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Crossing sexual barriers:  
The influence of background factors and personal attitudes on sexual guilt and sexual  
anxiety among Canadian and American Muslim women and men

by

Sobia F. Ali-Faisal

A Dissertation  
Submitted to the Faculty of Graduate Studies  
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University of Windsor

Windsor, Ontario, Canada

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22 January 2014

## **AUTHOR'S DECLARATION OF ORIGINALITY**

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## ABSTRACT

Sexual health is a key component of health and well-being, yet, to date, very little research has been done exploring the sexual health of non-majority individuals. This study addresses this lack by exploring the impact of background and attitudinal factors on the sexual guilt and sexual anxiety of young Muslim men and women in North America. Sexual guilt and anxiety have been found to have negative consequences on the sexual lives of individuals and to be related to conservative attitudes regarding sexuality. As Muslims' attitudes regarding sex and sexuality are often conservative, at times even restrictive, sexual guilt and sexual anxiety may be a problem faced by many Muslims in North America. Yet the religious restrictions on unsanctioned sexual activities may be enforced by sexual guilt and anxiety. Using path analysis, the current study investigated the religiosity, sexual attitudes, perceived parental sexual attitudes, belief in the sexual double standard, gender role attitudes, gender, and sexual experience and their relationship to sexual guilt and anxiety. Questionnaires were administered online and 403 young Muslim adults from across Canada and the United States participated. Two path models were tested proposing that religiosity, perceived parental sexual attitudes, and gender would predict sexual guilt and anxiety indirectly through the mediation of sexual attitudes, belief in the sexual double standard, and gender role attitudes. These models did not fit the data and were therefore re-specified and tested. The final, best fitting models found religiosity to both directly and indirectly influence sexual guilt and anxiety while sexual attitudes, belief in the sexual double standard, and gender role attitudes partially mediated this relationship. Gender role attitudes strongly determined participants' support for the sexual double standard, while gender was not a predictor of sexual guilt or anxiety. Perceived parental attitudes had no predictive value, possibly being redundant

with religiosity. Finally, sexual experience directly and indirectly influenced sexual guilt and anxiety with sexual attitudes partially mediating this relationship. The path models revealed complex and interesting relationships between the variables.

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## CHAPTER I

### Introduction

*The first rule of Muslim sex club is you don't talk about sex.*

- *Wajahat Ali, Pakistani-American Playwright*

The above quote by Pakistani-American playwright Wajahat Ali illustrates what many Muslims believe about Muslim sexual attitudes. Although humorous this quote alludes to an underlying sense of discomfort around issues of sex and a common understanding among Muslims that open communication regarding sex is taboo. Indeed, among Muslim populations there often exist strict restrictions on sexual behaviour outside of marriage, and the values held regarding sexuality often conflict with mainstream North American values. The attitudes and expectations regarding sexual relationships of young Muslims growing up in North America are influenced not only by culture and religion, but also by mainstream cultural norms which are often perceived to be in opposition with traditional values. This leaves Muslims to negotiate a difficult sexual space. The dearth of literature on the sexual health of this population has resulted in a very limited understanding of their sexual health realities. Considering cultural and religious restrictions and the high presence of conservative sexual attitudes (Sanjakdar, 2009a, 2009b), and the relationship between sexual attitudes and sexual health (Mendelsohn & Mosher, 1979; Woo, Brotto, & Gorzalka, 2011), the sexual health of Muslims becomes a significant issue to examine. To date almost all research on sexual health has been conducted on majority individuals (i.e., White, Christian, heterosexual). This study addressed one specific component of the sexual health of Muslim men and women in an attempt to address this oversight.

The 2002 World Health Organization definition of sexual health includes recognition of sexually related physical, emotional, mental and social well-being, emphasizing a positive and respectful approach to sexuality and sexual relationships, as well as sexual pleasure, safety, and rights (Edwards & Coleman, 2004). Sexual health is conceptualised as a comprehensive construct addressing a vital component of overall health as well as a fundamental component of life. This makes understanding the sexual health of individuals necessary to understanding life experiences. However, the comprehensive nature of this conceptualization also means that measuring sexual health in its entirety becomes impossible. Therefore, the current study focused on exploring psychological components of sexual health, concentrating on sexual guilt and sexual anxiety among North American Muslim men and women. This study investigated the relationship of personal attitudes and background variables with sexual guilt and sexual anxiety. Specifically, the study examined the relationship of religiosity and parents' beliefs about sexual behaviours with sexual guilt and anxiety and the role attitudes about sexuality and gender roles played in that relationship. In addition, this study examined gender and sexual experience in relation to sexual guilt and anxiety.

Sexual guilt has been defined as a type of self-imposed punishment one assigns for either violating or anticipating the violation of one's standards of proper sexual behaviour (Mosher & Cross, 1971). Individuals may feel sexual guilt when they have violated their own value system regarding sexuality and sexual activity (Joffe & Franca-Koh, 2001). Sexual guilt has been found to be related to sexual dysfunction such as low sex drive and interest (Galbraith, 1969), less sexual arousal (Morokoff, 1985; Woo et al., 2011), and greater sexual dissatisfaction (Cado & Leitenberg, 1990). Sexual anxiety is a similar yet separate construct, defined as "a generalized expectancy for nonspecific

external punishment for the violation of, or the anticipation of violating, perceived normative standards of acceptable sexual behaviour” (Janda & O’Grady, 1980, p.170). Whereas sexual guilt is worry of negative self-judgement and punishment, sexual anxiety is worry about negative judgement and punishment from others. Yet, both reflect one’s expectation of one’s own sexual behaviours and one’s understanding and beliefs regarding what constitutes appropriate sexual behaviour for oneself. Both are constructs which reflect beliefs and attitudes about one’s personal standards of behaviour. Like sexual guilt, sexual anxiety has been found to affect sexual functioning such that it has a negative relationship with sexual arousal and sexual esteem (Aluja, 2004; Beggs, Calhoun, & Wolchik, 1987).

Sexual guilt has been found to be influenced by individuals’ level of religiosity, with those reporting higher levels of religious adherence also reporting increased levels of sexual guilt (Davidson et al., 2004; Gunderson & McCary, 1979). Research exploring this relationship also suggests that religious conservatism (as opposed to general religiosity) may be an important consideration in sexual guilt levels (Tobin, 1996). Similarly, religiosity has been found to impact sexual attitudes, or the beliefs one has about sexuality, but mainly among those who follow a conservative variation or interpretation of their religion (Ahrold & Meston, 2010) with those high in conservative religiosity holding more conservative sexual attitudes and endorsing more traditional sexual roles (Ahrold & Meston, 2010; Thornton & Camburn, 1987) and gender roles (Madson, 1993; Thornton, Alwin, & Camburn, 1983) for women and men. They include beliefs about what are deemed appropriate and inappropriate sexual behaviours, partners, activities, and conditions under which sex should occur. Conservative sexual attitudes are associated with greater sexual guilt (DiVasto, 1977; Hendrick & Hendrick, 1987a; Woo et al., 2011).



Those endorsing traditional sexual roles for men and women, or sexual double standards, a specific manifestation of conservative sexual attitudes, have been found to report greater levels of sexual guilt (Langston, 1975). The sexual double standard reflects gender role attitudes specifically regarding sexual behaviours. Sexual attitudes have also been found to be related to parental attitudes toward sex such that parents holding traditional and conservative attitudes tend to have children holding similarly conservative sexual attitudes (Fisher, 1989; Moore, Peterson, & Furstenberg, 1986).

The current study focused on the sexual guilt and anxiety of heterosexual individuals. Although the examination of the experiences of non-heterosexual individuals is equally important, that investigation requires and deserves an in-depth and thorough analysis outside the scope of the current study. This introduction begins by contextualizing the population under study by briefly reviewing Islam, Islam and sexuality, and the role of gender in Islam and sexuality. This will be followed by a cursory picture of Muslims in Canada and the United States as well as consideration of the different sexuality related messages with which many young Muslim adults in the North American context must contend. Next will be a review of the literature on sexual health, which will funnel into a focus on sexual guilt and sexual anxiety. The introduction will then focus on the factors examined which may influence sexual guilt and anxiety. A rationale for the study follows and completes the introduction.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### **Islam and Muslims**

Muslims are a highly diverse population within which are multiple cultures, races, ethnicities, languages, and so on. The only similarity between individual Muslim groups may be a shared religion and its shared scholarship. Even then there is great diversity of interpretation within Islam regarding its texts, although there do appear to be some mainstream views which govern most practicing Muslims (Ali, 2006). I will briefly review the basic principles of Islam and discuss both traditional and progressive interpretations of Islam with regard to sexuality. I will then provide a brief introduction to Muslim religiosity and the Muslims of Canada and the United States who are the population of this study.

Just as Christianity includes Catholics and Protestants, with a range of orientations within each of these divisions, Islam encompasses two large divisions, Sunni and Shi'a Islam. Today, the world's Muslim population is estimated to be in excess of 1.5 billion (Pew Research Center, 2011), with the followers of Sunni Islam making up approximately 87 -90% of this total, and Shi'a Muslims comprising approximately 10 - 13% of the Muslim population. Within Islam, for both Sunni and Shi'a Muslims, there exist five pillars: acknowledging the existence of one God and the Prophet Muhammad (*shahada*), praying five times a day (*salat*), fasting during the month of Ramadan (*sawm*), giving to the poor (*zakat*), and making a pilgrimage to Mecca (*hajj*) at least once in a lifetime. Muslims believe in God, the Prophet Muhammad, the Qur'an or the holy book believed to have been revealed by God to Prophet Muhammad, and the Hadith, or collections of the sayings and actions attributed to the Prophet. Shi'a Muslims place

greater emphasis on the teachings of the Imams (religious leaders said to be descendents of the Prophet Muhammad), whereas Sunni Muslims place greater emphasis upon the Hadith.

### **Islam and Sexuality**

Most religions tend to regulate sexual behaviour in some form or another though different religions have differing views on sexuality (Cochran & Beeghley, 1991). When, with whom, and how one can engage in sexual behaviour has been outlined by many world religions, including Islam. As a result, attitudes surrounding sex and sexuality often are found to come from one's adherence to a religion. Rohrbaugh and Jessor (1975, as cited in Rostosky, Wilcox, Wright, & Randall, 2004) state that religion socially regulates its followers' behaviour through four methods. First, it entrenches followers in an organized network which supports sanctioned activities and opposes unsanctioned ones. Second, religion makes followers aware of moral issues and acceptable standards of behaviour. Third, religion offers a deity as a source of punishment and wrath, and fourth, religion creates obedience in its followers by generating devoutness.

In Islam, sexuality and sexual behaviours are regulated. Compared to other religious traditions, in Islam the traditional view of sex has been positive (Kugle, 2003). It has been noted that historically Islamic scholars (e.g., Al-Ghazali), intellectuals, poets (e.g., Rumi), artists, as well as the Prophet and those around him, spoke openly and comfortably about sex and sexuality (Ali, 2006; Kugle, 2003). Noted 11<sup>th</sup> century Islamic scholar, Imam Al-Ghazali, wrote extensively about sex and sexuality in his *Book on the Etiquette of Marriage* including the right to sexual gratification and pleasure of both men and women (Ali, 2006; Kugle, 2003). Al-Ghazali wrote that it was the responsibility of men to sexually pleasure their wives, stressing the importance of not only achieving

orgasm but also engaging in foreplay (Ali, 2006). Even the Prophet Muhammad is said to have encouraged foreplay, telling men “not to fall upon their wives like beasts, but rather send ‘a messenger’ prior to the sexual act” (Ali, 2006, p.7). The Prophet Muhammad is also said to have objected to the idea of religious celibacy and stated that marriage is a part of his *Sunnah*, or authoritative practice (Ali, 2006).

However, this positive approach has only been in regard to sex within marriage. Any sexual relations outside marriage, either before or during marriage, have been condemned by traditional Islamic scholars (Ali, 2006). Among most Islamic scholars there is agreement that lawful sex can only be had within the confines of a sanctioned marriage. Any sexual relations outside these confines are strictly prohibited and socially punishable. It is for this reason that normative, North American practices of dating are often frowned upon or prohibited among Muslims living on the continent. However, it is worth noting that feminist Islamic scholars have begun to challenge that belief. Wadud (2010) postulates that, since married men were allowed sexual relations with concubines during the time of the Prophet Muhammad, sexual relations outside marriage cannot be strictly prohibited in Islam. Similarly Kugle (2003) hypothesizes that during the time of the Prophet Muhammad, sex was licit between those who had either a written contract, such as a marriage contract, or a verbal contract of commitment to each other, such as that between a man and his concubine, be these same sex or different sex relationships. Although there is no example of licit sexual intercourse between a man and woman who is neither his spouse nor his concubine, the implication of the allowance of sex between a man and his concubines, women to whom he is not married, allows for the interpretation that such a relationship may not necessarily be prohibited as is understood today. Therefore, although the majority of religious scholars today prefer the conservative and

traditional interpretations regarding sex, deeming it an act only legitimate when enacted by married couples (Ali, 2006), progressive interpretations are gaining more ground and demonstrate not only the ambiguity regarding sexuality within Islam, but also the lack of clear directives from the religious texts regarding sex and sexuality.

To further highlight the nuance and complexity of Islamic understandings of sexual relations it is important to recognize the presence of the Shi'a Muslim practice of *mut'a*, or a religiously sanctioned temporary marriage within which a man and woman can engage in lawful sexual activities (Ali, 2006). Most Sunni schools of thought forbid its practice while Shi'a scholarship deems it acceptable and Islamically lawful (Ali, 2006; Khan, 1995). The main purpose of *mut'a* marriage is sexual enjoyment for men and financial support for women (Khan, 1995). Khan explains that a *mut'a* marriage can involve either a verbal or written contract which stipulates the length of the marriage (anywhere from one hour to 99 years) as well as the amount of money the man is to pay the woman for this marriage. Although this monetary amount can be referred to as a dowry (Ali, 2006) those critical of the practice view this arrangement as equivalent to prostitution (Khan, 1995). However, Khan explains that this equivalency is incorrect as differences exist. Along with the sanctioning of the practice by Shi'a scholars and clergy any children born out of a *mut'a* marriage are considered to be legitimate as well as legal heirs of their fathers (Khan, 1995). Although it is acknowledged that some Muslims in North America have engaged in *mut'a* marriage (Khan, 1995; Walbridge, 1996), its prevalence and frequency is unknown. From a series of interviews conducted with Shi'a Muslims in the city of Dearborn, Michigan, Walbridge (1996) concluded that for that community *mut'a* was "at best...a hard pill to swallow" (p.153). Most of the Shi'a men and women interviewed disliked and discouraged the practice, though men appeared to

provide greater justification for it than women. Indeed, Khan explains that despite its status as legitimate the practice of *mut'a* does not receive much popular support among Shi'a Muslims. Women and girls are discouraged from engaging in *mut'a* marriages due to the stigmatization of the status of a temporary wife and children born of a *mut'a* marriage are often relegated to a lower social status than those born of a traditional, permanent marriage. Therefore, although sanctioned by Shi'a scholars and clergy the practice of *mut'a* remains morally ambivalent (Khan, 1995).

It is clear that sexuality and sexual relations are viewed differently by Sunni and Shi'a schools of thought, as well as by traditional and progressive scholars. However, there does appear to be agreement on the importance of commitment between the two individuals engaging in sexual activity. For traditional Sunni scholars this commitment can only manifest itself as a permanent, written marriage contract, while traditional Shi'a scholars allow for both temporary (verbal or written) and permanent, written marriage contracts. Progressive scholars recognize the role of both but simultaneously propose that legitimate contracts to express commitment may not necessarily be for purposes of marriage only. Therefore, although various schools of thought in Islam may differ on their views of sexuality, the importance of commitment for the legitimacy of a sexual relationship appears to be a common theme.

