

SOCIAL SUPPORT AND WELL-BEING: A QUANTITATIVE STUDY OF THE
EFFECTS OF FRIENDS ON THE SEXUAL
WELL-BEING OF OLDER ADULTS

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SOCIAL SUPPORT AND WELL BEING:
A QUANTITATIVE STUDY OF THE EFFECTS OF FRIENDS ON THE
SEXUAL WELL-BEING OF OLDER ADULTS

Social support has been shown to positively impact various aspects of health across the lifespan, including sexual health and well-being. While past research on sexual well-being has tended to focus on the earlier stages of the life course, notably adolescence and young adulthood, this is a largely ignored area of research past the reproductive stage of life. Current research finds that while social support, from partners, family, and friends alike, has generally positive influences on health in mid to late adulthood, these outcomes are varied in regards to sexual well-being. This thesis aims to (1) assess the role of friend support in the sexual well-being of older adults and (2) to explore if physical and mental health are significant mediators of this relationship, using data from Wave II of the National Social Life, Health, and Aging Project (NSHAP). This study found that sixty two percent of older adults are not having sex as much as they would like and 61% feel that their sex life is lacking in quality. Increased feelings of openness with friends was associated with satisfaction with sexual frequency ($p=.055$). However, a significant association could not be established between satisfaction with quality of sex life and friend support. In addition, physical and mental health status were not found to be significant mediators.

Kenzie E. Latham, Ph.D., Chair

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INTRODUCTION

Recent reports by the U.S. Census Bureau have shown that by 2030, nearly one fifth of the population will be over the age of 65 (Grayson and Velkoff 2010). This reality of an aging population has sparked increased interest in research focused on these individuals. With collective rejection of the once highly revered social disengagement theory (Cumming and Henry 1961), social scientists in particular have become increasingly interested in alternative processes and pathways by which society affects the lives these individuals. Due to its sensitive and controversial nature, the topic area that has perhaps been most ignored for the aging population is that of sexuality (Helmes and Chapman 2012).

Sexual activity is historically associated with youth. However, increases in the world wide older adult population, the aging of the “sexually enlightened” Baby Boomers, the expanding of pharmaceuticals catering to sexual dysfunction in the aged, and an upsurge in STIs among older adults has made the sexuality and sexual expression of older adults the focus of increasing attention in recent years (Laumann et al. 2006; Hillman 2011). Since Viagra first hit the market in 1998, diagnoses of erectile dysfunction have increased 250 percent. As such, couples who would have been unable to partake in sexual activity in the past, are now able. Consequently, STI rates have nearly tripled in the past decade. For example, approximately 12-22% of all new AIDS diagnoses are among men and women over the age of 65, and due to the aging of the population, 50% of all people living with HIV in the United States are expected to be aged 50 and older by 2015 (Hillman 2011).

In addition to increased sexual activity among older adults, growing recognition and acknowledgement that having an active sex life increases overall mental and physical well-being has also sparked interest in studying aging sexuality (Lindau et al. 2007; Makimoto et al. 2014). Researchers argue that sexuality constitutes an important avenue of connection between romantic partners, and can be an important factor in maintaining autonomy in one's life; thus, sexual behavior and well-being is a key feature of the "overall relational context within which health is jointly produced" (Bouman, Arcelus, and Benbow 2007; Wait and Das 2010). Research has also shown that sexual activity and satisfaction are associated with self-rated health and successful aging, physical function, and overall quality of life (Thompson et al. 2011; Wang et al. 2014). The empirical evidence illustrating the importance of sexual well-being as a predictor of overall health for aging adults warrants further research into the mechanisms for improving this aspect of well-being.

Sexuality and sexual well-being, though often thought of as the presence or absence of sexual intercourse, can refer to a vast spectrum of sexual related behaviors, relationships, outcomes, and concerns. Due to changing interests, relationships, physical status, and other factors, the meaning of sexual well-being in older people is much broader than simply sexual intercourse (Helmes and Chapman 2012). In addition to behaviors such as touching, holding, and close companionship, and genital play, there are also socio-cultural, psychological and ethnic components to sexual behavior (Delamater and Sill 2005).

Researchers have begun to create a compelling argument that social support affects various aspects of health across the lifespan, including sexual health. More

specifically, there is an abundance of existing literature on the importance of social support, specifically from family and friends, in the sexual well-being of adolescents and younger adults. Yet, this is a largely ignored area of research at later stages in the life course. At older ages, individuals experience changes in their social networks that can disrupt their access to social support. As children move out, parents pass away, and retirement and health problems begin to limit social interaction, individuals begin to rely more and more on their romantic partners; yet, they too begin to pass away (Waite and Das 2010). As a result, older adults begin to rely on friends and other family members for social support. Furthermore, there is empirical evidence to support the idea that due to the voluntary nature (and option for withdrawal from unsatisfying relationships) of friend and extended family participation, the health effects of these relationships can be even greater than that of close family relationships by decreasing the prevalence of social strain and obligation (Chen and Feeley 2013; Jensen et al. 2014; Thoits 1995). Given that sexual wellbeing has been shown to be correlated with other aspects of both physical and mental health in older adults, there is a need for this type of research (Laumann et al. 2006).

SPECIFIC AIMS

This research uses data from a nationally representative sample of older American adults, ages 57 to 85, to examine the role of social support from friends in the sexual well-being of older adults. Specifically, the aims of this study are:

- 1.) To explore whether social support, notably that of friends, shapes sexual wellbeing of older adults.
- 2.) To determine whether mental health and physical health are significant mediators in the relationship between social support from friends and sexual well-being.

BACKGROUND AND SIGNIFICANCE

As this research aims to examine the association between social support, health, and sexual well-being, the theoretical and empirical intersections between these concepts are presented. First, the theoretical framework will be given as context for the proposed association between social support and general health across the life course into older age. As research into the effects of social support and the sexual well-being of older adults is limited, empirical evidence connecting social support and health, followed by health and sexual well-being is presented. Finally, the limited research on social support and sexual well-being in late adulthood is addressed.

Theoretical Framework

Patterns of social connection and environment are essential to human health and well-being (Lovasi and Bearman 2010). Researchers are increasingly taking note of the importance of social environment by studying two broad aspects: social networks and social support. While social networks are often conceptualized and measured by structural characteristics, such as the number and type of social relationships that people have, social support tends to focus on the functional characteristics, and often perceptions, of those relationships (Schaefer, Coyne, and Lazarus 1981; Seeman 2000). Social support, or “a social network’s provision of psychological and material resources intended to benefit an individual’s ability to cope with stress,” is often categorized into three types of support resources: instrumental, informational, and emotional (Cohen 2004, Seeman 2000). Instrumental support consists of offering or supplying material assistance with tasks and problems; informational assistance is the delivery of facts and advice to help solve problems, as well as guidance regarding potential courses of action,

and emotional support refers to demonstrations of caring, encouragement, and love (Thoits 2011). While each type of social support has been shown to have effects on health, emotional and informational support have been shown to be particularly important, with significant physical and psychological health outcomes (Burleson 2003, Chen and Feeley 2013). Researchers argue that it may be important empirically to distinguish between social networks and social support because they may have differential effects on health outcomes (Schaefer et al. 1981).

