3	4	5
3.	How satisfied are you with the amount of money you have been able to save for retirement?	1	2	3	4	5
4.	How satisfied are you with how much you are currently saving for retirement on an annual basis?	1	2	3	4	5

		Strongly Disagree			Strongly Agree	
5.	I am comfortable in speaking to my spouse about disagreements I have about retirement planning choices (e.g., investments).	1	2	3	4	5
6.	I am comfortable voicing my opinions with my spouse about our goals for retirement.	1	2	3	4	5
7.	In general, I have no fear of speaking up in conversations with my spouse.	1	2	3	4	5
8.	Ordinarily I am very tense and nervous in conversations with my spouse.	1	2	3	4	5
9.	Ordinarily I am very calm and relaxed in conversations with my spouse.	1	2	3	4	5
10.	In general, I'm afraid to speak up in conversations with my spouse.	1	2	3	4	5

11. After you and your spouse have a financial disagreement, what usually happens or how is it typically resolved?

- a. I usually give in
- b. My spouse usually gives in
- c. We don't talk with one another for a period of time
- d. We negotiate a compromise
- e. We seek the advice of others
- f. My spouse and I don't have financial disagreements
- g. Other (please describe) _____

12. Who tends to take charge when you and your spouse make important decisions ***other than those*** regarding finances and retirement?

- a. Me
- b. My spouse
- c. Both

13. Did you ever have a conversation with your spouse about who would be the financial planner in the family, or whether the financial responsibility would be shared?

- a. Yes, we had a serious conversation
- b. Yes, we have had multiple conversations
- c. Yes, we talked about it in passing
- d. No, things just worked out the way they have

14. What aspects of post-retirement life have you and your spouse discussed? (Circle all that apply)

- a. Health issues (nutrition; exercise; medical care)
- b. Financial issues (social security; personal savings)
- c. Work, career, and employment (timing exit from workforce; volunteerism)
- d. Housing issues (cost; maintenance; location)
- e. Estate planning (burial; life insurance)
- f. Leisure and recreation (travel; hobbies)
- g. Social and interpersonal (friends; community involvement)

15. How often do you talk with your spouse about your financial plans for retirement?

- a. Never
- b. Once every few years
- c. Once a year
- d. Twice a year
- e. Monthly
- f. Weekly
- g. Daily

The following questions ask you to think about the tasks that you do in your everyday life such as making household and financial decisions, solving interpersonal problems, or planning trips. Think about your average or typical week and the sorts of everyday problems you solve and decisions you make.

		Strongly Disagree			Strongly Agree	
1.	I view working together with my spouse as necessary, as it is harder for me to do things by myself.	1	2	3	4	5
2.	I make better decisions when my spouse and I work together.	1	2	3	4	5
3.	My spouse and I always work together to deal with really important household decisions.	1	2	3	4	5
4.	Nearly every day my spouse and I work together to make everyday decisions.	1	2	3	4	5
5.	It is rare for my spouse and I to share tasks and make decisions together.	1	2	3	4	5

6.	I enjoy the support and encouragement I receive when I work together with my spouse.	1	2	3	4	5
7.	Decision making with my spouse is slower as it takes longer to come to a decision than doing it by myself.	1	2	3	4	5
8.	My spouse and I avoid working together as it brings conflict to our marriage.	1	2	3	4	5
9.	Working together with my spouse is useful as he/she makes up for things that I don't do well.	1	2	3	4	5
10.	Solving everyday problems and making decisions together with my spouse brings us closer together.	1	2	3	4	5

		Strongly Disagree			Strongly Agree	
11.	Solving everyday problems with my spouse is best, as two heads are better than one.	1	2	3	4	5
12.	I dislike getting my spouse's assistance on everyday tasks as it makes me feel incompetent.	1	2	3	4	5

In thinking about how you and your spouse solve everyday problems and make decisions, write a "1" by the statement that best describes how you make decisions and solve problems, a "2" by the statement that next describes your style, a "3" by the next most similar description, and write a "4" by the statement that least describes your decision-making and problem-solving style.

_____ My spouse and I work independently in solving everyday problems and decision making.

_____ My spouse and I try to support each other in the tasks that we do individually.

_____ My spouse and I divide up tasks to be accomplished and decisions to be made (e.g., I cover some types of decisions he/she covers others).

_____ My spouse and I work collaboratively together as a team in making decisions and solving everyday problems (e.g., negotiate, brainstorm).

