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### Exploring Clinical Psychology Doctoral Students' Knowledge and Attitudes About Older Adult Sexuality

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Exploring Clinical Psychology Doctoral Students' Knowledge and Attitudes About Older Adult  
Sexuality

A Clinical Dissertation Presented to  
The University of San Francisco  
School of Nursing and Health Professions  
Clinical Psychology PsyD Program

In Partial Fulfillment of the Requirements for the Degree  
Doctor of Psychology

By Lindsey Horta, M.S.

November 2019

## PsyD Clinical Dissertation Signature Page


This Clinical Dissertation, written under the direction of the student's Clinical Dissertation Chair and Committee and approved by Members of the Committee, has been presented to and accepted by the faculty of the Clinical Psychology PsyD Program in partial fulfillment of the requirements for the degree of Doctor of Psychology. The content and research methodologies presented in this work represent the work of the student alone.

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## ABSTRACT

The current study surveyed clinical psychology doctoral students' (N=291) knowledge and attitudes about older adult sexuality. Knowledge and attitudes were measured using the Facts of Aging Quiz, the Aging Sexuality Knowledge and Attitudes Scale, Attitudes Towards Sexuality Scale, and measures to explore students' exposure to and interests in the older adult population, as well as academic and clinical exposure (coursework, practicum opportunities and clinical contacts with older adults) to the older adult population and older adult sexuality. Generally, students' knowledge about aging was associated with their attitudes about older adult sexuality; the more knowledge a student has about older adult sexuality, the more positive attitudes they have about older adult sexuality. However, the current study demonstrated that clinical psychology doctoral students' lack of exposure to the older adult population did not impact their knowledge or attitudes about older adult sexuality. This study suggests that the relationship between students' knowledge and attitudes about older adult sexuality may be more complex due to different types of exposure. Students' knowledge and attitudes about older adult sexuality may be shaped by personal experiences with older adult relatives and being a caretaker of an older adult. Future research is needed to further investigate different types of exposure and how those impact students' knowledge and attitudes about older adult sexuality.

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### **Specific Aims**

The U.S. population is experiencing a substantial increase in its older adult population (Ortman, Velkoff, & Hogan, 2014). According to the U.S. Census Bureau, there were more people above the age of 65 in 2010 than any other previous census year (Werner, 2011). In 1900, there were 3.1 million people above the age of 65 in the United States; by 2010, this number went up to 40.3 million (Werner, 2011). Despite the increase in the older adult population, most health care professionals are being provided with little training in older adult care (Karel, Knight, Duffy, Hinrichsen, & Zeiss, 2010). As reported by the American Psychological Association (APA) in 1999, APA members reported having little to no formal training with the aging population and over half felt that they needed more training to be competent in working with older adults (Hinrichsen, Zeiss, Karel, & Molinari, 2010; Qualls, Segal, Norman, Niederehe, & Gallagher-Thompson, 2002). The increase in the older adult population has been well-documented (He, Goodkind, & Kowal, 2016; Ortman et al., 2014; Werner, 2011); however, psychology graduate students are being provided with limited coursework and training opportunities to work with older adults (Woodhead et al., 2015).

The purpose of this study was to explore the knowledge and attitudes of clinical psychology doctoral students about older adults' sexuality. A quantitative approach was employed in order to investigate a greater percentage of clinical psychology doctoral students' attitudes and knowledge about older adult sexuality. Three questionnaires and a demographic form were utilized to explore students' knowledge and attitudes about older adult sexuality. The questionnaire included the following three scales: the Aging Sexuality Knowledge and Attitudes Scale (ASKAS; White, 1982), Facts on Aging (Breytspraak & Badura, 2015), and the Attitudes Toward Sexuality Scale (ATSS; Fischer & Hall, 1988).

It was hypothesized that clinical psychology doctoral students with more knowledge about older adult sexuality will have more positive attitudes about older adult sexuality. The second hypothesis was that clinical psychology doctoral students with lower rates of exposure (i.e., coursework, practicum opportunities, and clinical contact) to older adult sexuality would have more negative attitudes about older adult sexuality. The third hypothesis was that clinical psychology doctoral students with lower rates of exposure (i.e., coursework, practicum opportunities, and clinical contact) to older adult sexuality would have less knowledge about older adult sexuality.

The University of San Francisco's mission is to provide students of all levels the skills and knowledge needed to become successful individuals and professionals with an emphasis on values and sensitivity to others. This study aimed to further guide the development of sensitivity to others through the exploration of clinical psychology doctoral students' current knowledge and attitudes toward older adult sexuality. The goal of this dissertation was to provide awareness about deficits in preparation of health care providers for work with the growing population of older adults, an underserved and invisible community.

## **Chapter One- Introduction**

### **Knowledge and Attitudes of Clinical Psychology Doctoral Students About Older Adult Sexuality**

The demographics of the world population have been changing and there has been a significant increase in older adults. As the baby boomer generation (born between 1946 and 1964; age range 55-72 years old) enters into older adulthood, clinicians will see an increase in older adults utilizing their services. Despite the growth of the older adult population and greater likelihood of working with this group, current psychology graduate programs are not preparing students to work with older adults. Though most graduate programs make reference to the aging population in their curricula and practicum experiences, training of students to work with older adults is inadequate (Laidlaw & Pachana, 2009). Currently, certain barriers keep graduate-level psychology students from working with older adults, including lack of curricula focused on older adults, beliefs that older adults will not seek mental health services, and limited experience working with the older adult population (Woodhead et al., 2013). Lack of training about older adults has led to fewer psychologists working with the older adult population, a gap in knowledge, and limited comfort levels in working with older adults as sexual beings (Snyder & Zweig, 2010). Clinical psychology doctoral students are not receiving adequate training to provide services to the older adult population (Holtzer, Zweig, & Siegel, 2012). Along with a lack of curricula focusing on older adults, there is a lack of curricula on sex and sexuality (Hanzlik & Gaubatz, 2012). This results in an older adult population vulnerable to working with mental health providers who are lacking knowledge about them and about their sexuality.

This study will implement a quantitative exploration of clinical psychology doctoral students' knowledge and attitudes toward older adult sexuality. This topic of inquiry is important given the growing number of older adults, their increased life expectancy, and changing

demographics. The measures utilized in this study address knowledge about aging based on current research, attitudes toward sexuality among aging individuals, general attitudes toward aging, and knowledge about sexuality among aging individuals.

## Chapter Two- Literature Review

### Older Adulthood

To date, there is no global definition for when older adulthood begins. According to several researchers (Erlangsen, Stenager, & Conwell, 2015; Kjølseth, Ekeberg, & Steihaug, 2010; Koo, Kølves, & De Leo, 2017; Waern, Rubenowitz, & Wilhelmson, 2003) as well as the World Health Organization (2002), the definition of *elderly*, *older adult*, or *old person* starts at the chronological age of 65 years. However, some research includes individuals in the 50, 55, or 60 age categories fall into the population of older adults (Mathers, Stevens, Boerma, White, & Tobias, 2015). Researchers have created a subgroup called the *oldest old* based on the increase in the older adult population and the increase in life expectancy of older adults. The term *oldest old* is used to describe older adults who are 85+ years old (Campion, 1994; Suzman & Riley, 1985; Vasiliadis, Lamoureux-Lamarche, & Gontijo Guerra, 2017). The age range of the oldest old fluctuates depending on the researcher, and some have classified this group as individuals 75 years of age and older (Paraschakis et al., 2012). The term *youngest old* is being used to describe older adults in the age range of 65 to 84 years old (Ortman, et al., 2014). The term older adult will be used throughout and is referencing all adults over the age of 65. When specific subgroups are being referred to, the terms oldest old or youngest old will be utilized.

People are living longer due to changing demographics, a longer life expectancy, and a decline in death due to diseases. By 2050, the oldest old group is on pace to reach 18 million, accounting for 4.5 percent of the U.S. population (Ortman et al., 2014). As the older adult

population has increased, the number of people considered as the oldest old has also grown. This could be linked to the increase in life expectancy at birth. In 2015, the global life expectancy at birth was 68.6 years. Women's life expectancy was 70.1 years, and men's life expectancy was 66.6 years. Life expectancy rates are projected to increase and by 2050 when the global life expectancy is expected to reach 76.2 years (He et al., 2016).

### **Life Expectancy and Changing Demographics**

Life expectancy at birth has been increasing over time because infants and children have a lower mortality rate due to less exposure to infectious diseases. Another factor increasing life expectancy over time has been a decline in deaths of older adults due to infectious and parasitic diseases (Mathers et al., 2015; Wilmoth, 2000). In the past fifty years, wealthy countries decreased their infant mortality rate from 2 to 3% in 1950 to 0.5 to 1% by 2000 (Wilmoth, 2000). Due to the decline in fertility rates, the older population will continue to expand while the younger population will remain stagnate (He et al., 2016). The growth of the older adult population is linked to the baby boomer generation entering older age, current lower levels of fertility, and lower mortality rates worldwide (He et al., 2016). The older adult population is currently outpacing younger adults and will continue to do so for the next 35 years.

The older adult population has experienced a longer life expectancy due to advances in rehabilitation medicine as well as improved health care coverage and effectiveness (Koo et al., 2017; Mathers et al., 2015). Advancements in health care have led to a reduction of functional impairments and disabilities over the life course (Chatterjee, Murgai, & Rama, 2015; Koo et al., 2017). According to He, et al., (2016) advancements in health care coverage and effectiveness shifted the leading causes of death among older adults from communicable diseases (parasitic and infectious diseases) to noncommunicable diseases (strokes, heart disease, Alzheimer's

disease, autoimmune diseases, etc.). Noncommunicable diseases are now the leading causes of mortality, morbidity, and disability in older age. There are major noncommunicable diseases impacting older adults during the aging process, such as heart disease, lung cancer, cancer, and diabetes (Mather, Jacobson, & Pollard, 2015). Between 1990 and 2013 there has been a 42% increase in deaths of older adults related to noncommunicable diseases (He et al., 2016; Lozano et al., 2012).

Currently women have a longer life expectancy, outlive men by roughly three years, and are expected to continue outliving men over the next four decades. However, this gap is expected to shrink because life expectancy for men is projected to increase more than for woman during this timeframe (He et al., 2016; Ortman et al., 2014; Vincent & Velkoff, 2010). There has been a projected decline in the percentage of women in the older adult population. As of 2012, 56.1% of the older adult population were women and by 2050 women will women 55.1% of the older adult population (Vincent & Velkoff, 2010). The greatest decrease in the female older adult population will be among the oldest old. In 2012, women made up 66.6% of the oldest old population; this is projected to decline by 4.7% by 2050 (Ortman et al., 2014; Vincent & Velkoff, 2010). The decline in the female older adult population will balance life expectancy rates for men and women.

The shift in gender ratios may have an impact on the social and economic well-being of older adults. As the population changes, marital statuses and living arrangements of older adults will be affected because of divorce, death, inability to care for oneself, and an increased need for assisted living. Greater portions of older women are living alone in comparison to their male counterparts (Ortman et al., 2014). Older adult women are more likely to be widowed and not remarry after the death of a spouse or a divorce, whereas older adult men are more likely to be

married or remarried (Jacobsen, Kent, Lee, & Mather, 2011; Kinsella & Velkoff, 2001).

However, the rate of women living alone due to the death of a partner is projected to decline in the coming decades and is linked to an increase in men's life expectancy (Ortman et al., 2014).

As the sex ratio and life expectancy continue to change, this may lead to spouses caring for one another for longer periods of time. Assisted living and institutional care facilities for couples may experience an increase in demand for services (Ortman et al., 2014).

By 2050, the older adult population will continue to become more ethnically diverse in the United States (Vincent & Velkoff, 2010). Currently the older adult population is not as ethnically diverse as the younger population and is not projected to become a "majority-minority" population over the next four decades. However, the older adult minority population is expected to increase to 39.1% by 2050, a jump from 20.7% in 2012 (Ortman et al., 2014). The oldest old minority population is projected to grow as well, from 16.3% in 2012 to 29.7% by 2050 (Ortman et al., 2014). According to Jacobsen et al., (2011) the non-Hispanic White older adult population will face a sharp decline between 2009 and 2050. In 2009, non-Hispanic White older adults accounted for 80.1% of the population; by 2030, this group is projected to fall by 8.9% and by 2050, they are expected to make up only 58.5% of the older adult population. While the non-Hispanic White population continues to experience a decline, the older adult Black population is predicted to increase from 8.3% in 2009 to 9.8% by 2030 and 11.2% by 2050. The Hispanic population is projected to double by 2050, from 7% in 2009 to 12% by 2030 and 19.8% by 2050 (Jacobsen et al., 2011).

### **Older Adults and Sexuality**

Older adults are living longer and spending a "greater portion of their lives as sexually active individuals" (Schick et al., 2010, p. 315). Sexual relationships, sexual functioning and

sexual satisfaction must be defined from an older adult lens to understand older adults as sexual beings (DeLamater & Karraker, 2009). Aging brings change to all aspects of life, and older adults experience lifestyle changes, issues with sexual functioning and fluctuating levels of sexual satisfaction. Older adults' sexual satisfaction can be significantly impacted by changes in their physical and mental health. Older adults' sexuality has a broader range of sexual expression such as solo and partnered masturbation, oral sex, touching, kissing, holding hands, grooming, companionship, and displays of romance (Bentrott & Margrett, 2011; DeLamater & Karraker, 2009; Hajjar & Kamel, 2004) due to changes older adults' physical and/or mental health. With aging, some older adults will experience a cognitive decline, compounding issues related to sex, such as ability to consent and increased hypersexual behaviors.

### **Sexual Relationships, Sexual Functioning and Sexual Satisfaction**

Sexual relationships are deemed rewarding and play a significant role in creating a positive sense of self and an overall sense of well-being. A key component of a sexual relationship is the ability to be intimate with another person and to be sexually active (Gott, Hinchliff, & Galena, 2004a). According to Schick et al., (2010), an older adults' ability to engage in sexual relationships is significantly impacted by lifestyle changes such as physical health changes and changes in relationships status. Death, divorce and serious illness significantly impact older adults, often leading to the termination of a long-term relationship and therefore affecting opportunities to continue a sexual relationship (Schick et al., 2010).

Masters and Johnson (2010) defined *sexual functioning* as "how the body reacts in different stages of the sexual response cycle or as a result of sexual dysfunction". For DeLamater (2012), sexual functioning "refers to one's ability to engage in sexual expression and sexual relationships that are rewarding, and the state of one's physical, mental and social well-being

about his or her sexuality” (p. 127). When examining the intricate role sexuality plays in later life, sexual functioning provides a broader perspective for the complexities of older adult sexuality. Individuals’ sexual functioning can be impacted by multiple factors, such as physical and mental health issues. Sexual functioning is impacted by sexual dysfunctions, such as erectile dysfunction, the inability to engage successfully in sexual intercourse, and shifting levels of sexual interest (DeLamater & Karraker, 2009). In a case-control study on risk factors for sexual unwellness in older adults aged 63 to 67, Syme, Klonoff, Macera, and Brodine (2013) found of the 3,028 participants in the sample, 50% reported an inability to maintain a sexual relationship. This inability to maintain a sexual relationship is impacting older adults’ sexual functioning. When sexual functioning is influenced by sexual pain, fatigue, or diabetes, the sexual relationship is negatively impacted.

