SPOUSAL DISCUSSION OF END OF LIFE DECISIONS: EFFECTS OF MARITAL SATISFACTION

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Kent State University College and Graduate School
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By

Julie Chaya

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This study examines how characteristics of an older adults’ marital relationship can contribute to congruence in spouses' end of life decisions. Marital satisfaction in association with the accuracy that spouses describe one another's preferences for end of life care was examined. This study used logistic regression analyses to analyze data from the Wisconsin Longitudinal Study (WLS) and includes 3,890 respondents and their spouses. Results revealed a significant association between marital satisfaction and spousal congruence in end of life preferences, where spouses who reported higher marital satisfaction were more likely to agree about discussing end of life preferences. Results also revealed that there is a significant association of congruence between an older couple’s marital satisfaction and their completion of end of life documentation. Findings suggest that marital characteristics can potentially help predict future discrepancies between spouses that may occur for older adults when dealing with end of life care.
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To Walter and Ann Dombrowski, I gratefully dedicate this thesis to you.
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CHAPTER I

INTRODUCTION

A growing concern of elderly patients and their health care providers is that surrogates accurately convey an older adult’s wishes. Previous research has shown that older adults will typically choose their spouse as their primary surrogate (Carr & Khodyakov, 2007; Hooyman & Kiyak, 2011; Lima, Allen, Goldscheider, & Intrator, 2008). In practice, however, surrogates often do not choose the treatments a dying person may have chosen. A study done by Moorman et al. (2009) analyzed data from the Wisconsin Longitudinal Study (WLS) to examine how surrogates’ errors in reporting their spouses’ preferences are associated with gender, status as durable power of attorney for health care (DPAHC), whether they and their spouses discussed end of life preferences, and their spouses’ health status (Moorman, Hauser, & Carr, 2009). Moorman and colleagues found that surrogates reported their spouses’ preferences incorrectly 13–26% of the time in end of life scenarios (Moorman et al., 2009). The purpose of the current study is to investigate why 13–26% of surrogates incorrectly reported the wishes of their spouse (Moorman et al., 2009) by investigating how differences in marital satisfaction can potentially help explain this discrepancy. Specifically, this study explores the extent to which marital satisfaction is associated with the conveyance of information about end of life issues between spouses.

Marital satisfaction tends to vary by life course stage (Bulanda, 2011; Hooyman & Kiyak, 2011; Levenson, Carstensen, & Gottman, 1994). As partners modify roles
through retirement, post-parenthood, illness, or disability, they face the strain of relinquishing previous roles and adapting to new ones (Silverstein & Giarrusso, 2010). Older partners’ ability to negotiate such role transitions depends, in large part, on their prior flexibility and satisfaction in their marital relationship. Marital satisfaction may increase in middle age to early old age, with couples becoming more similar in their attitudes, beliefs, roles, and behaviors (Davey & Szinovacz, 2004). Happy marriages in late life are typically characterized by adequate communication, gender equality, and joint decision making through a gradual relaxing of boundaries and decreasing division of labor based on traditional male/female roles (Anderson, Russell, & Schumm, 1983; Corra, Carter, & Knox, 2009; Jansson, Nordberg, & Grafstrom, 2001). However, as problems arise within the relationship (i.e. illness) conflict between the spouses can easily ensue.

An elderly patient’s family members and their physicians can endure a great deal of confusion and conflict when deciding the fate of an ill family member while in the later stages of his/her life. Several studies have shown that concordance between substituted judgments by either physicians or family members and patients' actual wishes is no greater than that caused by chance (Carr, 2007; Frank, 2009; Hofman, Wenger, Davis, Teno, & Connors, 1997; Jansson, Nordberg, & Grafstrom, 2001; Kass, 2005). This has caused several conversations to arise among healthcare providers, policy makers, and families about how the decision making process can be simplified when thinking about end of life care. Therefore, problematic decision making and the perception that patients receive unwanted treatments have prompted appeals for improved
physician-patient communication and earlier elicitation of patient preferences, even though these preferences may change over time (Hofman et al., 1997). This study aspires to identify communication issues within a patient’s marriage that may lead to confusion and conflict among the older adult, their spouse, and their healthcare provider where intricate and complicated end of life issues are concerned.

An older adult’s need for social support may increase because of changes in their health, cognition, and emotional status. This is affected through the years by myriad biological, psychological, sociocultural, and life cycle forces which can be a negative influence on an older adults' well-being (Blieszner, 2006). With older couples, intimacy is developed over a number of years and can create a very strong or weak bond between the spouses based on their life experiences. Assessments of attachment and affection have revealed that relationships with spouses are typically characterized by deep emotional caring and encompass beneficial elements of social ties (Blieszner, 2006). Yet, marital satisfaction in later life may potentially contribute to discrepancies between spouses when making decisions about end of life care. As indicated by Gierveld et al. (2009) a higher degree of emotional loneliness and a lower frequency of emotional support received from the spouse are associated with a lower degree of agreement between the spouses about end of life care (Gierveld et al., 2009). Therefore, poorer marital satisfaction could contribute to greater discrepancies between spouses' and surrogates' regarding spouses' end of life preferences.

In the United States, laws and policies have been designed with the explicit goal of preserving the decision-making autonomy of the aging and dying patient (Moorman &
Carr, 2008). There is a constant push from healthcare providers, the government, and the media for elderly individuals to pursue legal end of life documentation. With these types of documents in place, patients have the opportunity to guide the healthcare they receive, even if they ultimately become incapacitated and unable to convey their treatment preferences (Ditto, 2001; Moorman & Carr, 2008). Yet, a myriad of older adults do not effectively document or communicate their end of life preferences. Therefore, despite a patient’s right to self-determination, many incapacitated dying persons do not receive the care they desire (Gutheil & Heyman, 2005; Moorman & Carr, 2008). Patients often are undertreated (i.e. not administered desired treatment) or overtreated (i.e., administered undesired treatment; Moorman & Carr, 2008). Since a great deal of thought and care go into the decision making process, surrogates will tend to make errors of overtreatment, rather than undertreatment, when considering common symptoms in their older terminally ill loved ones (Hawkins, Ditto, Danks, & Smucker, 2005; Moorman & Carr, 2008). Consequently, this can create more harm than good.

Several studies have also shown that there are currently issues among older individuals and their spouses when effectively communicating their end of life treatment preferences (Cherlin et al., 2005; Hofman et al., 1997; Hopp, 2000). For example, Moorman et al. (2009) explored demographic and social factors that might moderate surrogates’ proneness to error and tendency to rely on their own preferences when attempting to make substituted judgments for their spouse (Moorman et al., 2009). The authors tested four factors that could be potential moderators of surrogate reporting errors, including surrogate gender, surrogate’s legal role as the spouse’s Durable Power
of Attorney for Health Care (DPAHC), discussion between surrogate and spouse, and spouse’s health status. Of particular interest to this study is the analysis related to discussions between surrogate and spouse, where they concluded that communication may occur, but in ineffective intervals. For this study, these ineffective intervals provide a rationale that poor communication between spouses may have an effect on their marital satisfaction in later life and may also account for the difference in reporting decisions related to end of life care.

A study by Ditto (2003) analyzed couples that communicated preferences. The study focused on comparing spouses’ decisions and the surrogates’ response. The same inquiry was made two years later and found that spouses' preference and surrogates' reports of their spouses' preferences differed. This provides support to this study by suggesting that the information a surrogate is able to provide is more accurate when that surrogate is part of a marriage that encompasses frequent communication with one another, and may help eliminate any discrepancies by considering positive characteristics of the marriage. The analysis by Ditto (2003) provides support to the current study by indicating that those couples who have better communication may have a higher marital satisfaction and ultimately discuss end of life decisions with each other.

Further, the results of the Moorman et al. (2009) study indicated that 78.3% of surrogates and 79.9% of spouses reported that they would want to stop all life-prolonging treatment for themselves if they were to endure physical pain. Nearly 80% of surrogates reported that their spouses would want all life-prolonging treatment stopped. The results of Moorman et al. (2009) also showed that spouses had appointed their surrogates as
Durable Power of Attorney for Health Care (DPAHC) in 29.7% of cases although, only 49.9% of surrogates discussed the wishes of their spouse regarding end of life preferences (Moorman et al., 2009). The present study seeks to expand upon these prior studies by investigating the extent to which marital satisfaction is associated with husbands' and wives' accuracy in predicting one another's end of life preferences.

