MARITAL HAPPINESS AND SEXUAL BEHAVIORS OF OLDER ADULTS

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The following faculty members have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts with a major in Sociology.

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ABSTRACT

The quality of a marriage or partnership can have a substantial impact on many areas of life. A good working relationship can be a significant resource for coping with difficult life situations and stress and may contribute to partners' emotional and psychological well-being and healthy lifestyle. However, marital quality among older adults is often overlooked in favor of studying younger couples. This study examines the relationship between marital happiness and sexual satisfaction, as well as other contributing factors, in the lives of older American adults. Data from a restricted sample (N=1278) from the second wave of the National Social Life, Health and Aging Project was analyzed. Regression models were used to examine associations with marital happiness. Within OLS regression gender, education level, mental health, self-rated happiness, absence of sexual quality, physical satisfaction, and emotional satisfaction were each statistically significant. Females reported higher marital satisfaction than males. Higher educated individuals expressed less satisfaction within their marriages than those with less formal education. Those that rated their mental health, happiness, and physical and emotional satisfaction high also reported higher marital satisfaction. Participants that reported an absence of sexual quality generally rated their marital satisfaction lower. As an absence of quality sex and physical satisfaction were significantly associated with marital satisfaction in this study, it may be interesting to look further into factors that influence the quality of sex within the older adult population and what may be done to generate positive changes for the future.

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CHAPTER 1

INTRODUCTION

Marriage is an important institution in almost all societies in the world (Madathil & Benshoff, 2008). The quality of a marriage or partnership can have a substantial impact on many areas of life. A good working relationship can be a significant resource for coping with difficult life situations and stress and may contribute to partners' emotional and psychological well-being and healthy lifestyle. Therefore, its investigation has particular relevance. Consequently, marital satisfaction, or what helps people maintain happiness in their marriages, has been studied extensively.

1.1 Why Study Older Adults?

In the past 60 years the American family has experienced an abundance of change in spite of assumptions that marriage is a historically and culturally consistent social institution (James, 2015). Due to this diversification of the familial unit, even more consideration toward the significance of marriage has led to research into the elements of a quality, long-lasting romantic relationship (Cherlin, 2009). Marital quality among older adults is often overlooked in favor of studying younger couples (Carr et al., 2014). However, “grey divorce”, or divorce for American adults over 50, has doubled since the 1990’s (Stepler, 2017). This age group now accounts for approximately 25% of divorces in the United States (Smith & Baron, 2016).

The number of American adults over the age of 65 has risen from 3 million in 1900 to 36.8 million in 2010. Compared to the tripling of the total U.S. population over the same time period, the elderly population has seen a greater than tenfold upsurge (Hobbs & Jamison, 1994; West et. al., 2014). Currently approximately 1 in every 7 Americans is over 65 and by 2040 that

number will expand to 1 in 5. This development known as "the graying of America," a term describing the phenomenon of an increasing percentage of the population getting older, is unavoidable.

The elderly are quite literally our future. For the first time in American history, by 2035 the number of older adults is proposed to exceed the number of children. Adults in the United States are having fewer children. The baby boom of the 1940's, 1950's, and 1960's has long passed and is not likely to repeat itself. Life expectancy is also playing a large part in this phenomenon. In 1946, the first year of the baby boom, life expectancy was 64.4 for men and 69.4 for women. In 1964, the last year of the baby boom, those figures had risen to 66.9 and 73.7 respectively (Hobbs & Jamison, 1994). However, a child born in 2016 now has a life expectancy that is 9 years longer than one born in 1980 (Byrnes & Frohlich, 2019). Fewer babies, coupled with longer life expectancy equals a country with an overall population that ages faster than ever before (Vespa, 2018).

This metamorphosis of demography is new for the United States but common in other countries such as Japan which has the world's oldest population, one in which more than 1 in 4 people are at least 65 years old. The National Institute on Aging (He, Goodkind, & Kowal, 2016) reports that older adults are a fast growing percentage of the world's population. Currently, 617 million people worldwide (8.5%) are 65 years old and over. This proportion is predicted to rise to 17% of the world's population by 2050 (He, Goodkind, & Kowal, 2016). This means that approximately 1.6 billion people on Earth would be 65 or older in three decades.

Within the United States today, the Baby Boomers are of particular interest to gerontologists. While prior generations of people over sixty-five were considered "old", the Baby boomers reject these former concepts and restrictions of chronological age. The Boomers

have reinvented the definition of young, middle-aged, and now old. This cohort was born between the years of 1946 and 1964 making them the largest single 'generation' in United States history. Instead of 'old' or 'elderly', they choose to refer to themselves as in "later life" (Gilleard & Higgs, 2007). As stated above, the divorce rate for this cohort continues to climb and now accounts for nearly a quarter of divorces in America. Marital discord in the later years is an important topic for behavioral and bio-behavioral research. The findings of such analyses could guide efforts to maximize the health, functioning, and well-being of the growing population of older adults.

1.2 Why Marriage is Important

Over the past 6 decades, the institution of marriage has faced significant changes and challenges. For both men and women, the age at marriage has increased, first-marriage and remarriage rates have declined, and divorce and cohabitation have increased noticeably for adults of all ages (Zhang, Liu, & Yu, 2016). By age 50, more than one third of Americans have been divorced at least once, and approximately one quarter have been married two or more times (Zhang, Liu, & Yu, 2016). The association between overall health and interpersonal relationships has been confirmed by many studies, but the marital relation is especially pertinent in middle and older age (Proulx & Snyder-Rivas, 2013).

Although the dissolution of marriage by *widowhood or divorce* amplifies the risk of psychological and chronic illness, and even death for older adults, divorce especially later in life is desolating mentally, emotionally, physically, and financially (Bulanda, Brown, & Yamashita, 2016). Female divorcees are more likely to experience financial difficulties than their male counterparts, and for male divorcees the association between divorce and increased mortality is greater than for women (Zhang, Liu, & Yu, 2016; Bulanda et al., 2016; Stepler, 2017).

However, while Lorenz et al. (2006) saw similar levels of physical health among newly divorced and married women, it was discovered that after 10 years the divorced women had significantly higher levels of illness than their continuously married counterparts.