Sexual satisfaction plays an important role when sexual functioning begins to shift in older age (Byers, Demmons, & Lawrance, 1998). The definition for sexual satisfaction was formed based on the work of Lawrance and Byers (1995), who defined *sexual satisfaction* as “an effective response arising from one’s subjective evaluation of the positive and negative dimensions associated with one’s sexual relationships” (p. 514). Sexual satisfaction extends beyond pleasurable sensations that one experiences. It is related to the presence of positive aspects of sexual experience (i.e., sexual rewards), not just the absence of negative aspects (i.e., sexual costs; Pascoal, de Santa Bárbara Narciso, & Pereira, 2014). Despite sexual relationships shifting in older age and sexual functioning being impacted negatively, older adults are still experiencing sexual satisfaction. Syme et al. (2013) found in a case-control study of older adults’ sexual unwellness that 8.7% of participants reported a complete lack of sexual satisfaction over the duration of a year. Despite reporting a lack of sexual satisfaction and the inability to maintain

a sexual relationship, 64.2% of older adults who responded to the sexual frequency question reported that they were engaging in sexual intercourse once a month to once a day or more. These results suggest that many older adults are valuing, engaging in, and enjoying sexual activities even when they are experiencing difficulty maintain a sexual relationship and report a lack of sexual satisfaction.

### **Sexuality and Sexual Health**

Sexuality and the sexual health of older adults are important characteristics in relation to sexual functioning, sexual relationships, and sexual satisfaction. According to Waite and Das (2010), sexuality is a fundamental component of health in older age. Sexuality is comprised of several interrelated characteristics, including social, psychological, biological, and cultural components. The presentation of sexuality throughout the lifespan is impacted by the interactions between the different characteristics of sexuality (Bitzer, Platano, Tschudin, & Alder, 2008; Hillman, 2011; Syme, 2014). To further expand the definition, sexuality also includes the capacity for sexual feelings including intimacy, eroticism, and social aspects (i.e., desire, connection, relationships) of sex (Dhingra, De Sousa, & Sonavane, 2016). Older adults' sexuality impacts their sexual health because it is affected by physical and mental health.

Physical health impacts sexuality most commonly in two ways, through normal physiological changes and chronic illnesses (Lindau et al., 2007; Syme et al., 2013). In examining physiological changes, research has indicated sex differences in physiological changes between men and women (Kalra, Pinto, & Subramanyam, 2011). For example, some women may experience atrophy due to decreased levels of estrogen or vaginal dryness while some men may experience difficulty during sex, such as taking longer to obtain an erection, a less firm erection, or decreased likelihood of orgasm (Aubin & Heiman, 2004; Krychman, 2007).

In addition to the physiological changes, the decline in older adults' sexuality is also due to increased physical illness, such as diabetes, cancer, hypertension, heart disease, or obesity (Lindau et al., 2007; Syme et al., 2013).

Deteriorating health impacts older adults' sexuality and therefore their sexual activity. According to Hoekstra, Lesman-Leegte, van Veldhuisen, Sanderman, and Jaarsma (2011), among older adults who recently suffered a heart attack ( $N = 792$ ), 48% reported perceived issues with sexual activity 1 month after the heart attack. Seventy percent of older adults reported continued problems maintaining sexual activity 18 months after the heart attack. Syme et al. (2013) asked 4,187 respondents questions about their sexual satisfaction and asked 3,028 respondents questions about their ability to maintain a sexual relationship and found that among older adult respondents, diabetes and fatigue symptoms impacted both sexual satisfaction and the ability to maintain a sexual relationship. Earlier studies produced similar results about the aging population's predisposition to mental and physical health issues, including disease, diabetes, fatigue, pain, and depression, and their impact on sexual unwellness (DeLamater, Hyde, & Fong, 2006; Sadovsky, et al., 2010; Tierney, 2008; Waite, Laumann, Das, & Schumm, 2009).

In addition to changes in physical health, older adults undergo a decline in their mental health. According to Singh and Upadhyay (2014), similar to adults, older adults are prone to experiencing a broad range of mental health issues including depression, anxiety, neurocognitive decline, and schizophrenia, among numerous other diagnoses. The Geriatric Mental Health Foundation (2008) reported that 15 to 20% of older adults have experienced depression. Depression can lead to additional issues with sexual health, such as lack of interest or pleasure. Dhingra et al. (2016) found that sexual desire and arousal can be impacted when older adults are depressed or anxious. Laumann, Das and Waite (2008) found increased scores on anxiety scales

were related to sexual difficulties among older adults. Older adults' anxiety was associated with a lack of sexual interest and increased anorgasmia. In addition, older adult women experiencing anxiety had a lack of pleasure from sex. Depression in men was linked to erectile problems and anorgasmia (Laumann et al., 2008).

### **Healthcare Barriers and Sexuality and Sexual Health**

Despite decreases in physical and/or mental health, older adults are hesitant to discuss sexual problems with their health care providers (Somes & Donatelli, 2012). According to Dhingra et al. (2016), older adults encounter a number of obstacles when addressing sexual health concerns or sexual functioning with their health care provider including shame, taboos around older adult sexuality, health care providers' lack knowledge about older adult sexuality, and ageism in health care. Bauer, Haesler, and Fetherstonhaugh (2016) conducted an analysis of the current literature consisting of quantitative, qualitative, and opinion articles and discovered older adults' comfort level when discussing sexuality was influenced by the characteristics of the health care provider. The health care provider's age, gender, history with the patient, relationship quality, and specialty all influenced older adults' level of comfort in discussing sex (Bauer et al., 2016).

It is common that general health care providers may assume that older adults are not sexually active and therefore may avoid positively discussing sex or may refuse to engage the patient in a discussion about their current sexual functioning (Tupy, Schumann, & Xu, 2015). One consequence of failing to address sex with older adults is the underdiagnosis of sexually transmitted infections, potentially resulting in a decrease in quality of care, sexual health, and quality of life. According to Brandon (2016), while it is difficult to assess how many older adults are experiencing a sexual transmitted infection, older adults have a high likelihood of contracting

a sexually transmitted infection as they are less likely to engage in safe-sex practices due to the risk of pregnancy being obsolete, lack of sex education, and less experience with multiple partners (Brandon, 2016).

### **Sexual Expression**

As one enters into older adulthood, there is a redefining of what constitutes a sexual relationship, which may include changes in typical sexual and intimate behaviors (intercourse, oral sex, intimate touching) or a shift to more emotional intimacy, away from physical and sexual expression (e.g., intercourse, oral sex; Syme, 2014). Older adults' sexual expressions incorporate an extensive range of behaviors including sexual intercourse, solo and partnered masturbation, oral sex, touching, displays of affection (e.g., kissing, holding hands), grooming, companionship, and displays of romance (Bentrott & Margrett, 2011; DeLamater & Karraker, 2009; Hajjar & Kamel, 2004). Sexual expression may shift, but older adults still want—and are still engaging in— sexual activity and seeking sexual satisfaction (Ginsberg, 2005)

Ginsberg (2005) assessed a range of sexual behaviors in lower-income older adults ( $N = 179$ ) in order to identify how satisfied they were with their sexual activities and engaging in sexual relationships. A questionnaire was used to assess physical, social, and sexual experiences, including sexual intercourse, hugging, kissing, masturbation, condom use, and handholding; quality of the sexual experience; satisfaction with sexual experience; and sexual orientation. The majority of older adults wanted to experience some physical contact: 60.5% reported having had physical or sexual experiences including handholding or touching, 61.7% engaged in embracing or hugging, and 57% reported kissing (Ginsberg, 2005). Despite the high number of adults wanting to engage or engaging in sexual experiences, 60% faced a significant barrier: lack of partner. Similarly, Minichiello, Plummer, and Loxton's (2004) survey of 844 older adults living

in a community setting in Melbourne, Australia found that men and women who rated sexual expression as important were 3 times as likely to have maintained or increased their sexual activity since mid-life than individuals who considered sexual activity as less important.

### **Sexuality, Sex, and Cognitive Decline**

Older adults' sexuality can become extremely complicated when they are experiencing cognitive decline. The onset of cognitive decline does not necessarily result in the termination of sexual desire or sexual behaviors (Harris & Wier, 1998). When older adults are displaying signs of cognitive decline, sexual desires or behaviors can present as hypersexuality or inappropriate sexual behaviors, including touching the breast, buttocks, or genitals of staff, residents, partners or caregivers; kissing and hugging exceeding mere affection; exposing genital areas, making sexually suggestive remarks; attempting intercourse or oral sex; and public masturbation (Archibald, 1998; Burns, Jacoby, & Levy, 1990; Devanand et al., 1992; Higgins, Barker, & Begley, 2004; Mayers, 1998; B. L. Miller, Darby, Yener, & Mena, 1995). Knight, Alderman, Johnson, Green, Birkett-Swan and Yorstan (2008) identified three inappropriate sexual behaviors found to occur among older adults with dementia included intimacy seeking, disinhibited sexual expressions, and inappropriate sexual acts.

Makimoto, Kang, Yamakawa, and Konno (2015) examined sexuality and forms of sexual expression among nursing home residents with dementia. Based on their integrated literature review of the research, Makimoto et al. (2015) identified the following forms of sexual expression: (a) acts ranging from those expressing love and caring to those involving romance, eroticism, or aggressiveness; (b) sexual acts with or without contact with others; (c) appropriate, ambiguous, and inappropriate sexual behaviors; (d) intimacy-seeking behavior and disinhibited, rude, or intrusive behavior. The majority of the sexual expressions were directed toward

caregivers, residents, and visitors. This review of the literature revealed the need for policy to address sexuality issues among older adults with dementia, as there are currently no guidelines for caregivers responding to similar acts of sexual expression.

## **Clinical Psychology Doctoral Students and Older Adults**

### **Coursework and Clinical Training Opportunities**

Despite increases in the older adult population, training opportunities for graduate students in psychology on older adults or geropsychology remain limited. The Council for Professional Geropsychology Training Programs listed 15 specialty geropsychology internships on their website in 2017, in comparison to 14 programs previously their website in 2012 (Allen, Crowther, & Molinari, 2013). Despite the limited number of geropsychology predoctoral programs, U.S. students have some opportunities for training and gaining high levels of competency (Woodhead et al., 2013). In a survey of clinical and counseling graduate students ( $N = 728$ ), participants were asked to assess their geropsychology training opportunities and perceived levels of competency. Among the participants, enrollment in specialty tracks and increased exposure to course content resulted in levels of competency reported in the intermediate and advanced range. Participants who were not enrolled in specialty programs rated their competency as basic to intermediate (Woodhead et al., 2013).

When clinical psychology doctoral students are provided formal training opportunities, their attitudes toward working with older adults improve (Dorfman, Murty, Ingram, & Li, 2007; Hinrichsen, & McMeniman, 2002; Koder & Helmes, 2008;). Hinrichsen's (2000) survey of psychology externs and interns ( $N=94$ ) examined these trainees' knowledge of and interest in geropsychology. The study assessed the trainees' knowledge about older adults and the impact of exposure to working with older adults in a clinical setting. Trainee knowledge was assessed

through administration of the Facts on Aging Quiz-2 (Palmore, 1981), which assesses the respondent's knowledge of information relevant to older adults' mental health, and found a correct response rate of only 39%. Psychology students with previous interest in working with older adults have positive expectations about working with adults in a clinical setting (Hinrichsen, 2000). Additionally, half of the trainees reported an interest in coursework on older adults and practicum training opportunities. With the growing number of older adults within the population, more graduate programs are developing coursework to meet the demands of the older adult population. Overall, the trainees assessed demonstrated favorable attitudes toward older adults. These favorable attitudes towards older adults occur when a psychology graduate student has positive exposure, interactions, or contact with older adults (Snyder & Zweig, 2010).

### **Interest Level in Working with Older Adults**

Graduate students are expressing an interest in working with the older adult population. At the doctoral level, graduate psychology students with prior interest in geropsychology held more positive attitudes toward working with older adults and about completing geropsychology practicum experiences (Hinrichsen, 2000). When doctoral level psychology students possess positive experiences with older adults, they hold more favorable attitudes toward this group (Zimmerman, Fiske & Socgin, 2015). Koder and Helmes' (2008) study on postgraduate trainee psychologists' interest in working with older adults found that 58% of participants (N=431) received training in aging by being exposed to aging curriculum within in a course or clinical setting. One fourth of the participants sampled had completed or were planning to complete a practicum within an aged-care setting. The researchers did not find a clear link between confidence level and the completion of an older adult clinical placement. However, participants'

clinical contact with older adults in training environments was found to be a key predictor of participants' interest in working with older adults.

In contrast to Koder and Helmes's (2008), Woodhead et al. (2013) findings suggest that there is a relationship between clinical graduate psychology students' confidence levels and previous training with the older adult population. These researchers found that increased clinical contact not only increased trainees' interest in working with older adults, but it also advanced their self-rated competency about working with older adults (Woodhead et al., 2013). Among the 728 participants survey in the study, 18% reported that their primary interest was in working with older adults. The study identified five factors that impacted students interest in working with older adults: (a) positive personal experiences with older relatives (32.8%), (b) working experience in research or applied settings with older adults (32.1%); (c) coursework, research, or clinical experience during graduate school (23.4%); (d) coursework or research experience during undergraduate training (coursework, 17.5%; research, 12.4%), and (e) specific encouragement/advising by mentors (13.9%).

### **Attitudes About Older Adults**

When comparing individuals' attitudes toward younger and older adults, individuals typically express predominantly negative attitudes and beliefs about older adults (Richeson & Shelton, 2006). Palmore (1999) asserts that prejudice against older adults falls into two categories: negative stereotypes and positive stereotypes. Positive stereotypes include viewing older adults as kind, cute, and wise. Though seemingly empathetic, such stereotypes have been described as paternalistic and in support of ageist behaviors (Chonody, 2016).

One salient example of ageism includes the ways in which individuals communicate with older adult populations. Nelson (2005) identified two ways communication styles perpetuate

ageist behaviors: patronizing language and over-accommodation. Patronizing language used with older adults includes language in the form of “baby talk”, while *over-accommodation* involves devaluing older adults’ serious thoughts, concerns, and feelings (Nelson, 2005).