When a patient or surrogate (i.e. spouse) cannot decide upon or articulate a desired course of treatment, all treatment typically continues (Moorman & Carr, 2008). Therefore, this usually entails the prolongation of medications, medical procedures, or a patient's stay within a healthcare facility. This practice can result in conflict between health care providers and families, and can be very costly (Hare, Pratt, & Nelson, 1992; Moorman & Carr, 2008). While an exorbitant amount of money is being spent on overtreatment, the elderly patient could have avoided this situation by clearing any uncertainty they may have had. Therefore, the purpose of this study is to examine the association between the characteristics of a couples’ marriage and the discrepancies that may occur when making end of life decisions. It is possible that couples in more satisfied marriages will be more willing to discuss and prepare for end of life decisions earlier in their marriage compared to those couples in less satisfied marriages.

The limited research that has been conducted on marital communication in later life indicates that older adult couples engage in less frequent conflict (Ward, 1993), use fewer positive communication tactics, and view different areas of conflict as being salient compared to younger couples (Levenson, Carstensen, & Gottman, 1993). For older couples that are part of a relationship that struggles with communicating to one another,
it is most likely that they will fail to effectively communicate about difficult issues, such as end of life care (Long, 1993). Therefore, marital characteristics may provide an early indicator for older couples who may encounter discrepancies when reporting their spouses’ end of life preferences.

According to Day (2010), research has discovered that a number of processes are patterns of predictability in modern Western family life that appears to be universal. For families that are taking care of an older adult, it is assumed that the family members know that death is a natural and inevitable process of life. However, preparing and coping with aging and death can be a very difficult issue for family members, healthcare providers, and the older adult. Moorman and colleagues (2009) state that there is a need for adequate communication (and professional training) between the older adult, family members, and healthcare providers in order to make end of life decisions. Therefore, it is important to explore whether marital characteristics, such as marital satisfaction, are associated with how accurately spouses' indicate one another's end of life preferences in order to better identify those couples who may struggle most with end of life decision-making.

Statement of the Problem

In summary, this study will examine how marital satisfaction contributes to respondents' own reports and congruence between spouses' end of life decisions. The purpose of this study is to examine how marital satisfaction is associated with how accurately spouses' describe their husband's/wife's preferences for end of life care.
CHAPTER II
REVIEW OF LITERATURE

Perhaps no friendship in life is deeper than that between husband and wife. As spouses think together about aging and dying, the meaning of being alone presents itself sharply: what loving spouse would not give his or her life to save a husband or a wife, and yet what spouse wants to leave his or her beloved to age and die alone (Johnson, Gallagher, & Wolinsky, 2004). It is a great blessing to live a long life, but also a burden to outlive all one’s closest friends, and to face death without the camaraderie that they alone might offer. In the face of aging, a spouse’s devotion to their husband or wife is both most tested and most required. Lynn (2004) cites a number of reasons why couples who are caregivers for their spouse in later life will be much more challenged today than they were in the past, and why those challenges are likely to grow even more daunting in the future (i.e. medical advancement, longevity of illness, lack of advance directive knowledge).

Associations Between Marital Satisfaction & End of Life Preferences

Several studies have shown that there are issues between older individuals and their spouses when effectively communicating their end of life treatment preferences (Cherlin, Prigerson, Schulman-Green, Johnson-Hurzeler, & Bradley, 2005; Hofman, Wenger, Davis, Teno, & Connors, 1997; Hopp, 2000). For example, Moorman et al. (2009) explored demographic and social factors that might moderate surrogates’ proneness to error and tendency to rely on their own preferences when attempting to
make substituted judgments for their spouse (Moorman et al., 2009). Of particular interest to this study is the analysis related to discussions between husband and wives, where it was concluded that communication may occur, but in ineffective intervals. For this study, these ineffective intervals may show that poor communication can be a result of poor marital satisfaction between spouses which may account for some of the differences in reporting decisions related to end of life care.

Long (1993) states that persons in high-quality marriages are more likely to report that they try to assume their spouses’ perspectives than are persons in low-quality marriages and spouses in high-quality marriages are likely to perceive their partners’ efforts to assume their perspective. According to Levenson et al. (1994), high quality marriages are defined by the spouses having a perception of happiness, being affectionate, and emotional closeness (Levenson, Gottman, & Cartensen, 1994). Although older adults may have a variety of resources available to them (i.e. social, technological), there is still a need for an older individual to have positive communications with his or her spouse in order to come to a consensus about what they would prefer their end of life decisions to be because the majority of older adults tend to identify their spouse as their preferred surrogate (Carr, 2007; Ditto, 2003; Hooyman & Kiyak, 2011; Moorman et al., 2009). From previous research, assumptions could possibly be made that couples that are part of a lower quality marriage, who have poor marital communication, and ultimately lower marital satisfaction may report different perceptions of their spouse’s end of life preferences, which can create discrepancies when a medical emergency arises. For example, if a couple is part of a marriage that has poor
marital satisfaction, they may falsely assume their spouse’s end of life preferences when
a medical emergency occurs. As a result, these false assumptions could create dire
consequences to the spouse that becomes ill. Therefore, this study will explore how there
may be discrepancies between the respondent and his/her spouse based on their responses
to questions about end of life preferences.

**Associations Between Martial Satisfaction & End of Life Documentation**

Planning during an older adult’s final days usually consists of chronically ill older
adults who have limited mobility, impaired cognitive functioning, pain, and difficulty
recognizing family (Carr, 2007). Dying persons who have not made formal plans for
their end of life care tend to have little control over the medical treatment they receive.
Difficult decisions about stopping or prolonging treatment typically fall upon distressed
family members who may not agree with one another. Moreover, health care providers
may prolong futile yet costly medical treatments (Carr & Khodyakov, 2007; Kaufman,
Shim, & Russ, 2004; Moorman & Carr, 2008).

A living will is a formal document specifying the medical treatment one would
like to receive in the event that he or she is incapacitated. A Durable Power of Attorney
for Health Care (DPAHC) on the other hand is where the patient appoints a person to
make decisions about the patient's health care in the event the patient becomes incapable
of making such decisions (Heyland, Tranmer, Callaghan, & Gafni, 2008).

The hierarchical compensatory model, originally developed to explain family
caregiving, provides a conceptual framework for examining older adults' DPAHC
appointments (Cantor, 1981; Carr, 2007). The model proposes that older people have a
rank ordered preference for receiving assistance from others. Most adults will turn first to family members and will turn to non-family only when kin are unavailable (Chappell & Blandford, 1991). Older people prefer to receive support from their spouse, followed by their children, other relatives, and professional caregivers or formal organizations (Carr, 2007; Carr & Khodyakov, 2007; Chappell & Blandford, 1991; Moorman et al., 2009). Studies have shown that married persons overwhelmingly choose their spouse, while unmarried parents typically select their children as DPAHC (Carr, 2007; Miller & Guo, 1999). Persons with neither a spouse nor child most often turned to another relative, such as a sibling. In contrast, married persons and parents rarely turned to another relative, a friend, or a professional (Carr & Khodyakov, 2007; Chappell & Blandford, 1991; Frank, 2009).

Therefore, older persons select as their decision makers those closest to them, and look beyond their immediate kin only when close family members are not available. However, older adults do not always name a DPAHC the person who would be predicted by the hierarchical compensatory model. Thus, the norms prescribed by the model are not universal; rather, individuals will innovate to meet their own needs and the presumed needs of their loved ones (Carr, 2007). Couples that have better marital satisfaction may have an easier time discussing DPAHC decisions with each other and avoiding future confusion when confronting illness. For example, one study revealed that 57 percent of older adults thought that a discussion with their spouse about legal planning should be done in order to effectively convey their end of life preferences for future medical treatment (Hawkins, Ditto, Danks, & Smucker, 2005).
Despite years of urging from government agencies and medical professionals, most Americans do not have living wills, either because they would rather not think about their own dependence and death, or because they are wise enough to know that aging and dying sometimes means placing oneself in the care of others (Carr & Khodyakov, 2007; Fagerlin & Schneider, 2004). By 2001, despite more than a decade of efforts to increase the number of people filling out advance directives, the completion rate nationwide remained under 25 percent (Eiser & Weiss, 2001). Prior research has indicated that the living will may not effectively transmit the patient’s wishes under certain conditions: The content may be unclear, the preferences stated in the document may not be relevant to the patient’s current condition, the physician may not have access to the document at the critical decision making moment, and family members may not know its content or may not know how to translate the patient’s preferences into specific treatment decisions (Ditto et al., 2001; Silveira, DiPiero, & Gerrity, 2000). Although filing end of life documentation can be a very confusing and emotional experience, having greater marital satisfaction may help support older adults to fully complete and understand their spouse’s future health care decisions. Therefore, it is important to explore whether marital characteristics, such as marital satisfaction, are associated with how accurately spouses describe the existence and availability of their partner's end of life documentation (e.g., DPAHC, living wills, etc.) in order to better identify those couples who may struggle most with end of life decision-making.