Literature over the past few decades indicate that both women and men are in better health when they have strong social connections (Thoits 1995). However, as the evidence linking social support and health continues to emerge rapidly, researchers continue to study and argue about the different mechanisms by which the relationship exists. Suggested pathways include stress buffering, health behaviors, and physiological mechanisms. Firstly, social support may have indirect effects on health by reducing the impact of stress, or by fostering a sense of meaning and purpose in life (Cohen 2004; Thoits 1995; Umberson and Montez 2010). Cohen (2004) states that social support can “eliminate or reduce effects of stressful experiences by promoting less threatening interpretations of adverse events and effective coping strategies,” through, what the author calls, stress buffering.

Another suggested mechanism is through health behaviors. Social ties have been shown to predict greater preventative health behavior (Seeman 2000). Social ties can enhance personal control which can be advantageous for health habits such as better nutrition, smoking cessation, and physical activity (Mirowsky and Ross 2003; Seeman 2000; Umberson and Montez 2014). Additionally, meanings attached to social

relationships may create a sense of obligation to stay healthy, promoting healthier lifestyles, and can also influence compliance to preventative and/or therapeutic medical regimens (Seeman 2000; Umberson and Montez 2014). Cohen reinforces this mechanism by drawing attention to one's social integration that promotes "positive psychological states," such as purpose and self-worth, which induce health promoting physiological responses and provide motivation and social pressure to care for one's self (2004).

Psychologists, epidemiologists and sociologists alike have worked closely with one another to explore how social networks and support can influence one's physiology in promoting or impeding health (Umberson and Montez 2014). For example, supportive interactions have been shown to improve immune, endocrine, and cardiovascular functions by helping to combat constantly engaged bodily stress responses (Seeman et al. 1999; Seeman et al. 2002). However, while the advantages of social environment have been well documented, a comprehensive picture of social support and health cannot be painted without a discussion of potential adverse effects.

Social support networks can offer instrumental and emotional support, information, and connections, but can also provide conflict, criticisms, demands, and occasionally unhealthy examples (Waite and Das 2010). Relationships can be a source of stress that require costs for received benefits as highlighted by social exchange theorists (Cohen 2004; Seeman 2000). Social relationships characterized as "intrusive, demanding, critical, sources of conflict, or nonsupportive" have been linked to decreased well-being (Seeman 2000). In fact, there is even evidence to suggest that negative qualities of relationships can have stronger impacts on health than positive qualities (Rook 1984).

Evidence for Social Support and Health

Over the past few decades, substantial evidence has accumulated to show the relationship between social support, mental health, and psychological well-being (Jensen et al. 2014; Thoits 2011; Umberson and Montez 2010) For example, Jensen and colleagues (2014) found social support was associated with lower levels of depression in individuals with physical disabilities for both men and women of all ages. Similarly, Bookwala and Marshall (2014) found somatic depressive symptomology was decreased with the availability of a friend as a confidante following spousal loss, either through widowhood or divorce/separation, in later life. In addition, in 2005, the Centers for Disease Control found that in adults aged 60 and older, visits with relatives, having close friends for emotional support, and the perception of help being available if sick or disabled were associated with better mental health and overall health related quality of life (HRQOL).

However, as previously mentioned, not all aspects of social environment are related to positive health outcomes. For example, Schaefer and colleagues (1981) found social network size to be associated with depression. The researchers argue that membership in social networks may involve many elements in addition to support and some of these elements (e.g. demands, constraints, interpersonal conflict, etc.) might dilute the positive effects of support. Taking into account the effects of tangible and emotional support, the positive relationship of social network with depression may indicate the mixed blessings of network membership.

The effects of social support on various aspects of physical health, such as chronic illnesses and mobility limitations, have been well-documented throughout the life course,

in that it can impact both the development and progression of these conditions.

Researchers have found that social support, in the form of health promoting behaviors of friends and parents, decrease prevalence of both obesity and disability in later life (LaGreca et al. 2002; Zeller and Modi 2012). This benefit of social support continues into mid and late adulthood. Huxhold, Miche, and Schüz (2014) found that informal social activities played a role in counteracting the negative effects of aging, and that activities with family were more important in mid-adult hood, while interaction with friends were more influential in late life. Epidemiological studies indicate that individuals who report higher levels of social support have lower mortality rates, especially from cardiovascular disease, and higher survival rates from infectious disease and even cancer (Uchino 2009).

In addition to the direct relationship, researchers have also pointed to aspects of mental health as potential mediators for the relationship between social support and physical health. For example, perhaps emotional support enhances psychological well-being which, in turn, can reduce the risk of unhealthy behaviors and poor physical health (Thoits 1995; Umberson and Montez 2010).

Health and sexual well-being

Sexuality, broadly defined by Waite and Das as “the dynamic outcome of physical capacity, motivation, attitudes, opportunity for partnership, and sexual conduct,” is an important correlate of overall wellbeing (2010). Sexual health can cover many broad topics including relationships, behavior, function or dysfunction, attitudes, and satisfaction (Wang et al. 2014).

Both physical health and mental well-being have been identified as important correlates of sexual well-being in that health, emotional well-being, and physical

functioning influence both the opportunity for and the capacity for intimate activities (Laumann et al. 1999; Wait and Das 2010). For example, in their cross-national study of sexual well-being in older adults, Laumann and colleagues (2006) found that self-estimated health status was positively associated with four measures of sexual well-being, including emotional and physical satisfaction of sexual relationships, satisfaction with sexual health or function, and the importance of sex, across both culture and gender.

Various aspects of mental health and psychological well-being have been closely linked to sexual health and well-being, particularly depression. In their study of older, partnered adults, Wang and colleagues found that depression was associated with a significant negative impact on different aspects of sexual health (activity, frequency, satisfaction, relationship quality, and discussion about sex) in both men and women. In fact, they found that more severe depressive symptoms emerged as the single strongest predictor of sexual health, even after adjusting for age, sex, and physical function (2014). Similarly, depressive symptoms have been reported to be a risk factor for reduced sexual activity and satisfaction, as well as sexual dysfunction (Nicolosi et al 2004). Furthermore, a study of postnatal women showed that while sexual health problems were common after childbirth in both depressed and nondepressed women, depressed women were less likely to have resumed intercourse at 6 months (70% versus 90%) and were twice as likely to report sexual health problems than their nondepressed counterparts (Morof et al. 2003).