Overaccommodations can be further described as younger adults speaking more slowly, utilizing simpler sentences, increasing the volume of their voices, and shifting the pitch of their voice when speaking to older adults. Chonody’s (2016) concept of *elder speak* is similar to Nelson’s (2005) identification of patronizing language and accommodation. According to Chonody (2016), *elder speak* can be defined as simplified speech that is slow, exaggerated in intonation, and high-pitched, utilizing basic grammar, short sentences, and limited vocabulary. Such speech can lead to older individuals questioning their ability to complete a task and can lead to lower levels of self-esteem. The methods of communication identified by Nelson (2005) are based upon stereotypes about older adults including beliefs that older adults experience declines in cognitive functioning, decreases in intelligence, and hearing problems.

Ageism can be defined as a prejudiced attitude that includes beliefs and feelings directed towards a group and its members. Raina and Balodi (2014) discuss how stereotypes only hold a component of ageism because they “reflect beliefs held by an individual about the characteristic of a group of people” (p. 733). Nemmers (2004) noted ageism has also been defined as “the practice of discrimination based on a person’s age” and that the aging process is universal and does not differentiate individuals based on race, ethnicity, sexual orientation, educational status, or economic status (p. 12). This suggests that anyone who lives long enough is at increased risk for encountering ageism. In assessing the prevalence of ageism, types of ageism, and specific groups of individuals who experience ageism, Palmore (2001) found that older adults encountered two types of ageism: disrespect and assumptions about their physical ailments

(Nemmers, 2004; Palmore, 2001). Additionally, the study found that 77% of participants reported experiencing some form of ageism (Palmore, 2001).

### **Clinical Psychology Students and Clients' Sexuality**

Miller and Byers (2008) found that general education alone was not sufficient to help address sex education or sexual identity topics with clients. Risen (1995) indicated that, despite sexual concerns being a common area of concern when working with clients, a significant number of clinicians are uncomfortable discussing sex with their clients. During doctoral training, the average psychologist has minimal training and education regarding sexuality and most psychology graduate students are uncomfortable discussing sexual concerns with their clients (Miller & Byers, 2008). Miller and Byers's (2010) study of 162 clinical and counseling psychologists examined sex education and training received by participants during their graduate program, practicum placement, and internship. Only 31.1% of the participants had taken a graduate-level psychology course related to sexuality.

Miller and Byers (2010) provides recommendations for how programs could include training in the area of sexuality. First, didactic trainings need to address a larger range of sexual topics and not just sexual disorders, such as healthy sexuality, contraception, masturbation, and sexual education training. Though didactics are a key factor in helping students gain specific knowledge about sexuality, students have little say or choice when it comes to the didactic trainings they receive (Carr, 2007; Hudson, 2007; Miller & Byers, 2010). Next, modeling and observation should be utilized when providing students with training on how to address sexual issues with clients (Miller & Byers, 2010). Modeling and observational learning are critical methods to help students develop their skills and increase their confidence in the therapy room when discussing sexual issues (Bandura, 1977; Hudson, 2007; Larson et al., 1999; Miller &

Byers, 2010). Through constructive feedback, students can hone their skills and focus on areas needing improvement (Miller & Byers, 2010).

Training focused on sexuality can improve clinical psychology doctoral students' comfort level in talking with clients about topics pertaining to sex (Hanzlik & Gaubatz, 2012). Hanzlik and Gaubatz (2012) surveyed clinical PsyD trainees ( $N = 138$ ) about their comfort level discussing sexual issues with their clients. Trainees with sexuality training demonstrated greater comfort levels when addressing specific and global sexual problems. The trainees expressed less comfort addressing specific sexual topics and greater levels of comfort when addressing broader topics. Female trainees reported feeling low levels of comfort discussing sexual issues with male clients and reported high levels of comfort when discussing sexual issues with female clients. In contrast to female trainees, male trainees reported low levels of comfort addressing sexual issues with male clients and reported high rates of comfort discussing sexual issues with female clients.

### **Clinical Psychology Doctoral Students and Older Adult Sexuality**

Limited literature exists about clinical psychology doctoral students and older adult sexuality. To date, the only study that has focused on the specific issue of clinical psychology doctoral students and older adult sexuality is by Snyder and Zweig (2010). They examined medical students' and doctoral psychology students' attitudes and knowledge about aging and sexuality. The researchers' findings suggest a potential link between increased knowledge and higher interest levels in working with the older adult population. The study reported that 40% of psychology doctoral student participants demonstrated significantly higher levels of interest in working with older adults, while only 14% of medical student participants expressed such interest. Additionally, clinical psychology doctoral students ( $n=50$ ) demonstrated a higher level of knowledge regarding aging and general knowledge of older adults' sexuality, and possessed

more favorable attitudes toward this population than medical students ( $n=50$ ). When results were combined, 76% of medical students and 78% of psychology students showed an interest in learning more about older adults. Snyder and Zweig (2010) referred to the need for further research on the gaps in knowledge related to older adult sexuality and curricula to address these gaps. Among their recommendations, the researchers encouraged future research on psychology doctoral students' knowledge and attitudes about older adult sexuality.

### **Chapter Three- Purpose and Rationale**

#### **Significance and Proposed Impact**

Limited research exists about clinical psychologists' or clinical psychology doctoral students' attitudes and knowledge about older adult sexuality. This clinical dissertation aimed to explore clinical psychology doctoral students' knowledge and attitudes about older adult sexuality. This study intended to increase awareness and highlight the importance of older adults and older adults' sexuality by exploring clinical psychology doctoral students' current knowledge and attitudes on this subject.

#### **Purpose of Study**

The purpose of this study is to explore clinical psychology doctoral students' attitudes and knowledge about older adult sexuality.

#### **Research Questions and Hypotheses**

A quantitative approach was utilized to determine the knowledge and attitudes of clinical psychology doctoral students about older adult sexuality. More specifically, this study will employ an exploratory approach to investigate clinical psychology doctoral students' knowledge and attitudes about aging and older adult sexuality.

Hypothesis 1: Higher rates of knowledge about older adults' sexuality, as measured by the Aging Sexual Knowledge and Attitude Scale (White, 1982) and Facts on Aging Quiz (Breytspraak & Badura, 2015), will be positively associated with positive attitudes toward older adults' sexuality, as measured by the Aging Sexual Knowledge and Attitude Scale (White, 1982) and Attitudes Toward Sexuality Scale (Fischer & Hall, 1988).

Hypothesis 2: Lower rates of exposure (i.e., coursework, practicum opportunities, and clinical contact) to older adult sexuality, as measured by the demographics questionnaire (Appendix D), will be negatively correlated with attitudes about older adults' sexuality as measured by the Aging Sexual Knowledge and Attitude Scale (White, 1982), Facts on Aging Quiz (Breytspraak & Badura, 2015) and Attitudes Toward Sexuality Scale (Fischer & Hall, 1988).

Hypothesis 3: Lower rates of exposure (i.e., coursework, practicum opportunities, and clinical contact) to older adult sexuality, as measured by the demographics questionnaire (Appendix D), will be negatively correlated with knowledge about older adults' sexuality as measured by the Aging Sexual Knowledge and Attitude Scale (White, 1982), Facts on Aging Quiz (Breytspraak & Badura, 2015) and Attitudes Toward Sexuality Scale (Fischer & Hall, 1988).

#### **Chapter Four- Methodology**

This exploratory study employed a quantitative, non-experimental correlational design to explore the knowledge and attitudes of psychology graduate students about older adults' sexuality. A correlational design was selected as it can be utilized to examine the relationships among variables of clinical psychology doctoral students' knowledge with respect to older adult sexuality and clinical psychology doctoral students' attitudes with respect to older adult

sexuality. Approval from the University of San Francisco's Institutional Review Board was obtained prior to conducting this exploratory study.

### **Participants**

Participants were a convenience sample of 291 clinical psychology doctoral students who were enrolled in an APA-accredited or non-APA accredited doctoral level (PhD or PsyD) clinical psychology program anywhere in the United States. Participants were in any year of their doctoral training, including individuals on doctoral internship.

### **Procedure**

Participants were recruited via e-mail solicitation of training directors, program coordinators, heads of student unions in clinical psychology programs, and the program directory (see Appendix A-B). Training directors, program coordinators, and heads of student unions were asked to forward an email message that contained the link for the online survey to students in their respective programs (see Appendix B). Participants followed the link to a Qualtrics survey where they completed a consent form (see Appendix C), demographic questionnaire (see Appendix D), and a set of questionnaires (see Appendices E–G).

In return for their participation, all participants were given the option to enter a drawing for one of four \$25 Amazon.com e-gift cards. Participation in the drawing was voluntary. The utilization of an Amazon.com e-gift card protects participants' privacy because the gift card was delivered via email and does not require a participants' name or mailing address.

This study was approved by the University of San Francisco Institutional Review Board (IRB) to ensure that the rights and welfare of human subjects were protected during their participation in this study. See Appendix H for a copy of the IRB proposal and Appendix I for the letter of approval.

## Measures

Participants completed a set of questionnaires including a demographic questionnaire, the Aging Sexual Knowledge Scale (White, 1982), the Facts on Aging Quiz (Breytspraak & Badura, 2015), and the Attitudes Toward Sexuality Scale (Fischer & Hall, 1988). The ASKAS (White, 1982) measured age-related sexual knowledge and attitudes. The Facts on Aging Quiz measured how knowledgeable the clinical psychology doctoral students are on the general topic of older adults (Breytspraak & Badura, 2015). The ATSS measured attitudes toward a variety of sexual topics (i.e., contraception, premarital sex, pornography, etc.).

**Demographic Questionnaire.** All participants completed a 17 item demographic questionnaire. The demographic questionnaire contained items about age, gender identity, sexual orientation, race, graduate school program (i.e., location, year, religious affiliation, and courses on older adults and sexuality), and perceived self-competence in working with older adults and sexuality issues (i.e., clinical training opportunities, clinical contact with older adults, self-rated competence in discussing sexuality issues with older adults, and general exposure to sexuality issues among older adults).

**Attitudes and Knowledge on Aging Sexuality (ASKAS).** Developed by Charles White (1982), the ASKAS is comprised of two sections, a knowledge section and an attitude section. The ASKAS measures knowledge about age related changes in in sexual responses for older adults and general attitudes held about older adults' sexual activity (Fisher, Davis, Yarber, & Davis, 2011; White, 1982). The Knowledge subscale (ASKAS-K) includes 35 true/false knowledge questions aimed at assessing individuals' knowledge of how physiological changes related to aging impact sexual functioning. On the Knowledge subscale, correct answers are coded as 1, *incorrect* as 2, and *missing/don't know* as 3. Scores for the Knowledge subscale are

computed by summing all items. Total scores can range from 35 to 105, with lower scores indicating higher knowledge. The ASKAS-K has demonstrated reliability within a number of populations, such as middle-aged children of older adults, nursing home residents and staff, and community-dwelling older adults, with alpha coefficients between .90 and .93, test-retest reliabilities between .90-.97, and split-half reliabilities reported between .90 and .91 (White, 1982; White & Catania, 1982). Sample items include “Sexual activity in aged persons is often dangerous to their health” and “Males over the age of 65 usually experience a reduction in intensity of orgasm relative to younger males” (White, 1982).

The Attitude subscale of the ASKAS (ASKAS-A) contained 26 items on a 7-point Likert-type scale. Scores range from 26 to 182, with higher scores indicating attitudes that are less permissive towards older adults’ sexuality. The Attitude subscale is concerned with the necessity, acceptability, and morality of older adults’ sexual expressions and attitudes toward older adults expressing themselves sexually when residing in a nursing home (White, 1982). Similar to the ASKAS-K, the ASKAS-A has demonstrated reliability across a number of populations, such as middle-aged children of older adults, nursing home residents and staff, and community-dwelling older adults (White, 1982; White & Catania, 1982), with alpha coefficients between .83 and .93, test-retest reliabilities between .72 and .97, split-half reliabilities reported between .83 and .91, all within the acceptable limits (Snyder & Zweig, 2010). Sample items include “Age people have little interest in sexuality” and “Nursing homes have no obligation to provide adequate privacy for residents who desire to be alone, either by themselves or as a couple” (White, 1982).

**The Facts on Aging Quiz.** The Facts on Aging Quiz was developed by Erdman Palmore (1977) and was designed to measure basic facts and frequent misconceptions about aging. The

25-question true/false quiz was designed to cover common misconceptions about aging and basic mental, physical, and social facts on aging (Palmore, 1977). In 2015, Breytspiraak and Badura updated the Facts on Aging Quiz based on Palmore's 1977 and 1981 version. The revised version of the Facts of Aging Quiz (Breytspiraak & Badura, 2015) was used and the items are similar or identical to those in Palmore's version. The other half of the questions is composed of more current issues, such as replacing words such as *senile* with *Alzheimer's*. The most significant change was the vocabulary used in each question.

The original questions by Palmore (1977) were developed based on factual information that could be documented by empirical research and included physical, mental, and social facts about aging. When administered to a sample of 87 undergraduate students, only two thirds answered the facts correctly, compared to 80% of graduate students ( $N = 44$ ) in human development and 90% of the faculty members in human development ( $N = 11$ ). These differences support the validity of the quiz. Examples of items included on the quiz are "The majority of old people (past 65 years) have Alzheimer's disease.", "Older adults have the highest suicide rate of any age group.", and ". Older adults are less anxious about death than are younger and middle-aged adults." (Breytspiraak & Badura, 2015).

**Attitudes Toward Sexuality Scale (ATTS).** The ATSS was developed as a brief and simple assessment tool for parents and adolescents ages 12 to 20 (Fisher et al., 2011). The ATSS is comprised of 13 statements related to sexually transmitted diseases, contraception, nudity, abortion, pornography, premarital sex, homosexuality, and prostitution. Sample items include "Abortion should be made available whenever a woman feels it would be the best decision.", "A person's sexual behavior is his/her own business and nobody should make value judgments about it," and "Prostitution should be legalized." The measure utilizes a 5-point Likert scale (1 =

*strongly disagree* to 5 = *strongly agree*). The ATSS has been utilized in a wide range of age samples, and the Cronbach's alpha coefficient for individuals aged 31 to 66 ( $N = 141$ ) was .76, for late adolescents (18–20 years old;  $N = 59$ ) the Cronbach's alpha was .80, and for a small sample of college students (18–28 years old) the alpha was .90.

### **Evaluation/Analytic Plan**

This study employed a quantitative, non-experimental correlational design to examine the relationships between clinical psychology doctoral students' knowledge and attitudes with respect to older adult sexuality. Correlational research examines the potential relationships between naturally occurring variables by measuring the variables and determining whether they are statistically related (or not) and if they are negatively or positively correlated. The variables in this study were clinical psychology doctoral students' knowledge about older adult sexuality, which could range from low to high levels of knowledge, clinical psychology doctoral students' attitudes about older adult sexuality, which could be negatively or positively correlated, and clinical psychology doctoral students' exposure (coursework, practicum opportunities, and clinical contact). Pearson's  $r$  will be used to examine correlations between the two variables.