### **Islam, Sexuality, and Gender**

Despite the sex positive history of Islamic thinking and scholarship, and the valuable contributions of feminist and gay Islamic scholars to the discussion of sex in Islam (Ali, 2006; Kugle, 2003), certain problematic perspectives regarding women's sexuality remain. Ali (2006) notes that although historically Muslim scholars and intellectuals may have had positive views of sex, these views occurred within the context

of patriarchy and misogynistic scholarship. Therefore, among current views and discussions of sex and sexuality in Islam the undercurrent of this sexism is strongly present. Paradoxically, traditional Islamic thought has valued and stressed the sexual pleasure of women within marriage, yet at the same time treated female sexuality as dangerous and in need of control (Ali, 2006). It is thought that female sexuality has the potential to disrupt society and cause chaos and disorder, or *fitna*. Women's sexuality and sexual desires are seen to be so tempting to men as to distract them from their responsibilities to society and thus disrupt societal order (Mernissi, 1975). Additionally, Muslim scholars have also stressed the importance of women fulfilling men's sexual needs, viewing it as the responsibility of women to fulfill their husbands' sexual desires. Women who do not do so are to expect punishment from God (Ali, 2006).

Such a view of sexuality places men in the position of power and privilege. Men are able to avoid blame when they do engage in prohibited sexual activity as they are seen to not be in control of their sexuality or sexual activity. Women, on the other hand, are viewed as deserving of blame for not only their own sexual activity but also that of men as they are seen to be in full control of their own sexuality. In many Muslim families women are seen as carrying family honour, an honour based mainly on their sexuality. It is the maintenance of their chastity and virginity that is necessary for protecting family honour. Therefore, the sexual activity of Muslim women is often more closely monitored and controlled than that of men. Cultural and religious messages teach young Muslim girls these expectations regarding their sexual activities. This often results in women self-monitoring their sexuality so as not to jeopardize their family honour. Meanwhile, among many Muslim communities around the world, premarital sexual activity of men is either

ignored or tolerated. Many Muslims do not even realize that the prohibition on premarital sex is as valid for Muslim men as it is for Muslim women (Bennett, 2007).

Feminist Islamic scholars have objected to and challenged these beliefs as well, preferring to rigorously re-read and re-interpret the texts from a feminist perspective (e.g., Barlas, 2002; Wadud, 1999, 2006). Working within the framework of Islam and as self-declared practicing Muslims, they interpret greater egalitarianism within the religion and place no blame of *fitna* on women. Their efforts have slowly gained traction within the North American Muslim community with the increase in feminist activity and increasing power of Muslim women in religious spaces. However, the traditional interpretations of sex and sexuality in Islam persist and are most commonly accepted today (Ali, 2006). Therefore, we still see misogynistic interpretations regarding sex, exacerbated by the patriarchal cultural context, accepted by many Muslims living in Canada and the United States.

### **Muslims in Canada and the United States**

In the late 19<sup>th</sup> century, the first Muslims came to Canada from Lebanon and Syria as traders, settling mainly as merchants in Lake La Biche in northern Alberta (McDonough & Hoofdar, 2004). In the 1871 census of Canada, 13 Muslims were recorded and Muslims continued to come to Canada in small numbers until World War II after which immigration slowed until the 1960s and 1970s. Edmonton, Alberta was the site of Canada's first mosque, built in 1938, at a time when the census recorded only 700 Muslims in all of Canada (Mujahid & Egab, 2006). The current Canadian and American Muslim communities consist mainly of first generation immigrants, or those who come to Canada in adulthood, and 1.5 generation immigrants, or those who arrived in Canada in childhood or adolescence (Kim, Brenner, Liang, & Asay, 2003). Currently, less than 10%



of Canada's Muslim population was born in Canada (Mujahid & Egab, 2006; Nawaz, 2005). The Muslim population is also one of the youngest populations in Canada with a median age of 28.9 years (Pew Research Center, 2011; Statistics Canada, 2011), compared to the median age for the total Canadian population of 39.9 years (Statistics Canada, 2011), with 16.4% of Canadian Muslims being between the ages of 15 and 24 and more than a third (34.9%) between the ages of 25 and 44 (Pew Research Center, 2011). It is also a very highly educated population with approximately 45% of the Canadian Muslim population holding a university degree, compared to 33% of the general Canadian population (Environics Research Group, 2006), and 68% having some post-secondary education, compared to 58% as the national average (Beyer, 2005). Approximately 68% of Muslims in Canada are citizens (Mujahid & Egab, 2006). According to the 2011 Canadian Census, Canada's Muslim population numbered 1.1 million making them 3.2% of the total Canadian population (Statistics Canada, 2011).

The United States history of its Muslim population is similar, though with some notable differences. It is believed that the first Muslims to arrive in the US were African slaves. Although their religion was not recorded, there are accounts stating their language sounded like Arabic and their reference to God as Allah. Voluntary migration of Muslims did not occur until the late 19<sup>th</sup> century, when the first wave of Muslim immigrants arrived from West Asia, South Asia, and Albania, moving to the Midwestern states - Michigan, Indiana, Iowa, and North Dakota (Sirin & Fine, 2008). Many of the South Asian Muslims settled in California, working as farmers (Leonard, 1997). The first mosques in the US were built circa 1915 in Iowa and Maine. It was also at about this time that many Muslim Arabs moved to Dearborn, Michigan to work at the Ford Motor Company; Dearborn has since become the home of a large Arab Muslim community. The

second wave of Muslim immigration occurred after 1965 at which time Muslims from all over the world arrived in the US, and continue to do so (Sirin & Fine, 2008). Along with immigrants, and unlike Canada, the US has a large African-American Muslim population born in the US. The current number of Muslims in the US is not known as the US Census does not record religion. Some estimates place the American Muslim population at 2.6 million in 2010 (Pew Research Center, 2011) while other estimates place the national Muslim population anywhere between two million to seven million with most believed to reside in New York, Los Angeles, Detroit, and Chicago (Sirin & Fine, 2008). According to the Pew Research Center report (2011) about 36% of this population is under the age of 30, compared to 41% of non-Muslim Americans, with 22.6% being between the ages of 15 and 29 and 29% being between the ages of 30 and 44. Fifty-four percent of adult Muslims are male while 46% are female. Approximately two-thirds of the American Muslim population is foreign born and one-third American born with more than half of American born Muslims being African-Americans (Pew Research Center, 2011). At the present rate of growth, some authors estimate that Islam will be the second largest religion in North America by the year 2015 (Jamal & Badawi, 1993) and by 2030 Canada will have the second largest Muslim population in the Americas (Pew Research Center, 2011). Despite their growing numbers in both Canada and the United States (Pew Research Center, 2011) empirical research on Muslims is meagre and the populations are in serious need of greater study.

### **Muslim Youth and Negotiating Sexual Space**

Muslim youth growing up in a North American context must contend with messages regarding sexuality from Islam, from their cultures of origin, as well as the mainstream culture (Bekker et al., 1996). Although the North American cultural context

endorses sexual permissiveness and liberal sexual attitudes, having multiple sexual partners is still more acceptable among men than women. Though virginity may not hold the same value in North American society as it does among many Muslim communities, a woman's sexuality is still something in need of monitoring and protection, as women are not to be sexually promiscuous yet paradoxically must be sexually alluring and sexual (Valenti, 2007). Within a sexually permissive North American context pressure exists, for both women and men, to be sexually open and experienced, and many Muslims, especially men, may feel the pressure to engage in sexual activities before marriage. Therefore, North American Muslim women and men learn about and experience their own and others' sexuality and form their sexual attitudes within the context of misogynistic interpretations of their religion, patriarchal norms of their various cultures which valorize male and pathologize female sexuality, and patriarchal and sexually permissive yet paradoxical messages of the North American culture in which they live, which normalizes premarital sexual relations. This push and pull between conservative cultural and religious traditions regarding sexual behaviour and the sexual permissiveness of mainstream, North American society can create tensions for many Muslims trying to balance between differing belief systems and may have an impact on their feelings and thoughts about sex.

Studies suggest that Muslims living in Western nations often have to negotiate between cultural and religious norms, and mainstream norms regarding romantic relationships, marriage, and sex (Abu-Ali, 2003; Bekker et al., 1996; Østberg, 2003; Sanjakdar, 2009a, 2009b). In a longitudinal qualitative study following Muslim Pakistani-Norwegian children into adolescence, Østberg (2003) found the adolescents to be actively negotiating their cultural and religious boundaries regarding interactions and relationships

with the opposite gender<sup>1</sup> and not simply abolishing those boundaries. These adolescents appeared to make distinctions between acquaintanceship, friendship, and romantic involvement, with many willing to adhere to cultural or religious expectations regarding romantic relationships.

On the one hand, the empirical literature on the sexual experiences of Muslim youth living in North America is limited. On the other hand, the stories of struggles surrounding issues of sexuality can often be found in personal narratives. In his memoir, Ali Eteraz (2007) speaks about his own struggles negotiating between Islamic teachings, Pakistani cultural practices, and American expectations and norms in regards to, among other issues, his sexual relationships with women. In the anthology *Love InshAllah: The Secret Love Lives of American Muslim Women* (Mattu & Maznavi, 2012) a diverse collection of American Muslim women chronicle their own conflicts and adventures of engaging in romantic and sexual relationships within the framework of their religious, cultural, and American identities. These stories demonstrate not only a diversity of experiences but also numerous ways in which Muslim women choose to navigate their identities and the expectations attached to them when engaging in romantic and sexual relationships. From both the literature and the personal narratives it becomes evident that Muslim youth and young adults living in Western countries, including Canada and the United States, grapple with issues of sex and sexuality by trying to balance multiple, often opposing, perspectives on the issue. It is, therefore, with this recognition that the exploration of the sexual realities of young Muslim adults becomes valuable in the

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<sup>1</sup> I use the term 'opposite gender' in the traditional sense only for ease of explanation of the study cited. My intention is not to imply that only two genders exist. The study cited interviewed only boys and girls.

process of providing clarification, albeit limited in scope, about Muslims' understandings of sex and the factors which may be influential in shaping their thoughts and feelings.

## **Sexual Guilt and Sexual Anxiety**

### **Defining Sexual Health**

Sexual health refers specifically to health related to the sexuality of individuals. As sexuality remains a central component of individuals' identities, it has within it physical, mental, emotional, and social components, making sexuality, and consequently sexual health, a complex construct. Over the years, international health specialists have defined sexual health in a variety of ways. Edwards and Coleman (2004) explain that from the time the first international definition of sexual health was formulated by the World Health Organization in 1975 until today, various social, political, and historical events, such as the 1960's sexual revolution in the West, reproductive rights and abortion debates, the gay rights movement, concerns regarding overpopulation of the planet, and the global HIV/AIDS epidemic, have shaped the definition and understanding of sexual health. The first internationally accepted definition of sexual health was developed at the 1975 WHO conference (Edwards & Coleman, 2004; Giami, 2002). The definition finalized at that time was the following:

Sexual health is the integration of the somatic, emotional, intellectual and social aspects of sexual being, in ways that are positively enriching and that enhance personality, communication and love. Thus the notion of sexual health implies a positive approach to human sexuality, and the purpose of sexual health care should be the enhancement of life and personal relationships and not merely counselling and care related to procreation or sexuality transmitted diseases (World Health Organization, 1975)

In addition to this definition, this report also outlined three further elements of sexual health (Mace, Bannerman, & Burton, 1974, as cited in World Health Organization, 1975):

1) a capacity to enjoy and control sexual and reproductive behaviour in accordance with a social and personal ethic, 2) freedom from fear, shame, guilt, false beliefs, and other psychological factors inhibiting sexual response and impairing sexual relationship, and 3) freedom from organic disorders, diseases, and deficiencies that interfere with sexual and reproductive functions.

Sexual health was conceptualized in a holistic manner. It was not just about the absence of disease. Rather this conceptualization included the importance of enriching sexual experiences, the rights of the individual to have control over their sexual behaviour and be free of coercion, and the right to experience positive affect in relation to their sexuality and sexual behaviours. In 1983 the WHO once again met to try to define sexual health (Edwards & Coleman, 2004). In this meeting it was decided that the previous WHO definition be maintained, but that to understand sexual health, the concept of sexuality must first be defined. As a result, a definition of sexuality was formulated which stated that sexuality is

an integral part of the personality of everyone: man, woman, and child. It is a basic need and an aspect of being human that cannot be separated from other aspects of life. Sexuality is not synonymous with sexual intercourse, it is not about whether we have orgasms or not, and it is not the sum total of our erotic lives.

These may be part of our sexuality but equally they may not. Sexuality is so much more: it is in the energy that motivates us to find love, contact, warmth and intimacy; it is expressed in the way we feel, move, touch and are touched; it is about being sensual as well as being sexual. Sexuality influences thoughts,

feelings, actions and interactions and thereby our mental and physical health (Langfeldt & Porter, 1986, p. 5, as cited in Edwards & Coleman, 2004).

The holistic approach to sexuality paralleled the holistic nature of the definition of sexual health by presenting sexuality as a phenomenon that is present in our thoughts, feelings and actions as well as the ways in which we interact with others and as a component of both physical and mental health. It also further emphasized the assertion that sexuality, and consequently sexual health, were not simply biological entities. Rather, they included emotional, social, and psychological components. A healthy sexuality was necessary to have greater sexual health and better sexual health meant a healthy sexuality

In a 1987 meeting of the WHO, concerns about the universality of the sexual health definition led the WHO to reject any definition of sexual health (Edwards & Coleman, 2004). However, in a 2001 meeting of the Pan American Health Organization (PAHO) it was determined that defining sexual health was possible as well as desirable (Pan American Health Organization/World Health Organization, 2001). It was asserted that the remedy to the challenge of determining universal definitions was not to avoid defining sexual health but to recognize the value-laden nature of sexual health and understand that any definition of sexual health would inevitably be based on certain values. There was also an emphasis on the inclusion of sexual rights within any definition of sexual health, affirming the belief that to achieve sexual health one's sexual rights must be protected (Pan American Health Organization/World Health Organization, 2001). This was the first time sexual rights were included in the definition of sexual health (Edwards & Coleman, 2004). In 2002 the WHO formulated the most recent definition of sexual health. This definition states that sexual health

is a state of physical, emotional, mental and social well-being related to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled (Edwards & Coleman, 2004; World Health Organization, 2006).

This brief review of the definitions of sexual health demonstrates that this is a dynamic construct, facilitating applicability in a variety of cultural contexts and addressing the very basic ethics of respect and safety regarding an individual's sexuality. However, the comprehensive and universal nature of this definition creates a challenge in measuring and assessing sexual health, as well as in commenting on the general sexual health of a population. In fact, this broad and thorough conceptualization of sexual health makes it impossible to examine the holistic construct, consequently necessitating a focus on one specific aspect of sexual health. Therefore, for the current study I decided to focus on exploring key psychological components of sexual health – sexual guilt and sexual anxiety – as an early step in the empirical exploration of the sexual health of Muslims in Canada and the United States.

### **General Knowledge about the Sexual Health of Muslims**

The literature on the sexual health of Muslims is limited. The research which has been conducted suggests that Muslim youth in Canada may have less desire than other religious groups to learn about sexual health (Causarano, Pole, & Flicker, 2010). For example, young Muslims in the United States and Australia find mainstream sexual health education to be irrelevant and inappropriate (Orgocka, 2004; Sanjakdar, 2009a;



2009b). In the United Kingdom, Muslim youth prefer to be taught sexual health by another Muslim (Coleman, 2008), and have low levels of sexual health knowledge (Coleman & Testa, 2008). Yet, in the UK, US, and Australia, Muslims think culturally appropriate sexual health education of young Muslims is important (Fernandez, Chapman, & Estcourt, 2008; Orgocka, 2004; Sanjakdar, 2009a; 2009b).

Research exploring the sexual health of Muslims has focused mainly on physical sexual health and related sexual behaviours. Research examining Muslims' contraceptive use has found that Muslim adolescents in the United Kingdom use condoms less often than their Christian, Hindu and no-religion counterparts (Coleman & Testa, 2008). Other research on contraceptive use has found the majority of married Jordanian Muslim women sampled never used any contraceptive methods (Kridli & Schott-Baer, 2004), while the majority of sampled married Kuwaiti Muslim women felt able to access contraception to avoid unwanted pregnancies (Shah, Shah, Chowdhury, & Menon, 2004). Sexual health research of Muslims also suggests that lower levels of sexual activity may be related to both religion and religiosity among Muslims. It has been found that less educated and rural Ghanaian Muslim men engage in less risky sexual behaviours than more educated, urban Ghanaian Christian men (Gyimah, Tenkorang, Takyi, Adjei, & Fosu, 2010) while a negative relationship between HIV/AIDS prevalence and being Muslim has been found (Gray, 2004). Similarly, research on premarital sexual behaviours has found Nigerian Muslim women to be less likely than their Christian counterparts to engage in premarital sex (Agha, 2009). Greater religiosity has also been found to be related to less sexual activity. Senegalese Muslim men and women reporting high levels of religiosity were more likely to abstain from sex than those reporting lower levels of religiosity (Gilbert, 2008) and heterosexual, Turkish, non-religious men reported

engaging in more sex than their female counterparts or more religious Turkish men (Yaşan, Essizoglu, & Yildirim, 2009). The literature suggests a pattern in which first, Muslims appear to be more conservative regarding sex though desiring sexual health education, and second, having greater religiosity is associated with less premarital sex and fewer risky sexual behaviours (i.e., multiple sexual partners or paying for sex) than those less religious or not Muslim. However, very few of these studies have focused on North American Muslims leaving us with little knowledge about their sexual health including their experiences of sexual guilt and anxiety.