Married couples will typically assign their spouse as their DPAHC and give them a copy of their living will or advance directive documentation (Carr, 2007). However,
Carr (2007) also indicates that individuals can sometimes become frightened or overwhelmed by the pressure of being the person to make end of life decisions for their spouse. Instead, couples may decide to give their end of life documentation to someone else other than their spouse (i.e. children, doctor) to ensure that their living will or advance directive is present when end of life decisions occur (Carr, 2007; Carr & Khodyakov, 2007). The decision to give one's living will or advance directive to someone other than one's spouse, may be explained by the fact that they previously discussed and decided that it would be best for a third party to hold a copy of their end of life documentation for them in addition to their spouse. Couples in higher satisfied marriages may be more likely to receive their spouse’s end of life documentation; however, variability in marital characteristics (i.e. lack of communication or trust) could ultimately persuade an older adult to give their end of life documentation to someone else. Therefore, this study intends to investigate the possible association between marital characteristics and the spouse’s receipt of their significant other’s living will or advance directive.

Marital Satisfaction

Role conflict diminishes marital satisfaction as demands of multiple roles make work and parenting responsibilities burdensome and give married couples less time for each other (Huyck, 1995). Researchers employing cross-sectional designs have found that, compared with younger age groups, older couples reported fewer marital problems and were less likely to say they experienced negative sentiments, defined as sarcasm, disagreements, and anger (George, 2006). Older couples, however, were also less likely
to report positive interactions than were young adults (Cartensen, Levenson, & Gottman, 1995).

Long-married couples tend to be very happy with their marriages (Huyck, 1995; Jansson, Nordberg, & Grafstrom, 2001; Quadagno, 2001). Earlier role strains and interpersonal conflicts have been resolved. Older couples tend to agree on basic values and goals, the division of household tasks, and family relationships and they perceive themselves as compatible (Bulanda, 2011). They also share a great deal of intimacy. In one study of couples married 45 to 55 years, more than 80 percent said that they confided in their mates most of the time, that they kissed their spouse every day or almost every day, and that they laughed together frequently. Ninety-eight percent liked their spouse as a person, and 94 percent rated their spouse as their best friend (Lauer, Lauer, & Kerr, 1995).

Some people have marriages that last a lifetime because they find the key to a successful marriage. Others stay married out of a sense of duty and commitment (Gierveld et al., 2009) The Long Island Long-Term Marriage Survey consisted of interviews with 576 couples who had been married 50 years or more. The survey included questions on overall marital happiness, marital intimacy, attitudes toward marriage, methods of dealing with conflict, and happiest and unhappiest times (Alford-Cooper, 1998). The results of this study found that the happiest couples are those who share their lives and have compatible interests and values. Other factors that are important include agreement about life’s goals, an ability to laugh together, and an ability to resolve conflicts.
Long-term marriages that are satisfying provide an important source of social support for older people (Alford-Cooper, 1998; Gierveld et al., 2009; Jansson et al., 2001; Silverstein & Giarrusso, 2010). Comparisons between married and unmarried people show that marriage has a positive effect on well-being. Overall, marital happiness is the best predictor of overall well-being of an individual in later life (Bulanda, 2011; Keith, 1989; Quadagno, 2001). This provides a rationale for the current study by supporting the fact that those who are in marriages that have a higher level of satisfaction will possibly be more likely to communicate with each other and ultimately discuss end of life issues prior to a medical emergency.

**The Limited Knowledge of Advance Directives**

As the American population ages, the dilemmas and obligations of making caregiving decisions for incapacitated patients, including decisions about when to initiate, forgo, or cease potentially life-sustaining treatments, will only become more widespread and more acute (Fagerlin & Schneider, 2004). More people will experience longer periods of dependence, including years of mental incapacitation. Deciding the best course of medical care during this extended period of debility will typically fall to surrogates, including family members and friends, health care professionals and social workers, who are called upon to speak for those without proxies.

In the United States, our effort to think ahead about caregiving for incapacitated persons has taken shape mainly around the legal instrument of advance directives, both “instruction directives” that aim to dictate how one should be cared for and “proxy directives” that appoint others to make or execute caregiving decisions (Fagerlin &
Schneider, 2004). Advance directives came into existence at a particular time in our recent history, when people began to worry about how healthcare providers make decisions and if their medical opinion that we rely on actually makes an individuals’ life better or if they are used in ways that are ambiguous or even harmful (Kass, 2005). People worried especially that life-sustaining medical technologies might keep them alive for too long in what they perceived to be an undignified state, unrewarding to themselves and excessively burdensome to their loved ones. More generally, people worried that decisions might be made without sufficient regard to their own wishes and welfare (Grembowski, 2002; Kass, 2005). Advance directives were created as a way to alleviate these concerns.

Vastly more typical is the patient suffering the gradual, degenerative decline toward incompetence and physical vulnerability associated with Alzheimer’s disease and other dementias (Kass, 2005). It is primarily for such persons that the value of advance directives has been especially urged. Yet, studies indicate that only a small percentage of Americans actually have formal advance directives, and those that exist are often vague or limited (Dworkin, 1993; Hawkins, 2005; Kass, 2005; Meisel & Cerminara, 2005). Thus, in most cases, the burden of decision making for incapacitated elderly patients still falls on caregivers making decisions (Kaufman et al., 2004; Moorman & Carr, 2008).

The need to make decisions on behalf of others will only become more complicated as the American population ages; and it is misleading to think that, through wider use of living wills, competent persons will be able to direct their own care simply by leaving detailed instructions in advance. In fact, the evidence suggests that this
“solution” to the problem of caregiving in an aging society is not only unrealistic but in several respects undesirable (Grembowski, 2002). Despite years of urging, most Americans do not have living wills, either because they would rather not think about their own dependence and death, or because they are wise enough to know that aging and dying sometimes mean placing oneself in the care of others (Carr & Khodyakov, 2007; Fagerlin & Schneider, 2004). Not only are living wills unlikely to achieve their own stated goals, but those goals themselves are open to question (Goodman, 1998; Soerensen & Pinquart, 2000). Living wills make autonomy and self-determination the primary values at a time of life when one is no longer autonomous or self-determining, and when what one needs is loyal and loving care. This paradox is at the heart of the trouble with this approach to caregiving. A goal for this study is to examine the importance and associations between marital satisfaction and end of life decisions that older adult’s make later in life.

This does not mean that advance directives or advance care planning are useless or unnecessary. Proxy directives serve the wise and helpful purpose of putting one’s trust explicitly in the hands of loved ones who rightly bear the burden of providing care and making decisions (Kass, 2005). Advance care planning is a wise way to come to terms with the possibility of one’s own future dependence, at a stage of life when one can still participate in such planning (i.e. treatment preferences, housing arrangements, long-term care options). Yet, in the end, no legal instrument can substitute for wise and loving choices, made on the spot, when the precise treatment dilemma is clear and care decisions are needed. Proxy directives can appoint decision makers, but only ethical reflection and
prudent judgment can guide them at the bedside. Also, advance care planning can help prevent future decisions from being made in ignorance or in crisis (Meisel & Cerminara, 2004). However, such planning should always aim at providing the best care possible for the patient as he or she might be in the future, which means providing care for a person whose precise needs can never fully be known at the time such advance planning occurs (Carr, 2007; Carr & Khodyakov, 2007; Hawkins, 2005; Kaufman et al., 2004).

The Scarcity of Living Wills

Despite the widespread acclaim for the idea of living wills, and despite more than thirty years of encouragement, studies show that most Americans do not have one. While the rate of completion of living wills did rise in the years right after the Patient Self-Determination Act (PSDA), there remains a large gap between the number of Americans who claim to believe that living wills are a good idea and the number of Americans who actually have them. By 2001, despite more than a decade of efforts under the PSDA to increase the number of people filling out advance directives, the completion rate nationwide remained under 25 percent (Eiser & Weiss, 2001). Even the chronically or terminally ill do not seem to prepare living wills in substantially higher numbers. One recent study suggested that only about a third of dialysis patients had a living will, even though most of them thought living wills “a good idea” (Holley, 1997).