While depression certainly appears to be the most studied aspect of mental health and sexual well-being, other aspects, such as anxiety, and post-traumatic stress disorder (PTSD), have been studied as well. For example, Kashdan and colleagues (2011) found

that in older adults who reported social anxiety, women had a lower rate of sexual activity with their partners. Interestingly, men with increased levels of anxiety were more likely to engage in sexual activity. In addition to the conditions themselves, some drugs used to treat psychiatric disorders can also cause sexual side effects. For example, antipsychotic medications, tricyclic antidepressants, monoamino-oxidase (MAO) inhibitors, and sedative drugs may contribute to decreasing levels of sexual desire (Delamater and Sill 2014).

The prevalence of dementia in later life creates an additional barrier to sexual wellbeing in individuals who suffer from the disease, especially considering that dementia is a common reason for placement in long term care facilities (LTC). Sexual behaviors among elderly people with dementia have traditionally been thought of as problematic (Makimoto et al. 2014). This mindset among care givers, including family and medical staff, combined with already limited privacy among LTC residents, creates a set of unique barriers to intimate expression.

As expected, physical health has also been well-established as predictor of various aspects of sexual wellbeing throughout the life course. Mobility limitations and chronic illnesses that affect physical movement impede both capabilities and access for sexual expression. Often times, as referred to in advertisements for popular erectile dysfunction medications, being “healthy enough for sexual activity” is perhaps the most obvious example of physical health impacting sex. Medical conditions such as cardiovascular illnesses, diabetes, arthritis, and cancer may influence the expression of sexuality. Furthermore, as with many psychiatric conditions, some treatments for these conditions may further impair the sexual response and expression of older people (Delamater and

Sill 2014; Helmes and Chapman 2012). In their study of community dwelling older adults (aged 55 and older), Bach and colleagues (2013) found that better self-rated overall health was associated with being more physically active. Specifically, they found that heart disease, hypertension, high cholesterol, bladder and bowel problems, diabetes, and cancer were all associated with sexual inactivity for both men and women. Additionally, walking at least 1-2 times per week, having full physical capabilities, and taking a lower number of medications were correlated with increased sexual activity.

While physical health can impact various aspects of sexual well-being for both men and women, research shows this phenomenon may be more salient for the former (Lauman et al. 2006; Waite and Das 2010). Laumann et al. (2006), found level of physical activity to be associated with sexual well-being, with a stronger association for men than women. Echoing this finding, DeLamater (2012) found that physical health (and an active sexual history) was a general predictor of greater sexual activity in men, whereas having a healthy partner (and prevalence of sexual desire) was predictive of greater sexual activity in women.

In addition to impeding capability for sex, physical health also affects access to sexual expression. Poor physical health can affect sexual well-being and expression by simply reducing contact with potential romantic and/or sexual partners. For example, in their study of women's romantic relationships after widowhood, Moorman, Booth, Fingerma (2006) speculate that widows in poor health may not have the energy or mobility to search for partners, in relation to healthy widows. In addition, from the perspective of a man on the marriage market, a widow in good health is a more desirable mate than a widow who requires care.

Social support and sexual well-being

The importance of social support to sexual health and well-being among adolescents and young adults has been well documented over the past decade. However, due in part to the desexualizing of older adults, this same level of attention is lacking among older populations. One area which has been well researched is the importance of partner support to sexual health and well-being. Not surprisingly, many studies have found that availability and supportiveness of a partner to be significant predictors of various aspects sexual health of older adults. For example, Delamater and colleagues (2007 and 2008) found marital quality, happiness, and duration to be bidirectionally correlated with sexual satisfaction. Interestingly, Laumann et al. (2006) found that nonmarital relationships, such as cohabitation and dating, were associated with higher levels of subjective well-being than marriages. However, level of commitment was still positively associated with relational satisfaction and sexual functioning.

While studies have shown the importance of partner support in the sexual satisfaction and well-being of older adults, there is a lack of available research on the role of other sources of social support, such as family and friends. In their study of the social life and well-being of older adults Waite and Das (2010), data showed that prevalence of partnered sex over the past 12 months in unmarried individuals varied by reliance on family, in that among those who rarely relied on their family, 27% reported sexual activity, whereas prevalence of sexual activity drops to under 20% for those who often rely on their family. One suggestion for this phenomenon is that sex may be constrained by increased embeddedness in familial networks due to health decline. Waite and Das argue that age-related health declines can increase dependency on family members, and

to a lesser extent friends, which can increase the social control potential for those members who may not approve of an older person's sexual needs and behaviors. It may be that while reliance on family may be detrimental to sexual expression, social support via friendship may be beneficial. In support of this hypothesis, Bach et al. (2013) found that not having a friend for either emotional support or to rely on for care if needed was significantly associated with sexual inactivity.

Previous research outlines the significance of social support on various aspects of health, and in turn, the importance of health for various aspects of sexual well-being. However, research on the direct link between social support and well-being, especially in older adults, is lacking. This research contributes to the current literature on aging and sexuality in that it aims to make a direct connection between friend support and various aspects of sexual well-being (i.e., sexual satisfaction with quality and frequency) in older adults. Based upon prior research, the following hypotheses were tested:

Hypothesis 1: There will be a bivariate association between friend support and sexual satisfaction in older adults; older adults who report greater friendship support will be less likely to be dissatisfied with their sex frequency and quality.

Hypothesis 2: Net of sociodemographic characteristics and sexual functioning, greater social support, specifically support of friends, will be associated with less sexual dissatisfaction in older adults.

Hypothesis 3: Mental and physical health status will be significant mediators of social support and sexual dissatisfaction.

METHODS

Data

Data for this research comes from Wave II (2010-2011) of the National Social Life, Health, and Aging Project (NSHAP). NSHAP is a longitudinal, population-based study of health and social factors, aiming to understand the well-being of older, community-dwelling Americans by examining the interactions among physical health and illness, medication use, cognitive function, emotional health, sensory function, health behaviors, social connectedness, sexuality, and relationship quality (NORC). NSHAP, based on the national household screening by the Health and Retirement Study (HRS), uses a national area probability sample of community dwelling adults ages 57 to 85 at the time of Wave I (2005 and 2006), which includes an oversampling of African-Americans and Hispanics. Data collection for both waves included three measurements: in-home interviews, biomeasures, and leave-behind respondent-administered questionnaires. In addition, Wave II included a supplemental proxy questionnaire for Wave I respondents who were either deceased or too ill to participate. Face-to-face interviews and biomeasurement collection took place in respondents' homes and lasted approximately 120 minutes. The supplemental self-administered questionnaire took approximately 30 minutes to complete.