1.3 Importance of Sex

Many people seem to believe that libido inevitably fades with age, and that elderly adults that are still interested in sex are somehow abnormal and exceptions to the rule. This idea is largely mythical. In actuality, sexual desire depends more on a state of mind and emotional attitudes than on one's chronological age. The sexual relations of older adults are also frequently disregarded despite the fact that "(t)he majority of older adults indicate sex is 'critical for a good relationship'" (Syme, 2014). Karraker and DeLamater (2013) states that "marriage is an important context for sexual activity, particularly at older ages". Sexual activity is associated with high overall well-being, better mental and physical health, and relationship stability and satisfaction (Forbes, Eaton, and Krueger, 2017; Gadassi et al., 2016; Heiman et al., 2011). Sexuality appears to be an intrinsic part within marital happiness and durability (Heiman et al., 2011). This study will examine the relationship between marital happiness and sexual satisfaction, as well as other contributing factors, in the lives of older American adults.

CHAPTER 2

LITERATURE REVIEW

2.1 Demographics of Older Adults in America

Currently there are approximately 49.2 million adults over the age of 65 in the United States. Just over half (58% or 28.7 million) of these older adults are 65 to 74 years old, 29% or 14.3 million are 75 to 84, and 13% (6.3 million) of the older population is over 85 years of age (Roberts et al., 2018). Of that 49.2 million, 27.5 million are female and 21.8 million are male. In general the number of men and women in the United States are relatively equal. However, the ratios change and the discrepancy between the populations of men and women increases with age. In the 65-74 age range the ratio of female to male is 1.14:1. At 75-84 years of age that ratio change to 1.31:1 female to male. Finally, over 85 years of age, females outnumber males almost 2:1 (Roberts et al., 2018).

The distribution of race in the population also changes greatly as the ages advance due to many factors such as life expectancy and previous immigration rates. Overall the United States is 62% white, 18% Hispanic, 12% black, 5% Asian, 2% identify as more than one race, and American Indian/Native American/Pacific Islanders make up less than 1%. Over the age of 65, the population is 76% white, 9% black, 8% Hispanic, 5% Asian, and less than 1% for all other races. However, at 85+ white Americans make up 81% of the population (Roberts et al., 2018).

2.2 Physical Health and Marital Satisfaction

There have been a number of studies chronicling the health benefits of marriage (Bulanda et al., 2016; Hsieh and Hawkley, 2018; Proulx and Snyder-Rivas, 2013; Waldinger and Schulz, 2010). Waldinger and Schulz (2010) stated that “it is becoming increasingly clear that

relationship satisfaction is a key determinant of the health benefits of marriage". Married individuals are less likely to develop chronic health issues and have reported consistently better well-being and health than their unwed counterparts (Proulx and Snyder-Rivas, 2013).

Marital quality has a substantial effect on physical health outcomes for older adults. "Health becomes more fragile as we age, as does vulnerability to the consequences of a stressful marriage" (Bulanda et al., 2016). Reports of greater conflict in marriage and similar intimate relationships are associated with increased risk of incident of coronary heart disease (CHD) such as fatal and nonfatal myocardial infarction. In CHD patients, low marital quality predicted greater risk of recurrent coronary events and reduced survival (Smith & Baron, 2016). The negative general health effects of separation and divorce are also seen in the specific instance of CHD. For example, divorce is associated with increased levels of asymptomatic coronary atherosclerosis in otherwise healthy older adults (Smith & Baron, 2016). Additionally, Tobe et al. (2007) found that marital strain led to high blood pressure in both men and women resulting in thicker heart walls.

Decline in marital quality is associated with decreases in the overall health of both spouses (Hsieh and Hawkley, 2018; Proulx and Snyder-Rivas, 2013). While a detrimental relationship could negatively affect one's health, it is more likely that the decline in physical health put a great amount of stress and strain upon the marriage causing its decline in quality. Yorgason and Choi (2016) examined associations between marital relationships and health. They found that while a decline in one partner's health could be viewed as a stressor that negatively affected the quality of the relationship, some couples were strengthened by the illness. Since they defined the situation as a "couple experience", the couples reacted "as an emotional system rather than as individuals" (Yorgason & Choi, 2016).

2.2.1 Gender, physical health, and marital satisfaction

Some studies in the past have demonstrated that relationship satisfaction has a greater effect on the well-being and health of women than men, while others find the exact opposite, and still other research finds no gender differences at all (Bookwala, 2016; Bulanda et al., 2016; Smith & Baron, 2016; Tobe et al., 2007; Yorgason & Choi, 2016). Bulanda et al. (2016) found that for men, marital status was more significant for health outcomes and that marital quality had much less relevance. The mere presence of a spouse contributed to better health for men regardless of the quality of the relationship. This is largely due to the fact that the usual caregivers of older men are their wives. In addition, women's role in marriage may consist of more sacrifices and stresses than men's, especially given their generally larger responsibility for parental and household work (Zhang, Liu, & Yu, 2016).

Inversely, it was also reported that marital quality was especially important for the physical health of women and that their mortality risk was greatly influenced by their marital interactions (Bulanda et al., 2016). Research on marital distress and heart disease was conducted in Sweden. In that study it was found that women that had previously experienced a heart attack and expressed marital stress were three times more likely to have another coronary event than women in high quality relationships (Tobe et al., 2007).

2.3 Mental and Emotional Factors and Marital Satisfaction

Evidence suggests that marital satisfaction has a fundamental impact on mental health and further, that mental and emotional health depends on the well-being and sustainability of marital relationships (Heidari et al., 2017). Greater marital and relationship quality was positively associated with overall emotional and psychological well-being (Carr et al., 2014). Happy marriages are a positive source for social support (Bulanda et al., 2016) and less

satisfying marital relationships leave individuals vulnerable to the daily impact of negativity (Waldinger and Schulz, 2010).

Especially for older adults, functional disability, loss of friends, neighbors, and family, and geographic relocation (such as to an assisted living facility) contribute to increased depression and anxiety and decreased self-esteem (Waldinger and Schulz, 2010). Marriages (or other romantic relationships) of quality help reduce overall physiological and emotional stress and strain and become progressively relevant for preserving one's sense of connectedness, socially (Hsieh and Hawkley, 2018). More, low marital quality is associated with loneliness in both men and women (Hsieh and Hawkley, 2018).

To confirm the gravity of marital relationships in older adults, Hsieh and Hawkley (2018) examined loneliness and emotional support. They found that the support of friends and family did not offset adversity within marriage, regardless of the level of said support. Landis et al. (2013) mirrored this effect when they evaluated paired coping versus individual coping and support from persons outside of the relationship. Paired coping was demonstrated as the most important predictor of marital satisfaction (Landis et al., 2013). Positive and enduring support by an intimate partner significantly affected the stability of the relationship and this effect was amplified in older spouses (Landis et al., 2013). Interestingly each of the individuals within the married couples that participated in the study "assumed that they invest more in supportive coping than they get in return" (Landis et al., 2013).