SECTION 3: Communication

		Strongly Disagree			Strongly Agree	
1.	I am very satisfied with how my spouse and I talk to each other.	1	2	3	4	5
2.	My spouse and I are creative in how we handle our differences.	1	2	3	4	5
3.	My spouse and I feel very close to each other.	1	2	3	4	5
4.	My partner is seldom too controlling.	1	2	3	4	5
5.	When discussing problems, my partner understands my opinions and ideas.	1	2	3	4	5

6.	I am completely satisfied with the amount of affection I receive from my partner.	1	2	3	4	5
7.	My spouse and I have a good balance of leisure time spent together and separately.	1	2	3	4	5
8.	My partner's friends or family seldom interfere with our relationship.	1	2	3	4	5
9.	My spouse and I agree on how to spend money.	1	2	3	4	5
10.	My spouse and I agree on how to express our spiritual values and beliefs.	1	2	3	4	5

		Strongly Disagree			Strongly Agree	
11.	I am very satisfied with how my spouse and I talk to each other about retirement planning.	1	2	3	4	5
12.	My spouse and I are creative in how we handle our differences when it comes to saving and retirement planning.	1	2	3	4	5
13.	My partner is seldom too controlling when we discuss retirement planning.	1	2	3	4	5

		Strongly Disagree		Mixed	Strongly Agree	
1.	We have similar financial goals.	1	2	3	4	5
2.	Our hopes and aspirations for our life in general and for our old age are quite compatible.	1	2	3	4	5
3.	We have similar values about the importance and meaning of money in our lives.	1	2	3	4	5
4.	We have similar values about “autonomy” and “independence.”	1	2	3	4	5

		Not at all Satisfied			Extremely Satisfied	
1.	How satisfied are you with your relationship with your spouse?	1	2	3	4	5
2.	How satisfied are you with your significant other as a partner?	1	2	3	4	5
3.	How satisfied are you with your relationship with your partner?	1	2	3	4	5

SECTION 4: General Questions for YOU

		Strongly Disagree			Strongly Agree	
1.	I enjoy thinking about how I will live years from now in the future.	1	2	3	4	5
2.	It is important to take a long-term perspective on life.	1	2	3	4	5
3.	I look forward to life in the distant future.	1	2	3	4	5
4.	My close friends would describe me as future oriented.	1	2	3	4	5
5.	I like to reflect on what the future will hold.	1	2	3	4	5

6.	I am willing to risk financial losses.	1	2	3	4	5
7.	I (would) prefer investments that have higher returns even though they are riskier.	1	2	3	4	5
8.	I am very willing to make risky investments to ensure financial stability in retirement.	1	2	3	4	5
9.	As a rule, I would never choose the safest investment when planning for retirement.	1	2	3	4	5
10.	I know a great deal about financial planning for retirement.	1	2	3	4	5

		Strongly Disagree			Strongly Agree	
11.	I have informed myself about financial preparation for retirement.	1	2	3	4	5
12.	I know more than most people about retirement planning.	1	2	3	4	5
13.	I expect that in retirement my life will be close to ideal.	1	2	3	4	5
14.	Once I enter retirement, the conditions of my life will be excellent.	1	2	3	4	5
15.	When I retire, I will be satisfied with life.	1	2	3	4	5

16.	After I retire, I will have gotten the important things I wanted in life.	1	2	3	4	5
17.	I have set clear goals for gaining information about retirement.	1	2	3	4	5
18.	I have thought a great deal about my quality of life in retirement.	1	2	3	4	5
19.	I set specific goals for how much will need to be saved for retirement.	1	2	3	4	5
20.	I have a clear vision of how life will be in retirement.	1	2	3	4	5

21.	I have discussed retirement plans with a spouse, friend, or significant other.	1	2	3	4	5
22.	I have tuned into television or radio shows on investing or financial planning.	1	2	3	4	5
23.	I have read brochures/articles/books on investing or financial planning.	1	2	3	4	5
24.	I have visited investing or financial planning sites on the World Wide Web.	1	2	3	4	5
25.	I have gathered or organized my financial records.	1	2	3	4	5

		Strongly Disagree			Strongly Agree	
26.	I have assessed my net worth.	1	2	3	4	5
27.	I have identified specific spending plans for the future.	1	2	3	4	5
28.	I feel like it's harder for me to think about retirement planning than other people.	1	2	3	4	5
29.	I find that I often postpone thinking about financial planning for retirement.	1	2	3	4	5
30.	I feel overwhelmed by the thought of financial planning for retirement.	1	2	3	4	5

31.	When doing financial planning for retirement it's easy for me to get mixed up and confused.	1	2	3	4	5
32.	I hate the idea of thinking about financial planning for retirement.	1	2	3	4	5

SECTION 5: General Questions General Questions about YOUR SPOUSE

Please answer the following questions as if your spouse was completing this survey.