For Wave I, 3,005 interviews were conducted between July, 2005 and March, 2006 with an overall weighted response rate of 75.5 percent. For Wave II, 3,377 interviews were conducted between August, 2010 and May, 2011 (including Wave I respondents, Wave I non-interviewed respondents, Wave I respondent partners, and Wave I Non-interviewed respondent partners) with an overall weighted response rate of

76.9 percent. For the purpose of this research, the sample was restricted to Wave II respondent interviews. In addition, only respondents who answered the two questions of interest for the dependent variables, were included in the sample. To maximize the analytic sample, analyses were run separately for each dependent variable due to a significant amount of non-response on each measure. These restrictions resulted in a usable sample size (N) of 1,614 and 1,667.

Measures

Sexual dissatisfaction

This study proposes to use sexual satisfaction to represent the dependent concept of sexual well-being. Sexual satisfaction will be assessed using a two subjective measures of sex quality and sex frequency, both measured in the leave behind questionnaire. Sex quality was assessed using the question, “To what extent do you feel your sex life is lacking in quality?” in which response categories included not at all lacking in quality, slightly lacking in quality, moderately lacking in quality, and extremely lacking in quality. This measure was recoded into a binary variable where not lacking quality (=0) and lacking quality (=1).

Sex frequency was assessed using the question, “During the past 12 months, would you say you had sex: much less often than you would like, somewhat less often than you would like, about as often as you would like, somewhat more often than you would like, and much more than you would like.” This measure was recoded so that about as often as you would like (=0) and not as often as you would like (=1). In order to account for missing data, if a respondent has a missing value for either dependent variable, the case was excluded from the analysis.

Social support

The independent variable of social support was measured by using both structural and emotional concepts, as both have been associated with different aspects of health at older ages (Cornwell et al. 2009). Social support was assessed using three indicators: network size, reliability, and openness. Network size was assessed using the question, “About how many friends would you say that you have?” Response categories included none (=0), 1 (=1), 2-3 (=2), 4-9 (=3), 10-20 (=4), and more than 20 (=5). Reliability of friends was assessed using the question, “How often can you rely on them for help if you have a problem?” Response categories included: never (=0), hardly ever or rarely (=1), some of the time (=2), and often (=3). Responses were used how the data was presented in that 0 indicates “never” and 3 indicates “often.” Openness with friends was assessed using the question, “How often can you open up to your friends if you need to talk about your worries?” Response categories included: never (=0), hardly ever or rarely (=1), some of the time (=2), and often (=3). Responses were used how the data is presented in that 0 indicates “never” and 3 indicates “often.” If a respondent had missing data for any of the three independent variables, the case was excluded from the analysis.

Mediators

One of the explicit goals of this research was to investigate potential mediators. Stemming from prior literature, it was anticipated that physical and mental health would be salient mediators of social support and sexual dissatisfaction. Physical health was measured using a subjective measure of self-rated physical health. Respondents were asked if they would say their physical health was excellent (=5), very good (=4), good (=3), fair (=2), or poor (=1). A binary measure of “poor physical health” was created

where good physical health (=0) and poor physical health (=1). Similarly, mental health was measured using a subjective measure of self-rated mental health. Respondents were asked if they would say their “emotional or mental health” was excellent (=5), very good (=4), good (=3), fair (=2), or poor (=1). Again, responses were recoded so that good mental health (=0) and poor mental health (=1).

Controls

Several sociodemographic characteristics and socioeconomic status were included in the analyses as controls. Sex, age, race/ethnicity, education, and married/partner status were all measured in the face-to-face interview. The dichotomous measure of sex was recoded where male=0 and female=1. Age of respondent was calculated from date of birth by original research team and was coded using a continuous measure of years. Race/ethnicity was assessed using a four category measure that was created by the original researcher from self-reports of race/ethnicity where white (=0), black (=1), Hispanic, non-black (=2), and other (=3). A binary measure was created where white (=0) and non-white (=1). Educational attainment was assessed using a self-reported measure of highest degree or certification earned; possible categories were recoded as less than high school (=0), high school diploma/equivalency (=1), vocational certification/some college/associate’s (=3), bachelors or more (=4). For partnered status, this author combined two variables: marital status (responses include married, living with a partner, separated, divorced, widowed, and never married) and presence of a “romantic intimate, or sexual” partner if unmarried, to create a dichotomous measure of partner status. This variable was coded as partnered (=0) and unpartnered (=1).

In addition to demographics and socioeconomic status, the analysis also controlled for individual characteristics of sexual function and presence of family, which have been shown to influence various factors of sexual well-being for older adults. Sexual function was assessed by asking respondents if, in the past 12 months, there had ever been a “period of several more or more” when they lacked interest in sex, were unable to climax, climaxed too quickly, experiences pain during sex, did not find sex pleasurable, felt anxious about their ability to perform sexually, had trouble getting or maintaining an erection (males only), and/or have trouble lubricating (females only). A sexual dysfunction scale was created where no problems (=0) and seven problems (=7). Finally, presence of family was assessed using a count of the number of relatives the respondent feels close to. Six answer categories were used as presented in that none (=0), one (=1), 2-3 (=2), 4-9 (=3), 10-20 (=4), and more than 20 (=5).

Analytic Strategy

Analysis for this research was three fold and utilized SPSS version 22. First, univariate analysis of the variables were completed in order to ascertain a description of the sample data. Table 1 contains sample demographics including sample size for the dependent variable in each model. Next, in order to establish a significant bivariate association between the independent and dependent variables, a series of t-tests were performed among the focal variables. Table 2a and 2b show the bivariate relationship between friendship support and sexual dissatisfaction. Finally, the data were analyzed in a multivariate fashion via binary logistic regression. A series of models were created to assess sexual dissatisfaction for both quality and frequency; odds ratio estimates of sexual quality (i.e. lacking quality) (Table 3a) and sexual frequency (i.e. frequency not as often)

(Table 3b) are presented. Because this research aimed to explore potential mediators, five models were generated, where Model 1 (adjusted for sociodemographic characteristics) and Model 2 (adjusted for sociodemographic characteristics + mediators) show the effects of friend support on sexual dissatisfaction. Model 3 shows the effect of both mediators on sexual dissatisfaction without friendship measures. Finally, Models 4 and 5 show the effect of friendship support on physical health and mental health, net of controls, respectively.