2.3.1 Gender, mental and emotional factors, and marital satisfaction

Gender has long been identified in the literature as a predictor of marital satisfaction and previous research has suggested that men report being more satisfied with their marriages compared to women in both Western and non-Western cultures (Sorokowski et al., 2017).

However, Heiman (2011) stated that as marital duration increased women's reported marital happiness rose, eventually converging on the same level as men's. Thus, one could predict that older couples still married after an extended period of time would report relatively equal marital satisfaction.

Additionally, Gove et al. (1983) reported that the relationship between marital quality and psychological well-being was stronger for females than for males, and Piccinelli and Wilkinson (2000) proposed that women have a greater need for closeness in their relationships and require more social support to maintain their psychological well-being. However, other researchers opposed that assertion. Bebbington (1996) found that social support was equally as important for either gender, although Williams (2003) contended that marital quality was more imperative to the psychological well-being of men than women.

2.4 Sexual Behaviors and Marital Satisfaction

A gratifying sex life is crucial for well-being in adulthood and one's sexual satisfaction interacts with many other domains that govern one's overall quality of life (Forbes et al., 2017). Better states of physical, psychological, and overall well-being and quality of life, as well as relational characteristics such as high relationship satisfaction and good communication with one's partner have been associated with high sexual satisfaction (Sanchez-Fuentes et al. 2014). Greater sexual quality of life (or SQoL) is correlated with higher relationship stability and satisfaction, while lower SQoL predicts relationship distress and diminished individual mental/emotional health (Forbes et al., 2017). Within the United States of America, research has found SQoL to have a negative relationship with age, despite age having positive relationships with different domains of life such as work and, marital and familial relations (Forbes et al.,

2017). This makes the investigation into the sexual behaviors of older adults even more valuable.

Karney and Bradbury (1995), as cited in Heiman et al. (2011), evaluated predictors of marital stability and satisfaction, and found that sexual satisfaction was one of the most prominent. Research on sexual satisfaction and sexual quality in midlife to late life has produced mixed results. Some studies have found that sexual satisfaction levels remain stable over the life course, others have suggested that sex improves with age, and still others have suggested that sexual satisfaction deteriorates with age (Lodge & Umberson, 2016). Despite the varied outcomes of research, couples that indicated that they were sexually fulfilled were apt to report satisfaction within their marriage, contributing to greater marital quality and reduced instability (Heiman et al., 2011). Further, Heiman et al. (2011) demonstrated that sexual and relationship satisfaction were significantly correlated, supporting prior studies.

Relationship satisfaction was the most relevant covariate connected with frequency of marital sexual activity (Karraker and DeLamater, 2013). An Australian survey found that marital satisfaction was significantly associated with sexual satisfaction and increased desire for frequency of sex by both men and women (Smith et al., 2011). Continued sexual activity was also positively linked with high sexual frequency and marital happiness (Karraker and DeLamater, 2013). Previous research documented the strong relationship between marital satisfaction and sexual frequency for married couples, although cohort differences do matter, with more recent or younger cohorts having higher rates of sexual frequency in midlife and late life (Lodge & Umberson, 2016).

However, the association between marital satisfaction and sexual inactivity was weak later in life indicating there is little variance for older adult marital happiness with regards to

sexually active (or inactive) marriages (Karraker and DeLamater, 2013). Heiman et al. (2011) supported this finding suggesting independence of sexual activity and relationship satisfaction for older adults. "Sexual frequency was related to sexual satisfaction but not relationship happiness" for both women and men (Heiman et al., 2011).

2.4.1 Gender, sexual satisfaction, and marital satisfaction

A significant association between relationship satisfaction and sexual satisfaction exists for both men and women (Karraker and DeLamater, 2013; Smith et al., 2011). However, the gendered characteristics pertaining to each specific factor differ. Contradictory to their hypothesis, Heiman (2011) found that men expressed greater relationship happiness than women, and women indicated their sexual satisfaction was significantly higher than their male counterparts. Men, aged 40 to 70, also reported more factors that affected their satisfaction within their relationships including physical intimacy, sexual functioning, and health, while in women relationship satisfaction was predicted by only sexual functioning (Heiman et al., 2011). However, men's' and women's' views on sexual activity may converge with age. One study found that as men age they place less importance on sexual activity and more importance on emotional intimacy, whereas women consistently rate emotional intimacy as more important than sex (Lodge & Umberson, 2016).

"For partnered older adults, interest in sex, and correspondingly, sexual activity with one's partner, are associated with better relationship functioning and satisfaction, better cognitive function, and act as a marker of good health" (Iveniuk & Waite, 2018, p. 615-16). Sexuality is viewed as a crucial component of a couple's relationship; thus, it is important to understand the type of impact it would have on marital success and satisfaction (Vanover, 2016). Additionally, efforts should be made to shift away from cultural discourses that define older adults as asexual

to cultural discourses that emphasize the importance of remaining sexually active as a marker of healthy and successful aging (Lodge & Umberson, 2016).

2.5 Other Factors and Marital Satisfaction

Demographic forces such as age, education levels, and race/ethnicity have also been studied in connection with marital satisfaction. Orathinkal and Vansteenwegen (2007) citing other authors discussed the higher rate of unstable marriages in highly educated women. This indicated that women that were more educated reported lower marital quality and satisfaction then women with less education. However, their own study demonstrated that education level increases were positively correlated with remarriage. A similar effect was seen by Mirecki et al. (2013) in which education had a positive relationship with marital satisfaction for those within second marriages. Marital satisfaction was not significantly influenced by educational levels in first marriages (Mirecki et al., 2013). Orathinkal and Vansteenwegen (2007) also observed that older adults, as well as younger adults, reported higher marital satisfaction than middle-aged couples.

Regarding race and ethnicity, the study of marital satisfaction and quality becomes more complicated. African-American individuals are more likely to divorce than whites and this is true at every age-at-marriage level (Broman, 2002). Black women are less likely to get married, more likely to separate or divorce, and less likely to remarry; they spend about 22 percent of their lives married, while white women spend about 43 percent of their lives married (Broman, 2002). In one study Broman (2002) found that while blacks are more likely to think about divorce and are less satisfied with their marriages, they are *less* likely to get divorced. Broman (2002) theorized that this is due to black couples being more independent of each other than their white counterparts. He goes on to say “black spouses may not see each other as much as white

couples, or have as much interaction as white couples… on a daily basis there is less conflict between spouses in black marriages than in white marriages. Therefore, black couples may be able to tolerate more marital dissatisfaction in this way" (Broman, 2002).