The problem does not seem to be lack of information. Many studies suggest that programs designed to increase people’s awareness of living wills do not appreciably increase the likelihood of their completing them (Eiser & Weiss, 2001). Instead, people (including many who claim to believe that living wills are a good idea) seem to have
substantial reasons for not completing a living will, and by and large they cannot be easily persuaded to change their minds. One recent study suggests, in particular, that most patients prefer not to put specific treatment preferences in writing; and even when individuals complete instruction directives, they typically prefer “to allow surrogate decision makers leeway in decision making” (Hawkins, 2005).

**The Completion of End of Life Documentation**

Even if a person were to have their clear preferences inscribed in a living will, in many cases the document itself or the information contained within will not actually reach the people responsible for the incapacitated patient’s medical care. A living will signed years in advance may be misplaced or forgotten by the time it is needed. Most patients do not give their living will to their physician. Even if they do, that physician may not be the one treating the patient by the time he has become incapacitated. One study found that, even when patients had completed living wills before being hospitalized, their medical charts contained accurate information about their directives only 26 percent of the time, and only 16 percent of the charts contained the actual form (Morrison, 1995). The marital relationship of older adults in a crucial point to consider for this study since research has shown that marital satisfaction can potentially be an important factor for older married couples when deciding on end of life issues.

**Living Wills Effect on Decision Making**

A recent study by Ditto (2001) set out to assess whether instruction directives or living wills are effective in improving the accuracy of surrogate decision making (Ditto, 2001). An experiment was performed involving competent outpatients aged 65 or older
and their preferred surrogate decision makers (mostly spouses or children). All the patients completed a questionnaire asking whether they would want any of four life sustaining medical treatments in nine different illness scenarios. Subjects in two experimental groups filled out scenario based instruction directives and subjects in two other experimental groups filled out values based instruction directives. Subjects in the control group filled out no advance directive at all. The surrogates were then divided into five corresponding groups. In the control group, the surrogates were asked to predict the patient’s preferences for the life sustaining medical treatments in each of the illness scenarios without the benefit of an advance instruction directive. In the four experimental groups, surrogates made such predictions after reviewing the patient’s scenario based or value based written directive. Surrogates in two of the experimental groups also discussed the contents of the directive with the patient. The researchers then measured the accuracy of surrogate judgment in the various groups, by comparing the predicted preference with the preference actually expressed by the patient.

Strikingly, what Ditto (2001) found in his study was that, compared to the control group, none of the interventions produced significant improvement in the accuracy of the surrogates’ judgment in any illness scenario or for any medical treatment. When spouses or children of elderly patients made surrogate “decisions” about medical treatment based only on their familiarity with the patient, their judgments were just as accurate as that of spouses and children who had read or read and discussed a detailed living will created by the patient. In all five groups, the accuracy of surrogate decision making was found to be about 70 percent.
In a companion study, some of the same researchers examined the effectiveness of instruction directives in improving the accuracy with which physicians could predict the treatment preferences of their older patients (Coppola, 2001). What Coppola (2001) found was that family members generally predict patient preferences more accurately than physicians; the accuracy of predictions by the patient’s primary care physician (that is, a doctor who knows the patient) was not significantly improved by reading either a values based or scenario based living will; but hospital-based physicians (that is, doctors unfamiliar with the patient) could make more accurate predictions in certain scenarios if they had read the patient’s scenario-based living will.

These studies call into question whether living wills are likely to have a significant impact on the medical care received by an incompetent patient, at least in cases where surrogate decisions are made either by relatives of the patient or by physicians who know the patient. This conclusion is borne out by several studies cited by Fagerlin and Schneider (2004), such as one completed by Goodman, which concluded both that “few critically ill seniors have advance directives” and that “the level of care delivered to elderly intensive care unit (ICU) patients is not affected by the presence or absence of advance directive statements” (Goodman, 1998). Another study suggests that, in roughly three out of four cases, “previously executed advance directives are not accessible when patients are admitted to hospitals for acute illness” (Morrison, 1995); and yet another study gives evidence that incompetent patients frequently receive care that is inconsistent with their living will (Danis, 1991). This indicates for the current
study that the level of marital satisfaction can be a crucial indicator for how couples discuss end of life issues with each other and how future healthcare decisions are made.

In a recent study, Degenholtz, 2004 found that completing a living will was in fact associated with a lower rate of in-hospital deaths, perhaps suggesting that living wills are effective at communicating patients’ preferences regarding life sustaining medical treatments (Degenholtz, 2004). However, as Teno, 2004 has pointed out, the mere correlation between having a living will and dying outside the hospital setting does not suffice to prove that the use of living wills causes a lower rate of hospitalization. It could simply mean that those who complete living wills have, on average, a stronger preference for dying at home than those who do not. Teno’s own research suggests that, the increased prevalence of advance directives notwithstanding, bereaved family members report many problems with the end of life institutional care received by their loved ones (Teno, 2004).

**Study Objectives**

In summary, this study will examine how marital satisfaction contributes to respondents' own end of life decisions. Further, this study examines how marital satisfaction is associated with how accurately spouses' describe their husband's/wife's preferences for end of life care. Specifically, the hypotheses of this study are:

1a) Higher marital satisfaction will be associated with respondents' own end of life preferences.

1b) Higher marital satisfaction will be associated with greater congruence between respondents’ and their spouses’ perceptions of their end of life preferences.
2a) Higher marital satisfaction will be associated with the likelihood that a respondent will name their spouse as their DPAHC.

2b) Higher marital satisfaction will be associated with greater congruence between respondents' and spouses' reports of who is respondents' DPAHC.

3a) Older adults who report higher marital satisfaction will be more likely to have initiated and completed end of life documentation (i.e. living will advance directive).

3b) Higher marital satisfaction will be associated with greater congruence between respondents' and their spouses' reports of whether or not respondents have initiated and completed end of life documentation.

4a) Higher marital satisfaction will be associated with respondents' provision of end of life documentation to their spouse.

4b) Higher marital satisfaction will be associated with greater congruence between respondents' reports and spouses' reports of whether or not the respondent has given their end of life documentation to their spouse.
CHAPTER III

JOURNAL ARTICLE

Introduction

A growing concern of elderly patients and their health care providers is that surrogates accurately convey an older adult’s wishes. Previous research has shown that older adults will typically choose their spouse as their primary surrogate (Carr & Khodyakov, 2007; Hooyman & Kiyak, 2011; Lima, Allen, Goldscheider, & Intrator, 2008). In practice, however, surrogates often do not choose the treatments a dying person may have chosen. A study done by Moorman et al. (2009) analyzed data from the Wisconsin Longitudinal Study (WLS) to examine how surrogates’ errors in reporting their spouses’ preferences are associated with gender, status as durable power of attorney for health care (DPAHC), whether they and their spouses discussed end of life preferences, and their spouses’ health status (Moorman, Hauser, & Carr, 2009). Moorman and colleagues found that surrogates reported their spouses’ preferences incorrectly 13–26% of the time in end of life scenarios (Moorman et al., 2009). The purpose of the current study is to investigate why 13–26% of surrogates incorrectly reported the wishes of their spouse (Moorman et al., 2009) by investigating how differences in marital satisfaction can potentially help explain this discrepancy. Specifically, this study explores the extent to which marital satisfaction is associated with the conveyance of information about end of life issues between spouses.
Marital satisfaction tends to vary by life course stage (Bulanda, 2011; Hooyman & Kiyak, 2011; Levenson, Carstensen, & Gottman, 1994). As partners modify roles through retirement, post-parenthood, illness, or disability, they face the strain of relinquishing previous roles and adapting to new ones (Silverstein & Giarrusso, 2010). Older partners’ ability to negotiate such role transitions depends, in large part, on their prior flexibility and satisfaction in their marital relationship. Marital satisfaction may increase in middle age to early old age, with couples becoming more similar in their attitudes, beliefs, roles, and behaviors (Davey & Szinovacz, 2004). Happy marriages in late life are typically characterized by adequate communication, gender equality, and joint decision making through a gradual relaxing of boundaries and decreasing division of labor based on traditional male/female roles (Anderson, Russell, & Schumm, 1983; Corra, Carter, & Knox, 2009; Jansson, Nordberg, & Grafstrom, 2001). However, as problems arise within the relationship (i.e. illness) conflict between the spouses can easily ensue.