Pearson's  $r$  measures the direction (positive or negative) and strength of a linear relationship between two variables (Passer, 2014, p. 138). The Pearson's  $r$  can identify a positive or negative correlation based on a range of values of +1.00 to -1.00. The strength of a correlation is determined by the absolute value of the coefficient. A correlation of 1.00 represents a perfect linear relationship, where +1.00 represents a perfect positive correlation and -1.00 represented a perfect negative correlation. This study will use Cohen's (1988) set of guidelines to examine the effect size of the relationship between the variables—small, medium or large.

Cohen proposed the absolute values of  $r = .10$  to  $.29$  to reflect a small association,  $.30$  to  $.49$  reflect a medium-size association, and  $.50$  to  $1.00$  to represent a large association.

When implementing the correlational design, there were advantages and disadvantages. According to the literature, the benefits of using a correlational research design are being able to clearly and quickly see if there is a relationship between the two variables and being able to graphically represent this relationship (Passer, 2014). A disadvantage of conducting correlational research is that correlation does not imply causation. Even when a strong correlation is present, it cannot be assumed that one variable caused an effect on the other.

### **Chapter 5- Data Analysis and Results**

This study aimed to analyze three research questions: (1) are clinical psychology doctoral students' attitudes towards older adults' sexuality related to their knowledge about older adults' sexuality?; (2) does exposure to training about older adult sexuality impact attitudes about older adults' sexuality in clinical psychology doctoral students?; and, (3) does exposure to older adult sexuality impact knowledge about older adults' sexuality in clinical psychology doctoral students?

Participants' knowledge about older adults' sexuality was measured by the knowledge sub-test of the *Aging Sexual Knowledge and Attitude Scale* (ASKAS; White, 1982) and the *Facts on Aging Quiz* (Breytspraak & Badura, 2015). Attitudes toward older adults' sexuality were measured by the attitude sub-test of the *Aging Sexual Knowledge and Attitude Scale* (ASKAS; White, 1982), and the *Attitudes Toward Sexuality Scale* (ATSS; Fischer & Hall, 1988).

Statistical assumptions of the parametric Pearson's correlation were assessed to determine whether a parametric or non-parametric correlation coefficient was the appropriate measure for each research question. There are several assumptions associated with Pearson's

correlation coefficient. If the assumptions were met (for either of the research questions), Pearson's correlation coefficient was calculated to determine the degree of association between attitudes and knowledge about older adults' sexuality (Research Question 1), exposure and attitudes about older adults' sexuality (Research Question 2) and exposure and knowledge about older adult sexuality (Research Question 3). If the assumptions were not met, the non-parametric Spearman's rank correlation coefficient was calculated.

Before any analyses were conducted, data were screened, coded, and imputed into the Statistical Package for the Social Sciences (SPSS) version 24 software. After the data was coded, scale scores for the ASKAS and ATSS were calculated. The ASKAS-Attitude sub-scale included 26 items, responded to on a 7-point Likert-type scale. The ATSS was comprised of 13 items, responded to on a 5-point Likert-type scale. The ASKAS-Attitude scale score and the ATSS scale score were calculated as the sum of responses to each item of the corresponding measure. In the same way, participants' knowledge scores were also calculated. Items needing reverse coding were included into the calculations of the scale scores and knowledge test scores (see Appendices E–G).

The present study included of 291 participants (graduate clinical psychology students). First, a description of the demographic characteristics of the present sample is reported. Following the description of demographic characteristics, descriptive statistics for survey questions and the measures pertaining to the attitudes and knowledge of older adult sexuality (e.g. ASKAS and ATSS) is reported. Then, each of the research questions is addressed systematically. The hypothesis is stated, followed by the statistical assumptions of the analyses pertinent to that research question. Finally, each research question is assessed.

Demographic information. 291 participants responded to items pertaining to their demographic characteristics. Most participants were female (85.9%,  $n=250$ ), heterosexual (74.2%,  $n=216$ ), and white (73.5%,  $n=214$ ). Participants ranged in age from 21 years old to 50 years old ( $M = 27.34$ ,  $SD = 3.14$ ). Participants' level of doctoral training ranged from year 1 through pre-doctoral internship. See Table 1 for a full description and frequency count for demographic characteristics of the sample.

Table 1.

*Demographic characteristics*

<b>Demographic Characteristics</b>	<b>N</b>	<b>%</b>
<i>Ethnicity</i>		
American Indian/Alaskan Native	1	0.3
Asian	16	5.5
African American	11	3.8
Native Hawaiian/Pacific Islander	1	0.3
Hispanic	22	7.6
White	214	73.5
Multi-Racial	21	7.2
Other	4	1.4
<i>Gender</i>		
Male	36	12.4
Female	250	85.9
Trans male	2	0.7
Gender non-conforming	3	1.0
<i>Sexual Orientation</i>		
Heterosexual	216	74.2
Gay	10	3.4
Lesbian	4	1.4
Bisexual	52	17.9
Other	9	3.1
<i>Doctoral Experience</i>		
Year 1	62	21.3
Year 2	47	16.2
Year 3	54	18.6
Year 4	51	17.5

Pre-doctoral Internship	40	13.7
Other	37	12.7

Participants were asked information about their university/institution. Institutions were spread fairly evenly geographically throughout the United States, with most responses coming from the South region (38.8%,  $n = 113$ ) (See Table 2 for complete list). Most institutions did not have a religious affiliation (91.4%,  $n = 266$ ) nor offer a program concentration on older adults (82.5%,  $n = 240$ ).

Most students were interested in working with infants (70.4%,  $n = 205$ ), followed by older adults (19.9%,  $n = 58$ ), adults (5.5%,  $n = 16$ ), and adolescents (4.1%,  $n = 12$ ). Children/adolescents was the most popular secondary area of interest (41.6%,  $n = 121$ ), followed by older adults (33.7%,  $n = 98$ ), adults (13.4%,  $n = 39$ ), and infants (11.3%,  $n = 33$ ). Most students responded that a concentration or specialization in older adults was not offered at their institution (Table 2) and most students did not take a course focused on working with older adults (81.4%,  $n = 237$ ).

Table 2.  
*School-level Characteristics*

<b>School Characteristics</b>	<b>N</b>	<b>%</b>
<i>Geographical Region</i>		
Northeast	48	16.5
Midwest	49	16.8
South	113	38.8
West	74	25.4
Unknown	7	2.4
<i>Religious Affiliation?</i>		
Yes	25	8.6
No	266	91.4
<i>Program concentration on older adults?</i>		
Yes	51	17.5
No	240	82.5
<i>Courses offered on older adults</i>		
Zero	165	56.7
One	50	17.2

Two	25	8.6
Three	12	4.1
Four or more	12	4.1
Unknown	27	9.3

Regarding participants' responses to questions pertaining to sexuality, most students did not take doctoral level courses on human sexuality (95.5%,  $n = 278$ ; Yes: 4.5%,  $n = 13$ ). Almost half of the participants had never worked with clients in clinical training related to sexuality (42.6%,  $n = 124$ ) and few participants worked with one client on a sexual related issue (15.5%,  $n = 45$ ), two clients (13.1%,  $n = 38$ ), three clients (7.2%,  $n = 21$ ), or four or more clients (12.7%,  $n = 37$ ).

Finally, more than half of participants did not take any courses on older adults (56.7%,  $n = 165$ ). Participants were asked about their perceived confidence in 1) working with older adults, and 2) working with clients' sexually related issues. Most participants reported having marginal (33%,  $n = 96$ ) or average (40%,  $n = 117$ ) competence in working with older adult clients. Similarly, most participants perceived themselves as having marginal (31.3%,  $n = 91$ ) or average competence (32.3%,  $n = 94$ ) dealing with sexually related topics with their (future) clients (Table 3).

Table 3

*Perceived competencies*

<b>Perceived Competencies</b>	<b>N</b>	<b>%</b>
<i>How competent do you believe you are in working with older adults?</i>		
No Competence	30	10.3
Marginal Competence	96	33.0
Average Competence	117	40.2
Above Average Competence	21	7.2
Advanced Competence	2	0.7
Unknown	25	8.6

*How competent do you believe you are in working with sexually related topics?*

No Competence	29	10.0
Marginal Competence	91	31.3
Average Competence	94	32.3
Above Average Competence	45	15.5
Advanced Competence	7	2.4
Unknown	25	8.6

Attitudes about older adult sexuality. Participants completed two measures of their attitudes about older adult sexuality, the attitude sub-scale of the *Aging Sexual Knowledge and Attitude Scale* (ASKAS; White, 1982) and the *Attitudes Toward Sexuality Scale* (ATSS; Fischer & Hall, 1988). On the ASKAS-attitude sub-scale, 25 items were responded to on a 7-point Likert-type scale. On the ATSS scale, 13 items were responded to on a 5-point Likert-type scale. Internal reliability of each scale measuring participants' attitudes towards older adult sexuality were adequate (i.e. Cronbach's Alpha > .70). A complete description of measures of central tendency, variability, and internal reliability for both scales measuring participants' attitudes about older adult sexuality can be found in Table 4.

Table 4.  
*Descriptive statistics and reliability of attitudes about older adult sexuality*

Scale	n	M	SD	Cronbach's Alpha	Range
ASKAS-attitude	217	42.65	11.36	.881	30-105
ATSS	249	58.44	7.05	.884	19-65

Knowledge of older adult sexuality. Participants completed two measures of their knowledge of older adult sexuality, the knowledge sub-test of the *Aging Sexual Knowledge and Attitude Scale* (ASKAS; White, 1982) and the *Facts on Aging Quiz* (Breytspraak & Badura, 2015). The ASKAS-knowledge sub-test consisted of 35 questions. Scores were coded as 1=correct, 2=incorrect, and 3=missing/I don't know. Lower scores indicate greater knowledge of

older adult sexuality. On average, participants answered 29 of 35 questions correctly (83%). The average ASKAS-knowledge score was 41.24 ( $SD = 2.63$ ), with scores ranging from 35 to 50.

The *Facts of Aging Quiz* consisted of 50 questions regarding frequent misconceptions about aging across a variety of topics. This measure was a true/false quiz. Similar to the ASKAS-knowledge measure, scores were coded as 1=correct, 2=incorrect, and 3=missing/I don't know, with lower scores indicating higher knowledge. Scores ranged from 25 to 47, with an average of 36.02 ( $SD = 3.23$ ). On average, participants answered 36 of 50 questions correctly (72%). Breytspraak and Badura (2015) found a similar percentage of correct responses (80%) from graduate students.

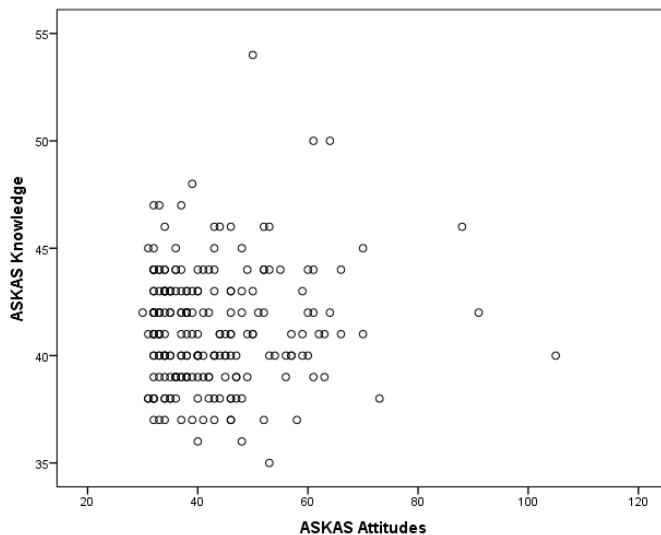
**Research Question 1: Are clinical psychology doctoral students' attitudes towards older adults' sexuality related to their knowledge about older adults' sexuality?**

In order to assess research question 1, scale scores on the attitude measures (ASKAS-Attitude & ATSS) were used as measures of attitudes towards older adult adults' sexuality. The scores on the ASKAS-Knowledge and Facts of Aging quiz were used as measures of knowledge about older adult sexuality. This research question was investigated with the alternative hypothesis: There is a significant relationship between psychology graduate students' knowledge about older adults' sexuality and attitudes about older adults' sexuality.

To analyze the relationship between attitudes and knowledge about older adult sexuality, a correlational analysis was conducted. First, the three major assumptions of Pearson's correlation coefficient were assessed. These assumptions include: (1) the absence of bivariate outliers, (2) the assumption of linearity, and (3) the assumption of a bivariate normal distribution.

A visual inspection of the data was completed using scatterplots of each variable to determine whether the statistical assumptions of a correlational analysis were met. First, two scatterplots were examined to search for bivariate outliers in the ASKAS-knowledge and

ASKAS-attitudes scores (Figure 1), and the Facts on Aging Quiz with the ASKAS-attitudes scores (Figure 2). One bivariate outlier was identified, and subsequently removed from the analysis of ASKAS-attitudes and ASKAS-knowledge (Figure 1). Additionally, the scatterplots examining the relationships between ASKAS-knowledge and ATSS scores (Figure 3), and Facts of Aging quiz and ATSS scores (Figure 4) were examined. No bivariate outliers were identified. Furthermore, through visual analysis of the scatterplot, it was determined that the assumption of linearity was tenable for the relationship between the knowledge scales (ASKAS-knowledge and Facts of Aging quiz) and the attitude scales (ASKAS-attitude and ATSS). Finally, the scatterplots were visually inspected to determine if the data met the assumption of bivariate normal distributions. Through visual inspection of the scatterplot, it was determined that the assumption of a bivariate normal distribution was tenable. Therefore, Pearson's correlation was determined to be the most appropriate statistic to examine the relationship between attitudes and knowledge of older adult sexuality.