Bulanda and Brown (2007) discuss the differences and discrepancies in marital quality between blacks, whites, and Hispanic couples. On average, black individuals exhibit lower marital happiness and interaction as well as higher marital disagreements, problems, and perceived instability than do whites (Bulanda & Brown, 2007). African-Americans are more likely to cohabitate premarital and come from single parent households, which are linked to greater marital instability and lower marital quality (Bulanda & Brown, 2007).

They continue by comparing black and Mexican Americans, stating although they share similar economic, educational, and discriminatory disadvantages, Mexican Americans rate their marital satisfaction higher than blacks. "Hispanics…have higher rates of marriage, more positive attitudes toward marriage, and lower rates of union dissolution than do Blacks" (Bulanda & Brown, 2007). This "paradox of Mexican American nuptiality" suggests that both structural factors as well as cultural factors may play a role in minorities' diverse marital rates, outcomes, and quality (Bulanda & Brown, 2007).

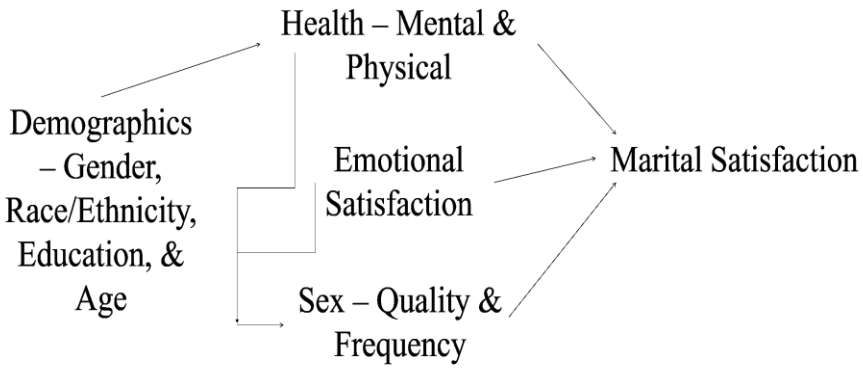
Marital quality is a conglomerate of negative and positive factors, with the composition vital to its performance and resilience. In closing, as demonstrated by multiple studies across multiple countries and ages, relationship satisfaction is highly pertinent to the physical and psychological health and well-being of the participants. Especially in old age, any source that adds value to relationship capabilities and stabilization of health is crucial. By examining characteristics and individual components like age, education levels and gender, mental and

physical health, emotional and physical satisfaction within the relationship, and sexual behaviors we can start to gain greater understanding of the mechanics of successful marriages.

CHAPTER 3

HYPOTHESES AND CONCEPTUAL MODEL

In this study, the effects of multiple variables on marital satisfaction will be evaluated. I hypothesize that marital satisfaction will increase with physical satisfaction. I also hypothesize that marital satisfaction will be negatively associated with an absence of quality sex. I hypothesize that marital satisfaction will be greater for females. I hypothesize that marital satisfaction will be positively associated with mental health. I hypothesize that marital satisfaction will be positively associated with self-rated happiness. Finally, I hypothesize that marital satisfaction will be positively associated with emotional satisfaction.



CHAPTER 4

METHODS

4.1 Data and Sample Population

The National Social Life, Health and Aging Project, or NSHAP, is a longitudinal, population-based study of health and social factors of older, community-dwelling Americans (Waite et al., 2011). It is constructed to provide health providers, policy makers, and individuals with valuable perspectives and information regarding many factors that affect the well-being of older adults, specifically those on social and intimate relationships such as emotional and physical health, cognitive function and sensory function, and social integration. Wave 1 interviews took place between 2005 and 2006.

Principal Investigators at the University of Chicago and The National Opinion Research Center, or NORC collected data for Wave 2 from more than 3,000 interviews from August 2010 through May 2011. New interviews of Wave 1 participants took place in the respondents' home. Efforts were made to interview individuals who were sampled in Wave 1 but declined to participate. Additionally, partners and spouses were interviewed. There were 3,377 total respondents in Wave 2 of the NSHAP.

This data set was pertinent to my research due to its large, nationally representative sample of older American adults. The NSHAP also contained extensive demographic, social, and intimate relationship questions. This was important since the research question being investigated involved variables regarding marital happiness and, sexual behaviors and satisfaction.

Since marital happiness was the dependent variable of this study, the pool of Wave 2 NSHAP respondents was restricted by marital status and responses to key questions necessary for the creation of a scale for marital satisfaction. After restrictions, the application of the NSHAP recommended weight, and the relative weight created for this study based upon race the sample was reduced to 1,278 cases.

4.2 Variables and Measurement

The dependent variable for this study was marital happiness. 'Marital satisfaction' was measured by the creation of a scale based on seven ordinal variables in which a higher score indicated greater marital contentment. Starred questions responses were reversed for consistent directionality of answer values. The Cronbach's alpha score for the scale was .658. The scale values ranged from 4 to 27. The seven questions were*: How often can you open up to spouse/partner? How often can you rely on spouse/partner? How often does spouse/partner make too many demands?* How often does spouse/partner criticize?* How often felt threatened by partner?* How often are things with partner going well? How happy is relationship?*

Key independent variables for this study were mental health, physical health, happiness, physical satisfaction, emotional satisfaction, sexual frequency satisfaction, and whether or not the relationship was absence of quality sex. Answers were self-reported by the NSHAP respondents. Mental health was measured on a scale that ranged from '1' indicating poor to '5' indicating excellent. Physical health was measured with a scale that ranged from '1' indicating poor to '5' indicating excellent. Self-rated happiness was also measured by a scale that ranged from '1' indicating poor to '5' indicating excellent. Physical satisfaction within the relationship was measured by a scale that ranged from '0' indicating not experienced at all to '4' indicating experiences of extreme pleasure/quality. Emotional satisfaction within the relationship was

measured by a scale that ranged from '0' indicating not experienced at all to '4' indicating experiences of extreme pleasure/quality. Sexual frequency satisfaction was measured on a scale that ranged from '1' meaning *much less often than you would like* to '5' meaning *much more often than you would like*. Absence of quality sex was measured by a scale that ranged from '0' meaning *not at all lacking in quality* to '3' meaning *extremely lacking in quality*.