### **Defining Sexual Guilt and Anxiety**

Sexual guilt and anxiety are very similar and related concepts. Both sexual anxiety and sexual guilt are negative sexual affective-cognitive states. Although differentiating the two can be difficult, researchers argue the two are distinct (Janda & O'Grady, 1980). Sexual guilt is defined as a type of self-imposed punishment one assigns for either violating or anticipating the violation of one's standards of proper sexual conduct (Mosher & Cross, 1971). Mosher (1979a) states that sexual guilt "can be considered an affective-cognitive structure that results from repeated interactions of the emotion of guilt with cognitions about moral conduct in sexual situations" (pp.224-225). In other words, experiencing the emotion of guilt in relation to thoughts of one's sexual morality will lead to a more consistent affective state of sexual guilt. Sexual guilt becomes a stable personality disposition which then colours the way in which individuals view the world, regulates consistent responses to sexual situations, and makes one more prone to feel guilt in the future (Mosher & O'Grady, 1979). Sexual guilt reflects how individuals moralize about sex and sexual behaviours. A sense of guilt surrounding sex reflects one's beliefs regarding sexual acts and situations considered moral and immoral, appropriate and

inappropriate. Sexual guilt, therefore, is dependent upon one's standards of proper sexual behaviour. Janda and O'Grady (1980) speculate that sexual guilt and sexual anxiety examined together could tell us more about sexual behaviour than if each was examined separately.

Sexual anxiety is related to, but is not the same as, sexual guilt, and can be defined as "a generalized expectancy for nonspecific external punishment for the violation of, or the anticipation of violating, perceived normative standards of acceptable sexual behaviour" (Janda & O'Grady, 1980, p.170). Sexual guilt is worry about negative self-judgement and punishment, whereas sexual anxiety is worry about negative judgement and punishment from others. In other words, sexual guilt means worrying about what one will think of oneself, while sexual anxiety means worrying about what others will think. Another important difference is that in sexual guilt, the worry is about violating the standards one has set for oneself, whereas in sexual anxiety, the worry is about violating normative societal standards. The difference between sexual guilt and anxiety may be inferred from research suggesting that sexual education affects sexual guilt and sexual anxiety in differing ways. Wanlass, Kilmann, Bella, and Tarnowski (1983) found that sexual education decreased levels of sexual guilt, but not sexual anxiety, suggesting that as sexual guilt is referencing an individual's standards and judgement of oneself, an individual with accurate sexual knowledge may consequently feel able to change that self judgement. Yet, regardless of education, believing society holds a conservative worldview may leave the individual feeling unable to change the judgement of others, which would be the cause of sexual anxiety. However, personal standards of sexual behaviour are often an internalization of societal standards of sexual behaviour and therefore one is usually dependent on the other. Both sexual guilt and anxiety are more

stable than a sense of remorse or anxiety resulting from engaging in a particular sexual behaviour or after a particular sexual occurrence. Both reflect one's expectation of one's own sexual behaviours and one's understanding and beliefs regarding what constitute appropriate personal standards of sexual behaviour.

### **Relationship of Sexual Guilt and Sexual Anxiety to Sexual Health**

Sexual behaviours can be impacted by sexual guilt. Sexual guilt has been found to be associated with less sexual behaviour including engaging in less sexual intercourse (Love, Sloan, & Schmidt, 1976) and having less sexual experience (D'Augelli & Cross, 1975; Gerrard, 1987; Mosher, 1979a; Sack, Keller, & Hinkle, 1984), with some citing moral beliefs for not having sex (Mosher & Cross, 1971). Those who have greater levels of sexual guilt may adhere to stricter standards of sexual conduct, thus resulting in lack of engagement in sexual activity. This relationship may be viewed by many as a constructive method of regulating sexual activity before or outside marriage and as such would not necessarily be viewed as a negative correlate of sexual guilt. However, considering the relationship demonstrated in the literature between lower sexual frequency and higher rates of divorce (Yabiku & Gager, 2009), within a marriage the presence of sexual guilt and its relationship with lack of sexual activity may have detrimental effects on the stability of the relationship.

Sexual guilt has also been found to be related to inadequate sexual knowledge. In both men and women greater sexual guilt is positively correlated with believing sexual myths (e.g., myths about the dangers of masturbation and sexual activity during pregnancy, misinformation about the female orgasm, conception, and male and female genitalia) (Mendelsohn & Mosher, 1979; Mosher, 1979a). However, the direction of the relationship is unclear. Mosher (1979a) proposes that high levels of sexual guilt may

inhibit not only sexual behaviour but also seeking sexual health knowledge. The anxiety produced by sexual guilt may also inhibit individuals from retaining information regarding sexual health related topics such as birth control methods (Schwartz, 1973). However, Wanlass et al. (1983) found that gaining appropriate sexual education significantly lowered levels of sexual guilt suggesting that lack of proper sexual education may itself either produce or sustain sexual guilt.

Sexual guilt has also been implicated in decreased sexual drive and satisfaction and increased sexual dysfunction. Compared to those who have low levels of sexual guilt, experiencing a high level of sexual guilt can result in significantly lowered sex drive and interest among White men (Galbraith, 1969), and less sexual arousal among university aged American women (Morokoff, 1985) and East Asian Canadian women (Woo et al., 2011). Cado and Leitenberg (1990) found that White men and women who felt more guilt for having sexual fantasies during sexual intercourse had higher levels of sexual dissatisfaction, dissatisfaction with their current sexual relationship, and higher frequency of sexual problems, such as lack of sexual desire and orgasms. Darling, Davidson, and Passello (1992) found that among university aged American men and women sexual guilt was the most commonly reported reason for sexual dissatisfaction during first intercourse. Sexual dysfunction in different components of sexuality has also been linked to sexual guilt, especially in women. Merrell (2009) found that university aged, white, Latina, Black and Aboriginal women who had high levels of sexual guilt had lowered sexual functioning at both the affective (arousal, desire, lubrication, orgasm, and satisfaction) and physical (pain) levels. Comparing emotional reactions to automatic thoughts that occur during sexual activity of sexually functional and dysfunctional men and women, Nobre and Pinto-Gouveia (2006) found that, for Portuguese women, sexual guilt was one

of the best predictors of sexual functionality and dysfunctionality. Women who reported higher levels of guilt were more likely to experience sexual dysfunction. For the men, sexual guilt was not a contributing factor to sexual dysfunction.

Sexual anxiety, like sexual guilt, is a negative affective-cognitive state and related to negative sexual experiences and consequences. It has long been thought that sexual anxiety plays an important role in the sexual dysfunction of both men and women. At extreme levels, sexual anxiety can become a clinically disordered experience leading to sexual dysfunction and requiring therapeutic attention (e.g., Everaerd & Dekker, 1982; McCabe, 1992; Munjack, 1984; Nemetz, Craig, & Reith, 1978; White & Fichtenbaum, 1967). Sexual arousal and sexual esteem have also been found to be affected by the presence of sexual anxiety. Research suggests that women who are high in sexual anxiety also experience sexual inhibition or lessened sexual arousal (Aluja, 2004; Beggs et al., 1987). Hensel, Fortenberry, O'Sullivan, and Orr (2011) conducted a longitudinal study of adolescent, mostly African American, lower and middle income women, and found that the higher the level of sexual anxiety at initial measurement the slower the growth of sexual confidence over the years.

Sexual anxiety levels have also been found to be related to sexual experience. Sexual experience in the form of greater exposure to sexually explicit material was found by Morrison, Harriman, Morrison, Bearden and Ellis (2004) to be related to decreased sexual anxiety in Canadian university aged men and women such that non-virgin men and women who had viewed more sexually explicit material in the six months prior to data collection reported less sexual anxiety than those who had viewed less sexually explicit material in the same time. Exposure to sexually explicit material did not have any relationship with sexual anxiety for virgin men in the sample though it did have a

significant negative relationship for virgin women such that greater exposure to sexually explicit material in the six months prior was related to less sexual anxiety. Although this research does suggest a relationship between sexual experience and sexual anxiety, the direction of this relationship is unclear. It may be that those who experience low levels of sexual anxiety engage in more sexual experiences, including exposure to sexually explicit materials, but it may also be that increased exposure to sexual experiences reduces sexual anxiety, or that some other unmeasured variable is responsible for both. However, there may be reason to suspect a bidirectional relationship.

Social psychological theorists have examined the directionality of the relationship between behaviour and attitudes for decades. A large body of social psychological research has suggested that attitudes influence behaviour (Kraus, 1995), but that influence can be dependent on the strength of the attitudes (Fazio & Williams, 1986) as well as one's beliefs and behavioural intentions (Ajzen & Fishbein, 1980). Conversely, social psychological research has also found that behaviour is pertinent in shaping attitudes. Social psychological theories such as the mere exposure effect in which repeated exposure to a stimulus creates familiarity and changes one's attitude toward that stimulus (Zajonc, 1968), cognitive dissonance theory in which individuals often choose to alter their attitudes to match a behaviour when a discrepancy occurs between attitudes and behaviours (Festinger, 1962), and self-perception theory which proposes that individuals infer their attitudes from their behaviours (Bem, 1972 as cited in Holland, Verplanken, & Van Knippenberg, 2002) all suggest that behaviour can also influence attitudes. It appears, therefore, that the relationship between experience and attitudes is bidirectional.

With respect to the relationship between sexual experience and sexual attitudes a bidirectional relationship can also be supported. Using data from an American national

longitudinal study on adolescent health Meier (2003) examined the relationship between first experience of sexual intercourse and sexual attitudes. Her research found that while attitudes were a significant predictor of sexual activity, having sexual experience also predicted later sexual attitudes such that attitudes became more permissive after engagement in sexual activity. However, this latter effect was found only for women. Men, it was found, held permissive attitudes before engaging in sexual intercourse for the first time and these attitudes did not change after their first experience of sex. A similar gender difference was found by Pötsönen and Kontula (1999) when examining the relationship between sexual experience and attitudes toward purchasing and carrying condoms. Before having sexual experience women were more likely than men to believe that purchasing and carrying condoms was difficult. However, once gaining sexual experience, adolescent women significantly changed their attitudes to believe that it was easier to buy and carry condoms whereas the attitude of the young men remained the same.

For the women in her study, Meier (2003) concluded that the women were more affected by their first sexual experience than were men. Though this may be the case, research also suggests that the women's change of attitude may be related to the initial strength of that attitude. Fazio and Williams (1986) explain that an attitude is the association between an object and the evaluation of that object which an individual holds, while the strength of an attitude refers to the strength of that association between the object and its evaluation by an individual. They state that a strong attitude is one in which the evaluation is recalled, by the individual, as soon as the object is encountered. In an experiment exploring the bidirectional relationship between attitudes and behaviours, Holland et al. (2002) assessed the strength of participants' attitudes toward Greenpeace



and how overt behaviour in support of Greenpeace would affect this attitude. Participants' initial attitudes toward the organization were assessed. One week later participants were given the opportunity to donate money to the organization. Once participants made their decision regarding the donation their attitudes were once again assessed and differences were analyzed. The researchers found a bidirectional relationship such that strong attitudes toward Greenpeace predicted donation behaviour while the donation behaviour of participants with weak attitudes had an impact on those attitudes. In other words, weak attitudes are more likely than strong attitudes to be influenced by behaviour.

Both sexual guilt and sexual anxiety are affective-cognitive states reflecting a fear of being judged. Although sexual guilt and anxiety are not conceptualized as attitudes they may reflect an attitude toward the judgement of sexual behaviours and therefore may be similarly influenced by or similarly influence sexual behaviours. To this effect research does suggest a similar bidirectional relationship between sexual behaviours and sexual anxiety, as that between behaviours and attitudes. In the longitudinal study mentioned previously (Hensel et al., 2011) as young women participants progressed through the four years of the study they gained more sexual experience through engaging in sexual behaviours. As a result their sexual anxiety levels decreased. Conversely, young women whose sexual anxiety levels decreased slowly over the four years were also found to engage in less sex during that time than those young women whose sexual anxiety levels decreased at a faster rate. The researchers suspected a bidirectional relationship between sexual anxiety and sexual experience. They suggested that since increase in sexual experience was also associated with increase in sexual confidence, this increase in sexual confidence was resulting in lower levels of sexual anxiety. Consequently, a

decrease in sexual anxiety created an environment in which these young women then felt comfortable engaging in more sexual behaviours.

### **Sexual Guilt and Anxiety of Muslims**

Sexual guilt and sexual anxiety of Muslims have received almost no attention. Abdolsalehi (2010) found religion to be a significant predictor of sexual guilt among Muslim, Christian, Jewish, Baha'i and other Iranian immigrant women to the US, such that being Muslim was related to greater likelihood of feeling sexual guilt. Cowden and Bradshaw (2007) examined the sexual guilt of a sample of religiously diverse university students, including Muslims, but did not analyse the results of Muslims separately. As a result, they found an overall relationship between religiosity and sexual guilt, but what this relationship meant for Muslims specifically was not examined. Instead, it was speculated, somewhat inaccurately, that Islam discouraged sexual pleasure, thus leading religious Muslims, like religious Christian and Jews, to experience sexual guilt. Another study compared non-Muslim Iranian immigrant women in the US to Muslim Iranian immigrant women, finding the latter reported significantly higher levels of sexual guilt (Abdolsalehi-Najafi & Beckman, 2013). In addition, in their examination of the relationship between the acculturation and sexual guilt of these Iranian immigrant women, Abdolsalehi-Najafi and Beckman (2013) found that when religion was taken into account the relationship between acculturation and sexual guilt disappeared. The limited examination of sexual guilt, and the absence of any investigation of sexual anxiety among Muslims, offers little to no clarity on the experience of sexual guilt and anxiety in Muslim youth brought up within a North American context. In light of both the limited research on North American Muslims' sexual issues and the sexual health implications of experiencing sexual guilt and sexual anxiety, uncomfortably little is known about the

sexual well-being of this population. Therefore, an examination of sexual guilt and sexual anxiety would aid in understanding the sexual well-being of North American young Muslim adults.

### **Factors Influencing Sexual Guilt and Sexual Anxiety**

Sexual guilt and sexual anxiety do not occur in a vacuum and the literature indicates that background and attitudinal variables are related to these constructs. Religiosity, sexual attitudes, and gender role attitudes regarding sexual behaviours have been found to be related to sexual guilt and sexual anxiety. As the literature suggests that religiosity is related to sexual and gender role attitudes while these attitudes are associated with level of sexual guilt and sexual anxiety, sexual and gender role attitudes may be influencing the relationship between religiosity and sexual guilt and anxiety. Parental sexual attitudes may indirectly be associated with the sexual guilt and anxiety of their children by first influencing their children's sexual attitudes. Finally, the literature has found women and men to experience differing levels of sexual guilt and anxiety, a relationship which may also be understood in the context of differing sexual attitudes often held by men and women. The following section examines how background factors such as religiosity, parental sexual attitudes, and gender may combine with personal sexual attitudes and gender role attitudes to influence the experience of sexual guilt and sexual anxiety.