RESULTS

Sample Characteristics

Table 1 presents the descriptive characteristics of the analytical sample. To minimize sample loss due to non-response, the sample was analyzed separately for each dependent variable. Of the 1614 respondents who had valid responses pertaining to quality of sex life, 61.5% of the sample reported lacking quality, suggesting that the majority of respondents were dissatisfied with quality of sex life. Just under half of the sample was female, and the average age was about 71 years. The majority of the sample was white (70.4%) and partnered (80.7%). The sample had relatively high education status with over half (59.6%) having completed at least some college or vocational school. The modal category for number of close relatives was 4-9 (45.5%) and the average sexual functioning score was 1.65, indicating that the average respondent had between one and two problems associated with sexual function. As with number of close relatives, the modal category for number of friends was 4-9 (31.7%). Approximately forty two percent (41.9%) of the sample felt they could rely on their friends often, while nearly the same (42.6) felt they could be open with their friends only some of the time. About a quarter of respondents reported poor physical health while only 11.8% reported poor mental health.

Sample characteristics are similar for those 1667 respondents who have valid responses concerning frequency of sex. Approximately sixty two percent of the sample reported having sex not as often as they would like, just slightly over those who were dissatisfied with quality of sex life. Just under half of the sample was female (48.7%), and the average age was about 71 years. The majority of the sample was white (69.9%)

and partnered (82.7%). The sample had relatively high education status with over half (60.5%) having completed at least some college or vocational school. The modal category for number of close relatives was 4-9 (44.4%) and the average sexual functioning score was 1.66, indicating that the average respondent had between one and two problems associated with sexual function. As with number of close relatives, the modal category for number of friends was 4-9 (31.6%). Approximately forty two percent (42.7%) of the sample felt they could rely on their friends often, while nearly the same (42.6) felt they could be open with their friends only some of the time. Approximately twenty four percent of respondents reported poor physical health and 11.4% reported poor mental health, giving this sample slightly lower self-related overall health.

Bivariate Associations

The first hypothesis stated that there would be a significant bivariate association between friendship support and sexual dissatisfaction. To test for this relationship, two sample t-tests were conducted among the focal variables. Table 2a illustrates the association between number of friends, friend reliability, and friend openness and quality of sex life. This analysis provided no support for a significant relationship between friend support and quality of sex life. Table 2b illustrates the association between the independent variables and frequency of sex. Friend openness was significantly associated ($p=.055$) with satisfaction with frequency of sex using an alpha of 0.10, where greater openness with friends was linked to lower ratings of dissatisfaction. However, in general, bivariate analysis of the data showed little support for the association between friend support and sexual well-being in this sample.

Multivariate Associations

Dissatisfaction with sex quality

Table 3a presents the multivariate, binary logistic regression between the independent variables and lacking quality in sex life. In Model 1, friend support (number of friends, reliability of friends and openness with friends) did not significantly predict lacking quality in sex life. However, among demographic characteristics, gender (OR=.636), education (OR=1.136) and sexual dysfunction (1.355) were all significant predictors of lacking quality in sex life. Being female decreased the odds of lacking quality in sex life by 36.4%. For each additional level increase in education, the odds of lacking quality in sex life increased by 13.6%, and for each scale increase in sexual dysfunction, the odds of lacking quality increased by 35.5%. As expected, in Model 2, friend support was still not a significant predictor with the inclusion of poor physical health and poor mental health as mediators. The association between gender (OR=.628), education (OR=1.159), sexual dysfunction (1.349) and lacking quality remained similar, implying no mediating relationship. Similarly, in Model 3, gender (OR=.641), education (OR=.1.156), and sexual dysfunction (OR= 1.348) remained significant predictors of lacking quality in sex life after removing the independent variables. Finally, in Models 4 and 5, the association between the dependent variable and poor physical health and poor mental health (respectively), net of sociodemographic characteristics, were ascertained. While the need for these models in testing for mediation proved to be inconsequential, given the lack of association between friend support and quality of sex life, the models have illustrated important associations with health. For example, number of friends (OR=.863) was a significant predictor of physical health in that each category increase in

number of friends decreased the odds of poor physical health by 13.7%. In addition, education (OR=.554,.588), partner status (OR=.575,.682) and sexual dysfunction (OR=1.110, 1.167) were significant predictors of both physical and mental health.

Dissatisfaction with sex frequency

Table 3b presents the multivariate, binary logistic regression between the independent variables and dissatisfaction with frequency of sex. Though there was a significant association between friend support and dissatisfaction in frequency of sex (i.e., openness with friends), after controlling for sociodemographic characteristics in Model 1, this association was no longer significant. In fact, only gender (.580) and partner status (.199) were significant predictors of frequency dissatisfaction. Being female decreased the odds of being dissatisfied with frequency of sex by 42.0%, whereas having a partner decreased the odds of being dissatisfied by 80.1%. In Model 2, friend support still did not significantly predict satisfaction with frequency of sex with the inclusion of poor physical health and poor mental health as mediators. However, both physical health and mental health were significant predictors of frequency dissatisfaction in that having poor physical health increased the odds of being dissatisfied with frequency of sex by 72.0% and having poor mental health increased the odds of being dissatisfied by 52.2%. In addition, association between gender (OR=.576) and partner status (OR=.199) remained significant as well. After removing the independent variables in Model 3, gender (OR=.563) and partner status (OR=.209) remained significant negative predictors of dissatisfaction with frequency of sex in that being female and having a partner decreased the odds of being dissatisfied by 43.7% and 79.1%

respectively. Poor physical health (1.746) remained a significant predictor while poor mental status was no longer significant in the model.

Finally, as with dissatisfaction with sex life quality, the intended use of Model 4 and Model 5 was not required due to the lack of evidence for mediation. However, the results have interesting implications in promoting health through social relationships. In Model 4, openness with friends (OR=.813), number of friends (OR=.888), partner status (OR=.660), education (OR=.558), number of close relatives (OR=.885), and sexual dysfunction (OR=1.117) are all significant predictors of physical health. For each category increase in feeling open with friends, the odds of reporting poor physical health decreases by 18.7%, and for each category increase in number of friends, the odds of reporting poor physical health decreases by 12.0%. Similarly, each category increase in number of close relatives decreases the odds of reporting poor physical health by 11.5%. Finally, in Model 5, education (OR=.647), partner status (OR=.559), and sexual dysfunction (OR=1.147) were shown to be significant predictors of mental health.

DISCUSSION

The goal of this study was to examine the role of friendship and sexuality in the aging population. Specifically, this research aimed to explore whether friend support shapes the sexual well-being as measured by sexual dissatisfaction among older adults, and if this association exists, whether physical and mental health were salient mediators. The foregoing analyses provide insight and promising areas of future research into the role of social support, health, and sexuality in the aging population.

First, it was hypothesized that there would be a significant bivariate association between friend support and sexual dissatisfaction in older adults. The preceding analysis provides some evidence to support this hypothesis in that increased feelings of openness with friends was associated with satisfaction with sexual frequency. However, a significant association was not established between satisfaction with quality of sex life and friend support, or between sex frequency among friend reliability or number of friends.