Control variables for this study consisted of the sex, race/ethnicity, education level, and age of the respondent. Responses for 'gender' included 'male', 'female', 'don't know', and 'not applicable', however only 'male' or 'female' were selected by NSHAP participants. White participants made up 86.5% of the sample so race/ethnicity was recoded from a four response (white, black, Hispanic, non-black, and other) variable into a binary variable with only 'white' or 'non-white'. The non-white category combined the remaining black (4.4%), Hispanic (6.7%), and other (2.4%) participants into a single group for easier analysis. Education level was recoded into four categories: less than high school, high school diploma/equivalent, vocational/certification/associates/some college, and bachelors or more. Age, measured in years, was disclosed by the respondents.

CHAPTER 5

RESULTS

5.1 Univariate Analysis

Within the restricted sample of only married individuals from Wave 2 of the National Social Life, Health, and Aging Project (NSHAP), there were 1278 participants. There are 10 univariate characteristics that are included in this study. For easier discussion and presentation, they are separated into 4 categories: the dependent variable, mental/emotional factors, physical factors, and demographics.

The marital satisfaction scale ranged from a minimum value of 4 to a maximum value of 27 with a higher value indicating greater satisfaction. The average score was 22.33 with a standard deviation of 3.22, meaning that most respondents were highly satisfied within their marriage/relationship (see Table 1).

Mental/emotional variables included mental health, self-rated happiness, importance of sex, and emotional satisfaction (see Table 1). Participants rated their mental health on a scale of 1 (poor) to 5 (excellent), with a mean of 3.77 and standard deviation of .95 indicating an average response between 'good' and 'very good'. Scale for self-rated happiness ranged from 1 (unhappy usually) to 5 (extremely happy) with a standard deviation of .82. The mean ($\bar{x}$=3.76) indicates an average rating between 'pretty happy' and 'very happy'. Importance of sex ranged from 1 (not at all) to 5 (extremely), with a mean of 2.87 and a standard deviation of 0.40 indicating an average response between 'somewhat' and 'moderately'. Scale for emotional satisfaction ranged from 0 'not at all' to 4 'extremely', with a standard deviation of .91. The mean ($\bar{x}$=3.09) indicates an average rating between 'moderately' and 'very'.

Physical variables included physical health, physical satisfaction, sexual frequency satisfaction, and absence of quality sex. Participants rated their physical health on a scale of 1 (poor) to 5 (excellent), with a mean of 3.38 and a standard deviation of 1.03 indicating an average response between 'good' and 'very good'. Scale for physical satisfaction ranged from 0 'not at all' to 4 'extremely', with a standard deviation of 1.01. The mean ($\bar{x}$=3.01) indicates an average rating between 'moderately' and 'very'. Sexual frequency satisfaction ranged from 1 (much less often than you would like) to 5 (much more often than you would like), with a mean of 2.22 and a standard deviation of .94 indicating an average response between 'somewhat less often than you would like' and 'about as often as you would like'. Scale for absence of quality sex ranged from 0 (not lacking at all) to 4 (extremely lacking), with a mean ($\bar{x}$=1.21) and a standard deviation of 1.16 that indicates an average rating between 'slightly lacking' and 'moderately lacking' (see Table 1).

The sample identified as 60% male and 40% female. The ages of the participants ranged from 62 to 90 years old with a mean of 69.85 a standard deviation of 6.32 indicating that the sample was skewed toward the lower age threshold. The majority of the respondents are white/Caucasian (86.5%), with only 13.5% non-white participants. Regarding education levels, 11.0% had less than a high school degree, 22.9% had graduated from high school or equivalent, 33.6% had some college or vocational training, and 32.6% had at least a Bachelor's degree (see Table 2).

5.2 Bivariate Analysis

The dependent variable, marital happiness, was analyzed by testing its association with several other variables. Most of the variables were ordinal with a few nominal level ones. An independent samples t-test was conducted to evaluate the hypothesis that women reported greater

marital satisfaction than men. Men ($\bar{x} = 22.40$) and women ($\bar{x} = 22.59$) reported almost equal marital satisfaction (see Table 3). The test was not statistically significant. An independent samples t-test was conducted to evaluate the hypothesis that white respondents reported greater marital satisfaction than non-whites (see Table 3). Whites ($\bar{x} = 22.62$) did report greater marital satisfaction than non-whites($\bar{x} = 21.57$). The difference was statistically significant (t=3.81, p<.001) and meaningful according to a Cohen's d test (d=.32) (see Table 4).

5.3 Correlations

The dependent variable Marital Happiness was tested for correlations with sex, race/ethnicity, mental health, absence of quality sex, physical satisfaction, emotional satisfaction, and self-rated happiness (see Table 5). Marital satisfaction was positively, but weakly correlated (.247, p<.001) with mental health. Respondents reported greater marital satisfaction when mental health was rated higher. Marital satisfaction was negatively, but weakly correlated (-.280, p<.001) with absence of quality sex. Respondents reported less marital satisfaction when absence of quality sex was rated higher. Marital satisfaction was positively and moderately correlated (.456, p<.001) with physical satisfaction. Respondents reported greater marital satisfaction when physical satisfaction was rated higher. Marital satisfaction was positively and moderately correlated (.504, p<.001) with emotional satisfaction. Respondents reported greater marital satisfaction when emotional satisfaction was rated higher. Marital satisfaction was positively, but weakly correlated (.377, p<.001) with self-rated happiness. Respondents reported greater marital satisfaction when self-rated happiness was rated higher.

Key independent variables, mental health, absence of quality sex, physical satisfaction, emotional satisfaction, and self-rated happiness, were tested for correlations with one another. Mental health was positively, but weakly correlated (.207, p<.001) with emotional satisfaction.

Respondents reported greater mental health when emotional satisfaction was rated higher. Mental health was positively and moderately correlated (.469, p<.001) with self-rated happiness. Respondents reported greater mental health when self-rated happiness was rated higher.

Absence of quality sex was negatively, but weakly correlated (-.364, p<.001) with physical satisfaction. Respondents reported greater absence of quality sex when physical satisfaction was rated lower. Absence of quality sex was negatively, but weakly correlated (-.318, p<.001) with emotional satisfaction. Respondents reported greater absence of quality sex when emotional satisfaction was rated lower. Absence of quality sex was negatively, but weakly correlated (-.223, p<.001) with self-rated happiness. Respondents reported greater absence of quality sex when self-rated happiness was rated lower.