*Figure 1. Scatterplot of ASKAS-Attitudes and ASKAS-Knowledge scores*

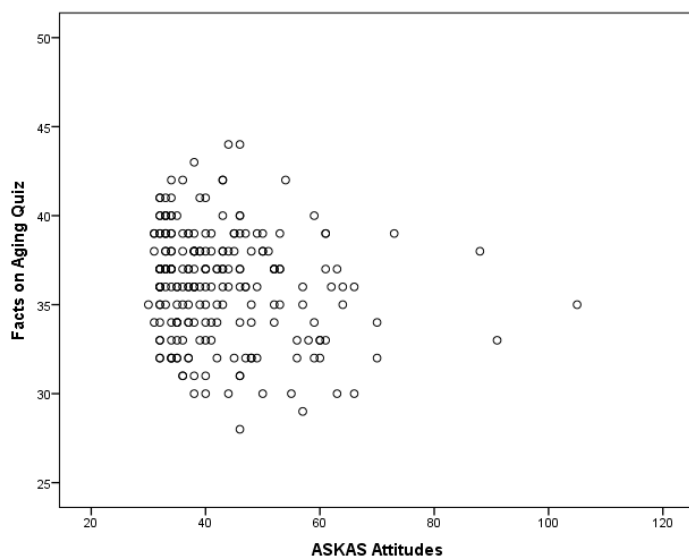


Figure 2. Scatterplot of ASKAS-Attitudes and Facts on Aging Quiz scores

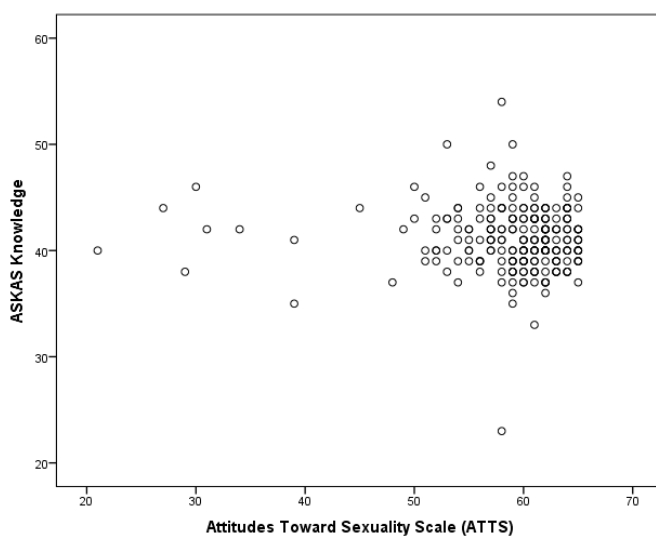
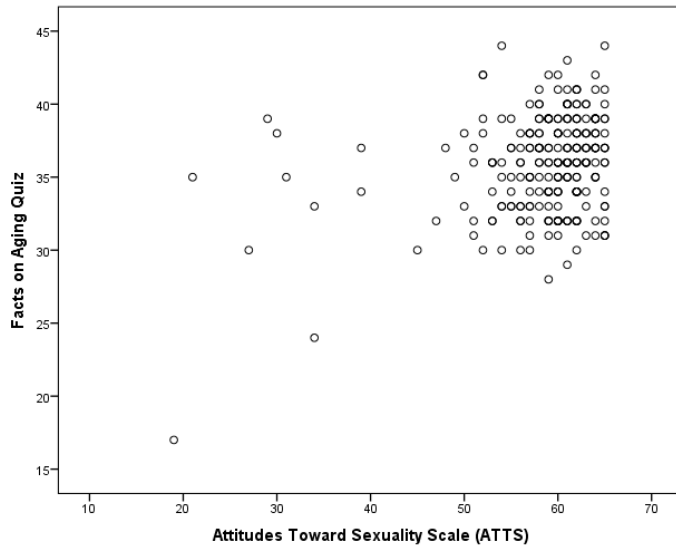


Figure 3. Scatterplot of ATSS and ASKAS Knowledge scores



*Figure 4. Scatterplot of ATSS and Facts of Aging scores*

There was a statistically significant relationship between participants' scores on the ASKAS-attitudes and ASKAS-knowledge measures,  $r = -.670, p < .001$ . As scores on the ASKAS-knowledge measure increased (i.e. less knowledge about older adult sexuality), scores on the ASKAS-attitudes increased (i.e. less permissive attitudes towards older adult sexuality). The magnitude of this effect was large; therefore, the null hypothesis was rejected. There was a significant relationship between participants' attitudes and knowledge about older adult sexuality. The less knowledge participants had about older adult sexuality, the less permissive their attitudes towards older adult sexuality were.

A statistically significant but weak relationship was also found between ASKAS-Attitudes and Facts of Aging quiz,  $r = -.175, p < .01$ . While the magnitude of this effect was small, the direction of the relationship between ASKAS-Attitudes and Facts of Aging was the same as that of ASKAS-Attitudes and ASKAS-Knowledge, providing further evidence of a positive relationship between participants' attitudes towards and knowledge about older adult sexuality.

There was a significant, moderate relationship between participants' ATSS (Attitudes Towards Sexuality Scale) and Facts of Aging scores,  $r = .296, p < .001$ . On the ATSS measure, higher scores indicate more openness and liberal attitudes towards sexuality (sample items include, "Abortion should be made available whenever a woman feels it would be the best decision.", "A person's sexual behavior is his/her own business and nobody should make value judgments about it," and "Prostitution should be legalized."). Again, this provides further evidence of the positive relationship between attitudes and knowledge of older adult sexuality. See Table 5 for correlation coefficients and significance levels of the relationship between each attitude and knowledge measure.

Table 5

*Correlation coefficients for relationship between attitudes and knowledge of older adults' sexual behavior*

	Attitudes	
	ASKAS-Attitudes	ATSS
ASKAS-Knowledge	-.670***	-.044
Facts of Aging	-.175**	.296***

**Research Question 2: Are clinical psychology doctoral students' attitudes about older adults' sexuality related their exposure to older adults' sexuality?**

The same measures used in research question 1 were used to analyze research question 2: Scale scores on the attitudes measures (ASKAS-Attitude & ATSS) were used as measures of attitudes about older adult adults' sexuality.

Participants were also asked several questions pertaining to their level of exposure to older adults' sexuality. Most participants did not have exposure to older adult sexuality in their

doctoral coursework (Table 6). Of those who did have exposure in their coursework, only 13 participants took courses in sexuality and aging and few participants (11%) had taken courses focused on working with older adult populations. However, approximately half ( $n = 141$ ) of participants had worked with clients on sexually related topics.

Table 6.

<i>Exposure to older adult sexuality</i>		
	N	%
<i>Have you taken a course on human sexuality in your doctoral degree?</i>		
Yes	13	4.5
No	278	95.5
<i>How many clients have you worked with on sexually related topics?</i>		
Zero	124	42.6
One	45	15.5
Two	38	13.1
Three	21	7.2
Four or more	37	12.7
Missing/Unknown	26	8.9
<i>Have you taken a course focused on working with older adult population(s)?</i>		
Yes	32	11.0
No	237	81.4
Missing/Unknown	22	7.6

This research question was investigated with the following alternative hypothesis: There is a significant relationship between exposure to older adult sexuality and attitudes about older adults' sexuality.

Because all of the measures of exposure to older adults and their sexuality were categorical or ordinal in nature, Spearman's rank order correlation coefficient was used to measure the relationship between exposure and attitudes about older adult sexuality.

There was one significant correlation between attitudes and exposure: participants scores on the ATSS were positively related with taking a course with a focus on older adults,  $r_s = .124$ ,  $p = .05$ . The magnitude of this relationship was small. ATSS scores increased slightly for those who had taken a course with a focus on working with older adults. There were no significant correlations between attitudes towards older adult sexuality and exposure to sexuality (in coursework or with clients) (See Table 7).

Table 7.

*Spearman's rank order correlation coefficients between exposure and attitudes about older adult sexuality*

		Attitudes about older adult sexuality	
		ASKAS-attitudes	ATSS
Exposure to Human Sexuality	Have you taken a course on human sexuality?	.075	-.025
	How many clients have you worked with on sexually related topics?	.009	.122
Exposure to Older Adults	Have you taken a course focused on working with older adults?	.058	<b>.124*</b>
	Does your program offer a concentration on older adults?	-.041	.021

**Research Question 3: Are clinical psychology doctoral students' knowledge about older adults' sexuality related to their exposure to older adults' sexuality?**

The same measures used in research question 1 were used to analyze research question 3: scale scores on the ASKAS-Knowledge and Facts of Aging quiz were used as measures of knowledge about older adult sexuality.

The research question was investigated with the following alternative hypothesis: There is a significant relationship between exposure to older adult sexuality and knowledge about older adults' sexuality.

As mentioned above, all of the measures of exposure to older adults and their sexuality were categorical or ordinal in nature, Spearman's rank order correlation coefficient was the most appropriate to measure the relationship between exposure and knowledge about older adult sexuality.

There was one significant correlation between knowledge and exposure: Participants' scores on the Facts of Aging quiz were positively related with the number of clients participants had worked with on sexually related topics,  $r_s = .146, p = .05$ . The magnitude of this relationship was small. Facts of Aging quiz scores increased slightly as participants worked with more clients on sexually related topics. There were no other significant correlations between knowledge of older adult sexuality and exposure to sexuality (in coursework), nor between knowledge of older adult sexuality and exposure to older adults (See Table 8).

Table 8.

*Spearman's rank order correlation coefficients between exposure and knowledge about older adult sexuality*

Knowledge about older adult sexuality	
ASKAS-Knowledge	Facts on Aging

Exposure to Human Sexuality	Have you taken a course on human sexuality?	-.065	.003
	How many clients have you worked with on sexually related topics?	-.117	<b>.146*</b>
Exposure to Older Adults	Have you taken a course focused on working with older adults?	-.008	-.056
	Does your program offer a concentration on older adults?	-.011	-.094

## Chapter 6- Discussion

### Summary of Findings

This study sought to explore knowledge and attitudes about older adult sexuality among clinical psychology doctoral students. This project extends previous research focused on the attitudes and knowledge of medical providers (i.e., doctors, nurses, nursing home caretakers) about older adult sexuality (Ali, 2004; Gott et al., 2004a,b; Roach, 2004; Gunderson, Tomkowiak, Menachemi, & Brooks, 2005; Ward, Vass, Aggarwal, Garfield, & Cybyk, 2005; Burd, Nevadunsky, & Bachmann, 2006) by sampling doctoral students in clinical psychology programs. Three hypotheses were developed and examined to thoroughly investigate clinical psychology doctoral students' knowledge and attitudes about older adult sexuality. Each hypothesis had specific considerations regarding (a) self-rated competency on older adult sexuality; (b) amount of exposure to older adult sexuality (training, coursework, etc.); and, (c) interest levels for older adult sexuality.

### **Hypothesis #1**

The first hypothesis tested whether clinical psychology doctoral students' knowledge about older adult sexuality was associated with their attitudes towards this subject. In the present study, support was found for hypothesis 1. Namely, students with increased levels of knowledge about older adult sexuality also had increased positive attitudes about older adult sexuality. Findings in the present study align with Hillman and Stricker (1994), who found a link between increased knowledge about older adult sexuality and positive attitudes about older adult sexuality in the medical and social worker student populations. However, it is important to note that Snyder and Zweig (2010) did not find support for this relationship in a student population. Specifically, in one of the few articles exploring clinical psychology doctoral students' knowledge and attitudes about aging, Snyder and Zweig (2010) found no significant relationship between participants' knowledge and attitudes about older adult sexuality. The authors suggested that the relationship between knowledge and attitudes about older adult sexuality is complex. Students' have different experiences, exposure and relationships with older adults, and hold different values and belief systems (Hillman & Stricker, 1994; Snyder & Zweig, 2010) that impact their attitudes on the topic. As noted by Hillman and Sticker (1994) and Snyder and Zweig (2010), further investigation is needed to identify factors that may contribute to students' attitudes about older adult sexuality.

Similar to Snyder and Zweig (2010), the present study utilized the ASKAS-knowledge subtest and ASKAS-attitude subtest to assess the relation between students' knowledge and attitudes. While findings in the present study contradict Snyder and Zweig's results, these differences may be due to dissimilarities in participant samples and methodologies. The present study sampled 291 participants in contrast to Snyder and Zweig (2010), who sampled 50

participants. Furthermore, the present study included a more ethnically diverse sample with 21% of participants identifying as ethnic racial minorities (e.g., African American, Hispanic, multi-Racial, Native American/Pacific Islander, etc.) versus Snyder and Zweig's (2010) study that included 6% ethnic and racial minorities. A large percentage of the current sample was female, white, and heterosexual. According to demographics data from a survey published in 2016 by the APA, clinical psychology doctoral students' demographics showed 70% of doctoral students identify as white. Female doctoral students represent 72.1% of the student population (Cope, Michalski, & Fowler, 2016). Currently, women account for over half of the psychologists in the United States. Of the students surveyed in this study, 26.5% identified as ethnic, racial minorities which may be related to the increased diversity in clinical psychology doctoral programs (Lin, Stamm, & Christidis, 2018). The current sample was representative of the population of clinical psychology doctoral students; according to data from the APA demographics survey conducted by Cope, Michalski, & Fowler (2016), 10.8% of students identify as Asian/Pacific Islander and 16.8% doctoral students identified "other ethnicities". The current sample thus mirrored APA's demographic data on clinical psychology doctoral students (Cope, Michalski, & Fowler, 2016).

The sample used in this study recruited clinical psychology doctoral students from all APA accredited doctoral clinical psychology programs in the United States and is thus more representative of the population of doctoral students in the United States than the Snyder and Zweig (2010) sample, which was drawn from one urban northwestern university. In addition, the methodology in Snyder and Zweig (2010) study included first asking the students for their participation in person and secondly distributing the survey in lecture halls. By contrast, in the current study, participants were invited to participate by their clinical directors of training, who were contacted by the principle investigator. Another important difference is that the present

study was conducted approximately 10 years following the Snyder and Zweig (2010) study and may reflect a cultural shift in clinical psychology doctoral students' attitudes toward older adult sexuality.

Presently, the great majority of research exploring students' attitudes on older adult sexuality has focused on graduate nursing, medical, and social work students. The body of research has yet to demonstrate a consistent relationship between attitudes and knowledge about older adult sexuality, with some studies demonstrating a strong link while other studies finding a weak link between these factors. A study by Mahieu et al. (2016) demonstrated an association between graduate nursing students' knowledge and attitudes about older adult sexuality such that increased knowledge was positively correlated with positive attitudes on the subject. On the other hand, studies carried out by Luketich (1991) and White (1982) with graduate nursing students and nursing home staff reported a weak association between ASKAS-knowledge subtest and ASKAS-attitude subtest scores. It is important to point out that these studies were carried out between 25-35 years ago and may not reflect the changes in cultural attitudes about older adult sexuality. It is also important to consider that attitudes on older adult sexuality are shaped by many factors outside of knowledge that may include religion, gender, sexual orientation, socioeconomic status, quality of exposure to older adults, and education about the older adult population, etc. (Hinrichsen, 2000). Thus, future studies should strive to obtain diverse samples to determine differences in attitudes across many cultural and ethnic groups.

### **Hypothesis #2**

The second hypothesis tested in this study was whether clinical psychology doctoral students who had increased exposure (coursework, practicum opportunities, and clinical

contacts) to older adult sexuality would report increased positive attitudes about older adult sexuality. Hypothesis 2 was not supported.