While this analysis did not provide the strength of statistical significance that was hypothesized, there was some evidence to support that the relationship between friend support and sexual well-being in older ages exists. It is noteworthy that feelings of being able to be open with friends had positive impacts on satisfaction with sex frequency, but not satisfaction with sex life quality. Perhaps more importantly, however, is that the direction of this relationship appears to be positive, as hypothesized, in that more social support yields higher sexual satisfaction, which is an important component of sexual well-being. This finding is of particular importance because of what has been learned about the role of support, in sexual well-being, from other networks. As family support

and reliance has been shown to have negative impacts on sexual activity and satisfaction (Wait and Das 2010), looking to friendship support as an alternative avenue in promoting the sexual well-being of older adults appears to be promising.

The second hypothesis predicted that net of sociodemographic characteristics, greater friend support would be associated with greater sexual well-being in older adults. Though the literature suggests a relationship may exist (Bach et al. 2013), when controlling for sociodemographics, friend support did not predict sexual well-being. As the data did not show support for a bivariate association between the three variables measuring friend support and sexual quality, this finding was anticipated. However, where an association was initially supported, after controlling for sociodemographics, the association between sex quality and openness with friends became non-significant.

It is essential to note, however, that a non-significant finding should not imply that this relationship does not exist at this juncture. Firstly, the research on this idea of friend support and sexual well-being in older adults is in its infancy. As such, the data is scarce and so is our knowledge of how these relationships may manifest. It will be important for future research to address this novelty and find alternative ways to measure and quantify these relationships.

The final hypothesis predicted that mental and physical health status would be significant mediators of friend support and sexual dissatisfaction in older adults. As a significant relationship between friend support and sexual dissatisfaction was not supported after controlling for sociodemographic characteristics, the test for mediation for this relationship may appear futile. However, supplemental information gathered

from these multivariate analyses proved useful in helping to further understand associations between social support, health, and sexual dissatisfaction

Sexual dysfunction, gender, and education all significantly predicted quality of sex life. As expected, high reports of sexual dysfunction predicted lacking quality. In addition, being male and more educated increased reports of dissatisfaction with sex quality. One explanation for these associations can be attributed to desire and expectations. For example, in their study of sexual desire in later life, DeLamater and Sill (2005) found education to be significantly related to desire for both men and women. They argued that greater education may undermine the negative stereotypes of sexual expression by older persons. As such, older adults with higher education are more likely to desire sexual activity and are therefore likely to be more aware of the lack of quality. Similarly, males are culturally afforded more acceptance of their sexual desire than their female counterparts. It is this desire and expectation that sex should follow, that may increase feelings of dissatisfaction with sex life quality.

Gender and partner status were significant predictors of satisfaction of frequency of sex, in that women and those with partners were more likely to be satisfied with frequency of sex. In addition, physical and mental health were also significant predictors once added to the model, in that reports of poor health were significant predictors of dissatisfaction with frequency. Interestingly, sexual dysfunction was not found to be a significant predictor of dissatisfaction with sex frequency as it was with sex life quality. Again, this idea may echo back to expectations in that those with sexual dysfunction are less likely to expect sexual activity, and are therefore less likely to be dissatisfied by not having sex.

Models 4 and 5 of each multivariate analysis measured predictors of physical and mental health respectively. Partner status, education, and sexual dysfunction were all salient predictors of mental and physical health in both analyses. Having a partner and higher education was associated with better health, whereas more sexual dysfunction was associated with worse health. Additional predictors of physical health included number of close relatives, as well as number of friends and feelings of openness with friends (among those who had valid answers related to satisfaction with frequency of sex).

While there was little statistical evidence for the association between friend support and sexual satisfaction, the data supports the literature in illustrating a strong association between friendship and physical health in that having more friends and feeling open with those friends significantly increases physical health. It should be noted, however, that support from friends did not appear to be significantly associated with mental health, a finding that was unexpected based on past research. One explanation for this lack of association could be underreporting. Only about 11% of respondents reported poor mental health. Research consistently shows that reports of poor mental health are underreported due, in part, to societal stigma.

Despite the lack of support for the proposed hypotheses, the presence of an initial, bivariate association between friend openness and satisfaction with frequency of sex life in addition to multivariate associations between friend support and health, as well as between health and frequency of sex, give some indication that the relationship between friend support and sexual well-being of older adults may still exist, but may not be apparent in this sample. However, it may simply be that friend support does not play a

role in shaping the sexual well-being of older adults in the way that partner and family support do.

Limitations

One limitation to this study is the use of secondary data. It is possible that the measures chosen to represent theoretical concepts do not accurately quantify the intended concept. In addition, the wording of the questions associated with the dependent variables (“To what extent do you feel your sex life is lacking in quality?” and “During the past 12 months, would you say you had sex: much less often than you would like, somewhat less often than you would like, and much more than you would like?”) were asked with a negative connotation, which perhaps is ill suited to an already negatively stereotyped phenomenon.

Additionally, the sample size associated with respondents who had valid responses associated with the dependent variables was relatively small. Although over 2,422 respondent interviews took place in Wave II of NSHAP, only 1,614 and 1,667 respondents answered the questions related to sex quality and frequency, respectively. In addition, non-response for demographic measures reduced the multivariate analytical sample size to between 1,209 and 1,268. However, the reason for this low response has been well documented. Data, such as that related to sex and sexual activity, especially among aged adults, is highly sensitive and subject to social stigma and subsequent non-response. While these response rates may create sample selection bias, the very nature of this type of research makes non-response relatively unavoidable.

Another potential limitation of this research is the use of subjective measures of frequency of sex, as well as for physical and mental health. However, previous research

supports the use of subjective variables in measuring health (Bach, Mortimer, and Corvin 2013). In addition, using a subjective measure of satisfaction of frequency of sex, rather than a simple count of sex frequency, helps tap into the more complex aspects of sexual well-being for older adults. Yet, relying solely on subjective measures may introduce same-source bias in relation to self-reports of health and satisfaction.

CONCLUSION

Drawing from the literature, the aim of this study was to examine the role of friendship on the sexual well-being, using two distinct measures of sexual dissatisfaction, among older adults. Previous research in relation to aging and sexuality is scarce and is primarily focused on the negative, clinical aspects of sexual decline and problems associated with loss of memory and autonomy. Recent research has shown that, contrary to societal beliefs, older adults continue to be interested in sexual intimacy (Delamater and Sill 2005). In addition this research shows that the majority of older adults are dissatisfied with both quality of sex life (61.5%) and frequency of sex (62.6%). While this finding may initially show bleak outlook for the sexual well-being of older adults, researchers and policy makers can view this as a clear opportunity to make real advancements in the overall health and well-being of older adults. As sexual well-being has been shown to be an salient factor in producing overall health (Wait and Das 2010), actively attempting to encourage healthy sexual practices and well-being among older adults could have an important role in producing better quality of life for our society's elders.