Physical satisfaction was positively and strongly correlated (.684, p<.001) with emotional satisfaction. Respondents reported greater physical satisfaction when emotional satisfaction was rated higher. Physical satisfaction was positively, but weakly correlated (.369, p<.001) with self-rated happiness. Respondents reported greater physical satisfaction when self-rated happiness was rated higher. Finally, emotional satisfaction was positively, but weakly correlated (.377, p<.001) with self-rated happiness. Respondents reported greater emotional satisfaction when self-rated happiness was rated higher.

5.4 Multivariate Analysis

5.4.1 Tests for assumptions

The dependent variable of marital satisfaction is relatively normally distributed (N=1278). Tests of the residuals confirm this. Tests for multicollinearity were conducted. None of the independent variables were correlated with any other independent variable [tolerance >.45 on all IV (Instrumental Variables), and VIF (Variance Inflation Factors) < 2.2 on all IV

(Instrumental Variables)]. Tests for outliers also were conducted. The maximum found in the Mahalonobis distance test was 55.16, but the maximum (.014) for the Cook's distance test was less than 1 and the Centered Leverage Value maximum (.043) was less than 3x the mean (.009). The number of outliers in the sample was less than 1% of the total sample, so outliers were not removed.

5.4.2 General ordinary least squares regression

An ordinary least squares regression analysis (see Table 6) was conducted to evaluate how well the variables sex, age, race/ethnicity, education level, self-rated physical health, self-rated mental health, self-rated happiness, importance of sex, quality of sex life, physical satisfaction, emotional satisfaction, and sex frequency satisfaction predict overall marital satisfaction. Relationships between the dependent variable, marital satisfaction, and independent variables, age, race/ethnicity, self-rated physical health, importance of sex, and sexual frequency satisfaction, were not statistically significant. Relationships between the dependent variable, marital satisfaction, and independent variables, sex, education level, self-rated mental health, self-rated happiness, absence of quality sex, physical satisfaction, and emotional satisfaction, were statistically significant. Being female increased the mean marital satisfaction score by .60 units net of all factors. Each increase in education level decreased the mean marital satisfaction score by .19 units. For each unit increase in mental health, mean marital satisfaction score increased by .33 units. A unit increase in self-rated happiness increased mean marital satisfaction score by .60. Each increase in unit measure absence of quality sex, decreased mean marital satisfaction score by .19, net of all factors. A unit increase in physical satisfaction increased the mean marital satisfaction score by .56 and an increase in emotional satisfaction also increased the mean marital satisfaction score by 1.07. The adjusted R^2 of the model is .340

(p<.001), so just over a third of the variation in marital satisfaction is explained by these variables.

Comparing the standardized betas, emotional satisfaction had the largest standardized beta at .31. Self-rated happiness (.16) and physical satisfaction (.18) also seem to have a greater effect on marital satisfaction than the other variables. Education level, importance of sex, and race/ethnicity all have standardized betas of +/- .06. Being female (.09), self-rated mental health (.10), and absence of quality sex (-.06) all have a moderate effect on marital satisfaction. Self-Rated Physical Health (-.06), Sexual Frequency Satisfaction (.03), and Age (.02) had the least effect.

5.4.3 Partitioning of variance

The adjusted R^2 is .340 (p<.001) for the OLS regression model containing all three model segments, indicating that just over a third of the variance in marital satisfaction is explained by these variables combined. When the demographic model is removed, the R^2 decreases to .324. When the physical model is removed, the R^2 decreases to .312. When the mental/emotional model is removed, the R^2 decreases to .238. Therefore, the mental/emotional model has the greatest effect on marital satisfaction then the other two segments. The mental/emotional model accounts for 70.75% of the unique variance in marital satisfaction, while the physical model accounts for 17.30% and the demographic segment accounts for 11.95% of the unique variance (see Table 7).

5.4.4 Comparison of models

5.4.4.1 Ordinary Least Squares Regression for Marital Satisfaction by Sex

The OLS was run separately for men and women (see Table 8). The adjusted R^2 was higher for the female model (.393) than the male model (.301) indicating that the variables

explain more of the variance in marital satisfaction for women than men. Modified Chow tests were performed on statistically significant coefficients. For each increase in self-rated happiness, marital satisfaction increased in men by .44 and women by .89. For each increase in physical satisfaction, marital satisfaction increased in men by .50 and women by .65. For each increase in emotional satisfaction, marital satisfaction increased in men by 1.11 and women by .98. Self-rated happiness was statistically significantly different. Therefore, self-rated happiness had a larger effect for women than men in marital satisfaction.

5.4.4.2 Ordinary Least Squares Regression for Marital Satisfaction by Race/Ethnicity

The OLS was run separately for white and non-white respondents (see Table 9). The adjusted R^2 was higher for the white model (.374) than the non-white model (.274) indicating that the variables explain more of the variance in marital satisfaction for white respondents than non-white respondents. Modified Chow tests were performed on statistically significant coefficients. For each increase in emotional satisfaction, marital satisfaction increased in whites by 1.29 and non-whites by .92, and for each increase in education level, marital satisfaction decreased in whites by .17 and non-whites by .46. For each increase in self-rated happiness, marital satisfaction increased in whites by .40 and non-whites by .96. Self-rated happiness was statistically significantly different. Therefore, self-rated happiness had a larger effect for non-white respondents than white respondents in marital satisfaction.

CHAPTER 6

DISCUSSION AND CONCLUSION

Many variables were examined to gain understanding of what factors truly affect ones' satisfaction and happiness within a marriage. Bivariate analysis in the form of t-tests and Cohen's d tests, demonstrated the meaningful and statistically significant difference between white and non-white participants when reporting marital satisfaction. Correlations illustrated the various relationships between the variables. Mental health, absence of quality sex, and self-rated happiness were weakly correlated with marital satisfaction, while physical and emotional satisfaction were moderately correlated with marital satisfaction revealing their importance over the other factors. Another noteworthy relationship emerged between physical satisfaction and emotional satisfaction which were very strongly and positively correlated.

Within the general OLS regression, several variables were revealed as meaningful in regard to marital satisfaction. Sex, education level, mental health, self-rated happiness, absence of quality sex, physical satisfaction, and emotional satisfaction were each statistically significant. However, once the variables were divided into separate models, the mental/emotional aspects, mental health, self-rated happiness, and emotional satisfaction, were shown to have the most influence on marital satisfaction, explaining almost 71% of the unique variance within the model regression.

When the general regression model was split by sex, exclusive significant factors were expressed by each sex. Education level, self-rated happiness, and physical and emotional satisfaction were significant for both, but for women physical health was a significant feature. For men mental health, importance of sex, and absence of quality sex were uniquely significant.