When a patient or surrogate cannot decide upon or articulate a desired course of treatment, all treatment typically continues (Moorman & Carr, 2008). Therefore, this usually entails the prolongation of medications, medical procedures, or a patient's stay within a healthcare facility. This practice can result in conflict between health care providers and families, and can be very costly (Hare, Pratt, & Nelson, 1992; Moorman & Carr, 2008). While an exorbitant amount of money is being spent on overtreatment, the elderly patient could have avoided this situation by clearing any uncertainty they may have had. Therefore, the purpose of this study is to examine the association between the
characteristics of a couples’ marriage and the discrepancies that may occur when making end of life decisions.

**Associations Between Marital Satisfaction & End of Life Preferences**

Several studies have shown that there are issues between older individuals and their spouses when effectively communicating their end of life treatment preferences (Cherlin, Prigerson, Schulman-Green, Johnson-Hurzeler, & Bradley, 2005; Hofman, Wenger, Davis, Teno, & Connors, 1997; Hopp, 2000). For example, Moorman et al. (2009) explored demographic and social factors that might moderate surrogates’ proneness to error and tendency to rely on their own preferences when attempting to make substituted judgments for their spouse (Moorman et al., 2009). Of particular interest to this study is the analysis related to discussions between surrogate and spouse, where they concluded that communication may occur, but in ineffective intervals. For this study, these ineffective intervals provide a rationale that poor communication and marital satisfaction between spouses may account for some of the differences in reporting decisions related to end of life care.

Long (1993) states that persons in high-quality marriages are more likely to report that they try to assume their spouses’ perspectives than are persons in low-quality marriages and spouses in high-quality marriages are likely to perceive their partners’ efforts to assume their perspective. According to Levenson et al. (1994), high quality marriages are defined by the spouses having a perception of happiness, being affectionate, and emotional closeness (Levenson, Gottman, & Cartensen, 1994). Although older adults may have a variety of resources available to them (i.e. social,
technological), there is still a need for an older individual to have positive communications with his or her spouse in order to come to a consensus about what they would prefer their end of life decisions to be because the majority of older adults tend to identify their spouse as their preferred surrogate (Carr, 2007; Ditto, 2003; Hooyman & Kiyak, 2011; Moorman et al., 2009). From previous research, assumptions could possibly be made that couples that are part of a lower quality marriage, have poor marital communication, and ultimately those with lower marital satisfaction may report different perceptions of their spouse’s end of life preferences, which can create discrepancies when a medical emergency arises. For example, if a couple is part of a marriage that has poor marital characteristics, they may falsely assume their spouse’s end of life preferences when a medical emergency occurs. As a result, these false assumptions could create dire consequences to the spouse that becomes ill. Therefore, this study will explore how there may be discrepancies between the respondent and his/her spouse based on their responses to questions about end of life preferences.

**Associations Between Martial Satisfaction & End of Life Documentation**

Planning during an older adult’s final days usually consists of chronically ill older adults who have limited mobility, impaired cognitive functioning, pain, and difficulty recognizing family (Carr, 2007). Dying persons who have not made formal plans for their end of life care tend to have little control over the medical treatment they receive. Difficult decisions about stopping or prolonging treatment typically fall upon distressed family members who may not agree with one another. Moreover, health care providers
may prolong futile yet costly medical treatments (Carr & Khodyakov, 2007; Kaufman, Shim, & Russ, 2004; Moorman & Carr, 2008).

A living will is a formal document specifying the medical treatment one would like to receive in the event that he or she is incapacitated. A Durable Power of Attorney for Health Care (DPAHC) on the other hand is where the patient appoints a person to make decisions about the patient's health care in the event the patient becomes incapable of making such decisions (Heyland, Tranmer, Callaghan, & Gafni, 2008). These documents are especially important to older adults in later life since the fate of their end of life decisions rest with the completion of these types of documentation.

The hierarchical compensatory model, originally developed to explain family caregiving, provides a conceptual framework for examining older adults' DPAHC appointments (Cantor, 1981; Carr, 2007). The model proposes that older people have a rank ordered preference for receiving assistance from others. Most adults will turn first to family members and will turn to non-family only when kin are unavailable (Chappell & Blandford, 1991). Older people prefer to receive support from their spouse, followed by their children, other relatives, and professional caregivers or formal organizations (Carr, 2007; Carr & Khodyakov, 2007; Chappell & Blandford, 1991; Moorman et al., 2009). Studies have shown that married persons overwhelmingly choose their spouse, while unmarried parents typically select their children as DPAHC (Carr, 2007; Miller & Guo, 1999). Persons with neither a spouse nor child most often turned to another relative, such as a sibling. In contrast, married persons and parents rarely turned to
another relative, a friend, or a professional (Carr & Khodyakov, 2007; Chappell & Blandford, 1991; Frank, 2009).

Therefore, older persons select as their decision makers those closest to them, and look beyond their immediate kin only when close family members are not available. However, older adults do not always name a DPAHC the person who would be predicted by the hierarchical compensatory model. Thus, the norms prescribed by the model are not universal; rather, individuals will innovate to meet their own needs and the presumed needs of their loved ones (Carr, 2007). Couples that have better marital satisfaction may have an easier time discussing DPAHC decisions with each other and avoiding future confusion when confronting illness. For example, one study revealed that 57 percent of older adults thought that a discussion with their spouse about legal planning should be done in order to effectively convey their end of life preferences for future medical treatment (Hawkins, Ditto, Danks, & Smucker, 2005).

Despite years of urging from government agencies and medical professionals, most Americans do not have living wills, either because they would rather not think about their own dependence and death, or because they are wise enough to know that aging and dying sometimes means placing oneself in the care of others (Carr & Khodyakov, 2007; Fagerlin & Schneider, 2004). By 2001, despite more than a decade of efforts to increase the number of people filling out advance directives, the completion rate nationwide remained under 25 percent (Eiser & Weiss, 2001). Prior research has indicated that the living will may not effectively transmit the patient’s wishes under certain conditions: The content may be unclear, the preferences stated in the document
may not be relevant to the patient’s current condition, the physician may not have access to the document at the critical decision making moment, and family members may not know its content or may not know how to translate the patient’s preferences into specific treatment decisions (Ditto et al., 2001; Silveira, DiPiero, & Gerrity, 2000). Although filing end of life documentation can be a very confusing and emotional experience, having greater marital satisfaction may help support older adults to fully complete and understand their spouse’s future health care decisions. Therefore, it is important to explore whether marital characteristics, such as marital satisfaction, are associated with how accurately spouses describe the existence and availability of their partner's end of life documentation (e.g., DPAHC, living wills, etc.) in order to better identify those couples who may struggle most with end of life decision-making.

Married couples will typically assign their spouse as their DPAHC and give them a copy of their living will or advance directive documentation (Carr, 2007). However, Carr (2007) also indicates that individuals can sometimes become frightened or overwhelmed by the pressure of being the person to make end of life decisions for their spouse. Instead, couples may decide to give their end of life documentation to someone else other than their spouse (i.e. children, doctor) to ensure that their living will or advance directive is present when end of life decisions occur (Carr, 2007; Carr & Khodyakov, 2007). The decision to give one's living will or advance directive to someone other than one's spouse, may be explained by the fact that they previously discussed and decided that it would be best for a third party to hold a copy of their end of life documentation for them in addition to their spouse. Couples in more satisfied
marriages may be more likely to receive their spouse’s end of life documentation; however, variances in marital characteristics (i.e. lack of communication or trust) could ultimately persuade an older adult to give their end of life documentation to someone else. Therefore, this study intends to investigate the possible association between marital satisfaction and the spouse’s receipt of their significant other’s living will or advance directive.

**Study Objectives**

In summary, this study will examine how marital satisfaction contributes to respondents' own end of life decisions. Further, this study examines how marital satisfaction is associated with how accurately spouses' describe their husband's/wife's preferences for end of life care. Specifically, the hypotheses of this study are:

1a) Higher marital satisfaction will be associated with respondents' own end of life preferences.

1b) Higher marital satisfaction will be associated with greater congruence between respondents’ and their spouses’ perceptions of their end of life preferences.

2a) Higher marital satisfaction will be associated with the likelihood that a respondent will name their spouse as their DPAHC.

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3a) Older adults who report higher marital satisfaction will be more likely to have initiated and completed end of life documentation (i.e. living will advance directive).
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4a) Higher marital satisfaction will be associated with respondents' provision of end of life documentation to their spouse.