### **Relationship of Religiosity with Sexual Guilt and Anxiety**

Religiosity has been defined as "one's degree of adherence to the beliefs, doctrines, and practices of a particular religion" (Sanchez & Carter, 2005, p.280), and includes both behavioural and attitudinal dimensions regardless of the religion itself. Religiosity as a behavioural construct means that a religious person is one who is

involved in religious activities (e.g., prayer and worship), in religious groups, and/or the pursuit of religious knowledge. From an attitudinal perspective, religiosity involves a commitment to one's religion, in terms of the teachings of the religion and/or the religion's personal importance. Among religious individuals religiosity has been associated with sexual guilt. Among Christians, regular church attendance has been associated with greater levels of sexual guilt among both male and female university students (Davidson et al., 2004; Gunderson & McCary, 1979) such that greater attendance is related to higher levels of sexual guilt. In a study by Weis, Slosnerick, Cate, and Sollie (1986) young men and women who strongly believed that love and sex were appropriate primarily within marriage had greater frequency of church attendance and were more likely to have experienced guilt as a result of premarital sexual behaviour. Among Jewish university students Tobin (1996) found that students who identified as religious experienced more sexual guilt than those who did not. Tobin also examined the relationship between synagogue affiliation and sexual guilt, finding that those affiliated with an Orthodox synagogue experienced significantly greater sexual guilt than those affiliated with a Conservative, Reform, or no synagogue. This finding suggests that the relationship between religiosity and sexual guilt may actually depend on the type of religiosity. For example, both Intrinsic (being religious for the sake of oneself and God) and Extrinsic (being religious for social reasons) religiosity have been found to be related to greater sexual guilt among a religiously diverse university student sample while Quest religiosity (having questions about religion and seeking different answers) has been found to be related to lower sexual guilt (Cowden & Bradshaw, 2007). According to McGuire (1981, as cited in Madson, 1993) those who identify as more conservative, or fundamentalist in their religious beliefs, tend to follow literal interpretations of their

religion which tend to promote more traditional and conservative views reflecting the views of the times in which many of the texts were written. In other words, it is an individual's affiliation with fundamentalist or conservative interpretations of one's religion (Madson, 1993; Thornton et al., 1983) and the degree to which these individuals identify with and adhere to the practices and beliefs of that interpretation, which determine their attitudes and beliefs. In investigations of the relationship between religiosity and sexual guilt and anxiety, therefore, consideration should be given to the type of religiosity to which individuals adhere.

As mentioned previously, most religions regulate sexual behaviours with rules and edicts for their followers (Cochran & Beeghley, 1991), providing behavioural guidelines to adherents regarding appropriate, or moral, and inappropriate, or immoral, sexual behaviours (Cowden & Bradshaw, 2007), and outlining punishments for those engaging in immoral behaviours (Rohrbaugh & Jessor, 1975 as cited in Rostosky, Wilcox, Wright, & Randall, 2004). Sexual guilt occurs when individuals fear they may judge themselves harshly for violating their personal standards of appropriate and inappropriate sexual behaviours. The relationship between religiosity and sexual guilt, therefore, suggests that religious behavioural guidelines may be providing an understanding of appropriate and inappropriate sexual behaviours, the violation of which would result in sexual guilt. This would not only reflect a violation of personal standard but also a self-judgement for engaging in religiously unacceptable sexual behaviours. Those who identify as conservatively religious may hold stricter behavioural guidelines for themselves and which they use to judge their own behaviours. The relationship between religiosity and sexual anxiety has not been established in the literature, but may still be speculated to be based on the behavioural guidelines of religion. Sexual anxiety is experienced when

individuals fear harsh judgement from others for violating societal standards of appropriate and inappropriate sexual behaviours. Religious guidelines may be used to assume or understand societal standards of appropriate sexual behaviours and consequently others' judgement of our own sexual behaviours. However, the impact of these guidelines on sexual guilt and anxiety depends upon individuals' adherence to religious edicts and their subsequent acceptance of corresponding guidelines.

### **Muslim Religiosity**

As mentioned previously, Islamic teachings provide guidelines for sexual behaviours. Whether or not Muslims feel the pull of religious decrees on sex could depend, in large part, on how much they adhere to the traditional teachings of Islam. The majority of research on religiosity has dealt with Christianity (e.g., Allport & Ross, 1967; Glock & Stark, 1966; Ryan, Rigby, & King, 1993). Although Christian conceptualizations of religiosity have been applied to Muslims, there is reason to believe that this approach may be inadequate in conceptualizing Muslim religiousness (Abu Raiya & Pargament, 2011). The religiosity of Muslims in North America occurs within a unique geopolitical reality in which Muslims face hostility and discrimination on the basis of their religion. Byng (2008) argues that as a result of the events of 9/11 "Muslim" has become an externally constructed label based largely on discrimination and prejudice. Muslims have been forced to negotiate with this external conceptualization of their religious group, no longer making Islam simply a personal and internal construct, but an identity label with social implications. The discrimination that Muslims have experienced since 9/11 has also compelled many Muslims to further identify with their religion. In an effort to find comfort and safety from hostility, when faced with discrimination from mainstream society, individuals from minority backgrounds often begin to strongly

associate with their minority in-group (Berry, Phinney, Sam, Vedder, 2006). For many, Muslim religiousness may not be just about placing an importance on religion and following religious edicts, but also about identity affirmation.

In general, the literature indicates that Muslims tend to identify strongly with their religion making Islam pivotal in the lives of most Muslims (Abu-Ali, 2003; Abu Raiya & Pargament, 2010, 2011; Albelakhi, 1998; Carolan, Bagherinia, Juhari, Himelright, & Mouton-Sanders, 2000; Jamal & Badawi, 1993). The religious obligations that Muslims have with regard to behaviours such as prayer, fasting, and diet are components of everyday life (Yousif, 1992) and may, for observant Muslims, maintain the presence of Islam in the cognitive forefront, encouraging one's identity as a Muslim to be highly salient. Religious Muslims often describe Islam as a way of life influencing the daily living of Muslims worldwide (Carolan et al., 2000). Indeed, research has demonstrated that religion is an important component of identity for Muslims (Ahmed, 2003; Anwar, 1998; Modood et al., 1997; Robinson, 2005). Considering the centrality of Islam for many Muslims (Abu Raiya & Pargament, 2010) and the relationship found between religiosity and sexual guilt and anxiety (e.g., Davidson et al., 2004; Fehr & Stamps, 1979; Gunderson & McCary, 1979; Tobin, 1996; Weis et al., 1986), it is advisable to examine Islamic religiosity when investigating the sexual guilt and anxiety of Muslims.

Religiosity has different meanings for different Muslims (Abu Raiya & Pargament, 2011). Religiosity is a subjective experience which can be difficult to conceptualize objectively. Religion is a multidimensional phenomenon reflecting behavioural, ritual, spiritual, social, personal, and public components (e.g., Abu Raiya, 2006; Allen & Spilka, 1967; Glock & Stark, 1966; Ryan et al., 1993). The few measures of Islamic religiosity which exist, although useful in many contexts, focus primarily on

one's adherence to one interpretation of Islamic beliefs and practices and assume conservatism to be equivalent to religiosity. For many Muslims, being religious may not involve conservatism or traditionality. Therefore, the assessment of Muslim religiosity should clearly indicate the type of religious beliefs being measured to better understand the role of religiosity in the lives of Muslims. To this end, the current study examined religious conservatism, specifically, as the literature indicates that type of religiosity may be important for understanding the relationship between Muslim religiosity and sexual guilt and anxiety.

### **Religiosity and Sexual Attitudes**

Sexual attitudes are the beliefs one has about sexuality. They include beliefs about what are deemed appropriate and inappropriate sexual behaviours, partners, and activities (Woo et al., 2011). Sexual conservatism, for example, can be conceptualized “as self-imposed constraints on various aspects of sexuality, including the appropriateness of sexual partners, sexual activities, and conditions under which sexual activity should occur” (Woo et al., 2011, p.386). Having liberal or permissive sexual attitudes can therefore be conceptualized as imposing minimal constraints on sexual behaviours, activities, and partners. The beliefs comprising sexual attitudes are similar to the regulations enacted by religious institutions on sexual behaviours, which, likewise, delineate appropriate and inappropriate sexual behaviours, partners, activities, and conditions for sexual activity. It is, therefore, not surprising that research has identified an association between religiosity and sexual attitudes.

Discomfort with sexuality issues has been found among religious people of different faiths (Leiblum, Wiegel, & Brickle, 2003). The research suggests that the more religious individuals report themselves to be, the more conservative their sexual attitudes



(e.g., Hong, 1983; Lefkowitz, Gillen, Shearer, & Boone, 2004; Maret & Maret, 1982; Medora & Burton, 1981; Miller & Olson, 1988) or the more negative the attitudes and beliefs they hold about sexual activity (Rostosky, Regnerus, & Wright, 2003). Those who identify themselves as very religious or report high levels of religiosity report significantly less endorsement of sexual permissiveness than those who identify themselves as less religious (Beckwith & Morrow, 2005; Hendrick & Hendrick, 1987b). Christians who have higher frequency of religious service attendance and stronger identification with their religion are less tolerant of premarital sexual permissiveness (Bock, Beeghley, & Mixon, 1983; Cochran & Beeghley, 1991; Thornton & Camburn, 1989), have more conservative attitudes toward abortion, pornography, and birth control (Bock et al., 1983), and are more likely to endorse traditional sexual attitudes such as remaining a virgin until marriage, marrying a virgin, and not having sex without love (Davidson et al., 2004), than those with less attendance and weaker identification.

Individuals who place an importance on their religion, and the values, beliefs, attitudes, and rules associated with it, will turn to their religion to inform their own values, beliefs and attitudes. Religions, therefore, serve as a referent for those who are religious (Cochran & Beeghley, 1991; Lefkowitz et al., 2004; Thornton & Camburn, 1989). The behaviour guidelines outlined by religion may inform the constraints one places on sexual behaviours. Those who place an importance on their religion and are conservatively religious would have stricter guidelines and thus greater constraints on their sexual behaviours.

### **Relationship of Sexual Attitudes with Sexual Guilt and Sexual Anxiety**

The literature has also established a relationship between sexual attitudes and sexual guilt. As mentioned previously, sexual attitudes are the beliefs one has about

sexuality and include beliefs about what are deemed appropriate and inappropriate sexual behaviours, partners, activities, and conditions for sexual activity (Woo et al., 2011). Sexual attitudes reflect the self-imposed constraints on different aspects of sexuality “including the appropriateness of sexual partners, sexual activities, and conditions under which sexual activity should occur” (Woo et al., 2011, p.386). Sexual guilt occurs when one violates personal standards of normative sexual behaviour. Those with stricter self-imposed constraints would have very particular sexual expectations, the deviation from which would induce more worry than for those accepting of a wider variety of sexual experiences. Therefore, those with high levels of sexual guilt are less likely to hold sexually permissive attitudes toward premarital sexual relations and more likely to engage in moral condemnation of premarital sexual activity (Mendelsohn & Mosher, 1979), while those who hold sexually conservative attitudes often experience greater levels of sexual guilt. In their examination of the sexual conservatism and sexual guilt of East Asian Canadian women, Woo et al. (2011) found that sexually conservative attitudes related to high levels of sexual guilt. DiVasto (1977) found that family physicians who reported high levels of sexual guilt held sexually conservative attitudes, viewing premarital and extramarital sexual relations to be significantly less acceptable than physicians who reported low levels of sexual guilt. Conversely, Hendrick and Hendrick (1987a) found that women who asserted a more positive attitude toward sex experienced less sexual guilt, while Sloggett and Herold (1996) had a sample of women in their study who held very liberal sexual attitudes and had low levels of sexual guilt.

The research examining how sexual attitudes relate to sexual anxiety is limited. The little research that exists suggests patterns similar to sexual guilt. Being accepting of sexual permissiveness and sexuality, in other words having liberal sexual attitudes, has

been found to be related to lower sexual anxiety (Stewart, 2006). Cyranowski and Andersen (1998) found that women who hold negative and conservative views regarding their own sexuality and romantic relationships experience greater sexual anxiety than the women who hold positive and liberal views. These findings indicate that holding positive and liberal attitudes regarding the sexual self may decrease sexual anxiety, suggesting that, like sexual guilt, liberal sexual attitudes may also be associated with less sexual anxiety.

Various cultures have differing views of and attitudes toward sex and sexuality, resulting in differing sexual attitudes between diverse ethnocultural groups within North America though the literature documenting these differences is limited. In their meta-analysis, Fugère, Escoto, Cousins, Riggs, and Haerich (2008) analyzed research examining the relationship between ethnicity and sexual attitudes. They found that White (Euro-American) participants had more permissive attitudes than Asian American and Hispanic American participants. Asian Americans had more conservative sexual attitudes (Fugère et al., 2008; Woo et al., 2011) as well as experienced more sexual guilt (Woo et al., 2011) than Euro-Americans. Conversely, it was found that African American men appeared to endorse sexually permissive behaviours more than Euro-American or Latino men (Fugère et al., 2008). These studies indicate that when examining sexual attitudes social factors, such as cultural or religious minority status, and their intersection with gender must be taken into account. Moreover, literature suggests that the relationship between Muslims' religiosity and their levels of sexual guilt and anxiety may also be influenced by their attitudes regarding the gender roles of men and women as well as their attitudes regarding appropriate and inappropriate sexual behaviours of men and women.

## **Sexual Attitudes of Muslims**

The vast majority of research examining the relationship between religion, religiosity and general sexual attitudes has focused on Christians. Although Christians and Muslims do share many beliefs regarding sexuality, there are sufficient differences to caution us from generalizing findings from those studies to Muslims. First, the Islamic approach to sex within marriage is positive and maintains an emphasis on the importance of sexual pleasure (Kugle, 2003). Additionally, the limited literature seems to suggest differences. de Visser, Smith, Richters, and Rissel (2007) found that while religious Protestant and Catholic men and women were more likely than non-religious respondents to find films too sexually explicit, Muslim men and women responded no differently than non-religious respondents. Furthermore, Protestant men and Catholic men and women were significantly more likely than non-religious people to believe that abortion was always wrong, whereas Muslim men and women were as likely as non-religious respondents, Buddhists, and Protestant women to believe that abortion was always wrong. Similarly, while Catholics were more likely than non-religious respondents to believe that an affair was always wrong, Muslims, along with Protestants and Buddhists, had views similar to non-religious individuals. Nonetheless, despite the possible differences in views on sex, Muslims' sexual attitudes may also be related to their religiosity level and the type of religiosity to which they subscribe.

Sexual attitudes of Muslims have received limited research attention. Nonetheless a few studies may provide some insight into the ways in which Muslims view their own sexuality, hinting at how they may experience sexual guilt and anxiety. Adamczyk and Hayes (2012) state that some studies conducted across various nations suggest that Muslims hold conservative sexual attitudes. This indeed appears to be the case. In a

qualitative Swedish study on Iranian Muslim immigrants' views on sexuality, Ahmadi (2003) found that respondents' views on sexuality appeared to be changing from the more traditional and conservative views they may have held when living in Iran to more liberal views similar to those of mainstream Swedish society, which are contrary to traditional Islamic teachings on Islam. Many of the women felt they had a right to sexual satisfaction, which they did not believe while living in Iran, believing instead that their husbands' sexual desires took priority over their own. However, the male respondents still felt men's sexual needs were greater than women's, believing they had the right to engage in extramarital sexual relations. In Canada, Shirpak, Maticka-Tyndale, and Chinichian (2007) interviewed twenty Iranian married adult immigrants, sixteen of whom were Muslim, regarding their perceptions of sexuality in Canada. Although most participants spoke positively about the ways in which mainstream Canadian men and women interacted with ease and felt that Canadians had knowledge and comfort with sexual matters, they felt that such behaviours would not be appropriate for them. They felt that cross-gender friendships were inappropriate and inherently sexual in nature.

These previous studies focused specifically on immigrant Muslims, raised in majority Muslim cultures with their own sexual norms, who then migrated to North America or European countries with more liberal sexual norms. The literature on Muslims raised in North America is just as scant but may provide some insight. In a study of adolescent Muslim girls in the United States, Abu-Ali (2003) found that greater adherence to Islamic practices, rituals, and beliefs related to more conservative attitudes toward sexuality and that religiosity was a significant predictor of conservative attitudes toward sexuality. Although the sample size of this study at 41 was quite small, the findings do provide a glimpse into the sexual attitudes of North American Muslims and

demonstrate that religious Muslims' attitudes toward sex and sexuality are often conservative. However, the literature suggests some nuance in these attitudes. Bangladeshi British young women and men interviewed in a qualitative study generally felt that engaging in premarital sex was un-Islamic, but not all chose to adhere to what they felt were Islamic teachings regarding premarital sex. Although some of the young men favoured following their religion, many participants, both men and women, felt that the choice to have premarital sex was personal and that doing so did not mean one lacked faith (Griffiths, French, Patel-Kanwal, & Rait, 2008).