Published literature supports the link between students' exposure to older adults in coursework and their attitudes about older adults (Dorfman et al., 2007; Gutheil, Heyman, & Chernesky, 2009; Hinrichsen & McMeniman, 2002; Koder & Helmes, 2008). However, results in this study did not indicate a relationship between students' exposure (coursework, practicum opportunities, and clinical contacts) to older adults and their attitudes about older adult sexuality. Specifically, students' exposure to working with a client on a sexually related topic, taking a course on human sexuality, or being enrolled in a program with an older adult track was not associated with their attitudes about sexuality in general or older adult sexuality. One possible interpretation of the results is that most published literature documents the relationship between clinical psychology doctoral students' exposure to older adults and their attitudes about older adults, whereas, the present study researched the relationship between clinical psychology doctoral students' exposure and attitudes about older adult sexuality. It is difficult to compare the results with previously published literature given the intricacy of sexuality, such as personal sexual experiences and the cultural, political, legal and philosophical aspects of life. These factors may be impacting the relationship between students' exposure to older adults and their attitudes about older adult sexuality (Bolin & Whelehan, 2009; Greenberg, Bruess, Oswalt, 2016).

In this exploratory study, results demonstrated that a majority of participants did not have exposure to older adult sexuality within their coursework. In fact, only 4.5% of participants had completed a course on human sexuality during their doctoral program and only 11% had taken a course focused on the older adult population. However, participants demonstrated more positive

attitudes about older adult sexuality despite the lack of exposure to the older adult population in coursework. Participants' positive attitudes about older adult sexuality may be related to their interest levels in working with older adults. Results show that 19% of participants in the present study were most interested in working with older adults. Participants were most interested in working with older adults, as compared to the 5.5% who were most interested in working with adults and the 4.1% who were most interested working with adolescents. Another possible explanation for participants' lack of enrollment in human sexuality and older adult courses may be related to their current year in their doctoral program and a lack of opportunity to engage with the older adult population. Over half of the participants (56.1%) were students in years 1, 2 and 3 of their programs where exposure to specialized content (i.e., older adult sexuality) has yet to occur. Indeed, Miller and Byers (2010) conducted a study examining psychologists' exposure to sex education training during their graduate programs, coursework, practicum placements and internship and found that 31.1% (N=162) had taken a graduate level psychology course related to sexuality. Thus, the low number of students in the present sample that completed coursework on human sexuality (11%) may be directly related to their time in graduate school. Future studies may want to sample advanced clinical psychology doctoral students who have a greater likelihood of having completed specialized coursework.

### **Hypothesis #3**

The third hypothesis tested whether clinical psychology doctoral students who had exposure (coursework, practicum opportunities, and clinical contacts) to older adult sexuality would have greater knowledge about older adult sexuality. Results did not support hypothesis 3. In the present study, 81.4% of students had not yet completed a course focused on older adults and 95% had not taken a human sexuality course. However, students demonstrated an average

score of 83% on the ASKAS-knowledge subtest. The lack of correlation between the ASKAS-knowledge subtest and exposure to older adult sexuality (coursework, practicum opportunities, and clinical contacts) may be related to limitations in the survey's assessment of exposure to older adults and older adult sexuality. Students' exposure to older adults and older adult sexuality were assessed by clinical experiences regarding sexuality, availability of a concentration on older adults, and course work on human sexuality and older adults. However, the survey's assessment of exposure may have missed variables that may impact students' knowledge about older adult sexuality, such as personal experiences with older adult relatives and being a care taker of an older adult (Gewirtz-Meydan, Even-Zohar, & Fisch, 2017; Hinrichsen, 2000; Koder & Helmes, 2008; Snyder & Zweig, 2010). Clinical psychology doctoral students' exposure to older adult sexuality and their knowledge about older adult sexuality may be further explored through additional or specific questions regarding students' exposure to older adults in their personal relationships.

When examining the data in the present study more deeply, results indicated a modest positive relationship between students' knowledge about older adult sexuality and their exposure to working with *any* aged client on topics related to sexuality. In other words, students who had experienced clinical exposure to working with any aged client on a sexually related topic demonstrated a slight increase in knowledge about older adult sexuality compared to students who had not worked with any aged client on a sexually related topic. It is unclear how exposure to working with a client on sexuality relates to students' knowledge about older adult sexuality. It is also unclear how these clinical experiences impacted students' knowledge about older adult sexuality. In general, it appears that having exposure to sexuality in the clinical realm may be linked to an increase in students' knowledge regarding older adults and older adult sexuality. A

possibility for this association is that students' exposure to sexuality may create feelings of confidence and competency regarding sexually related topics leading to further research and gaining knowledge outside a classroom or clinical setting. Future research could continue to investigate the relationship between exposure to older adults via coursework and clinical experiences and students' knowledge about older adults and older adult sexuality.

### **Strengths**

This study has several strengths. Three established measures with strong psychometric properties were used to assess clinical psychology doctoral students' knowledge and attitudes about older adult sexuality. The data demonstrated significant results showing a relationship between clinical psychology doctoral students' knowledge about older adult sexuality and their attitudes towards older adult sexuality that replicated results from previous literature (Breytspraak & Badura, 2015; White, 1982). Another strength of this study was the size and its sample, which was representative of the population of clinical psychology doctoral students in the United States (Cope, Michalski, & Fowler, 2016). Since this is an exploratory topic that has been rarely researched, the sample size was important for establishing any significant relationships in the data.

### **Limitations**

Limitations of this study include measurement issues that may have affected the findings. ATSS is a self-report measure with questions that do not discriminate across different age groups and instead focus on sexuality in general. It is difficult to discern if students answered the questions with an older adult scope or if they answered the questions based on their general attitudes about sexuality. This may have impacted the study's results, making it difficult to interpret the data related to the relationship between ATSS scores and students' exposure to older

adults via coursework. It is not clear how these two variables are related based on the way the questions were phrased and the potential impact on the topic of the study.

This study's sample was obtained by email recruitment based on APA clinical graduate psychology programs' websites. Direct email contact with directors of clinical training and students was accomplished by using university directories. This approach may have impacted the study results because not all clinical psychology doctoral programs list their graduate students' emails on their program website; therefore, some clinical psychology graduate students did not have the opportunity to participate. Additionally, students receive countless requests for participation in dissertation research and/or the email may have been considered spam, resulting in some students not participating in the survey. These sampling limitations may have impacted the outcomes of this study because those who participated may have been more interested in the older adult population, older adult sexuality, or human sexuality; therefore, results may have been skewed because of participants' interest in the topic. Another limitation was the exclusion of students in non-APA accredited doctoral programs.

In addition, coursework in certain states may address the older adult population and their mental health due to licensing requirements in that state; some students are exposed to more information about older adults because of the specific requirements of their state (long-term and aging care). This study did not take into consideration the impact of state licensure requirements, which may have impacted the results because state licensure requirements may have impacted students' knowledge about older adult sexuality and its relationship to their exposure. Students demonstrated more knowledge about older adult sexuality despite having a lack of exposure. Students' knowledge about older adult sexuality may come from different types of exposure

(family relationships, being a caretaker, etc.) and these additional factors may lead to a greater understanding of the student's knowledge about older adult sexuality.

### **Research Implications and Recommendations**

This study targets the unique topic of clinical psychology doctoral students' knowledge and attitudes about older adult sexuality, an area of study that has been insufficiently explored and published. Results from the present study suggest that the more knowledge a student has, the more positive their attitudes about older adult sexuality. Extant literature supports that the relationship between exposure to older adults positively impacts students' attitudes (Miller & Byers, 2008; Wiederman & Sansone, 1999), however, though current results did not identify a relationship between clinical psychology doctoral students' exposure (coursework, practicum opportunities, and clinical contacts) and their attitudes about older adult sexuality. This lack of relationship may be more complex and other variables may need to be considered when assessing students' exposure to older adults and older adult sexuality. Additional variables may impact attitudes, such as personal positive experiences with an older adult, being a caretaker of an older adult, and guidance and advising by mentors (Gewirtz-Meydan, Even-Zohar, & Fisch, 2017; Hinrichsen, 2000; Koder & Helmes, 2008; Snyder & Zweig, 2010;).

Future research on clinical psychology graduate students may benefit by addressing all clinical psychology graduate students in APA programs and non-APA programs to gain greater insight into the clinical psychology graduate student population knowledge and attitudes about older adult sexuality. It would be interesting to investigate how many clinical psychology programs (APA and non-APA) offer specialty courses about older adults or opportunities to work clinically with older adults regarding their sexuality.

Additional research could be conducted to develop a more robust and congruent understanding of clinical psychology graduate student's knowledge and attitudes about older adult sexuality. Currently, there is limited research on clinical graduate students' knowledge and attitudes about older adult sexuality, which may be linked to the overall lack of research on topics like older adults and older adult sexuality. Future research efforts are needed to advance clinical graduate psychology students' knowledge and attitudes about older adult sexuality; this can be done by researching additional factors such as religion, personal relationship with older adults, being a caretaker of an older adult, and state licensure requirements. With further research, it is possible that a consistent relation between clinical psychology doctoral students' knowledge and attitudes about older adult sexuality may be established. Through continued research, greater understanding of how students' knowledge impacts their attitudes about older adults may highlight the gap in training and exposure students are receiving about older adults and their sexuality.

### **Clinical Implications and Recommendations**

This exploratory research, as well as other publications, suggest that preparation by psychology graduate programs is deficient in training to prepare students to work with the older adult population on sexually related topics (Woodhead et al., 2013). Students in this study expressed an interest in working with the older adult population; 19% expressed this interest, which was the second highest interest level of all categories. Yet over half reported that their programs did not offer any courses focused on older adults. Despite documented interest levels in working with the older adult population, programs are canceling courses about older adults, citing a lack of interest from students or professors (Foster, Kreider, & Waugh, 2009). However, current results demonstrated students were interested in working with older adults and reported

feeling competent about working with older adults. Of the participants in this study, 40.2% reported feeling competent about working with older adults. Additionally, students demonstrated knowledge about older adults and older adult sexuality despite the lack of clinical opportunities with the older adult population.

Currently, programs are missing an opportunity to train students who are interested in working with the older adult population. The lack of availability of these courses impacts students' clinical abilities to provide adequate mental health services to the older adult population. Over half of the students surveyed reported their doctoral program does not offer any courses on older adults. More courses on sexuality and/or aging need to be provided for students' growth and comfort addressing sexuality, older adults, and older adult sexuality. By developing coursework that addresses sexuality, older adults, and older adult sexuality there is an opportunity for students to see the diversity and complexity of individuals based on gender identity, age, disability, social class, religion, race, and other factors (Hinrichsen, 2000; APA Task Force on Re-Envisioning the Multicultural Guidelines for the 21<sup>st</sup> Century, 2017).

## **Conclusion**

The goal of this exploratory study was to develop a better understanding of clinical psychology doctoral students' knowledge and attitudes about older adult sexuality by investigating students' knowledge and attitudes about older adult sexuality and how exposure to older adults impacts students' knowledge and attitudes about older adult sexuality.

Participants were part of a quantitative study investigating students' knowledge and attitudes about older adult sexuality. Students were questioned about their current knowledge on basic facts about the aging population, their knowledge of older adults' sexuality, and their attitudes about older adults' sexuality. The results replicated previous work and demonstrated a

relationship between knowledge about older adult sexuality and positive attitudes about older adult sexuality and reflected the limited opportunities for students to be exposed to the older adult population. The results demonstrated a relationship between students' knowledge about older adult sexuality and their attitudes about older adult sexuality. However, the study results found that students' knowledge and attitudes about older adult sexuality is not impacted by their exposure to older adult sexuality.

This study emphasizes the need for future research on the aging population and older adults' sexuality study. This study and current literature demonstrate contradictory evidence supporting the link between knowledge and attitudes based on exposure and interest. The current study focused on exposure to older adult sexuality in coursework, practicum opportunities and clinical contacts; however, exposure factors such as friendships with older adults, taking care of an older individual, and their contact with older relatives may impact students' knowledge and attitudes about older adult sexuality. By researching these additional factors, a better understanding may be established between clinical psychology graduate students' knowledge and attitudes about older adult sexuality. These additional factors may provide increased information about the link between knowledge and attitudes about older adult sexuality. Further research should be conducted to develop a more robust and congruent understanding of clinical psychology graduate students' knowledge and attitudes about older adult sexuality.

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Appendix A  
Recruitment Email

Dear [Training Director/Program Coordinators/Heads of Student Unions],

Hello, my name is Lindsey Horta, and I am a graduate student in the University of San Francisco's Clinical Psychology Psy.D. Program. I am currently collecting data for my dissertation. My research explores the knowledge and attitudes clinical psychology doctoral students have about older adults' sexuality. As part of this research, I am seeking clinical psychology doctoral students in clinical psychology Ph.D. or Psy.D. programs who are currently enrolled in classes or on doctoral internship. The results of this study will hopefully identify the current knowledge and attitudes held by students and explore the limited amount of training and experiences students have in regards to working with the older adult population

As a [Training Director/Program Coordinators/Heads of Student Unions], I would greatly appreciate it if you would forward information about this study to your current students who may be interested in participating. I have enclosed detailed information about the study below.

Thank you very much for your consideration. Should you have any questions about this request or my dissertation research, please do not hesitate to contact me (951) 640-8924 or [lmhorta@usfca.edu](mailto:lmhorta@usfca.edu).

Again, my sincerest thanks,

Lindsey Horta M.S.

## Appendix B Invitation to Participate in Study Email

Dear [UNIVERSITY] student,

Hello, my name is Lindsey Horta, and I am a graduate student at the University of San Francisco in the Clinical Psychology PsyD Program. I am currently collecting data for my dissertation, which explores the knowledge and attitudes clinical psychology doctoral students have about older adults' sexuality.

As part of this research, I am seeking clinical psychology doctoral students in an APA accredited clinical psychology PhD. or PsyD programs, and who are currently enrolled in classes or on doctoral internship. Participants will complete an online survey consisting of a demographic questionnaire and a set of questionnaires relating to the study topic. The survey should take approximately 30 minutes to complete. The results of this study will hopefully identify the current knowledge and attitudes held by students about the older adult population.

Participants are not required to answer any questions that they do not want to answer. At the conclusion of the study, participants will have the option of being entered into a drawing for one of four \$25 Amazon e-gift cards, as a token of my appreciation for participating in my dissertation.

Additionally, participation in this study is anonymous. All survey data will be collected via Qualtrics, a secure server-based survey platform. The survey will not ask you for any identifying information, nor will any identifying information be collected by the survey platform (e.g., IP addresses). If you choose to enter the drawing at the conclusion of the study, you will be taken to a separate survey; no contact information provided for these purposes will be associated with study data.

The survey will be open between \_\_\_\_\_ and \_\_\_\_\_. If you choose to participate, please visit the website between those dates.

If you have any questions or concerns about this study, please feel free to contact me at [lmhorta@usfca.edu](mailto:lmhorta@usfca.edu). If you have questions regarding your rights as a research participant, please contact University of San Francisco IRB \_\_\_\_\_.