4b) Higher marital satisfaction will be associated with greater congruence between respondents' reports and spouses' reports of whether or not the respondent has given their end of life documentation to their spouse.

**Method**

This study uses data from the Wisconsin Longitudinal Study (WLS), specifically the data recorded in the most recent wave completed in 2004. The WLS cohort of men and women, born primarily in 1939, precedes by about a decade the bulk of the baby boom generation (Wisconsin Longitudinal Study, 2005). For this reason, the WLS can provide early indications of trends and problems that will become important as this larger group passes through its 60s (Wisconsin Longitudinal Study, 2005). The WLS provides an opportunity to study the life course, intergenerational transfers and relationships, family functioning, physical and mental health and well-being, and morbidity and mortality from late adolescence through 2004 (Moorman et al., 2009). The WLS is a long-term study that began with a random sample of 10,317 men and women who graduated from Wisconsin high schools in 1957. Graduates were surveyed at ages 18 (1957), 36 (1975), 54 (1993), and 65 (2004).
This study utilizes the 2004 wave of the study that includes 7,780 (78.2%) married respondents from the original cohort. The respondents were asked to complete parallel surveys \((N = 3,890)\) along with their spouses \((N = 3,890)\). The married couples selected were chosen based on the criteria that both individuals participated in the study, allowing for a comparison of responses. The current study only uses data from the respondents and spouses who both completed surveys in 2004.

**Participants**

The sample included primarily White (non-Hispanic) Americans; few minorities lived in Wisconsin in the late 1950s (Wisconsin Longitudinal Study, 2005). Despite these limitations, the sample is broadly representative of older, White, married American men and women who have completed at least a high school education. In total 10,317 individuals began the study, of which 3,890 married couples were interviewed in 2004.

The respondents' ranged in age from 62-73 years old \((M = 64.36, SD = 4.92)\). The respondents’ spouses ranged in age from 30-91 years old \((M = 63.23, SD = 7.45)\). Forty-six percent of the respondents were husbands \((n = 1808)\) and 54% of respondents were wives \((n = 2082)\). In order to participate in the WLS, each respondent was required to be a graduate of a Wisconsin high school. Therefore, the majority of the respondents and their spouses completed high school (74% of respondents, 43.2% of spouses). Table 1 provides demographic characteristics for the sample separately for husbands and wives.
Measures

Independent Variables

Marital satisfaction. Participants were asked about their perceived marital satisfaction with their marriage. Questions that were asked included “How satisfied are you with the day-to-day support and encouragement provided by your spouse?,” “How satisfied are you with your spouse’s overall personality?,” “How satisfied are you with the way disagreements are settled?,” “How satisfied are you with the amount of consideration shown by your spouse?,” “How satisfied are you with how decisions are made in your marriage?,” and “How satisfied are you with how well your spouse listens to you?” These questions were answered by using a scale that ranged from 1 (very dissatisfied) to 6 (very satisfied). A composite variable was created to represent marital satisfaction, where the variable is the sum across these items. The measure demonstrated satisfactory internal consistency with an alpha of 0.95.

Dependent Variables

Respondents’ communication of preferences to spouse. The WLS ascertained respondents' end of life treatment preferences with the following question: “Have you discussed health care plans with your spouse?” This is a dichotomous variable, where 1 = yes and 0 = no.

Spousal congruence in communication of preferences. A composite variable was created to represent the congruence between respondent’s and spouse’s response to the question “Have you discussed health care plans with your spouse?” This is a dichotomous variable where 1 represents congruence between the respondent and the
spouse (i.e. both respondent and spouse answered yes/yes or no/no) and 0 represents a discrepancy between the respondent's and the spouse’s response (i.e. respondent answered yes and spouse answered no or respondent answered no and spouse answered yes).

**Respondents' report of DPAHC.** Respondents answered “yes” or “no” to the question, “*Does your spouse have the authority to make decisions about your medical care?*” Responses were coded 1 for yes spouse is the DPAHC and 0 for no the spouse is not the DPAHC.

**Spousal congruence for DPAHC.** A composite variable was created to represent the congruence between respondent’s and spouse’s response to whether the spouse is the respondent’s DPAHC. This is a dichotomous variable where 1 represents congruence between the respondent and the spouse (i.e. both respondent and spouse answered yes/yes or no/no) and 0 represents a discrepancy between the respondent and the spouse’s response (i.e. respondent answered yes and spouse answered no or respondent answered no and spouse answered yes).

**Respondents' report of living will/advance directive.** Respondents were asked “*Do you have a living will or an advance directive?*” Responses were coded 1 for yes, I have a living will/advance directive and 0 for no, I do not have a living will/advance directive.

**Spousal congruence for living will/advance directive.** A composite variable was created to represent the congruence between respondent’s and spouse’s response to the respondent’s obtainment of a living will/advance directive. This is a dichotomous
variable where 1 represents congruence between the respondent and the spouse (i.e. both respondent and spouse answered yes/yes or no/no) and 0 represents a discrepancy between the respondent and the spouse’s response (i.e. respondent answered yes and spouse answered no or respondent answered no and spouse answered yes).

**Respondent gave living will/advance directive to spouse.** Respondents were asked “Have you given your living will or advance directive to your spouse?” Responses were coded 1 for yes, I have given my spouse a copy of my living will/advance directive and 0 for no, I did not give a copy of my living will/advance directive to my spouse.

**Spousal congruence for receiving living will/advance directive.** A composite variable was created to represent the congruence between respondent’s and spouse’s response to whether or not the respondent gave their spouse a copy of their living will/advance directive. This is a dichotomous variable where 1 represents congruence between the respondent and the spouse (i.e. both respondent and spouse answered yes/yes or no/no) and 0 represents a discrepancy between the respondent and the spouse’s response (i.e. respondent answered yes and spouse answered no or respondent answered no and spouse answered yes).

**Additional Interview Items**

**Respondent’s additional end of life preferences.** Respondents were asked additional questions about their end of life preferences. The first question asked was “How well does your spouse understand your plans and preferences for future medical treatment?” This question used a scale ranging from 1 (not at all) to 4 (extremely well). The remaining questions that were asked included “Who would the first person be with
whom you have discussed your health care plans and preferences?,” “If you were to pick a person to make medical decisions for you, who would you choose?,” and “Who is the first person you gave your living will or advance directive to?” These questions were coded 1 = spouse, 2 = spouse & child, 3 = whole family, and 4 = other.

Results

Descriptive Characteristics of Respondents' End of Life Preferences

First, I examined the frequencies for the additional items respondents reported on regarding their end of life preferences (Table 2). The majority of respondents (78.4%) reported that they felt their spouse understood their preferences for future medical treatment extremely well. Nearly 67% of respondents chose to discuss their health care plans and preferences with their spouse and 55.3% of respondents chose their spouse to make medical decisions for them. However, 62% of respondents decided to give their living will or advance directive to someone other than their spouse.

Hypothesis Testing

Associations between marital satisfaction & end of life preferences. Next, a series of logistic regression analyses were conducted to examine associations between marital satisfaction, respondents' reports, and spousal congruence for respondents' end of life preferences (Hypothesis 1a & 1b). In all analyses, the predictor variable was marital satisfaction.

Respondents' communication of preferences to spouse. First, a logistic regression was conducted to examine associations between marital satisfaction and the outcome, respondents' communication of end of life preferences to their spouse. Results
revealed a significant association between marital satisfaction and respondents' communication of end of life preferences to their spouse (Table 3). Respondents who reported better marital satisfaction were 1.75 times more likely to report that they discussed end of life preferences with their spouse compared to those who reported poorer marital satisfaction. The R-square for the model was 0.448, indicating that 44.8% of the variance in respondents' communication of end of life preferences to their spouse is explained by marital satisfaction.

**Spousal congruence in communication of preferences.** A logistic regression was also conducted to examine associations between marital satisfaction and spousal congruence in communication of end of life preferences. Results revealed a significant association between marital satisfaction and spousal congruence in communication of end of life preferences (Table 3). Couples that reported higher marital satisfaction were 1.1 times more likely to agree about whether or not they discussed end of life preferences with one another. The R-square for the model was 0.178, indicating that 17.8% of the variance in spousal congruence in communication of end of life preferences is explained by marital satisfaction.