It appears from the literature that among Muslim immigrants to North America and Europe, attitudes regarding sexuality may change from traditional to more liberal with increased time spent outside country of origin, though tensions between their cultural beliefs and the beliefs and attitudes of mainstream North American or European societies do exist. For Muslims raised in North America or Europe it appears attitudes toward sexuality may tend to be conservative for the religious. Considering the literature has found a relationship between greater religiosity, conservative sexual attitudes, and sexual guilt, this may suggest greater levels of sexual guilt and anxiety among religious and conservative Muslims.

### **Religiosity, Gender, and Gender Role Attitudes**

The literature on sexual guilt, sexual anxiety, and sexual attitudes has consistently found gender differences specifically such that women experience greater guilt and anxiety and hold more conservative attitudes regarding sexual permissiveness than do men (Fugère et al., 2008; Oliver & Hyde, 1993; Plaud, Gaither, & Weller, 1998) indicating poorer sexual outcomes for women. Therefore, it appears that women not only judge themselves more harshly, but also expect similar judgements from others, while

holding attitudes critical of sexual permissiveness. Therefore, the role of gender and its implications for sexual guilt and anxiety must be taken into account.

In the past few decades gender has been understood to be a socially constructed phenomenon. The social constructionist perspective views gender as something that is performed as opposed to innate, which means there exist a variety of ways to be masculine and feminine (Cosgrove, 2000). In other words, society defines what it means to be masculine and feminine but individuals will engage with these societal expectations in a variety of ways. Gender is viewed not as something to be defined only by external, societal sources, but rather to be an internal definition in which the individual's own beliefs, values, and abilities define what it means to be their gender (Ossana, Helms & Leonard, 1992). Subsequently, people *do* a gender as opposed to *have* a gender. Consequently, gender roles, or what McGuire (1997) defines as the "social group's expectations of behaviours, attitudes, and motivations 'appropriate' to males and females" (p.121) are also socially constructed. This perspective recognizes that society constructs ways of doing gender, but that individuals then decide, both consciously and subconsciously, the extent of their adherence to that social construction.

The social construction of gender and gender roles is highly influenced by the patriarchal social structure. Patriarchy is a ubiquitous structure characterised by the power and dominance of men over women. The beliefs and values patriarchy perpetuates give great advantage, namely power, to men, while placing women at great disadvantage. To maintain that male-centric power patriarchy "has consistently defined and moulded women's...minds in the interests of men" (Weedon, 1999, p.29). In the patriarchal structure women's roles are socially constructed in regard to their obligations and duties to their families. Hence, women are expected to take on communal roles and be nurturing,

passive, sexually chaste, deferent to men, and dependent, while men are to take on agentic roles that maintain their dominance, independence, agency, assertiveness, and leadership, requiring men be provider, protector, and those who hold knowledge (Baluch, 2004; Cejka & Eagly, 1999; Eagly & Wood, 1991; Glick, 1991). Traditional gender role norms are rigid and restrictive social constructions regarding appropriate behaviours for men and women, requiring men and women to remain in separate spheres of activities and behaviours. Often they include the belief that the separate gender roles of women and men are different from but complementary to each other. Therefore, men are to be sexually aggressive, initiating sexual activity, while women are to be sexually passive, reacting to men's sexual advances (Baluch, 2004).

Individuals actively and critically engage and interact with, and often challenge, patriarchal social constructions of gender roles. As previously mentioned, feminist Islamic scholars, like Barlas and Wadud, actively question and challenge the common, misogynistic interpretations of Islam which dictate non-egalitarian gender roles. Indeed, Muslim women have been challenging patriarchal norms, inculcated in interpretations of Islam, for centuries (McGinty, 2007). However, as religion is often interpreted and implemented within a patriarchal context, the religious social constructions of gender roles often assume a traditional form including for the sexual behaviours of men and women.

Most religions include rules of behaviour and conduct for followers, many of which apply to all followers, while others apply separately to women and men. Although various interpretations of those rules may exist, traditional teachings promote traditional gender role norms. Historically, religious texts have almost exclusively been engaged with and disseminated by male religious scholars, working within a patriarchal



framework, which may explain why common understandings of the proscriptions of most religious teachings regarding female and male gender role norms have been to the advantage of men and disadvantage of women. This is demonstrated by the promotion of traditional gender roles for men and women by many religious institutions (Ecklund, 2003; Edgell & Docka, 2007; Gallagher & Smith, 1999; Woodberry & Smith, 1998) and the promotion of the traditional, nuclear family in which husbands and wives maintain their traditional roles (Edgell & Docka, 2007). McGuire (1981, as cited in Madson, 1993) theorizes that the way in which religiousness is related to gender role attitudes is dependent upon how much an individual adheres to the literal interpretations of their religion.

Among Arab American Muslim and Christian women, Read (2003) found those who reported a strong belief in scriptural literalism, which indicated a conservative belief structure, and for whom religion had been important throughout their lives, reported less egalitarian gender role attitudes than those women who indicated less religiosity. Khalid and Frieze (2004) found men and women in Pakistan who identified themselves as conservative Muslims held more conservative attitudes toward women than those who identified themselves as liberal Muslims. Pakistani men were found to be significantly more religiously conservative than women. The same relationship between religious conservatism and attitudes toward women was found among Pakistani immigrants to the US, with these men being more religiously conservative than women (Khalid & Frieze, 2004). Religious Muslim Turks have been found to hold more traditional gender role attitudes than secular Turks (Diehl, Koenig, & Rickdeschel, 2009). A similar relationship has been found among conservative Christian populations as religious Christian men and women, who hold fundamentalist or conservative religious beliefs are also more likely

than those less religious to hold traditional attitudes regarding gender roles (Brinkerhoff & MacKie, 1985; Diehl et al., 2009; Peek, Lowe, & Williams, 1991). Traditional attitudes regarding gender roles reflect a double standard in which men and women are expected to behave in different ways. Many religions expect different behaviours of men and women, including Islamic teachings which, as mentioned previously, treat the sexualities of men and women differently (Ali, 2006). These differing religious expectations for the sexual behaviours of men and women therefore reflect a sexual double standard.

### **Sexual Double Standard**

The sexual double standard reflects a conservative sexual attitude regarding gender role norms as they relate to the sexual behaviour of men and women. The sexual double standard is operationalized as holding different standards for acceptable sexual behaviour of men and women (Crawford & Popp, 2003) and reflects gender-specific constraints placed on sexual behaviours. The sexual double standard can perhaps be well explained using sexual script theory, which states that “sexuality is learned from culturally available messages that define what ‘counts’ as sex, how to recognize sexual situations, and what to do in sexual encounters” (Frith & Kitzinger, 2001, p.210). Sexual scripts are ideas about sex and the sexual encounters which most people in a given cultural context would recognize as the usual sexual encounters (Greene & Faulkner, 2005). The traditional heterosexual script, which is also culture specific, has within it different expectations for the behaviour of men and women. In the traditional North American sexual script the male is the initiator of sexual encounters. He is someone who is assertive, constantly wants to have sex, pursues women for that purpose, views every sexual encounter as a conquest, and has knowledge about sexual matters. The female is passive, to be pursued, and guards her sexuality while still appearing interested, or

playing hard to get. While being difficult to access she must still remain sexy and attractive and appear to be concerned about the man's needs. She is also to be naive about sexual matters. These sexual scripts provide a guide for the goals and context for sexual behaviours and how to achieve those goals (Greene & Faulkner, 2005).

There are three different levels at which sexual scripts function and interact: the cultural, interpersonal, and intrapsychic levels. At the cultural level one sees narratives of sex provided by sources such as schools, religious leaders, sex educators, and mass media impart directions for sexual conduct. The generation and preservation of guidelines and social norms regarding what is considered appropriate sexual conduct is the purpose of the narratives produced by these culture level sources. Sexual scripts at the interpersonal level refer to the predetermined patterns of interaction during sexual encounters, and sexual scripts at the intrapsychic level refer to the feelings and fantasies one may have regarding sexual activity which one then uses to evaluate past sexual behaviour and to guide current and future sexual behaviour (Green & Faulkner, 2005; Simon & Gagnon, 1986).

Researchers have tested the sexual script theory in a variety of sexual situations. The empirical research suggests sexual script theory can be used to understand individuals' expectations for sexual behaviours and activities such as casual sexual encounters (Edgar & Fitzpatrick, 1993), and first sexual experience (Pinquart, 2010). The roles that the North American traditional sexual script describes endorse a sexual double standard (Crawford & Popp, 2003). Research suggests that individuals may begin to adhere to this traditional sexual script as early as adolescence and this may impact their decision to have their first sexual experience (Pinquart, 2010). The traditional sexual script appears to parallel the findings regarding female and male sexual attitudes. The

sexual script directives that men be sexually aggressive and women be sexually passive are congruent with the finding that men hold more permissive attitudes than women, and that women frown upon sexual permissiveness (Alexander & Fisher, 2003; Fugère et al., 2008; Leiblum et al., 2003; Oliver & Hyde, 1993; Sheeran, Spears, Abraham, & Abrams, 1996). As discussed previously, according to the sexual double standard, sexual permissiveness and experience are viewed as acceptable for men but unacceptable for women (Fugère et al., 2008). Among women and girls, the sexual double standard can have the effect of controlling sexual activity and shaping sexual attitudes regarding sexual permissiveness toward conservatism. Many women live in fear of being labelled a 'slut' because the term implies one has had many sexual partners and is thus not worthy of respect (Crawford & Popp, 2003). Subsequently, the sexual double standard often works to control and restrict the sexual activities of women and girls while celebrating those of men and boys. It is little surprise, therefore, that women tend to hold more egalitarian views regarding sexual standards than do men (Caron, Davis, Haltemen, & Stickle, 1993), and try to disrupt the expectations of the sexual double standard (Jackson & Cram, 2003), findings which parallel women's greater support for egalitarian gender roles (Bryant, 2003; Damji & Lee, 1995; Hartman & Hartman, 1983; Herzog, Bachman, & Johnston, 1983; Khalid & Frieze, 2004; King, King, Carter, Surface, & Stepanski, 1994; Leiblum et al., 2003; McBroom, 1984; Mensch, Ibrahim, Lee, & El-Gibaly, 2003).

### **Sexual Double Standard and Sexual Guilt and Sexual Anxiety**

The connection between fear of judgement among women and sexual double standards was exemplified in a study conducted by Alexander and Fisher (2003) in which university students were asked about their sexual attitudes and sexual behaviours. The participants were placed in three possible conditions. Those in the first condition were

told that they were being attached to a polygraph-like bogus pipeline.<sup>2</sup> Those in the second condition were informed that the experimenter would have access to their answers and responses, and finally those in the third condition were told to deposit their completed questionnaires anonymously in a box. The researchers found that the women in the bogus pipeline condition, believing any lie would be detected, reported as many sexual partners as men, but women in the condition in which they thought the experimenter would have access to their responses, leaving them open for judgement, reported significantly fewer partners than men. An understanding of the sexual double standard may have led women to report sexual activities congruent with the double standard when there was risk of being judged, thus encouraging women to hide sexual experiences. This fear of judgement would also explain women holding more conservative sexual attitudes than men (Olive & Hyde, 1993). Increased conservative attitudes regarding sexual permissiveness (including adherence to a sexual double standard), because of fear of judgement may place women at greater likelihood to experience sexual guilt and anxiety. For men, however, the standards promote permissive behaviours, therefore an expectation of lower levels of guilt and anxiety would be reasonable. Langston (1975) found that men and women high in sexual guilt were more likely to behave in traditional sexual gender normed ways with men with high sexual guilt being assertive in their sexual behaviours, and initiating and directing sexual activity with their partners, whereas, women high in sexual guilt behaved in sexually passive ways, waiting for men to initiate and direct sexual activity. The behaviours examined in Langston's study were the traditional gender

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<sup>2</sup> A bogus pipeline is a method in which participants are lead to believe that they are attached to a polygraph machine. They are informed that the machine will detect any lies they may tell. The responses of those attached to the non-functioning polygraph machine are then often compared to those not attached to any polygraph. Alexander and Fisher (2003) explain that "the bogus pipeline procedure may be useful for identifying or controlling false accommodation to gender role norms" and that "those in bogus pipeline condition tend to report higher frequency of socially sensitive or socially undesirable behaviours" (p.28).

role norms for sexual activity, suggesting a relationship between sexual guilt and the sexual double standard as those who adhered to the sexual double standard may have placed greater gender-specific constraints on their sexual behaviour, the violation of which could have prompted harsh self-judgement.

### **Muslims and the Sexual Double Standard**

Muslim cultures are patriarchal cultures in which women are seen as subordinate to men. In many Muslim marriages husbands are seen as authority figures as well as the decision makers and women are expected to be dependent upon men. Women who fit into traditional roles of mother, wife, daughter, etc. are often given more respect than those not fitting into these roles. Muslim parents living in the West place more restrictions on their daughters and monitor their behaviour more than they do their sons as the daughters are seen as responsible for the honour of the family (Bekker et al., 1996; Hendrickx, Lodewijckx, van Royen, & Denekens, 2002). Many women growing up in Muslim environments learn certain behaviours are appropriate and others are not. Sexual activity is to be restricted to within marriage, and any sexual activity outside these constraints is seen as a threat not only to the honour of the family but of the whole community. For such reasons dating is not allowed among many Muslim families and great emphasis is placed on marriage (Bekker et al., 1996; Hendrickx et al., 2002).

Double standards between men and women regarding sexuality have been found among Muslims, although, once again, the empirical research is limited. Askun and Ataca (2007) found the Turkish men in their sample held to more traditional sexual double standards than Turkish women. Hendrickx et al. (2002) interviewed young Moroccan Muslim immigrants to Belgium about their sexual attitudes and behaviours. Regarding female sexuality there was a belief that a girl's virginity was of utmost importance and

tied to her family's honour. Participants noted that a woman's status as a virgin was considered to be so important at the time of marriage that very often a certificate of virginity was provided to the groom's family. Almost all the young men expressed a desire to marry a virgin, demonstrating the importance of virginity. However, attitudes regarding male sexual activity were found to be very different. Premarital sex was found to be acceptable and various excuses were provided for its normalcy and acceptance. In their study, Askun and Ataca found that Turkish women indicated that they felt their parents endorsed the sexual double standard as they held more restrictive attitudes regarding female sexuality than male sexuality, while Abu-Ali (2003) found similar beliefs among Muslim adolescent girls interviewed in the United States. In a qualitative study, Orgocka (2004) interviewed mothers and their young daughters regarding issues of communication and education regarding sexuality issues. The mothers' responses demonstrated that unmarried women were not to know about sex, whereas unmarried men were expected to know about sex. It appears parents' attitudes regarding sex and sexual behaviours often support and endorse the sexual double standard. Children of these individuals recognize the attitudes of their parents which may be impacting the attitudes and behaviours of those children.

### **Influence of Parental Sexual Attitudes on Children's Sexual Guilt and Sexual Anxiety**

The relationship of one's perceptions of one's parents' sexual attitudes with sexual guilt and sexual anxiety may be best understood as one which is dependent upon one's own sexual attitudes. Socialization theory posits that individuals learn attitudes and behaviours early in life from adult role models, mainly parents. Parents model certain attitudes and behaviours which children then pick up on and often internalize (Clawson &

Reese-Weber, 2003). The family is a central component in the socialization of individuals and a key source of learning and information, having a powerful effect on attitudes, including sexual attitudes, sexual behaviours, and sexual decision making (Glass, Bengston, & Dunham, 1986; Miller, 2002; Moore et al., 1986). Along with peers, adolescents report that parents are the main socialization agents who impact their sexual behaviour (Miller & Fox, 1987) and sexual attitudes (Sanders & Mullis, 1988), with parents' sexual attitudes often shaping those of their children (Thornton & Camburn, 1987; Weinstein & Thornton, 1989; Werner-Wilson, 1998). Family socialization plays an important role in the understandings of sexual behaviours (Miller & Moore, 1990). Not all parents are willing to openly and directly communicate with their children regarding sexual issues, including Muslim parents (Fernandez et al., 2008; Griffiths et al., 2008; Orgocka, 2004). However, parents influence their children's sexual attitudes and health in indirect ways. Parental attitudes can be transmitted through cultural teachings and behaviours and children learn their parents' attitudes either by being directly taught or by observing their parents' behaviours (Glass et al., 1986; Hendrickx et al., 2002). Parents relay their attitudes about sex through their own displays of affection. Children observe not only when their parents hug, kiss, or touch each other, but also when they do not do so, and these observations can predict future behaviours and attitudes of the children (Joffe & Franca-Koh, 2001).