At the individual level, intervention programs should focus on maintaining positive interactions with existing social networks among older adults. Additionally, these programs could help older adults to form support groups among peers. Because of perceived similarities, support from peers may be more effective (Chen and Feeley 2013). For example, Bach and colleagues (2013) found that men and women who participated in physical and social activities had a higher likelihood of sexual activity and promoted better physical and mental states as well. Additionally, we should examine residential

arrangements for the aging and structure them to facilitate, rather than hinder intimate relationships. Finally, at a societal level, negative attitudes about sexuality among older adults need to be challenged. As studies have continued to point to both the continued interest in sexual expression of older adults, as well as the countless health benefits of having an active and safe sex life, it is time that society supports, rather than dismisses the sexuality of its elders.

Future Research

Due to the highly gendered aspect of both social relationships and sexual activity and satisfaction, analyzing the effects of friend support among men and women separately may help to shed light on the potential social processes influencing sexual well-being in later life. In addition to subjective measures of sexual satisfaction, it may be prove important to assess the role of friend support in the more objective aspects of sexual well-being such as presence of sexually transmitted infections and presence of sexual dysfunction, looking to healthcare utilization and other types of instrumental support as potential mediators.

APPENDIX

Figure 1: Summary of Multivariate Models

Model 1:	$X \rightarrow Y$ (+controls)
Model 2:	$X \rightarrow M \rightarrow Y$ (+ controls)
Model 3:	$M \rightarrow Y$ (+controls)
Model 4:	$X \rightarrow M_1^*$
Model 5:	$X \rightarrow M_2^{**}$

* M_1 =Physical Health; ** M_2 = Mental Health

Table 1: Descriptive Statistics

	Quality of Sex Life (N=1614)	Frequency of Sex (N=1667)
Dependent Variables:		
Quality of Sex Life		-
Not Lacking	38.5%	-
Lacking	61.5%	
Frequency of Sex		
About as often	-	37.4%
Not as often	-	62.6%
Controls:		
Age	71.10 (7.76)	71.12 (7.71)
Gender (female=1)	49.4%	48.7%
Race/ethnicity (minority=1)	29.6%	30.1%
Partner Status (partnered=1)	80.7%	82.7%
Education		
< High school	17.1%	16.2%
High school/equivalent	23.3%	23.4%
Voc./some college/assoc.	32.5%	32.5%
Bachelor's or more	27.1%	28.0%
Close Relatives		
None	1.7%	1.7%
One	4.3%	4.7%
2-3	24.7%	24.8%
4-9	45.5%	44.4%
10-20	16.5%	16.8%
>20	7.2%	7.5%
Sexual Dysfunction	1.65 (1.54)	1.66 (1.56)
Independent Variables:		
Number of Friends		
None	2.7%	2.7%
One	3.5%	3.7%
2-3	17.0%	16.8%
4-9	31.7%	31.6%
10-20	23.0%	23.4%
>20	22.1%	21.8%
Rely on Friends?		
Never	9.4%	9.1%
Hardly ever or rarely	11.2%	11.3%
Some of the time	37.4%	36.9%
Often	41.9%	42.7%
Open with Friends?		
Never	11.1%	11.0%
Hardly ever or rarely	19.1%	19.8%
Some of the time	42.6%	42.6%
Often	27.2%	26.6%
Mediators:		
Poor Physical Health	24.6%	23.7%
Poor Mental Health	11.8%	11.4%

Table 2a: Quality of Sex (T-test)

	Number of Friends (Mean, SE) N=1,588	Rely on Friends (Mean, SE) N=1,584	Open with Friends (Mean, SE) N=1,590
Lacking Quality	3.36 (.039)	2.11 (.029)	1.85 (.029)
Not Lacking Quality	3.34 (.052)	2.14 (.040)	1.88 (.040)
Mean Difference	.029	.029	.011

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

Table 2b: Frequency of Sex (T-test)

	Number of Friends (Mean, SE) N=1,643	Rely on Friends (Mean, SE) N=1,636	Open with Friends (Mean, SE) N=1,645
About as often	3.39 (.0489)	2.16 (.038)	1.90 (.038)
Not as often	3.32 (.040)	2.11 (.029)	1.81 (.029)
Mean Difference	.072	.048	.092 [†]

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

Table 3a: Binary Logistic Regression of Dissatisfaction with Quality of Sex Life

	Lacking Quality in Sex Life						Poor Physical Health		Poor Mental Health	
	Model 1 (N=1211)		Model 2 (N=1209)		Model 3 (N=1236)		Model 4 (N=1210)		Model 5 (N=1210)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Friendship Support:										
Rely on Friends	.924	.087	.926	.087	-	-	1.032	.101	.902	.130
Open with Friends	1.078	.087	1.084	.087	-	-	.857	.101	.923	.132
Number of friends	1.015	.057	1.021	.057	-	-	.863*	.067	.910	.086
Controls:										
Age	.995	.008	.995	.008	.996	.008	1.006	.010	1.012	.013
Gender (female=1)	.636**	.131	.628***	.132	.641***	.126	.952	.160	1.267	.207
Race (nonwhite=1)	.929	.133	.915	.134	.913	.132	1.170	.161	1.274	.204
Partner status (partnered=1)	1.119	.173	1.162	.175	1.153	.172	.554**	.195	.588*	.244
Education	1.136*	.061	1.159*	.063	1.156*	.062	.575***	.074	.682***	.095
No. close relatives	.929	.063	.933	.063	.930	.060	.890	.076	.868	.097
Sexual dysfunction	1.355***	.043	1.349***	.043	1.348***	.043	1.110*	.048	1.167*	.060
Mediators:										
Poor Physical Health	-	-	1.127	.165	1.033	.127	-	-	-	-
Poor Mental Health	-	-	1.295	.218	1.284	.173	-	-	-	-

Notes: Model 1: $X \rightarrow Y$ (+controls); Model 2: $X \rightarrow M \rightarrow Y$ (+ controls); Model 3: $M \rightarrow Y$ (+controls); Model 4: $X \rightarrow M_1$; Model 5: $X \rightarrow M_2$; † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3b: Binary Logistic Regression of Dissatisfaction with Frequency of Sex