		Strongly Disagree			Strongly Agree	
		1	2	3	4	5
1.	I enjoy thinking about how I will live years from now in the future.	1	2	3	4	5
2.	It is important to take a long-term perspective on life.	1	2	3	4	5
3.	I look forward to life in the distant future.	1	2	3	4	5
4.	My close friends would describe me as future oriented.	1	2	3	4	5
5.	I like to reflect on what the future will hold.	1	2	3	4	5

6.	I am willing to risk financial losses.	1	2	3	4	5
7.	I (would) prefer investments that have higher returns even though they are riskier.	1	2	3	4	5
8.	I am very willing to make risky investments to ensure financial stability in retirement.	1	2	3	4	5
9.	As a rule, I would never choose the safest investment when planning for retirement.	1	2	3	4	5
10.	I know a great deal about financial planning for retirement.	1	2	3	4	5

11.	I have informed myself about financial preparation for retirement.	1	2	3	4	5
12.	I know more than most people about retirement planning.	1	2	3	4	5
13.	I expect that in retirement my life will be close to ideal.	1	2	3	4	5
14.	Once I enter retirement, the conditions of my life will be excellent.	1	2	3	4	5
15.	When I retire, I will be satisfied with life.	1	2	3	4	5

16.	After I retire, I will have gotten the important things I wanted in life.	1	2	3	4	5
17.	I have set clear goals for gaining information about retirement.	1	2	3	4	5
18.	I have thought a great deal about my quality of life in retirement.	1	2	3	4	5
19.	I set specific goals for how much will need to be saved for retirement.	1	2	3	4	5
20.	I have a clear vision of how life will be in retirement.	1	2	3	4	5

21.	I have discussed retirement plans with a spouse, friend, or significant other.	1	2	3	4	5
22.	I have tuned into television or radio shows on investing or financial planning.	1	2	3	4	5

23.	I have read brochures/articles/books on investing or financial planning.	1	2	3	4	5
24.	I have visited investing or financial planning sites on the World Wide Web.	1	2	3	4	5
25.	I have gathered or organized my financial records.	1	2	3	4	5

		Strongly Disagree			Strongly Agree	
26.	I have assessed my net worth.	1	2	3	4	5
27.	I have identified specific spending plans for the future.	1	2	3	4	5
28.	I feel like it's harder for me to think about retirement planning than other people.	1	2	3	4	5
29.	I find that I often postpone thinking about financial planning for retirement.	1	2	3	4	5
30.	I feel overwhelmed by the thought of financial planning for retirement.	1	2	3	4	5

31.	When doing financial planning for retirement it's easy for me to get mixed up and confused.	1	2	3	4	5
32.	I hate the idea of thinking about financial planning for retirement.	1	2	3	4	5

SECTION 6: Demographic Questions

1. Your age: _____
2. Your spouse's age: _____
3. Your sex (Circle one) Male Female
4. What type of married couple describes you? (Circle one) Different Sex Couple Same Sex Couple
5. How long were you and your spouse in a relationship prior to marriage? _____ Years _____ Months
6. How long have you been married to your current spouse? _____ Years _____ Months
7. What is your best guess of the number of years YOU will live after you retire? _____ Years
8. What is your best guess of the number of years YOUR SPOUSE will live after s/he retires? _____
9. Have you ever been divorced? (Circle one) Yes No If yes, how many times? _____
10. If you have children, are you currently paying child support? (Circle one) Yes No

11. If you have children, is your spouse paying child support? (Circle one) Yes No

12. After you got married, how long did it take to begin planning for retirement? (Circle one)

- a. I was already planning prior to marriage
- b. Within 1 month
- c. 2 months to 6 months
- d. 6 months to 1 year
- e. 1 year to 3 years
- f. 3 years to 5 years
- g. Longer than 5 years
- h. My partner and I have not yet started planning