Direct communication between parents and children regarding sex is an important component in the sexual health of the children, though the nature of that relationship is not clear. Some studies have found that parental communication with their children on issues of sex decreases chances of teenage pregnancy (Baumeister, Flores, & Marín, 1995; Pick & Palos, 1995; Wellings et al., 2001), increases condom or contraceptive use



(Jaccard, Dittus, & Gordon, 1996; Pick & Palos, 1995), and decreases likelihood of initiating sexual activity (Ogle, Glasier, & Riley, 2008; Pick & Palos, 1995). Other studies have found that parental communication about sex increases the likelihood of their children having sex early (Clawson & Reese-Weber, 2003; Somers & Paulson, 2000; Widmer, 1997). In further examination of the discrepant findings, research suggests that the relationship between parental communication about sex and children's subsequent sexual behaviour may actually be mediated by the sexual values and attitudes of the parents and the gender of the child (Fisher, 1989). Parents with permissive attitudes are more likely to have children who behave in permissive ways (e.g., Jaccard et al., 1996; Miller, Norton, Fan, & Christopherson, 1998) while parents who hold more traditional attitudes have children who hold traditional attitudes and engage in traditional sexual behaviours (Fisher, 1989; Moore et al., 1986). In their examination of the effects of non-verbal sexual communication Joffe and Franca-Koh (2001) found that homes in which there was greater non-verbal sexual communication had adolescents who began having sex at an earlier age but that this finding was especially true in homes in which there was more openness about nudity indicating liberal sexual values. Research suggests that daughters of parents with traditional attitudes regarding sex are less likely to engage in premarital sexual activity than daughters of parents with permissive or liberal sexual attitudes (Fisher, 1989; Moore et al., 1986). For sons, the findings are more discrepant with some males from sexually conservative families engaging in more sexual activity when parent-child communication about sex occurred (Moore et al., 1986), while other males from sexually conservative families hold sexually conservative sexual attitudes themselves as a result of parent-child communication. It appears then that the effect of

parental communication on children's sexual behaviours and attitudes may depend on an interaction of parents' sexual values and attitudes and the gender of the children.

The interaction of parental sexual attitudes and gender of the children may instil, perpetuate, and reinforce sexual double standards. In their review of the literature on parent-child communication about sexuality, Diiorio, Pluhar and Belcher (2003) found gender to be a central variable in the communication process. First, the gender of the parent affected the process, as it appears that mothers are more likely to discuss issues of sexuality with their children than are fathers, while both parents are more likely to communicate with their same sex child than other sex child. The second and more concerning finding was that the sexual messages that children receive from their parents differ by gender of child. Daughters report receiving messages which focus on warnings and rules and emphasize the negative consequences of sexual activity, such as risk of pregnancy or diseases. Additionally, girls often receive the message that they, not boys or men, are responsible for avoiding sexual encounters and setting limits for sexual activity. Sons, however, often receive messages which emphasize the positive consequences of sexual activity (Diiorio et al., 2003). Although parents may not explicitly endorse the sexual double standard, the type of messages they relay, and the gender of the child they interact with may communicate attitudes endorsing the sexual double standard that may impact the attitudes and behaviours of the children.

### **Parental Influences on Sexual Attitudes and Behaviours of Muslims**

The family is a central component in Islamic religious practice and those who value Islam would also place great value on the significance of the family. Within Islam family members are seen to have certain rights and obligations which depend on their position in the family. Parents have the obligation to care for their children and children

have the obligation to obey and please their parents, except when the parent asks them to do something considered immoral or against Islam. The individual is seen to have primary obligation to God and then to family and other people. Although expected to obey their parents, disagreement with parents is viewed to be understandable as long as it is done in a respectful manner. Children, regardless of age, are expected not to displease their parents as it is said that what displeases one's parents displeases God (Abd al Ali, 1977). Therefore, it may be expected that those who consider themselves to be religious may feel a greater obligation to adhere to their parents' messages regarding sexuality.

Among Muslim parents in Canada and the United States it has been found that a combination of fear of cultural loss and a desire for a proper education for their children often result in a high level of control over children (Mohammad-Arif, 2002). To maintain cultural ties children are encouraged to make friends within the community, with boys allowed more freedom than girls. As children age and reach university age, this control often becomes stronger as parents' anxieties regarding their children's future intensify. For Muslim parents, fears of children engaging in seemingly un-Islamic behaviours, such as premarital sex, greatly increase as their children get older (Mohammad-Arif, 2002). Yet discussions about sexuality rarely occur. Hendrickx et al. (2002) interviewed young Moroccan Muslim immigrants in Belgium about their sexual attitudes and behaviours. They found the respondents felt that talking about sexuality with the family was taboo. The boys interviewed felt that girls talked about it with their mothers, but the girls interviewed did not concur. The young respondents cited embarrassment, anxiety, and respect for parents as reasons for not discussing issues of sex and sexuality.

Research appears to suggest that Muslim parents in Britain prefer their children to receive sex education just before their children get married, and not sooner (Fernandez et

al., 2008), while some mothers may even prefer that their daughters be given information about sex after marriage and from their husbands (Orgocka, 2004). This implies there is little direct discussion regarding sex or sexuality issues between parents and children in Muslim families. Moreover, it appears that young Muslim men may be expected to have sexual knowledge before marriage, yet parents may not be providing that information. Fernandez et al. (2008) interviewed community stakeholders from the Bangladeshi British community who were interested in providing sexual and relationship education. These respondents felt that one reason young Bangladeshi British youth had limited sexual health knowledge was parents' refusal to discuss issues of sexuality with their children. A concern was expressed that this lack of parental discussion was leading to poor sexual health choices among these youth. The lack of communication between Muslim youth and their parents on issues of sex, and its possible implications for the sexual choices of Muslim youth, makes the examination of sexual guilt and anxiety all the more pertinent.

Refusal to discuss issues of sex with children does not mean that Muslim parents are not concerned about the sexual health and behaviour of their children. Griffiths et al. (2008) interviewed young British Bangladeshis and their mothers regarding their beliefs and perspectives on sexual health. They found mothers were worried their children would engage in pre-marital sex. The mothers felt the exposure to sexual images in the media, revealing clothing, and public displays of affection would result in their children being sexually tempted to engage in premarital sexual activity. The mothers hoped their children would not succumb to these temptations and would instead overcome them automatically. The researchers, nonetheless, identified a sense of denial among the mothers regarding sexual issues, as they chose not to discuss any issues of sexuality and

hoped instead their children would conduct themselves according to cultural and religious values. These mothers also felt that it was not appropriate to discuss sexual issues in the home, preferring instead to have their children learn about sexuality from their schools. Yet the mothers expressed concern that sexual health education was provided by teachers who were not sensitive to the cultural and religious norms of their children and families. Instead of focusing on issues of safe sex, the mothers felt that the teachers needed to discuss issues of abstinence, celibacy and the honour associated with virginity.

Even though many Muslim parents may not directly speak about sex and sexual issues, their attitudes and values regarding sexuality are being internalized by their children. Askun and Ataca (2007) found that among Turkish respondents the perception that mothers held more restrictive attitudes toward sexuality was related to conservative sexual attitudes among respondents. Fathers' attitudes were unrelated to the sexual attitude of the respondents. Askun and Ataca also found that having the perception that their mother held more restrictive attitudes also led to respondents having a greater negative affective reaction to their first intercourse experience. Among these Turkish respondents those who perceived their parents to hold more restrictive attitudes toward sexuality were more likely to endorse traditional sexual double standards.

Muslim parents often hold more restrictive and conservative attitudes toward the sexuality of women than men (Askun & Ataca, 2007) and prefer their daughters to adhere to stricter codes of sexual conduct than their sons. As discussed previously, attitudes endorsing sexual double standards are not unique to Muslim parents. However, with Islam's great emphasis on family and obedience to parents, one may expect that Muslim children for whom religion is important may readily internalize the messages transmitted by their parents as an expression of their obedience to and respect for their parents and

family, and these messages may inform their own sexual attitudes and belief in sexual double standards. Additionally, for those to whom religion is important, religiosity may inform their gender role attitudes. Extrapolating from the general literature, it may be assumed the sexual attitudes, sexual double standards, and gender role attitudes affect the relationship between religiosity and parental sexual attitudes and sexual guilt and anxiety of young Muslim adults.

### **Rationale for the Current Study**

The current study was designed to examine the influence of background factors and personal attitudes on the sexual guilt and sexual anxiety of young Muslim adults in Canada and the United States. Specifically, this study explored the influence of young Muslim adults' conservative religiosity, perceived parental sexual attitudes, and gender on their sexual guilt and anxiety and the mediating role of their sexual attitudes, belief in the sexual double standard, and gender role attitudes on this relationship. Two models were proposed to examine the influence of these background factors and personal attitudes on sexual guilt and anxiety. Please see Figures 1a and 1b for two hypothesized models.

As previously mentioned, the literature has suggested an association between religiosity and both sexual guilt and sexual anxiety. As religions, including Islam, provide rules and guidelines for sexual behaviours, individuals who place an importance on religion may refer to their religious teachings to determine their attitudes, thoughts, and feelings about sex and sexual behaviours. Individuals' adherence to their religious beliefs, therefore, would influence their sexual guilt and sexual anxiety as well as their attitudes regarding sex and sexual behaviours. The literature has also established a relationship between sexual attitudes, including those regarding what may be deemed as appropriate

and inappropriate sexual behaviours for men and women, and sexual guilt and sexual anxiety. I, therefore, proposed that young Muslim adults' religiosity would indirectly influence their sexual guilt and anxiety levels. It was expected that their Islamic religiosity would determine their attitudes regarding sex and sexual behaviours, and these attitudes would then influence how much fear they experienced of judgement from the self and from others for (possibly) violating sexual standards. In other words, their attitudes about sex and sexual behaviours would mediate the influence their adherence to Islam would have on their levels of sexual guilt and sexual anxiety. Parental attitudes regarding sex have been found to be influential on the sexual attitudes and behaviours of their children. Therefore, I proposed that the way in which young Muslims adults perceive their parents' sexual attitudes would indirectly influence their sexual guilt and anxiety levels by first influencing their own attitudes regarding sex and sexual behaviours, including gender specific behaviours. Finally, considering that the literature suggests that women experience more sexual guilt and anxiety, hold more conservative sexual attitudes, and endorse greater egalitarianism in gender roles than men, it was expected that gender would be an influential factor determining levels of sexual guilt and anxiety. Once again I expected that its influence would be indirect, mediated by their attitudes regarding sex and sexual behaviours, including gender specific behaviours. In addition, parents engage in communication regarding sex differently with their sons and daughters, and as such I expected perceived parental sexual attitudes to influence the sexual attitudes of young Muslim men and women differently, which would in turn influence their sexual guilt and anxiety differently. Similarly, I expected the levels of support for the sexual double standard to differ between men and women, and for this difference to influence sexual guilt and anxiety differently.

Two models were tested. More than one model was tested for two main reasons. The first reason was to achieve greater power. Sample size is an important determinant of the power to test the hypothesized model (Jackson, 2003). In a path analysis the sample size is determined based on the number of parameters to be estimated. Jackson (2003) recommends a sample size to parameter estimate ratio of 20:1. In other words, to achieve an ideal power level one should have 20 participants for every one parameter estimate. One model including all the variables I examined would have yielded 30 parameter estimates, requiring a sample size of 600 participants. Models 1 and 2, with 18 and 20 parameter estimates, respectively, would require a sample size of 380 to 400 participants, respectively. Considering the current study was exploratory, that these models had not previously been tested, and that the subject matter was one of sensitivity, I believed attaining a sample size of 380 to 400 participants would be more reasonable. Therefore, testing two models would allow for an ideal power level, allowing for more confidence in the results and in the ease of replicability of the models (Jackson, 2003).

The second reason two models were tested was to maintain parsimony, an important principle in path analysis. Specifically, two models were tested to ease the interpretation of the mediating role of sexual attitudes, belief in the sexual double standard, gender role attitudes, as well as the moderating role of gender in the model. Therefore, the mediating variables were divided between the two models. I believed that two models would allow for more parsimonious path models.



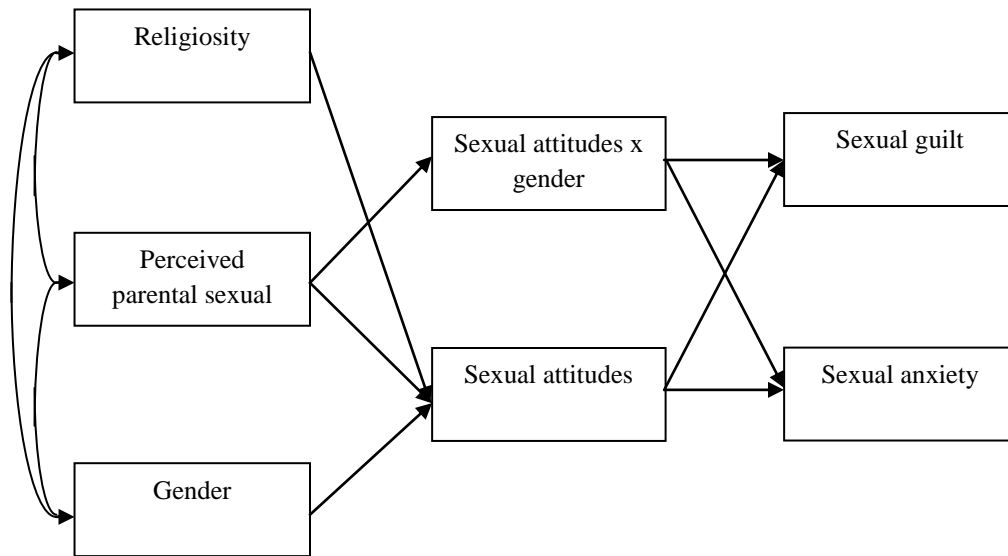


Figure 1a. Model 1: Sexual attitudes – Initial proposed model to be tested.

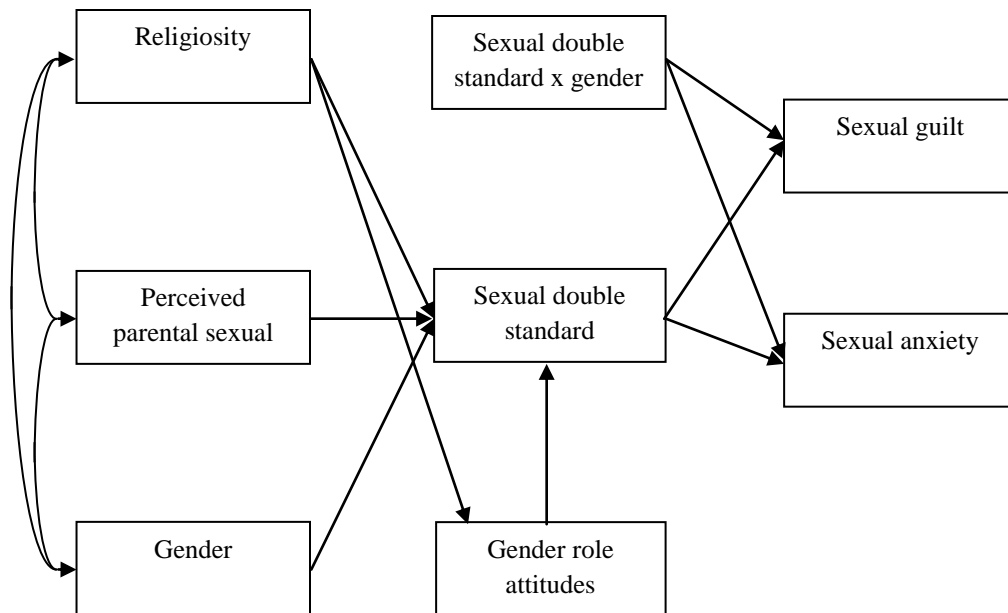


Figure 1b. Model 2: Sexual double standard – Initial proposed model to be tested.