	Frequency of Sex (not as often)						Poor Physical Health		Poor Mental Health	
	Model 1 (N=1243)		Model 2 (N=1240)		Model 3 (N=1268)		Model 4 (N=1242)		Model 5 (N=1241)	
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Friendship Support:										
Rely on friends	1.062	.085	1.057	.086	-	-	1.098	.099	.873	.128
Open with friends	.929	.086	.951	.087	-	-	.813*	.099	1.000	.131
Number of friends	.993	.057	1.005	.057	-	-	.888 [†]	.066	.923	.085
Controls:										
Age	1.009	.009	1.007	.009	1.007	.008	1.012	.010	1.010	.013
Gender (female=1)	.580***	.129	.576***	.131	.563***	.125	.980	.156	1.193	.201
Race (nonwhite=1)	.977	.132	.973	.133	.982	.132	1.110	.159	1.187	.204
Partner status (partnered=1)	.199***	.230	.199***	.235	.209***	.228	.660*	.203	.559*	.247
Education	.918	.062	.971	.064	.978	.062	.588***	.074	.647***	.095
No. close relatives	1.002	.062	1.018	.062	1.017	.059	.885 [†]	.074	.860	.095
Sexual dysfunction	1.029	.039	1.016	.039	1.020	.039	1.117*	.047	1.147*	.060
Mediators:										
Poor phys. health	-	-	1.720**	.169	1.746**	.166	-	-	-	-
Poor mental health	-	-	1.522 [†]	.226	1.435	.224	-	-	-	-

Notes: Model 1: $X \rightarrow Y$ (+controls); Model 2: $X \rightarrow M \rightarrow Y$ (+ controls); Model 3: $M \rightarrow Y$ (+controls); Model 4: $X \rightarrow M_1$; Model 5: $X \rightarrow M_2$; [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

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CURRICULUM VITAE

Monica May Williams

EDUCATION

- (2015) M.A. in Sociology- Indiana University Purdue University Indianapolis
Medical Sociology (concentration)
- 2011 B.A. Criminology and Chemistry- Butler University
High Departmental Honors, Criminology

RESEARCH INTERESTS

- Health and Aging
- Aging and Sexuality
- Mixed Methods
- Quantitative Methods
- Health Disparities
- Social Networks and Relationships

TEACHING INTERESTS

- Medical Sociology
- Sociology of Aging
- Sexuality
- Research Methods
- Criminology
- Intro to Sociology

PUBLICATIONS

Latham, Kenzie and **Monica M. Williams**. “Does Neighborhood Disorder Predict Recovery from Mobility Limitation? Findings from the Health and Retirement Study.” (Accepted at the *Journal of Aging and Health*)

Whiteacre, Kevin and Kenneth Colburn (with Cristie Cole, Deanna Hazel, Ryan McClarnon, Bradley Vogelsmeier, **Monica M. Williams**, and Wei Xie). “Assessing Community Progress on the Blueprint to End Homelessness.” Submitted to the Coalition for Homelessness Intervention and Prevention (CHIP).

HONORS AND AWARDS

Suzanne K. Steinmetz Scholarship, 2015, Department of Sociology, Indiana University-Purdue University Indianapolis

Golden Key National Honour Society, 2015, Indiana University- Purdue University Indianapolis

RESEARCH EXPERIENCE

Research Assistant, 2013-Present

Dr. Kenzie Latham, IUPUI, Department of Sociology, Indianapolis, IN

- Completed a comprehensive literature review on the neighborhood environment on aspects of health in older adults
- Submitted to the Journal of Aging and Health; revise and resubmit

Research Assistant, 2010-2011

Dr. Kenneth Colburn, Butler University, Department of Sociology, Indianapolis, IN

- Conducted semi-structured qualitative interviews with homeless individuals utilizing various homeless services throughout Indianapolis
- Transcribed and analyzed collected qualitative data and calculated demographic sample statistics
- Presented Findings to the Coalition for Homelessness Intervention and Prevention (CHIP) as a ten year assessment of the Blueprint to End Homelessness in Indianapolis

TEACHING EXPERIENCE

Teaching Assistant

SOC R-359, Spring 2015, Introduction to Sociological Statistics, Instructor: Dr. David Bell

- Assisted in grading assignments and examinations
- Aided in laboratory learning with SPSS statistical package
- Tutored students in small groups and one-on-one settings

Course Assistant

SOC R-320, Spring 2014, Human Sexuality, Instructor: Dr. Devon Hensel

- Assisted in syllabus, exams, and writing assignment construction
- Guest Lecturer, "Sex Dolls and Sexual Expression," March 2nd, 2014.

Programming Facilitator

Marion County Juvenile Detention Center, Fall 2011

- Created weekly programming for detained students
- Presented information on career development and facilitated meaningful discussion

PROFESSIONAL DEVELOPMENT

PAPER PRESENTATION

Latham, Kenzie and **Monica M. Williams**. "Do Subjective Neighborhood Assessments Predict Recovery From Mobility Limitation? Findings from the Health and Retirement Study." Presented October at the Indiana Academy for the Social Sciences (IASS) annual conference, 10, 2014

PROFESSIONAL SERVICE

Co-Graduate Student Representative (2014-2015)

Indiana University Purdue University Indianapolis

- Represent the concerns and suggestions of current graduate students in graduate committee meetings
- Organized: *“Curriculum Vitae Workshop”*
“Applying to PhD Programs”

Case Manager (2011-Present)

New Hope of Indiana

- Assist parents and children involved with the Indiana Department of Child Services in finding gainful employment, stable housing, and health insurance
- Aid clients in applying for entitlement programs
- Supervise visitation and facilitate age appropriate activities between parents and children

Panelist (Spring 2014)

School of Liberal Arts at Butler University, “Why Study Liberal Arts at Butler University?”

Intern Volunteer Coordinator (2011-2012)

Marion County Juvenile Detention Center, Indianapolis, IN

- Assisted in grant proposal writing for program funding through the Juvenile Detention Alternatives Initiative (JDAI) which resulted in a substantial award
- Organized “Career Options Fair” in which representatives from various educational, military, and professional organizations were invited to present career options to students
- Assisted in organizing *“Man Up!”* and *“Defeating Domestic Violence”* Conference
- Conducted weekly student programming aimed at assisting troubled youth in finding a life/career course
- Head of Career Exploration volunteer group

PEDAGOGICAL TRAINING

- Preparing Future Faculty and Professionals (PFFP) annual Pathways Conference (Fall 2014)
- SPSS: The Basics, IT Training, IUPUI (Summer 2014)
- NVivo Essentials, QSR International (Spring 2014)
- Educational Training for Teaching Associates (ETTA) Fall Conference, Center for Teaching and Learning, IUPUI (Fall 2013)
- How are the Children? Five Steps to Excellence in Child Welfare, Indiana Department of Child Services (Fall 2012)

PROFESSIONAL MEMBERSHIP

- Indiana Academy of the Social Sciences

RELATED GRADUATE COURSEWORK

METHODOLOGICAL

Quantitative Methods

Qualitative Methods

Biostatistics I

Intermediate Social Statistics

SUBSTANTIATIVE

Aging and Society

Health and Illness

Human Sexuality

Public Health Demography