Lastly, please feel free to forward this e-mail to any other clinical psychology doctoral students who you think might be interested in participating.

Thank you for your consideration!

Lindsey Horta, MS

## Appendix C CONSENT TO PARTICIPATE

You have been asked to participate in a research study conducted by Lindsey Horta, M.A., M.S., a graduate student in the Clinical Psychology (Psy.D.) program in the Department of Nursing and Health Professions at the University of San Francisco. The faculty supervisor for this study is Dr. Konjit Page, a professor in the Clinical Psychology (Psy.D.) program, and this study has been approved by the Institutional Review Board at the University of San Francisco.

Please read the following description of the procedures for participating in this study. An explanation of your rights as a participant is also discussed. Read this information carefully and ask me if you have any questions regarding the study or what is being asked of you. By signing this form, you are indicating that you understand the information on this form and agree to participate.

### **PURPOSE OF STUDY:**

The purpose of this study is to explore the attitudes and knowledge of clinical doctoral psychology students have about older adults' sexuality.

### **PARTICIPATION**

You will be asked to complete a demographics information form, and a set of questionnaires online.

### **DURATION OF THE STUDY**

Your participation in the study will involve completing a few questionnaires that may take 30 minutes or less to complete.

### **POTENTIAL RISKS AND DISCOMFORTS**

We do not anticipate any risk or discomforts to you from participating in this research, though there is a risk of minimal psychology distress due to the nature of the topic. You may choose to withdraw your consent and discontinue your participation at any time during the study.

### **BENEFITS**

You will receive no immediate direct benefit from your participation in this study; however, participants may experience personal discomfort when answering select survey questions. Further by sharing your knowledge and attitudes about older adults sexuality, you may be able to gain insight to personal biases or identify an area for further growth.

### **COMPENSATIONS/PAYMENT FOR PARTICIPATION**

Participants have the option of submitting their email address to be entered in winning an electron Amazon gift card of 25 dollars. At the end of the study, email addresses entered into the drawing will be picked at random electronically and the winner will be sent their Amazon gift card to the email address provided.

### **VOLUNTARY NATURE OF THE STUDY**

Your participation is entirely voluntary, and you may discontinue your participation at any time without penalty or loss of benefits. Furthermore, you may skip any task that makes you uncomfortable. In rare instances, the researcher may exercise the right to withdraw you from participation in the study.

### **CONFIDENTIALITY**

The survey will not ask you for any identifying information, nor will any identifying information be collected by the survey platform (e.g., IP addresses). If you choose to enter the drawing at the conclusion of the study, you will be taken to a separate survey; no contact information provided for these purposes will be associated with study data. Additionally, the study will look at participants as a group, and no information you provide will be evaluated or compared on an individual basis.

All survey data will be collected via Qualtrics, a secure server-based survey platform. All data collected online will be subject to Qualtrics security and privacy policies to ensure that all information collected is encrypted and made available only to authorized users. While the researchers take every reasonable step to protect your privacy, there is always the possibility of interception or hacking of the data by third parties that are not under the control of the research team.

Any data you provide in this study will be kept confidential. We will not publically share the information that will make it possible to identify you or any individual participant. Any electronic data collected will be stored in a password-protected database, and other data will be kept in a locked file cabinet that can only be accessed by the researchers.

### **QUESTIONS AND CONTACT INFO**

Please contact me, the Principal Investigator, at any point if you have questions about the study: Lindsey Horta, M.A., M.S., [lmhorta@usfca.edu](mailto:lmhorta@usfca.edu).

### **ELECTRONIC CONSENT**

**I HAVE READ THE ABOVE INFORMATION. ANY QUESTIONS I HAVE ASKED HAVE BEEN ANSWERED. I AGREE TO PARTICIPATE IN THIS RESEARCH PROJECT.**

Appendix D  
Demographic Information Form

***Instructions:***

***For the purposes of this form, when we refer to older adults, consider this to mean 65 or older.***

***Please respond to each of the following questions:***

**1. Age? \_\_\_\_**

**2. What is your current gender identity?**

Male

Female

Trans male/Trans man

Trans female/Trans woman

Genderqueer/Gender non-conforming

Other (please state): \_\_\_\_\_

**3. Which of the following best describes your sexual orientation?**

Heterosexual/Straight

Gay

Lesbian

Bisexual

Other (please state): \_\_\_\_\_

**4. With which of the following racial category do you identify?**

American Indian or Alaska Native

Asian/Asian American

African American

Native Hawaiian or Other Pacific Islander

White

**5. What region of the United States is your current clinical psychology doctoral program located in?**

West

Southwest

Midwest

Southeast

Northeast

**6. Does your school have any religious affiliations?**

Yes   No

**6A. If yes, please specify your program's religious affiliation: \_\_\_\_\_**

**7. Your current year in the program:**

Year 1  
 Year 2  
 Year 3  
 Year 4  
 Pre-Doctoral Internship  
 Other: \_\_\_\_\_

**8. What population are you most interested in working with? Please rank the following in order of interest level from 1 to 4, where 1 is not at all interested and 4 is very interested.**

\_\_\_\_\_ Infants  
 \_\_\_\_\_ Children/Adolescents  
 \_\_\_\_\_ Adults  
 \_\_\_\_\_ Older Adults

**9. Have you taken a course on human sexuality in your doctoral studies?**

Yes No

**9a. If you answered yes to question # 9, how many courses in human sexuality have you taken?** \_\_\_\_\_

**9b. If you answered yes to question # 9, how many of these courses included sexuality in aging?** \_\_\_\_\_

**10. Does your program offer a concentration or specialization in geropsychology or focused on older adults?**

Yes No

**10a. If you answered yes to question #10, is your concentration or specialization geropsychology or focused on older adults?**

Yes No

**11. Have you taken a course focused on working with the older adult population?**

Yes No

**12. How many courses offered by your program focus on the older adult population?**

\_\_\_\_\_

**13. With regard to clinical training opportunities (i.e., practicum placements) provided by your program, how many focus on working with older adults?** \_\_\_\_\_

**14. How many older adult clients have you worked with to date as a part of your clinical training experiences (i.e., practicum)?**

**15. How competent do you believe you are in working with older adults?**

Excellent  
Very Good  
Adequate  
Needs Improvement  
Needs Considerable Improvement

**16. How many clients have you worked with on sexuality related topics to date as part of your clinical training experiences (i.e., practicum)?**

**17. How competent do you believe you are in working with clients on sexuality related topics?**

Excellent  
Very Good  
Adequate  
Needs Improvement  
Needs Considerable Improvement

## Appendix E

### Aging Sexual Knowledge and Attitudes Scale (ASKAS)

#### *Knowledge Questions*

True/False/Don't Know (Correct answer is show in parentheses)

1. Sexual activity in aged persons is often dangerous to their health. (F)\*
2. Male over the aged of 65 typically take longer to attain an erection of their penis than do younger males. (T)
3. Males over the age of 65 usually experience a reduction in intensity of orgasm relative to younger males. (T)
4. The firmness of erection in aged males is often less than that of younger persons. (T)
5. The older female (65+ years of age) has reduced vaginal lubrication secretion relative to younger females. (T)
6. The aged female takes longer to achieve adequate vaginal lubrication relative to younger females. (T)
7. The older female may experience painful intercourse due to reduced elasticity of the vagina and reduced vaginal lubrication. (T)
8. Sexuality is typically a lifelong need. (T)
9. Sexual behavior in older people (65+) increases the risk of heart attack. (F)
10. Most males over the age of 65 are unable to engage in sexual intercourse. (F)\*
11. The relatively most sexually active younger people tend to become the relatively most sexually active older people. (T)
12. There is evidence that sexual activity in older persons has beneficial physical effects on the participants. (T)
13. Sexual activity may be psychologically beneficial to older person participants. (T)
14. Most older females are sexually unresponsive. (F)\*
15. The sex urge typically increases with age in males over 65. (F)
16. Prescription drugs may alter a person's sex drive. (T)
17. Females, after menopause, have a physiological-induced need for sexual activity. (F)\*
18. Basically, changes with advanced age (65+) in sexuality involve a slowing of response time rather than a reduction of interest in sex. (T)
19. Older males typically experience a reduced need to ejaculate and hence may maintain an erection of the penis for a longer time than younger males. (T)
20. Older males and females cannot act as sex partners as both need younger partners for stimulation. (F)\*
21. The most common determinant of the frequency of sexual activity in older couples is the interest or lack of interest of the husband in a sexual relationship with his wife. (T)
22. Barbiturates, tranquilizers, and alcohol may lower the sexual arousal levels of aged persons and interfere with sexual responsiveness. (T)
23. Sexual disinterest in aged persons may be a reflection of a psychological state of depression. (T)
24. There is a decrease in frequency of sexual activity with older age in males. (T)
25. There is a great decrease in male sexuality with age than there is in female sexuality. (T)

---

\* Indicates that the scoring should be reversed such that 2 = 1, and 1 = 2 (i.e., a low score

indicates high knowledge).

26. Heavy consumption of cigarettes may diminish sexual desire. (T)

27. An important factor in the maintenance of sexual responsiveness in the aging male is the consistency of sexual activity throughout his life. (T)

28. Fear of the inability to perform sexually may bring about an inability to perform sexually in older males. (T)

29. The ending of sexual activity in old age is most likely and primarily due to social and psychological causes rather than biological and physical causes. (T)

30. Excessive masturbation may bring about an early onset of mental confusion and dementia in the aged. (F)\*

31. There is an inevitable loss of sexual satisfaction in post-menopausal women. (F)\*

32. Secondary impotence (or non-physiologically caused) increases in males over the aged of 60 relative to young males. (T)

33. Impotence in aged males may literally be effectively treated and cured in many instances. (T)

34. In the absence of severe physical disability males and females may maintain sexual interest and activity well into their 80s and 90s. (T)

35. Masturbation in older males and females has beneficial effects on the maintenance of sexual responsiveness. (T).

### *Attitude Questions*

7-point Likert-type scale, where disagree = 1, agree = 7

36. Aged people have little interest in sexuality. (Aged = 65+ years of age.)

37. An aged person who shows sexual interest brings disgrace to himself/herself.

38. Institutions, such as nursing homes, ought not to encourage or support sexual activity of any sort in their residents.

39. Male and female residents of nursing homes ought to live on separate floors or separate wings of the nursing home.

40. Nursing homes have no obligation to provide adequate privacy for residents who desire to be alone, either by themselves or as a couple.

41. As one becomes older (say, past 65) interest in sexuality inevitably disappears.

For Items 42, 43, and 44:

If a relative of mine, living in a nursing home, was to have a sexual relationship with another resident I would:

42. Complain to the management.

43. Move my relative from this institutions.

44. Stay out of it as it is not my concern. +

45. If I knew that a particular nursing home permitted and supported sexual activity in residents who desired such, I would not place a relative in that nursing home.

46. It is immoral for older persons to engage in recreational sex.

47. I would like to know more about the changes in sexual functioning in older years. +

48. I feel I know all I need to know about sexuality in the aged. +

---

\* Indicates that the scoring should be reversed such that 2 = 1, and 1 = 2 (i.e., a low score indicates high knowledge).

+Reverse scoring on these items. A low score indicates a permissive attitude.

49. I would complain to the management if I knew of sexual activity between any residents of a nursing home.
50. I would support sex education courses for aged residents of nursing homes. +
51. I would support sex education courses for the staff of nursing homes. +
52. Masturbation is an acceptable sexual activity for older males. +
53. Masturbation is an acceptable sexual activity for older females. +
54. Institutions, such as nursing homes, ought to provide large enough beds for couples who desire such to sleep together. +
55. Staff of nursing homes ought to be trained or educated with regard to sexuality in the aged and/or disabled. +
56. Residents of nursing homes ought not to engage in sexual activity of any sort.
57. Institutions, such as nursing homes, should provide opportunities for the social interaction of men and women. +
58. Masturbation is harmful and ought to be avoided.
59. Institutions, such as nursing homes, should provide privacy such as to allow residents to engage in sexual behavior without fear of intrusion or observation. +
60. If family members object to a widowed relative engaging in sexual relations with another resident of a nursing home, it is the obligation of the management and staff to make certain that such sexual activity is prevented.
61. Sexual relations outside the context of marriage are always wrong.

---

+ Reverse scoring on these items. A low score indicates a permissive attitude.

## Appendix F

### Facts on Aging Quiz

1. The majority of old people (past 65 years) have Alzheimer's disease.
2. As people grow older, their intelligence declines significantly.
3. It is very difficult for older adults to learn new things.
4. Personality changes with age.
5. Memory loss is a normal part of aging.
6. As adults grow older, reaction time increases.
7. Clinical depression occurs more frequently in older than younger people.
8. Older adults are at risk for HIV/AIDS.
9. Alcoholism and alcohol abuse are significantly greater problems in the adult population over age 65 than that under age 65.
10. Older adults have more trouble sleeping than younger adults do.
11. Older adults have the highest suicide rate of any age group.
12. High blood pressure increases with age.
13. Older people perspire less, so they are more likely to suffer from hyperthermia.
14. All women develop osteoporosis as they age.
15. A person's height tends to decline in old age.
16. Physical strength declines in old age.
17. Most old people lose interest in and capacity for sexual relations.
18. Bladder capacity decreases with age, which leads to frequent urination.
19. Kidney function is not affected by age.
20. Increased problems with constipation represent a normal change, as people get older.
21. All five senses tend to decline with age.
22. As people live longer, they face fewer acute conditions and more chronic health conditions.
23. Retirement is often detrimental to health--i.e., people frequently seem to become ill or die soon after retirement.
24. Older adults are less anxious about death than are younger and middle-aged adults.
25. People 65 years of age and older currently make up about 20% of the U.S. population.
26. Most older people are living in nursing homes.
27. The modern family no longer takes care of its elderly.
28. The life expectancy of men at age 65 is about the same as that of women.
29. Remaining life expectancy of blacks at age 85 is about the same as whites.
30. Social Security benefits automatically increase with inflation.
31. Living below or near the poverty level is no longer a significant problem for most older Americans.
32. Most older drivers are quite capable of safely operating a motor vehicle.
33. Older workers cannot work as effectively as younger workers.
34. Most old people are set in their ways and unable to change.
35. The majority of old people are bored.
36. In general, most old people are pretty much alike.
37. Older adults (65+) have higher rates of criminal victimization than adults under 65 do.
38. Older people tend to become more spiritual as they grow older.
39. Older adults (65+) are more fearful of crime than are persons under 65.