I speculate that the reason that these are important to males, is the same as the reason males are more susceptible to beliefs about sexual stigma. These attitudes are likely due to the emphasis placed on virility and sexual prowess (Syme & Cohn, 2016). According to a modified Chow, the groups were indeed statistically significantly different regarding the association of marital satisfaction and self-rated happiness, with there being a greater impact for women than men. Although these results, specifically the R^2 value, may be affected by the greater number of studies and thus theories that are applied to women specifically.

When the general regression model was split by race/ethnicity, particular significant factors were again illustrated by each group. Education level, self-rated happiness, and emotional satisfaction were significant for both, but sex, mental health, and importance of sex were specifically significant with the white respondents. For the non-white participants, age and absence of quality sex were especially significant. Unfortunately, due to the relative scarcity of older adult studies of sexuality and relationships in general as well as the very small sample of non-white participants in this specific study, I could not surmise the reasons for the difference between the two groups.

Concerning my hypotheses, all but one was statistically significant and supported. Marital satisfaction was shown to increase with physical satisfaction and be negatively associated with an absence of quality sex. Marital satisfaction was greater for females but not significantly for white respondents. Finally, marital satisfaction was shown to be positively associated with mental health, self-rated happiness, and emotional satisfaction.

Limitations for this study were the over-representation of males, white participants, and relatively younger respondents. The participants' marital duration was also not included in the study variables, limiting the ability to link variations in marital satisfaction to the length of the

marriage. These features may have affected the results and generalizability of the findings to the greater population. However, when taken into consideration that the sample was restricted by those currently married, these 'over-representations' are to be expected and accurately reflect those still married at these ages. Since the life expectancy for American males is lower than that of American females, limiting the sample by marital status is guaranteed to include more men and *younger* older participants.

It was also anticipated that there would be more white respondents (86.5%) in the sample than non-white respondents (13.5%). Out of the 13.5% non-white participants black individuals were 4.4% and Hispanics were 6.7%. The life expectancy for black Americans is lower than that of white Americans contributing to less representation in the sample (Arias & Xu, 2019). Additionally, black individuals (women in particular) have higher rates of marital dissolution and cohabitation, and lower probability of remarriage when compared to whites (Bramlett & Mosher, 2002). Hispanic Americans, on the other hand, have longer life spans on average than their white counterparts (Scommegna, 2017). Hispanic individuals are also more likely to be married later in life than black Americans but they are still underrepresented in the sample. This lack of participation in social research may be contributed to intervening factors such as language barriers or immigration status. Considering non-white individuals are less likely to participate in research, efforts should be made to study ethnic minority groups specifically, especially in light of the increasingly diverse racial and ethnic demographics within the United States.

As stated earlier, "Grey divorce" persists and is growing. Divorce has negative repercussions at any age but is particularly devastating for older adults. Older female divorcees are more likely to experience financial difficulties and to live below the poverty line due to the dissolution of their marriage. Older male divorcees have increased rates of mortality when

compared to divorced women and married older men. Therefore marriage counseling and education may be a critical component missing from lives of older adults considering divorce. Communication skills and other elements of successful relationships commonly discussed in couples' therapy could be an important catalyst in halting the rising divorce rate among older adults, particularly in the Baby boomer generation.

Previous studies have identified the link between marriage and overall health but in order to receive the culmination of marital benefits the relationship must also be stable and satisfying to both partners. Self-rated happiness was a statistically significant key factor for older adults of both sexes and all races in this study. By assessing different models, it was determined that the variables related to mental and emotional health and satisfaction, which included self-rated happiness, provided the strongest explanation for the variance in martial satisfaction reported by the sample.

Significant gaps still exist in the literature. Notably, there is a relative paucity of research on older same-sex marriages, as well as non-marital heterosexual and same-sex relationships. Older adults are typically understudied overall and "the sexuality of older adults is also often ignored in wider Western culture, leading to silence on this topic" (Iveniuk & Waite, 2018). However, I do believe that there is much to learn from examining the older populations in the United States. Older couple relationships are recognized to be complex, multidimensional, and vital to health and well-being (Bookwala, 2016).

While there has been efforts to focus more research on the relationships of adults in midlife to late life, sexuality is still largely ignored. Sexual behavior is an important topic for several reasons. According to Lodge and Umberson (2016) sexual frequency, sexual satisfaction, and sexual desire, and an absence of sexual dysfunction are all positively associated with higher

levels of marital quality and relationship satisfaction. Greater sexual satisfaction within relationships contributes to marital stability (Heiman, 2011; Forbes et al., 2017). Sanchez-Fuentes et al. (2014) found that good communication skills were highly associated with reported sexual satisfaction. Couples that are able to effectively articulate their needs and desires were more likely to have those needs met, although engagement and improvement in such skills would likely translate into many other areas of the relationship increasing the stability and durability. As an absence of quality sex and physical satisfaction were significantly associated with marital satisfaction in this study, it may be interesting to look further into factors that influence the quality of sex within the older adult population and what may be done to generate positive changes for the future. We can achieve greater recognition of the inner workings of successful marriages by exploring many individual and relational characteristics including sexual behaviors regardless of age. Researchers should strive to shift away from perceptions of older adults as asexual towards a cultural discourse that underscores the importance of remaining sexually active as an integral part of health and successful aging.

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APPENDIX

TABLE 1

DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
Age	1278	62	90	69.85	6.32
Physical Health	1278	1	5	3.38	1.03
Mental Health	1278	1	5	3.77	0.95
Self-rated Happiness	1278	1	5	3.76	0.82
Sexual Frequency Satisfaction	1278	1	5	2.22	0.94
Importance of Sex	1278	1	5	2.87	0.40
Absence of quality sex	1278	0	3	1.21	1.16
Physical Satisfaction	1278	0	4	3.01	1.01
Emotional Satisfaction	1278	0	4	3.09	0.91
Marital Satisfaction Scale	1278	4	27	22.33	3.22

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

TABLE 2

SAMPLE CHARACTERISTICS

	Sample	
	Frequency	Percent
Sex		
Female	511	40.0
Male	767	60.0
Race/Ethnicity		
White	1105	86.5
Non-white	173	13.5
Education Level		
Less than HS	140	11.0
HS diploma/GED	292	22.9
AA/Vocational/some college	429	33.6
BA or more	417	32.6

N= 1278 (sample)
National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

TABLE 3

T-TESTS FOR MEAN DIFFERENCES BY SEX

		N	Mean	SD	T-Test
Marital Satisfaction	*Male*	767	22.40	2.92	-1.01
	Female	511	22.59	3.45	