**Associations between marital satisfaction & DPAHC.** A second series of logistic regression analyses were conducted to examine associations between marital satisfaction, respondents' reports, and spousal congruence for DPAHC (Hypothesis 2a & 2b). In all analyses, the predictor variable was marital satisfaction.
**Respondents' report of DPAHC.** First, a logistic regression was conducted to examine associations between marital satisfaction and whether or not the respondents reported their spouse as DPAHC, where the outcome variable was respondents' report of DPAHC. Results revealed a significant association between marital satisfaction and respondents' report of DPAHC (Table 4). Respondents who reported better marital satisfaction were 1.4 times more likely to report that they made their spouse their DPAHC compared to those who reported poorer marital satisfaction. The R-square for the model was 0.293, indicating that 29.3% of the variance in respondents' report of DPAHC is explained by marital satisfaction.

**Spousal congruence for DPAHC.** A logistic regression was also conducted to examine associations between marital satisfaction and spousal congruence for DPAHC. There was a significant association between marital satisfaction and spousal congruence for DPAHC, where couples that reported better marital satisfaction were 0.95 times more likely to agree on whether or not the respondent named their spouse as their DPAHC (Table 4). The R-square for the model was 0.054, indicating that 5.4% of the variance in spousal congruence for DPAHC is explained by marital satisfaction.

**Associations between marital satisfaction & end of life documentation.** A third series of logistic regression analyses were conducted to examine associations between marital satisfaction, respondents' reports, and spousal congruence for end of life documentation (Hypothesis 3a & 3b). In all analyses, the predictor variable was marital satisfaction.
**Respondents' reports of living will/advance directive.** A logistic regression was conducted to examine associations between marital satisfaction and whether or not the respondents had a living will or an advance directive, where the outcome variable was respondents' report of living will/advance directive. Results revealed a significant association between marital satisfaction and respondents' report of living will/advance directive (Table 5). Respondents who reported better marital satisfaction were 3.4 times more likely to report that they made a living will or advance directive compared to those who reported poorer marital satisfaction. The R-square for the model was 0.838, indicating that 83.8% of the variance in respondents' report of living will/advance directive is explained by marital satisfaction.

**Spousal congruence for living will/advance directive.** Finally, a logistic regression was also conducted to examine associations between marital satisfaction and spousal congruence for having a living will or an advance directive. In this analysis, the outcome variable was spousal congruence for living will/advance directive. Results revealed a significant association between marital satisfaction and spousal congruence for living will/advance directive (Table 5). Couples who reported better marital quality were 1.62 times more likely to agree on whether or not a living will or advance directive was made compared to those who reported poorer marital satisfaction. The R-square for the model was 0.556, indicating that 55.6% of the variance in spousal congruence for living will/advance directive is explained by marital satisfaction.
Associations between marital satisfaction & receipts of living will/advance directive. A final series of logistic regression analyses were conducted to examine associations between marital satisfaction, respondents' reports, and spousal congruence for receipt of end of life documentation (Hypothesis 4a & 4b). As in the previous analyses, the predictor variable was marital satisfaction.

**Respondent gave living will/advance directive to spouse.** First, a logistic regression was conducted to examine associations between marital satisfaction and whether the respondents had given their living will or an advance directive to their spouse, where the outcome variable was respondent gave living will/advance directive to their spouse. Results revealed a significant association between marital satisfaction and respondents' report of giving their living will/advance directive to their spouse (Table 6). Respondents who reported better marital satisfaction were 1.33 times more likely to report that they gave their living will or advance directive to their spouse compared to those who reported poorer marital quality. The R-square for the model was 0.288, indicating that 28.8% of the variance in whether respondents' gave their spouse their living will/advance directive is explained by marital satisfaction.

**Spousal congruence for receiving living will/advance directive.** Finally, a logistic regression was conducted to examine associations between marital satisfaction and spousal congruence for receiving a living will or an advance directive. In the regression, the predictor variable was marital satisfaction and the outcome variable was spousal congruence for receiving living will/advance directive. Results revealed a significant association between marital satisfaction and spousal congruence for receiving
a living will/advance directive (Table 6). Couples who reported better marital satisfaction were 0.96 times less likely to agree on whether or not the spouse had received a living will/advance directive compared to those who reported poorer marital satisfaction. The R-square for the model was 0.047, indicating that 4.7% of the variance in spousal congruence for receiving a living will/advance directive is explained by marital satisfaction.

Discussion

This study expanded on prior research by examining how marital satisfaction contributes to respondents’ own end of life preferences as well as to spousal congruence related to end of life decisions. Findings revealed that marital satisfaction is associated with end of life decision making for adults in later life. These findings suggest that marital satisfaction is an important factor for older adults' consideration of end of life issues. The implications of these findings suggest that spouses with poor marital satisfaction may be at greater risk of disagreeing about end of life decisions that may have deleterious implications for their spouse's end of life care.

Associations Between Marital Satisfaction & End of Life Preferences

The first set of analyses examined whether or not spouses discussed end of life preferences with each other. Prior research indicates that spouses are most likely to grant one another DPAHC (Carr, 2007). Consistent with that notion is the idea that spouses would inform one another of their wishes, should such an occasion arise. As expected, my findings indicated that couples with higher perceived marital satisfaction are more likely to have discussed end of life preferences. When congruence was examined, those
in more satisfied marriages were more likely to agree about whether or not they discussed end of life preferences. This may mean that couples in more satisfying marriages might be more likely to discuss end of life preferences with each other earlier in their relationship. For example, marital satisfaction might contribute to greater agreement based on the notion that those in better marriages possibly communicate more often than those in poorer marriages. Ultimately, those in less satisfied marriages are at greater risk of disagreeing about end of life preferences since they may not have communicated about end of life issues earlier in their relationship.

Prior studies also suggest that family caregivers consistently report that end of life communication is often inadequate (Cherlin et al., 2005; Hanson, Danis, & Garret, 1997). This study found that respondents who reported better marital satisfaction tended to be more likely to convey end of life preferences. In essence, better marital satisfaction can encourage older couples to discuss and think critically about filing end of life documentation and about how having a living will or advance directive can create a better sense of understanding and relief when spouses are put in a possible high stress medical emergency situation. By communicating and explaining to each other their preferences for future medical treatment, spouses may be able to delineate their actual wishes and reduce the risk of making false assumptions about their spouse's end of life preferences.

**Associations Between Marital Satisfaction & DPAHC**

Further, as anticipated, my results revealed that greater marital satisfaction was associated with respondents' reports of DPAHC as well as spousal congruence in reports. These findings are supported by previous research that indicates that couples will
typically prefer to receive support from their spouse and will choose their spouse as their DPAHC (Carr, 2007; Miller & Guo, 1999). Therefore, it can be inferred that those who report greater marital satisfaction may be more likely to name their spouse as their DPAHC. This may be because of the fact older adults in more satisfied marriages respect their significant other's opinion, think alike, or have trust in their decisions. In general, couples that are part of happy marriages are those who share their lives, have compatible interests and values, agree on life goals, and have the ability to resolve conflicts (Alford-Cooper, 1998). These positive marital characteristics could possibly explain why older adults entrust their spouse to be their DPAHC to carry out their end of life care decisions.

Marital satisfaction was also associated with congruence for DPAHC. This finding indicates that couples that report higher marital satisfaction will be more likely to agree upon choosing their spouse as their DPAHC. Therefore, older adults who are a part of a relationship that encompasses positive marital satisfaction may indicate that couples in later life view the appointment of their DPAHC as an important matter and are cognizant of the fact that communicating their end of life preferences with each other has an impact on their healthcare treatment in the future.

**Associations Between Marital Satisfaction & End of Life Documentation**

Prior research has found that despite more than a decade of efforts by medical professionals and government institutions to increase the number of people filling out advance directives, the completion rate nationwide remains under 25 percent (Eiser & Weiss, 2001). However, this study found that respondents who reported higher marital satisfaction had completed some form of end of life documentation, including a living
will or advanced directive. This may indicate that promoting positive marital characteristics earlier in the couple’s marriage may help reduce the rapidly growing number of older adults who do not make end of life care plans by encouraging them to think about, discuss, and fill out end of life documentation.

Previous studies have found that people worry that decisions might be made without sufficient regard to their own wishes and welfare (Grembowski, 2002; Kass, 2005). As a result advance directives were created as a way to alleviate these concerns. As predicted, the association between marital satisfaction and spousal congruence was positive, indicating that those with better marital satisfaction were more likely to agree with their spouse about whether or not they had completed end of life documentation. Inspiring each other to make living wills or advance directives early in the relationship could help alleviate future confusion or conflict should a medical emergency ever occur.