## **CHAPTER III**

### **PILOT STUDY**

A pilot study was conducted to evaluate and revise the outcome measures to be used in the main study, specifically the Revised Mosher Guilt Inventory – Sex Guilt Subscale and the Sexual Anxiety Inventory. No published research is available in which these measures have been administered to Muslim populations. Therefore, it was unknown if these measures would assess sexual guilt and sexual anxiety among Muslims. These measures were assessed for relevance to and appropriateness for Muslims using focus groups. Feedback and suggested revisions were incorporated for the main study.

#### **Method**

##### **Participants**

Participants were 17 Canadian adult Muslim women and men. All but one were university students. Despite attempts to balance recruitment by gender there were 15 women and two men with an average age of 20.65 years ( $SD = 2.74$ ) and an age range of 18 – 27. Participants were recruited through email, Facebook, and the Department of Psychology Participant Pool. Additionally, the snowballing technique was used to extend recruitment beyond initial respondents (please see Appendix A for all recruitment materials used). When asked six individuals reported they heard of the study through the Department of Psychology Participant Pool, two reported hearing about the study from a poster on campus, two through word of mouth, two heard about the study through their professor, and Facebook, a friend, in class, and university were also mentioned by one person each. This study was described as a focus group in which participants would engage in a discussion with other Muslim participants of the same gender. They were told

they would be asked to provide their thoughts and critiques on the sexuality related questions of two surveys. It was made clear to the participants in the recruitment material that they would not be asked to answer those questions. In total, there were five focus groups, four all female and one all male. Two of the all female focus groups had two women each. The remaining two focus groups had five women and six women, respectively. The all male group had two participants. Most participants were born in Canada or the United States; those who were not had all come as children or adolescents (average age of arrival was 8.28 years ( $SD = 6.12$ , range 6 months – 17 years)). All participants reported being born Muslim and all but one female participant reported having Muslim parents (her mother was not Muslim). The participants were ethnically diverse and all identified as heterosexual. Most participants, including both male participants, reported being single. Table 1 presents the demographics of the pilot study participants.

### **Procedure**

In the focus group sessions participants reviewed and discussed each item of the Revised Mosher Guilt Inventory – Sex Guilt Subscale (SGS) and the Sex Anxiety Inventory (SAI). The Sex-Guilt Subscale is a 50-item sexual guilt measure and a subscale of the 114 item Revised Mosher Guilt Inventory (Mosher, 2011). Each of the fifty forced choice items in the Sex-Guilt Subscale consist of a sentence completion stem with a pair of statement items, in which one statement item represents presence of guilt while the other represents non-guilt. Each statement item is rated on a 7-point Likert scale, in which 0 means *not at all true of (for) me* and 6 means *extremely true of (for) me* (see Appendix B). The Sex Anxiety Inventory is a 25-item, forced choice measure which presents sentence completion stems with two possible response options (Janda & O’Grady, 1980).

Respondents are to choose the one of the two options which is closest to describing their feelings regarding sex. One response option reflects sexual anxiety while the other option reflects no sexual anxiety (see Appendix C). (Detailed descriptions of these measures are presented in the Method section of the main study.)

The focus group sessions were held on the University of Windsor campus in a small conference room. The sessions were audio recorded for later transcription and analysis. Refreshments were provided. Before the discussions began all participants were given a Consent Form (see Appendix D). The facilitator briefly reviewed the consent form with the participants. The consent form also asked participants to provide a second signature if they consented to being audio recorded. If they agreed to participate in the study and to be audio recorded they signed the Consent form and returned it to the facilitator. All participants agreed to participate and to be audio recorded. For the all female groups the session facilitator was the (female) researcher, while for the all male group the facilitator was a Muslim male with a PhD in Clinical Psychology.

The participants were first given a demographics questionnaire to complete (Appendix E) which included questions about their relationship status, sexual experience, and sexual education. Once the questionnaire was completed and returned the audio recorder was turned on and copies of the Sex Guilt Subscale were distributed to be read over carefully by the participants. After participants finished reading the measure the facilitator conducted a discussion which sought participants' feedback on the measure by asking five pre-determined questions (see Appendix F). Once the discussion on the Sex Guilt Subscale was complete the facilitator distributed copies of the Sexual Anxiety Inventory and repeated the procedure. At the completion of the focus group session the audio recorder was turned off and the facilitator provided any further clarification of the study.

Table 1

*Demographics of Pilot Study Participants*

Demographic	Women ( <i>n</i> = 15)	% of women	Men ( <i>n</i> = 2)	% of men
<b>Residence</b>				
Canada	15	100	2	100
<b>Citizenship</b>				
Canadian	14	93.3	2	100
American	1	6.7		
<b>Place of birth</b>				
Canada	5	33.3	2	100
United States	1	6.7		
Other	9	60		
<b>Ethnic group identification</b>				
Arab	7	46.7	2	100
South Asian	3	20		
African/Canadian	3	20		
Other (i.e., Arab/Black, Somali)	2	13.3		
<b>Relationship Status</b>				
Single and been in a relationship in past	3	20	2	100
Single and no relationship in past	7	46.7		
Single (unknown if in relationship in past)	2	13.3	2	100
Married	2	13.3		
Dating	1	6.7		

The participants were thanked for their participation. Participants were offered either a monetary incentive of \$100, via a draw, or Department of Psychology Participant Pool bonus points. All participants provided their contact information so that appropriate incentives could be awarded.

### **Results and Discussion**

The focus group discussions were analysed using content analysis. “Content analysis is a method of analysing written, verbal or visual communication messages”(Elo & Kyngäs, 2008, p. 107) and allows the researcher to condense text into a few categories of related information. The outcome of a content analysis is concepts or categories describing the experience present in the text (Elo & Kyngäs, 2008). There are multiple forms of content analysis (Hsieh & Shannon, 2005). As the purpose of the pilot study was the evaluation of the sexual guilt and sexual anxiety measures, a simple approach to analysis was sufficient and appropriate. I, therefore, used an adapted version of the conventional content analysis described by Hsieh and Shannon (2005). First the text was read fully, without active analysis, to understand the text as a whole. Next, the text was read carefully to identify the predefined categories which paralleled the pre-determined focus group interview questions. These categories were: general thoughts on the measure, unclear aspects of the measure, particularly relevant aspects of the measure for Muslims, particularly irrelevant aspects of the measure for Muslims, and missing elements which should be included in order to understand sexual guilt and anxiety among Muslims. In their discussions participants would often veer off topic, therefore all comments and suggestions, as well as themes, regarding the two measures were highlighted during this reading to separate them from other discussion points. Each transcript was then read

individually and all comments, suggestions, and themes regarding the measures were coded based on which question they addressed. These coded comments, suggestions, and themes were then grouped into their respective categories (i.e., questions) for each transcript. The categories for each transcript were combined and became five, larger categories, subsuming comments, suggestions, and themes from all focus group discussions. This entire process was done separately for the sexual guilt and sexual anxiety measures.

### **Criteria for Incorporating Participants' Suggestions and Comments**

I read over all of the transcripts from the focus groups and determined decision rules for including, analysing and presenting participant responses and considering for potential changes to the measures. First, comments, suggestions, and themes which were mentioned in more than one focus group were highlighted for further consideration. Second, any points identified as needing clarification were considered, reported here, and clarified in the revised measure regardless of how many participants mentioned them. The only exception to this rule was if the participants explicitly stated I should not change it in the measure. Such a condition only arose when others in the group provided clarity to those who expressed not understanding. In that case I would explicitly ask everyone in the group if clarification should be provided in the measure itself and would adhere to the answer of the participants. Third, suggestions for changing the response options for items on the measures were not followed. This was done to maintain the psychometric integrity of the measures. Participants' complaints about the response options were 1) the response options were too extreme, and 2) a third, neutral option was needed. In explaining their rationale for choosing response options for the Sex Anxiety Inventory Janda and O'Grady (1980) stated that "attention was paid to presenting pairs of endings for each item that

could be considered equally good (or bad) and that we believed would have similar probability of endorsement in the population” (p. 170). Although the authors recognized that such forced choice options may not always be popular, they believed that such response options reduced the possibility of individuals responding in socially desirable ways and avoiding denial of a sentiment. Similarly, participants believed that neutral response options should be added to the Sex Anxiety Inventory such as “I wouldn’t do it,” “I feel nothing about this,” or “This would never happen to me.” However, adding a neutral option would change the ways in which these measures would be interpreted and would affect the psychometric properties of the measure. Janda and O’Grady utilized forced choice response options because they minimize both denial and social desirability. I agreed and therefore chose not to change the response options. Finally, many participants felt many items on the Sex Guilt Subscale were repetitive, although not all suggested removing them. This measure does ask about the same sexual acts multiple times, although with different statement items. Therefore this sentiment was understandable and is likely not unique to this sample. However, for the psychometric purpose of encouraging consistency in responses from participants, and because response options were not repetitive, repetitive seeming items were not discarded.

### **Participants’ Sexual Experience and Sexual Education History**

To most effectively interpret the results it was relevant to examine participants’ self reports of sexual experience. Such background information contextualized the focus group discussions and helped better understand participants’ comments and suggestions. Most participants reported no sexual experience. Specifically, ten women and both men reported they had no sexual experience. Five women said they were sexually experienced, yet six women reported that they had engaged in sexual intercourse. This demonstrates



that the phrase “sexually experienced” may have been interpreted in different ways by the women.

All participants reported having had sexual education in school but none in the mosque. When asked to identify the amount of sexual education received from their parents, the media, and their friends, on a scale of 0 – 4 in which zero was *none* and four was *a lot*, the participants’ responses suggested that very little sexual education was received from their parents, with the media and friends indicated as greater sources of sexual education. A one-way repeated measures analysis of variance test was conducted to measure any significant differences between sources of sexual education. The results showed that although these participants reported no difference between the amount of sexual education received from the media and friends, they received significantly more sexual education from media and friends than from parents,  $F(2, 32) = 19.14, p < .001$ . Table 2 presents the range, actual range, mean, and standard deviation for their sexual education experience.

Table 2

*Range, Mean, and Standard Deviations for Sexual Education Questions – Pilot Study*

Item	<i>N</i>	Range	Actual range	Mean	<i>SD</i>
How much sex education have you received from your parents?	17	0 – 4	0 – 4	1.71	1.26
How much sex education have you received from the media?	17	0 – 4	2 – 4	3.24	.90
How much sex education have you received from your friends?	17	0 – 4	0 – 4	3.24	1.09

## Focus Group Discussions

The results and discussion of the Sex Guilt Subscale and the Sex Anxiety Inventory are presented together as overlap was found between the comments, suggestions, and themes which emerged for both.

**General thoughts on the Sex Guilt Subscale and Sex Anxiety Inventory.** The following section outlines the two themes which emerged from the discussions reflecting participants' general thoughts on the measures.

**Gender.** Individuals in two focus groups mentioned gender related issues. One group suggested that the items did not seem to represent the sexual desires of women. A member of another group expressed surprise that both men and women would be administered the same items as she believed that there were different sexual expectations of men and women. The following exchange between the researcher and the participant exemplifies this sentiment:

Sobia: So then you think because of the differences, the different expectations of men and women

Participant 6: Exactly, that's why I'm surprised the questions are the same. I mean for girls I could think of a lot of different questions than for men.

Sobia: Mm hm

Participant 6: I mean, um, I, I could honestly say without, without the studies I know that a lot of men are going to reply differently on these questions than women.

Sobia: Mm hm, yeah.

Participant 6: Without even doing the study I can be 100 percent sure.

Sobia: Yeah, so what kind of questions do you think, or, this is open to everyone, what kind of questions

Participant 6: Well, I'll be honest when I first saw the, "When I have sexual dreams" I mean I don't know about anybody else here, but I don't think girls have sexual dreams (laughs a little). I mean I don't know maybe we do but not that I know of. I mean, I've never heard of a girl

Participant 3: The definition is different for guys.

On a related topic, others in this same group suggested that a woman's virginity is viewed as more important than that of a man's and a question addressing this double standard should be included. Although my study did include a measure assessing endorsement of the sexual double standard, the relevance of such an additional item to the Sex Guilt Subscale was not made clear and so this question was not added. Nonetheless, these comments do reveal both the participants' critique and endorsement of sexual double standards. These participants demonstrated an understanding of the different expectations placed on the sexual behaviour of men and women. However, at the same time, one of these participants endorsed the sexual double standard. Whether endorsing or critiquing the sexual double standard, this conversation demonstrated that these Muslim participants assumed, and expected, gender differences in sexuality. Their assumptions are supported by the literature which has found that gender based double standards in terms of which sexual behaviours are considered appropriate for women and men do exist in society at large (Crawford & Popp, 2003). In addition, these assumptions suggest that assessing endorsement of the sexual double standard among Muslims is appropriate for this research and support the rationale for the main study.

***Religious adherence versus sexual guilt.*** A few participants in two focus groups expressed a concern that Muslim respondents to the Sex Guilt Subscale may respond to the questions based on their religious beliefs and not on their views on sex. In other words, these participants felt that this scale may be assessing adherence to Islam as opposed to sexual guilt. Although this concern is valid, and demonstrates the ways in which sex and religion are intertwined for these participants, when examining the conceptualization of sexual guilt this may not be a cause for concern. Sexual guilt has been conceptualized as the fear one has of judging oneself based on the violation of one's own standards of acceptable sexual behaviours (Mosher & Cross, 1971). It is not a single response to a single event. Rather it is a constant state of affect one has based on their beliefs and attitudes about sex. Therefore, the source of their attitudes regarding sexual behaviours (in this case religion) becomes irrelevant for the validity of the measure. Respondents indicate their attitudes and report on their levels of fear of self-judgement if they were to engage in certain sexual behaviours. Nonetheless, this concern demonstrated that these participants felt religion would be central in determining sexual guilt and supports the rationale of the main study.

**Unclear aspects of the Sex Guilt Subscale and Sex Anxiety Inventory.**

Participants in the focus groups questioned the meaning of terms and appropriateness of response options.

***Unclear about meaning of sexual behaviour terms and phrases.*** Participants in one focus group reported being unclear about the definitions of some words on the Sex Anxiety Inventory. First, some participants stated that they did not understand the word 'adultery', a term which occurs twice in the measure. Members of this focus group stated they did not know if adultery referred to sex before or outside marriage. This confusion

may have occurred because Islamic scholars often use this term to refer to both.

Therefore, although individuals in only one focus group reported this confusion, I decided that this term would be clarified to avoid the same confusion among respondents of this measure. ‘Adultery’ was defined as “being married and having sex with someone who is not your spouse.” The same definition was also added next to any item which included the term ‘extramarital sex’, in both measures, to ensure that no confusion regarding this term occurred.

Second, two groups reported that they did not know what was meant by ‘sexual advances’, a term appearing in one item. It was therefore decided that this term would also be clarified in the measure. ‘Sexual advances’ was defined as “gestures made towards another person with the aim of gaining some sort of sexual favour or gratification.”

Third, participants in four groups felt that the meaning of the term ‘petting’ in the Sex Guilt Subscale was unclear or awkward. Many stated that they did not understand to which behaviour this term referred. They asked that this term be clarified in the measure. As a result, for the main study, a definition was provided in brackets, for this term, within the item. The definition provided was the following: “a sexually stimulating caress of any or all parts of the body.”

Fourth, participants in four groups felt the phrase ‘unusual sexual practices,’ found in the Sex Guilt Subscale was unclear and expressed that they were unsure what constituted ‘unusual sexual practices’. Individuals in one group felt that this phrase was too general, stating that what may seem unusual to one person may not be so for another. A few participants in another group questioned whether this term referred to *halal* (lawful) or *haram* (unlawful) sexual practices. In a third group a discussion emerged

about whether these referred to sexual behaviours within or outside marriage, while some in a fourth group suggested that cultural norms be used to define unusual practices, and not religious norms. I decided that while I would like to give respondents some clarification regarding the meaning of this term, I also did not want to so rigidly define it so as to limit it to one conception of unusual sexual practices. Therefore, I decided that the following definition would be provided, within brackets, in the item: “sexual practices which are uncommon.” I decided that respondents to the measure should decide which sexual practices they felt were uncommon.

Finally, participants in three focus groups felt that sex play as a child, which appeared in the Sex Guilt Subscale, was unclear. Many reported not understanding what this behaviour entailed with some individuals doubting its existence at all. However, most of the members of these groups agreed that more clarification of this phrase was required rather than its removal. Therefore, a definition was provided in brackets with this item which was “a child’s exploration of their own or friend’s private body parts (e.g., “playing doctor”, sexual kissing, etc.).”