13. What is YOUR current annual income? (Circle one)

- a. No income currently
- b. Below \$20,000
- c. \$20,001-\$35,000
- d. \$35,001-\$50,000
- e. \$50,001-\$65,000
- f. \$65,001-\$80,000
- g. \$80,001-\$95,000
- h. \$95,001-\$110,000
- i. \$110,001-\$125,000
- j. \$125,001-\$140,000
- k. \$140,001-\$155,000
- l. \$155,001 or more

14. What is your SPOUSE'S current annual income?

- a. No income currently
- b. Below \$20,000
- c. \$20,001-\$35,000
- d. \$35,001-\$50,000
- e. \$50,001-\$65,000
- f. \$65,001-\$80,000
- g. \$80,001-\$95,000
- h. \$95,001-\$110,000
- i. \$110,001-\$125,000
- j. \$125,001-\$140,000
- k. \$140,001-\$155,000
- l. \$155,001 or more

15. YOUR educational level:

- a. Less than 12 years education
- b. High school or equivalent
- c. Some college
- d. Associates degree
- e. B.A. or B.S. degree
- f. M.A. or M.S. degree
- g. Ph.D. or M.D. degree
- h. Other (specify) _____

16. Your SPOUSE'S education level:

- a. Less than 12 years education
- b. High school or equivalent
- c. Some college
- d. Associates degree
- e. B.A. or B.S. degree
- f. M.A. or M.S. degree
- g. Ph.D. or M.D. degree
- h. Other (specify) _____

17. YOUR Race:

- a. African American
- b. American Indian/Alaska Native
- c. Asian
- d. Caucasian
- e. Multiracial
- f. Native Hawaiian or Pacific Islander
- g. Other _____

18. YOUR spouse's Race:

- a. African American
- b. American Indian/Alaska Native
- c. Asian
- d. Caucasian
- e. Multiracial
- f. Native Hawaiian or Pacific Islander
- g. Other _____

19. Are YOU Hispanic/Latino(a)? (Circle one) Yes No

20. Is YOUR SPOUSE Hispanic/Latino(a)? (Circle one) Yes No

21. Are YOU currently employed? (Circle one) Yes No

22. What is YOUR current form of employment? (Circle one)

- | | |
|-------------------------|---|
| a. Laborer | f. Self-employed |
| b. Customer Service | g. Education |
| c. Executive/Management | h. Professional (law, medicine) |
| d. Homemaker | i. Freelance (artist, writer, journalist) |
| e. Office worker | j. Other (please specify) _____ |

23. Is YOUR SPOUSE currently employed? (Circle one) Yes No

24. What is YOUR SPOUSE'S current form of employment? (Circle one)

- | | |
|-------------------------|---|
| a. Laborer | f. Self-employed |
| b. Customer Service | g. Education |
| c. Executive/Management | h. Professional (law, medicine) |
| d. Homemaker | i. Freelance (artist, writer, journalist) |
| e. Office worker | j. Other (please specify) _____ |

25. Including yourself, what is the number of working persons in your household? _____

26. YOUR health status: (Circle one)

- a. Poor b. Fair c. Good d. Very Good e. Excellent

27. YOUR SPOUSE'S health status: (Circle one)

- a. Poor b. Fair c. Good d. Very Good e. Excellent

28. How many children do you have? _____

29. How many dependents do you have (i.e., people who are completely financially dependent on you such as children or parents)? _____

Appendix C — Debriefing Information

Thank you for your participation in this study. Your answers will help to advance research on the collaborative communication between spouses in financial planning for retirement. The results of this study should allow us to find ways to help individuals on how to best plan for the future.

If you have any questions about the questionnaire you just completed, please email Helen Gutierrez at helencg@okstate.edu or Dr. Douglas Hershey at douglas.hershey@okstate.edu.

Once again, thank you for your participation!

Sincerely,

Helen C. Gutierrez

Research Associate, Retirement Planning Research Laboratory

Appendix D

List of Items in Scales Used in the Analysis

Perceptions of Collaboration Questionnaire (PCQ) Hinder – (Berg et al., 2006)

1. It is rare for my spouse and I to share tasks and make decisions together.
2. Decision making with my spouse is slower as it takes longer to come to a decisions than doing it by myself.
3. My spouse and I avoid working together as it brings conflict to our marriage.
4. I dislike getting my spouse's assistance on everyday tasks as it makes me feel important.

Perceptions of Collaboration Questionnaire (PCQ) Complement – (Berg et al., 2006)

1. I view working together with my spouse as necessary, as it is harder for me to do things by myself.
2. I make better decisions when my spouse and I work together.
3. Working together with my spouse is useful as he/she makes up for things that I don't do well.