**Associations Between Marital Satisfaction & Receipts of Living Will/Advance Directive**

Further, as anticipated, my findings also indicated a positive relationship between marital satisfaction and the likelihood of the respondent giving their spouse a copy of their living will. However, there was a discrepancy in the spousal congruence which unexpectedly indicates that those in more satisfied marriages were less likely to agree about whether or not the spouse received a copy of their respondent’s living will or advance directive. My findings revealed that 62% of the respondents chose to give the first copy of their living will or advance directive to someone other than their spouse. Therefore, those who are in better marriages may not be aware of whether or not they
have received a living will or an advance directive because their spouse decided to entrust someone else with their end of life documentation. Since planning for an older adult’s final days can be very difficult to be recognized by the family (Carr, 2007), respondents may decide to give copies of their end of life documentation to their family members so that they are aware of the decisions that the respondent has made, but have the spouse carry out the decisions. However, the couples that were part of high quality marriages may have decided previously together to give their living will or advance directive to their child or healthcare provider so that they were assured that their end of life documentation was present when a medical emergency occurred.

**Limitations**

Despite the contributions of the present study, it is not without limitations. The WLS only consisted of participants that were graduates of Wisconsin high schools. The sample was primarily made up of Caucasian individuals. Including individuals of other cultural background may provide different findings about couples' perceived marital characteristics based on their race. For example, according to the U.S. Census, African American households are the least likely to contain a married couple, compared to other racial/ethnic groups (U.S. Census, 2007). Those individuals who never married or who have had multiple relationships may have a very different perspective as to how they choose their end of life preferences and who they share those decisions with in later life.

Another limitation of this study lies in the limited information about marital characteristics in the WLS. A limited number of questions were asked to respondents that only focused on their perceived marital satisfaction. By providing the spouses’
perspective of their perceived marital satisfaction, future research could possibly show a stronger or weaker association with respondents’ end of life preferences since marital quality tends to vary by gender, life course, and to some extent, race (Bulanda, 2011; Hooyman & Kiyak, 2011; Levenson, Gottman, & Cartensen, 1994). Husbands and wives may report differently about their marital satisfaction. Ascertaining both spouses’ perspectives on their marital characteristics could potentially benefit the couple in the future by possibly identifying issues (i.e. discrepancy in opinions of marital characteristics, communication issues) earlier in the relationship. This earlier identification of marital issues could benefit couples by helping them resolve issues in their marriage prior to later life in order to effectively communicate each other’s end of life care preferences in the future.

Recommendations for Future Research

Further research is needed to explore whether other marital characteristics, such as finances or the sexual relationship, are stronger predictors than marital satisfaction. Since marital satisfaction is typically created to include variables that are strongly expected to be associated with a quality marriage, such as adjustment, adequate communication, integration, and satisfaction, there is a tendency to preclude them from functioning as independent variables (Anderson et al., 1993). Therefore, other variables that were not tested in this study could easily change the outcomes of older adults’ end of life preferences. Additional research examining gender, race, SES, and other demographic variables may also be helpful in providing a better understanding of how couples choose their end of life decisions. These variables define an older adult’s
background and history which may explain why they make certain end of life decisions. For example, men typically have a higher perceived marital quality than women (Calasanti & Slevin, 2001; Umberson, Williams, Powers, Chen & Campbell, 2005; Umberson, Williams, Powers, Liu, & Needham, 2006). Therefore, a discrepancy may be present because of the fact that women may have a different opinion of their marital quality. More in depth studies focusing on specific marital characteristics (e.g., daily communication, quality of the relationship, number of children, length of marriage) are also necessary to provide a deeper understanding of how older individuals make end of life decisions and who they choose to carry out their decisions for them based on the fact that as partners modify roles through retirement, post-parenthood, illness, or disability, they face the strain of relinquishing previous roles and adapting to new ones (Silverstein & Giarrusso, 2010). Older partners’ ability to negotiate such role transitions depends, in large part, on their prior flexibility and satisfaction in their marital relationship.

**Conclusion**

The findings from this study have implications for an improved understanding of the discrepancies that occur in end of life decisions that are made by spouses based on the couples' marital satisfaction. In particular, this study supports the notion that older adults may be persuaded to make decisions about their end of life care based on the level of marital satisfaction that is present in the relationship. Individuals are able to successfully convey their end of life treatment preferences to their spouse when strong marital characteristics are present. Couples that have positive marital characteristics present in their relationships (e.g., good communication skills, spend time with each other, listen to
one another) seem to better understand one another's preferences as evidenced by greater spousal congruence in end of life preferences. Therefore, it is important to encourage positive marital characteristics not only in the early stages of the couple’s relationship, but also in later life to help prevent future discrepancies that may occur in end of life care.
Table 1

*Demographic Characteristics of Participants (N = 3,890) & Spouses (N = 3,890)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Respondent</th>
<th></th>
<th>Spouse</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>64.38</td>
<td>0.74</td>
<td>63.23</td>
<td>2.86</td>
</tr>
<tr>
<td>Gender</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53.5</td>
<td></td>
<td>46.5</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>46.5</td>
<td></td>
<td>53.5</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
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<td>No High School</td>
<td>0.00</td>
<td></td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>61.3</td>
<td></td>
<td>50.5</td>
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</tr>
<tr>
<td>Associate’s</td>
<td>10.6</td>
<td></td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>13.6</td>
<td></td>
<td>16.2</td>
<td></td>
</tr>
<tr>
<td>Master’s</td>
<td>10.2</td>
<td></td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>PhD</td>
<td>4.3</td>
<td></td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>Number of Children</td>
<td>3.5</td>
<td>1.25</td>
<td></td>
<td></td>
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<tr>
<td>First Marriage</td>
<td>76.9</td>
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Table 2

*Frequencies for Respondent’s Additional End of Life Preferences*

<table>
<thead>
<tr>
<th>Respondent’s Response</th>
<th>Not at All</th>
<th>Not Very Well</th>
<th>Somewhat Well</th>
<th>Extremely Well</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>How well does your spouse understand your plans and preferences for future medical treatment?</em></td>
<td>.002%</td>
<td>.012%</td>
<td>20.4%</td>
<td>78.3%</td>
</tr>
<tr>
<td><em>Who would the first person be with whom you have discussed your health care plans and preferences?</em></td>
<td>66.3%</td>
<td>.001%</td>
<td>.001%</td>
<td>33.4%</td>
</tr>
<tr>
<td><em>If you were to pick a person to make medical decisions for you, who would you choose?</em></td>
<td>55.3%</td>
<td>.009%</td>
<td>.001%</td>
<td>43.6%</td>
</tr>
<tr>
<td><em>Who is the first person you gave your living will or advance directive to?</em></td>
<td>37.9%</td>
<td>0.0%</td>
<td>.001%</td>
<td>62.0%</td>
</tr>
</tbody>
</table>
Table 3

Logistic Regression for Associations Between Marital Satisfaction & End of Life Preferences

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Congruence</td>
<td></td>
<td>Congruence</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td><strong>SE</strong></td>
<td>Odds Ratio</td>
<td><strong>B</strong></td>
<td><strong>SE</strong></td>
</tr>
<tr>
<td>Marital Satisfaction</td>
<td>.577***</td>
<td>.034</td>
<td>1.746</td>
<td>.101***</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
Table 4

*Logistic Regression for Associations Between Marital Satisfaction & DPAHC*

<table>
<thead>
<tr>
<th>Marital Satisfaction</th>
<th>Model 1 Respondent</th>
<th>Model 2 Congruence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Marital Satisfaction</td>
<td>.329***</td>
<td>.031</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
Table 5

*Logistic Regression for Associations Between Martial Satisfaction & End of Life Documentation*

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Respondent</th>
<th></th>
<th></th>
<th>Model 2 Congruence</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>Odds Ratio</td>
<td>B</td>
<td>SE</td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>Marital Satisfaction</td>
<td>1.214***</td>
<td>.064</td>
<td>3.367</td>
<td>.439***</td>
<td>.071</td>
<td>1.619</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
Table 6

*Logistic Regression for Associations Between Marital Satisfaction & Receipt of Living Will/Advance Directive*

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Respondent</th>
<th></th>
<th>Model 2 Congruence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE$</td>
<td>Odds Ratio</td>
<td>$B$</td>
</tr>
<tr>
<td>Marital Satisfaction</td>
<td>.284***</td>
<td>.025</td>
<td>1.329</td>
<td>-.045**</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001*
REFERENCES
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