N =1278

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

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

TABLE 4

T-TESTS FOR MEAN DIFFERENCES BY RACE/ETHNICITY WITH COHEN'S D

		N	Mean	SD	T-Test	d	Size of Effect
Marital Satisfaction	*White*	1105	22.62	3.08	3.81***	0.32	Small
	Non-white	173	21.57	3.40			

N =1278

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

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

TABLE 5

CORRELATIONS BETWEEN VARIABLES

	Marital Satisfaction	Female	Non-white	Mental Health	Absence of Quality Sex	Physical Satisfaction	Emotional Satisfaction
Female	0.029						
Non-white	-0.114***	-0.029					
Mental Health	0.247***	0.007	-0.097***				
Absence of Quality Sex	-0.280***	0.000	0.025	-0.178***			
Physical Satisfaction	0.456***	-0.182***	-0.107***	0.178***	-0.364***		
Emotional Satisfaction	0.504***	-0.171***	-0.100***	0.207***	-0.318***	0.684***	
Self-Rated Happiness	0.377***	0.022	-0.042	0.469***	-0.223***	0.369***	0.377***

N =1278

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

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

TABLE 6

ORDINARY LEAST SQUARES REGRESSION PREDICTING CHANGES IN MARITAL SATISFACTION

Variable	B	SE	β
Female	0.60***	0.16	0.09
Non-White	-0.53*	0.22	-0.06
Age	0.01	0.01	0.02
Education Level	-0.19**	0.08	-0.06
Self-Rated Physical Health	-0.17*	0.08	-0.06
Self-Rated Mental Health	0.33***	0.09	0.10
Self-Rated Happiness	0.60***	0.11	0.16
Importance of Sex	-0.15*	0.07	-0.06
Absence of Quality Sex	-0.19**	0.07	-0.06
Physical Satisfaction	0.56***	0.11	0.18
Emotional Satisfaction	1.07***	0.11	0.31
Sexual Frequency Satisfaction	0.11	0.09	0.03

R Squared (adjusted) = .34***

N=1277

Note: *p<.05, **p<.01, ***p<.001.

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

TABLE 7

ORDINARY LEAST SQUARES REGRESSION ON MARITAL SATISFACTION, PARTITIONED

	Model 1	Model 2	Model 3
Female	-	0.095***	0.089***
Non-White	-	-0.062**	-0.067**
Age	-	0.020	0.006
Education Level	-	-0.070**	-0.050
Self-Rated Physical Health	-0.059*	-	0.039
Absence of quality sex	-0.074**	-	-0.101***
Physical Satisfaction	0.173***	-	0.422***
Sexual Frequency Satisfaction	0.053*	-	0.046
Self-Rated Mental Health	0.090***	0.084**	-
Self-Rated Happiness	0.165***	0.174***	-
Importance of Sex	-0.076**	-0.010	-
Emotional Satisfaction	0.296***	0.438***	-
F	77.572***	73.478***	50.774***
R-Square (adjusted)	0.324	0.312	0.238
N=1277	(standardized Beta shown)		

Note: *p<.05, **p<.01, ***p<.001.

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

TABLE 8

ORDINARY LEAST SQUARES REGRESSION FOR MARITAL SATISFACTION BY SEX WITH MODIFIED CHOW

	Male			Female		
	B	SE B	β	B	SE B	β
Non-White	-0.585	0.262	-0.070*	-0.227	0.372	-0.022
Age	0.022	0.014	0.049	0.008	0.021	-0.013
Education Level	-0.154	0.091	-0.054	-0.281	0.137	-0.078*
Self-Rated Physical Health	-0.135	0.099	-0.005	-0.162	0.146	-0.048
Self-Rated Mental Health	0.383	0.115	0.121***	0.287	0.158	0.081
Self-Rated Happiness	0.437	0.133	0.099**	0.885	0.186	0.221***
Importance of Sex	-0.236	0.083	-0.092**	-0.032	0.111	-0.011
Absence of Quality Sex	-0.303	0.088	-0.120***	-0.007	0.124	-0.002
Physical Satisfaction	0.499	0.135	0.159***	0.649	0.166	0.202***
Emotional Satisfaction	1.112	0.147	0.314***	0.983	0.173	0.282***
Sexual Frequency Satisfaction	-0.136	0.114	0.041	0.402	0.136	0.112**
R-Square (adjusted)	0.301			0.393		
Note: *p<.05, **p<.01, ***p<.001.	N=766			N=510		

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

Modified Chow

	Male		Female		
Variable	Unstandardized B	SE	Unstandardized B	SE	z
Self-Rated Happiness	0.44	0.13	0.89	0.19	1.94
Physically Satisfied	0.50	0.14	0.65	0.17	0.68
Emotionally Satisfied	1.11	0.15	0.98	0.17	0.57

TABLE 9

ORDINARY LEAST SQUARES REGRESSION FOR MARITAL SATISFACTION BY RACE/ETHNICITY WITH MODIFIED CHOW

	White			Non-White		
	B	SE B	β	B	SE B	β
Female	0.449	0.172	0.071**	0.619	0.394	0.087
Age	0.006	0.013	0.013	0.092	0.031	0.157**
Education Level	-0.172	0.087	-0.052*	-0.463	0.178	-0.150**
Self-Rated Physical Health	-0.087	0.091	-0.028	-0.315	0.221	-0.086
Self-Rated Mental Health	0.401	0.101	0.120***	0.197	0.229	0.053
Self-Rated Happiness	0.395	0.118	0.105***	0.961	0.247	0.230***
Importance of Sex	-0.172	0.072	-0.065*	0.085	0.189	0.028
Absence of Quality Sex	-0.141	0.080	-0.052	-0.495	0.171	-0.160**
Physical Satisfaction	0.613	0.115	0.194***	0.126	0.246	0.041
Emotional Satisfaction	1.294	0.127	0.362***	0.922	0.268	0.279***
Sexual Frequency Satisfaction	0.125	0.097	0.037	0.147	0.200	0.045
R-Square (adjusted)	0.374			0.274		
N=1277	N=1104			N=173		

Note: *p<.05, **p<.01, ***p<.001.

Source: National Social Life, Health, and Aging Project (NSHAP: Wave2, 2011)

Modified Chow

	White		Non-White		
Variable	Unstandardized B	SE	Unstandardized B	SE	z
Education Level	-0.17	0.09	-0.46	0.18	1.47
Self-Rated Happiness	0.40	0.12	0.96	0.25	2.07
Emotionally Satisfied	1.29	0.13	0.92	0.27	1.25