Couples Satisfaction Inventory (CSI-4) – (Funk & Rogge, 2008)

1. Please indicate the degree of happiness, all things considered, of your relationship.
2. I have a warm and comfortable relationship with my partner.
3. How rewarding is your relationship with your partner?
4. In general, how satisfied are you with your relationship?

Self-rated Financial Knowledge (Jacobs-Lawson & Hershey, 2005; Hershey et al., 2007)

1. I know a great deal about financial planning for retirement.
2. I have informed myself about financial preparation for retirement.
3. I know more than most people about retirement planning.

Future Time Perspective (Gerrans & Hershey, 2013; Kosposko & Hershey, 2014)

1. I enjoy thinking about how I will live years from now in the future.
2. It is important to take a long-term perspective on life.
3. I look forward in the distant future.
4. My close friends would describe me as future oriented.
5. I like to reflect on what the future will hold.

Financial Risk Tolerance (Jacobs-Lawson & Hershey, 2005)

1. I am willing to risk financial losses.
2. I (would) prefer investments that have higher returns even though they are riskier.
3. I am very willing to make risky investments to ensure financial stability in retirement.
4. As a rule, I would never choose the safest investment when planning for retirement.

Retirement Goal Clarity (Stawski et al., 2007)

1. I have set clear goals for gaining information about retirement.
2. I have thought a great deal about my quality of life in retirement.
3. I set specific goals for how much will need to be saved for retirement.
4. I have a clear vision of how life will be in retirement.
5. I have discusses retirement plans with a spouse, friend, or significant other.

Retirement Planning Involvement (RPI) (Developed for this study)

1. What aspects of post-retirement life have you and your spouse discussed? (Select all that apply).
 - a. Health Issues (nutrition; exercise; medical care)
 - b. Financial issues (social security; personal savings)
 - c. Work, career, and employment (timing exit from workforce; volunteerism)
 - d. Housing issues (cost; maintenance; location)
 - e. Estate planning (burial; life insurance)
 - f. Leisure and recreation (travel; hobbies)
 - g. Social and interpersonal (friends; community involvement)

Shared Goals and Values (Archuleta, 2008)

1. We have similar financial goals.
2. Our hopes and aspirations for our life in general and for our old age are quite compatible.
3. We have similar values about the importance and meaning of money in our lives.
4. We have similar values about “autonomy” and “independence.”

Satisfaction with Spousal Communication about Retirement (Developed for this study)

1. I am comfortable in speaking to my spouse about disagreements I have about retirement planning choices.
2. I am very satisfied with how my spouse and I talk to each other about retirement planning.

3. I am comfortable voicing my opinions with my spouse about our goals for retirement.
4. How satisfied are you with the quality of your communication with your spouse when it comes to planning for retirement?

Financial Planning Activities (Stawski et al., 2007)

1. I have tuned into television or radio shows on investing or financial planning.
2. I have read brochures/articles/books on investing or financial planning.
3. I have visited investing or financial planning sites on the World Wide Web.
4. I have gathered or organized my financial records.
5. I have assessed my net worth.
6. I have identified specific spending plans for the future.

Retirement Metacognition (Gutierrez & Hershey, 2012)

1. I feel like it's harder for me to think about retirement planning than other people.
2. I find that I often postpone thinking about financial planning for retirement.
3. I feel overwhelmed by the thought of financial planning for retirement.
4. When doing financial planning for retirement it's easy for me to get mixed up and confused.
5. I hate the idea of thinking about financial planning for retirement.

Personal Report of Communication Apprehension (PRCA-Short) (McCroskey, 1982)

1. In general, I have no fear of speaking up in conversations with my spouse.
2. Ordinarily I am very tense and nervous in conversations with my spouse.
3. Ordinarily, I am very calm and relaxed in conversations with my spouse.
4. In general, I'm afraid to speak up in conversations with my spouse.

Satisfaction with Life in Retirement (Gutierrez & Hershey, 2014)

1. I expect that in retirement my life will be close to ideal.
2. Once I enter retirement, the conditions of my life will be excellent.
3. After I retire, I will be satisfied with life.
4. After I retire, I will have gotten the important things I wanted in life.

VITA

Helen Carabez Gutierrez

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Doctor of Philosophy

Thesis: FINANCIAL PLANNING FOR RETIREMENT: SPOUSAL
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