40. Older people do not adapt as well as younger age groups when they relocate to a new environment.
41. Participation in volunteering through organizations (e.g., churches and clubs) tends to decline among older adults.
42. Older people are much happier if they are allowed to disengage from society.
43. Geriatrics is a specialty in American medicine.
44. All medical schools now require students to take courses in geriatrics and gerontology.
45. Abuse of older adults is not a significant problem in the U.S.
46. Grandparents today take less responsibility for rearing grandchildren than ever before.
47. Older persons take longer to recover from physical and psychological stress.
48. Most older adults consider their health to be good or excellent.
49. Older females exhibit better health care practices than older males.
50. Research has shown that old age truly begins at 65.

Appendix G  
Attitudes Toward Sexuality Scale

5-point Likert scale, where *strongly disagree* = 1, *strongly agree* = 5

1. Nudist camps should be made completely illegal.
2. Abortion should be made available whenever a woman feels it would be the best decision.
3. Information and advice about contraception (birth control) should be given to any individual who intends to have intercourse.
4. Parents should be informed if their children under the age of eighteen have visited a clinic to obtain a contraceptive device.
5. Our government should try harder to prevent the distribution of pornography.
6. Prostitution should be legalized.
7. Petting (a stimulating caress of any or all part of the body) is immoral behavior unless the couple is married.
8. Premarital sexual intercourse for young people is unacceptable to me.
9. Sexual intercourse for unmarried young people is acceptable without affection existing if both partners agree.
10. Homosexual behavior is an acceptable variation in sexual orientation.
11. A person who catches sexually transmitted disease is probably getting exactly what he/she deserves.
12. A person's sexual behavior is his/her own business, and nobody should make value judgments about it.
13. Sexual intercourse should only occur between two people who are married to each other.

Appendix H  
IRBPHS Proposal



CHANGE THE WORLD FROM HERE

## APPLICATION FOR IRB REVIEW OF NEW RESEARCH INVOLVING HUMAN SUBJECTS

Complete the following form and upload this document to the online IRB system in Mentor. **In addition to this application, you will also need to upload any survey/interview questions and informed consent documents for your protocol.**

### 1. RESEARCH PROJECT DESCRIPTION

Provide, in lay terms, a detailed summary of your proposed study by addressing each of the following items:

Clearly state the purpose of the study (Usually this will include the research hypothesis)

This study aims to explore clinical psychology doctoral students' attitudes and knowledge about older adult sexuality. Utilizing a quantitative exploratory approach this study will investigate clinical psychology doctoral students' knowledge and attitudes about aging and older adult sexuality. This study is significant given the limited amount of research on the topic, the increasing number older adults in the U.S., their increased life expectancy, and changing demographics (Ortman et al., 2014; Vincent & Velkoff, 2010) The measures utilized in this study address knowledge about aging, attitudes toward sexuality among older adults, general attitudes toward aging, and knowledge about the sexuality of older adults. It is hoped that results of this study can inform the need for future training and research topics on older adults.

This study is guided by the following research questions:

- What is the association between clinical psychology doctoral students' knowledge and attitudes about older adult sexuality?
- What is the association between exposure (i.e., coursework, practicum opportunities, and clinical contact) to the older adult population and clinical psychology doctoral students' knowledge and attitudes about older adult sexuality?

Hypothesis of this study include:

Hypothesis 1: Higher rates of knowledge about older adults' sexuality, as measured by the Aging Sexual Knowledge and Attitude Scale (White, 1982) and Facts on Aging Quiz (Breytspraak & Badura, 2015), will be positively associated with attitudes toward older adults' sexuality, as measured by the Aging Sexual Knowledge and Attitude Scale (White, 1982) and the Attitudes Toward Sexuality Scale (Fischer and Hall, 1988).

Hypothesis 2: Lower rates of exposure (i.e., coursework, practicum opportunities, and clinical contact) to older adult sexuality, as measured by a demographics questionnaire, will be negatively associated with attitudes and knowledge about older adults' sexuality, as measured by the Aging Sexual Knowledge and Attitude Scale (White, 1982), Facts on Aging Quiz Breytspraak & Badura, 2015) and the Attitudes Toward Sexuality Scale (Fischer and Hall, 1988).

Background (Describe past studies and any relevant experimental or clinical findings that led to the plan for this project)

Research indicates that the older adult population has increased (He et al., 2016). Further research has acknowledged older adults as sexual beings and the increased life expectancy of older adults. However, there is a significant gap in the literature on the older adult population, older adult sexuality and the knowledge and attitudes of clinical psychology graduate students about older adults' sexuality (Woodhead et al., 2013). The majority of the training provided to clinical psychology doctoral students focuses on children, adolescents and adults with limited training, coursework or clinical opportunities about older adult populations. Given the increase of the older adult population, clinical psychology doctoral students may be more likely to encounter working with older adults in their future practice. Research suggest that some of the barriers encountered by mental health professionals working with older adults include ageist ideas indicate the lack of understanding around older adult sexuality and the idea of older adults as asexual beings, despite the increased number of sexually transmitted infections in the older adult population.

Due to the lack of training on these aforementioned issues for clinical psychology doctoral students, they may have limited knowledge about older adults as sexual beings and potentially hold ageist ideas regarding the population and their ability to engage in a sexual manner. These biases and the lack of training on the older adult population may be attributed to a lack of interest, lack of knowledge and unfavorable attitudes regarding the older adult population and their sexuality (Snyder & Zweig, 2010).

Research plan (Provide an orderly scientific description of the intended methodology and procedures as they directly affect the subjects)

This exploratory study will employ a quantitative, non-experimental correlational design to explore the knowledge and attitudes of psychology graduate students toward older adults' sexuality. A correlational design was selected as it can be utilized to examine the relationships among variables of clinical psychology doctoral students' knowledge with respect to older adult sexuality and clinical psychology doctoral students' attitudes with respect to older adult sexuality. Correlational research is conducted with the ultimate goal of understanding the potential for a cause-effect relationship (Passer, 2014). Correlational research examines the potential relationships between naturally occurring variables by measuring the variables and determining whether they are statistically related (or not) and if they are negatively or positively correlated. This approach will be employed in order to investigate a greater percentage of clinical psychology doctoral students' attitudes and knowledge about older adult sexuality. Pearson's  $r$  will be used to examine correlations between the two variables.

Participants of this study will include a minimum of 100 adults currently enrolled in an APA accredited clinical psychology in an effort to obtain a PhD or PsyD. Snowball sampling will be utilized in an effort to contact clinical psychology doctoral students currently enrolled in an APA accredited clinical psychology program. Participants will access the surveys via a *Qualtrics* (electronic survey platform) link embedded in the email they received requesting their participation. The questionnaire will include the following three scales: the Aging Sexuality Knowledge and Attitudes Scale (ASKAS; White, 1982), Facts on Aging (Breytspraak & Badura, 2015), and the Attitudes Toward Sexuality Scale (ATSS; Fischer & Hall, 1988). The Aging Sexual Knowledge Scale (White, 1982) measures age-related sexual knowledge and attitudes. The Facts on Aging Quiz (Breytspraak & Badura, 2015) measures how knowledgeable the clinical psychology doctoral students are on the general topic of older adults. The Attitudes Toward Sexuality Scale (Fischer & Hall, 1988) will measure attitudes toward a variety of sexual topics (i.e., contraception, premarital sex, pornography, etc.). In addition to these measures, all participants will complete a 17-question demographic questionnaire. The demographic questionnaire contains items such as age, gender identity, sexual orientation, race, graduate school program (e.g., location, year, religious affiliation, and courses on older adults and sexuality), and competence in working with older adults and sexuality issues (e.g., clinical training opportunities, clinical contact with older adults, self-rated competence in discussing sexuality issues with older adults, and general exposure to sexuality issues among older adults).

Give the location(s) the study will take place (institution, city, state, and specific location)

This study will consist of participants recruited electronically from APA accredited clinical psychology doctorate programs and they will be asked to identify the region where their clinical psychology program is located in. According to the U.S Census Bureau, U.S. Department of Commerce Economics and Statistics

Administration there are four regions. The regions will be described as: Region 1: Northeast (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont), Region 2: Midwest (Indiana, Illinois, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota), Region 3: South (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, and Texas), Region 4: West (Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, Wyoming, Alaska, California, Hawaii, Oregon, and Washington) (U.S. Census Bureau, n.d.).

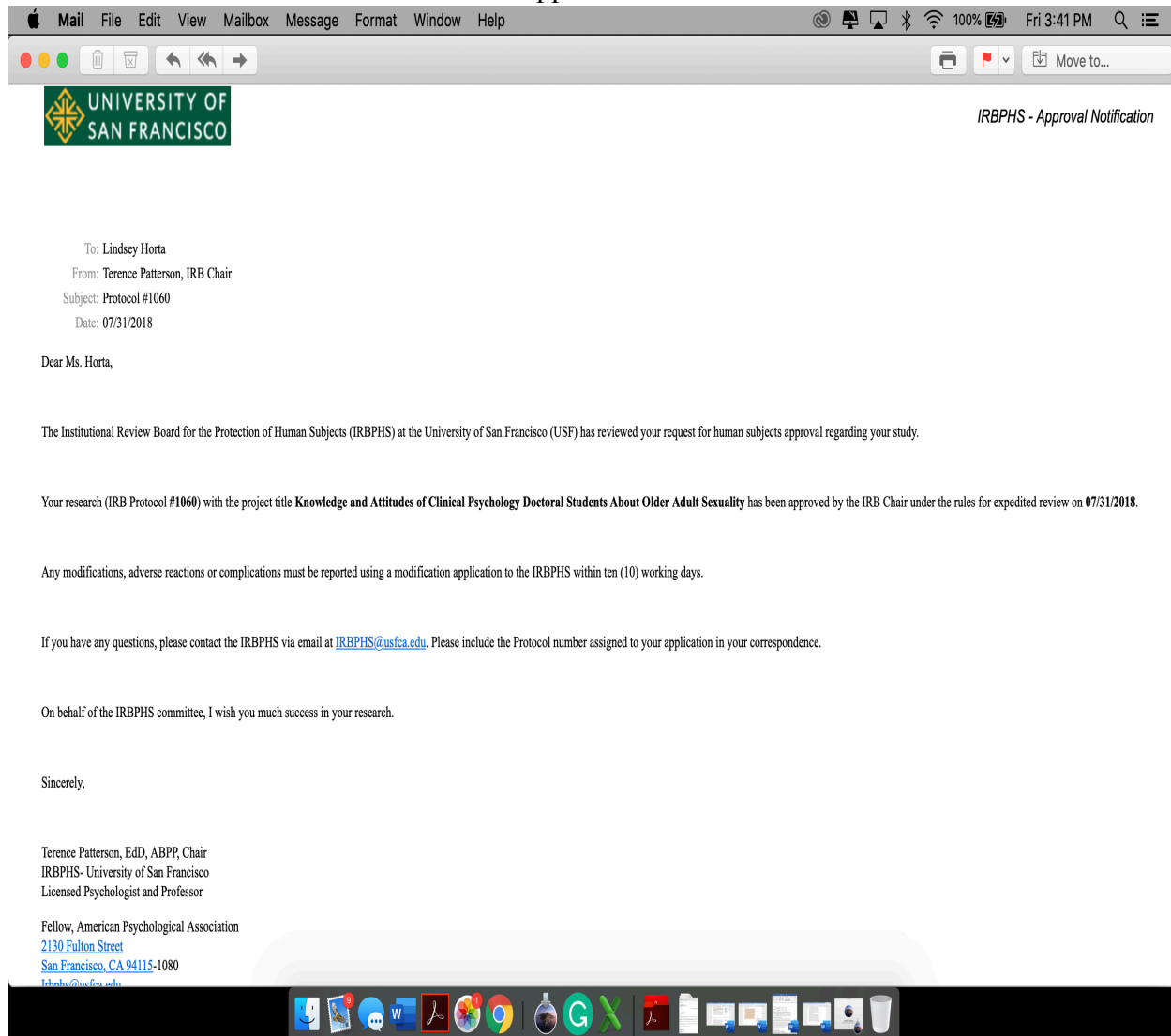
The electronic questionnaires' can be completed online, wherever the participant is located allowing them to discern a professional, private and comfortable location to complete the surveys.

Duration of study project

The aim is to complete the entire study by July 31, 2019.

## Appendix I

### IRBPHS Approval Notification



## Appendix J

### Permission to use ASKAS

**From:** Charles White [cwhite@trinity.edu](mailto:cwhite@trinity.edu)  
**Subject:** Re: Permission to use the Aging Sexual Knowledge and Attitudes Scale (ASKAS)  
**Date:** September 2, 2017 at 1:48 PM  
**To:** Lindsey Horta [lmhorta@dons.usfca.edu](mailto:lmhorta@dons.usfca.edu)



Ms. Horta:

You have my permission to use the ASJKAS for your research.

My best wishes for your success in your work.

chuck white

Chuck White

Charles B. White, Ph.D.  
 Professor, Psychology  
 Trinity University

210-999-7345 (office)



On Fri, Sep 1, 2017 at 5:12 PM, Lindsey Horta <[lmhorta@dons.usfca.edu](mailto:lmhorta@dons.usfca.edu)> wrote:  
 Hello Dr. White,

My name is Lindsey Horta, and I am a fourth year PsyD student at the University of San Francisco. I am currently working on my dissertation focused on older adult sexuality. My dissertation topic is the attitudes and knowledge of clinical doctoral psychology students on older adult sexuality. For my dissertation, I would like to utilize your Aging Sexual Knowledge and Attitudes Scale. I am requesting permission to use the Aging Sexual Knowledge and Attitude Scale for my dissertation research.

Lindsey Horta, M.A., M.S.  
 Doctoral Student, Clinical Psychology  
 University of San Francisco

## Appendix K

### Permission to use ATSS

**From:** Fisher, Terri [fisher.16@osu.edu](mailto:fisher.16@osu.edu)  
**Subject:** RE: Attitudes Toward Sexuality Scale  
**Date:** September 8, 2017 at 5:25 AM  
**To:** Lindsey Horta [lmhorta@dons.usfca.edu](mailto:lmhorta@dons.usfca.edu)

TF

Hi Lindsey! You are welcome to use the ATSS in your research. It sounds like an interesting (and important) study.

Best,

Terri Fisher

---

**From:** Lindsey Horta [<mailto:lmhorta@dons.usfca.edu>]  
**Sent:** Friday, September 08, 2017 1:20 AM  
**To:** Fisher, Terri  
**Subject:** Attitudes Toward Sexuality Scale

Hello Dr. Fisher,

My name is Lindsey Horta, and I am a fourth year PsyD student at the University of San Francisco. I am currently working on my dissertation focused on older adult sexuality. My dissertation topic is the attitudes and knowledge of clinical doctoral psychology students on older adult sexuality. For my dissertation, I would like to utilize your Attitudes Toward Sexuality Scale. I am requesting permission to use the Attitudes Toward Sexuality Scale for my dissertation research.

Lindsey Horta, M.A, M.S.  
Doctoral Student, Clinical Psychology  
University of San Francisco