*Inappropriate response options.* Participants in two focus groups felt unclear about one of the response options to item 21 in the Sex Anxiety Inventory:

Extramarital sex...

- a. is sometimes necessary.
- b. can damage one’s career.

Participants in both groups felt that the second option did not make sense as they did not know how extramarital sex would damage an individual’s career. In one group individuals felt this response option was randomly chosen although they did not

recommend changing it. Participants in one of these groups also felt that another similar item on this measure had extreme response options. This was:

Extramarital sex...

- a. is OK if everyone agrees.
- b. can break up families.

These individuals felt that the second option was quite an extreme outcome to consider for the question and felt it did need to be changed. For the reasons provided by Janda and O'Grady and outlined earlier neither of these questions was changed. However, it was clear from discussion with participants in these two focus groups that the appropriateness of the response options for the 'extramarital sex' items was unclear. Therefore, I decided that another, similar, item would be added to the measure which I believed may provide a response option considered more appropriate by respondents. This new item was

Extramarital sex...

- a. is OK if everyone agrees.
- b. can be harmful.

#### **Particularly relevant aspects of the Sex Guilt Subscale and Sex Anxiety**

**Inventory for Muslims.** There were various themes which emerged regarding aspects of these measures that were relevant. Although the responses to this inquiry were not used to alter the measures, they aided in the interpretation of the results of the main study.

*Sex before marriage.* Individuals in two groups felt that the items regarding sex before marriage in the Sex Guilt Inventory were particularly relevant. A few participants in one group felt that it was relevant because although Muslims were engaging in sex before marriage it was rarely discussed among Muslims.

**Mixed company.** Participants in two focus groups reported that they felt the items on the Sex Guilt Subscale in which scenarios of mixed company were presented were also relevant for Muslims. They felt these items would be an appropriate gauge of Muslims' feelings regarding sex and sexual behaviour and guilt regarding that behaviour.

**Masturbation.** Many participants felt the items regarding masturbation on both measures were quite relevant to Muslims. When discussing the Sex Guilt Subscale participants in two groups felt the items regarding masturbation were relevant. Some individuals in one group felt that these items were a good indicator of levels of guilt in respondents while those in the other group felt that because this topic was controversial<sup>3</sup> among Muslims it was important to address in the measure. When discussing the Sex Anxiety Inventory participants in four groups felt masturbation items were relevant. Individuals in one group stated that as this was a private behaviour very little was known about Muslims' experiences with masturbation. Those in another group stated that items on masturbation would be a good indicator of levels of anxiety. The all male group felt this question was relevant because it was acceptable for Muslims to engage in masturbation as a method of avoiding engaging in "unlawful" sex. Participants in the fourth group felt that masturbation was a good indicator of anxiety among Muslims because, they believed, masturbation was *haram*, or unlawful, and thus if someone were to engage in it they may feel high anxiety. These discussions reflect the lack of consensus among Muslims concerning the permissibility of masturbation while demonstrating a recognition that Muslims do indeed engage in masturbation.

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<sup>3</sup> There is no consensus on the act of masturbation among Islamic scholars. There are some scholars who assert it is permitted as a means of preventing individuals from engaging in unlawful sexual intercourse, while others argue it is strictly prohibited (Hoseini, 2013; Inhorn, 2007).



**Flirtation.** Participants in three groups felt the items addressing flirting in the Sex Anxiety Inventory were relevant to Muslims. This following exchange demonstrates one participant's reasoning:

P1: I like how there's questions about flirting.

Sobia: Yeah?

P1: Um, I guess sometimes I feel that, it's a more ok, like it's more accepted for people to flirt....than it is for anything, like, flirting is like the last line

Sobia: Right, right, yeah

P1: Yeah. Flirting's ok but if you go further than that, that's like bad.

Participants in the other two groups did not provide a clear reason as to why they felt this question was relevant but they were clear that they liked these items.

**Pornography.** Individuals in two groups felt that the pornography related items on the Sex Anxiety Inventory were particularly relevant. Participants in one group felt that, like masturbation, this was relevant as it was a private behaviour among Muslims about which little was known and therefore needed to be explored. Those in the other group did not articulate a reason.

**Oral sex.** Participants in two groups felt that the items on oral sex on the Sex Anxiety Inventory were particularly relevant to Muslims. They felt assessing views on oral sex would act as a good indicator of presence of sexual anxiety.

**Particularly irrelevant aspects of the Sex Guilt Subscale and Sex Anxiety Inventory for Muslims.** Participants in four focus groups felt that nothing on the Sex Guilt Subscale measure was irrelevant to Muslims. One participant in one group felt that the item on sexual dreams would be irrelevant for women as she felt that women did not

experience sexual dreams, although she did not suggest removing the item. She believed it was unnatural for women, but not for men, to have sexual dreams. Others in the group felt that women may have sexual dreams but may not share them with others due to shame or embarrassment. It is likely that many individuals, regardless of religious background, hold this inaccurate belief that women do not have sexual dreams. As this belief was deemed inaccurate this item was not removed from the measure.

Participants in four groups felt that the item referring to group sex on the Sex Anxiety Inventory was particularly irrelevant to Muslims. Many felt that it was unlikely that Muslims would engage in group sex, or indeed, would ever partake in group sex. Others stated that they had never heard of Muslims engaging in group sex and some felt it was “just too far out there.” Although a few individuals felt it should be taken out, most felt it should remain in the measure. This item was kept in the measure.

**Missing elements which should be included in order to understand sexual guilt and sexual anxiety among Muslims.** The participants offered many suggestions for topics which they felt would be helpful additions to the measures.

*Male/female non-sexual interactions.* Individuals in two focus groups suggested including more items in the Sex Guilt Subscale referencing non-sexual interactions between men and women. Both groups felt it was important to assess Muslims’ sexual guilt regarding non-sexual mixed gender interactions. One individual suggested that an item should ask about guilt associated with men and women shaking hands, as they felt that this was an issue of concern for many Muslims. She asked “...what about handshake questions? ’Cause I know that’s like a huge thing right? ” The other participant in her group agreed. Both participants from this group cited examples from their own lives in which they had witnessed Muslim individuals express discomfort with shaking hands

with the other gender. They explained that for many Muslims shaking hands with the other gender would be considered sexual behaviour. This sentiment can be seen in the following quote:

P1: Because like 'cause handshaking is in Muslim thing it's more like of a sexual thing, you know if you shake hands with a guy it's kinda like, it is sexual in a way right? It's kind of like the petting. Like it wouldn't be relevant for non-Muslims honestly 'cause it's an accepted practice, it's like no one cares if you shake hands. It's just like a professional thing. Like who cares right? But in the Muslim, like, tradition it's not acceptable because it implies like you're giving your hand away or to the guy or whatever. Like it's more, it is more of a sexual thing because the sexes are so, like segregated

Therefore, to include an item addressing possible sexual guilt associated with non-sexual mixed gender interactions, I decided to include an item regarding men and women shaking hands. This item was:

Men and women shaking hands....

1. is normal and acceptable behaviour.
2. can lead to sexual thoughts and so should not be engaged in.

***Talking about sex/sexuality with same gender friends and in mixed company.***

Individuals in two groups suggested adding questions to the Sex Guilt Subscale referencing talking about sex with both same gender friends/company and in mixed company. Individuals in one group suggested that there would be differences in the ways in which Muslims talked about sex/sexuality among their same gender friends and the way they spoke of these issues in mixed company. Participants in the other group

suggested there should be items included which parallel the items on “dirty jokes in mixed company,” but in reference to same gender company. Therefore, five pairs of items were added to the measure to address guilt associated with talking about sex/sexuality in mixed and same gender company. These were:

Talking about sex with friends of the same gender...

1. is perfectly acceptable.
2. should be completely avoided.

Talking about sex with mixed company...

1. is perfectly acceptable.
2. should be completely avoided.

“Dirty jokes” in same gender company...

1. do not bother me.
2. are something that make me very uncomfortable.

“Dirty jokes” in same gender company...

1. are in bad taste.
2. can be funny depending on the company.

“Dirty jokes” in same gender company...

1. are coarse to say the least.
2. are lots of fun.

***Accessing pornography.*** Participants in two groups suggested adding items to the Sex Guilt Subscale which addressed accessing pornography in some form, with some in one group stating that it should be included because “[w]e have a lot of problems we don’t talk about.” Participants in the other group suggested adding such an item into this measure because there was a pornography related item in the Sex Anxiety Inventory.

Therefore, one item addressing sexual guilt associated with accessing pornography was added as well. This item was:

Looking at pornographic materials....

1. is fine depending on the content of the pornographic materials.
2. is wrong and unacceptable under all circumstances.

***Self-directed sex education research.*** Individuals in two focus groups recommended addressing self-directed sex education research. In other words, they thought it would be important to include an item in the Sex Guilt Subscale addressing an individual seeking information about sex on their own. Some in one group felt there may be guilt associated with researching sex. This can be seen in the following exchange:

P1: Yeah, I mean that ties into what you were saying about what resources, um, you know, would guilt be associated with? Tapping into, so do people feel more guilty researching it on their own or, or finding, I don't know, from someone they are comfortable with or what does that look like and

P1: Would you go to the imam and talk about it or not?

P2: Yeah, so there might be some guilt associated with that right

Members of the other group, during a conversation on sex education, felt that it was important for Muslims to seek sex education and information, although from an Islamic perspective. When I asked if I should include such an item they felt that I should. I included an additional item addressing seeking sexual information, though not from an Islamic perspective. I did not want to restrict the conditions of seeking sexual information. The last additional item to this measure was formulated as:

Looking up information on sex on your own...

1. is healthy and empowering.
2. can elicit sexual desires and so should not be done.

***Modernize the measure.*** Participants in three focus groups felt that the item referencing the purchasing of pornographic books in the Sex Anxiety Inventory seemed outdated. This item was originally worded as the following:

Buying a pornographic book...

- a. wouldn't bother me.
- b. would make me nervous.

Many felt that few people, if any, buy pornographic books. Instead, they stated, most people access porn online, or through movies and magazines. Therefore, individuals in all three groups suggested updating this question in the measure to reflect modern ways of accessing porn. To reflect modern methods this question was therefore changed to

Looking at pornographic materials (e.g., websites, magazines, movies, etc.)...

- a. wouldn't bother me.
- b. would make me nervous.

***Clarify instructions.*** Participants in one group felt that the instructions for both measures were not clear in explaining that one need not have had sexual experience to answer these questions. They stated that the instructions would need to clearly state that if respondents had not experienced a situation that they should instead think of a hypothetical or future situation. Therefore, instructions for both measures were extended by adding the following statement:

If there are situations you have not experienced then try to answer the questions thinking about how you would feel if they did happen.

**Sexual education.** Participants in one group felt that an item on receiving sexual education/information should be included in the Sex Anxiety Inventory. These individuals felt that anxiety regarding sex education would be important to assess. They also felt this may indicate that sexual anxiety may have started at an early age. Although only individuals in one group made this suggestion, since a similar item was included in the Sex Guilt Subscale I felt it was important to include an item on sexual education in this measure as well. Therefore, the following question was included:

When I first received sex education...

- a. I felt intrigued and interested.
- b. I was nervous and uncomfortable.

**Assessment of sexual guilt and anxiety.** Although some participants expressed a concern regarding the conflation of religiosity with sexual guilt, most participants did express that these measures appeared to be assessing sexual guilt and sexual anxiety. Most participants provided suggestions on possible improvements to the measures, yet still felt the measures were a good assessment of sexual guilt and sexual anxiety in Muslims providing support for the content validity of the Sex Guilt Subscale and the Sex Anxiety Inventory in their use with Muslims.

### **Summary**

Based on the feedback from these five focus groups a few additions were made to the Sex Guilt Subscale. Namely, definitions for ‘petting,’ ‘unusual sexual practices,’ and ‘sex play as a child’ were included to clarify meanings and avoid any confusion involving terminology. Also, 16 more items were added based on suggestions made by participants. These 16 items addressed male/female non-sexual interactions, talking about sex/sexuality with same gender friends and in mixed company, accessing pornography,

and self-directed sex education research. Feedback from these five focus groups also led to changes being made to the Sex Anxiety Inventory. Namely, definitions for ‘adultery,’ and ‘sexual advances’ were included to clarify meanings and avoid any confusion involving terminology. Two more items were added based on suggestions made by participants. One item was added to provide another response option to a question many felt had an odd response option while the other item referred to obtaining sexual education. One item on pornography was modernized, and instructions were clarified for both measures. In addition to information gained to alter the measure participants discussion also revealed attitudes and views which may help in the interpretation of results, namely their views on gender differences and their beliefs of what may impact the sexual guilt and sexual anxiety of Muslims.

### **Conclusions**

The focus groups were useful in evaluating and revising the Sex Guilt Subscale and the Sex Anxiety Inventory. Definitions for unclear terms and phrases were added, outdated phrases were updated, new questions were added, and instructions were made clearer. In addition to information and feedback used to change these measures, the focus groups also provided feedback on these measures which I was unable to apply. The application of these suggestions would have compromised the psychometric integrity of the measures and were thus not implemented. However, feedback concerning items particularly relevant to Muslims was used to aid in the interpretation of the results of the main study. In addition, this information may be used to test these measures in their future use with Muslims. Although I was unable to incorporate many suggestions for the purposes of the current study, research focusing on the testing and revising of these measures for use with Muslims may find these suggestions pertinent.



Once the changes were made to the Sex Guilt Subscale and the Sex Anxiety Inventory, approval for these changes was sought and obtained from the University of Windsor Research Ethics Board. These revised measures were then used in the main study.

## CHAPTER IV

### MAIN STUDY

#### Method

##### Participants

The original sample consisted of 408 heterosexual, Canadian and American young adult Muslim women and men between the ages of 17 and 35 ( $M = 25.44$ ;  $SD = 4.80$ ). As a result of a missing values analysis and outlier analysis (described in detail in the Preliminary Data Analysis section) five participants were taken out of the analysis. The final sample was 403 heterosexual, Canadian and American young adult Muslim women and men. There were 320 women and 82 men. One participant identified as transgender. Most participants lived in the United States or Canada and identified as Canadian or American citizens. Approximately one third of the participants were born outside of Canada or the United States and indicated moving to Canada or the United States at a mean age of 10.11 years ( $SD = 7.23$ ). Approximately half of the participants identified as currently being students. The participants were an ethnically diverse population with most participants identifying as South Asian (Indian, Pakistani, Bangladeshi, etc.) or Arab. Most participants indicated being born Muslim. Those who had not been born Muslim reported having been Muslim for a mean of 8 years ( $SD = 5.52$ ). For more details on participant demographics please see Table 3.

Table 3

*Demographics of Main Study Participants*

Demographics	<i>n</i>	%
Country of residence		
Canada	135	33.5
United States	260	64.5
Other	7	1.7
Citizenship status		
Canadian citizen	128	31.8
American citizen	251	62.3
Canadian permanent resident	14	3.5
American permanent resident	18	4.5
Ethnic group identification		
South Asian	175	43.4
Arab	101	25.1
European	30	7.4
African American/Canadian	24	6.0
Multiple ethnicities	22	5.6
Other	51	12.7
Birthplace		
Canada	82	20.3
United States	180	44.7
Other	139	34.5

Demographics	<i>N</i>	%
Moved to North America between ages of 0 – 12	90	22.3
Moved to North America between ages of 13 - 17	23	5.7
Moved to North America between ages of 18 - 28	24	6
Muslim identification		
Born Muslim	351	87.1
Parents' religious identification		
Muslim mother	345	85.6
Muslim father	341	84.6
Muslim step-mother (37 had step-mother)	16	3.9
Muslim step-father (33 had step-father)	13	3.2
Level of Education		
Grade school (elementary or junior high school)	2	0.5
Some high school	2	0.5
High school diploma	20	4.9
Some university or college	76	18.9
College diploma	17	4.2
Associate's degree (U.S. only)	4	1.0
Undergraduate degree	130	32.3
Graduate degree	150	37.2
Student status		
Currently a student	217	53.8

## Measures

Measures included a demographics questionnaire and two surveys to assess sexual health conceptualized as sexual guilt (Revised Mosher Guilt Inventory - Sex-Guilt Subscale), and sexual anxiety (Sexual Anxiety Inventory). Additional measures were used to assess sexual attitudes (Brief Sexual Attitudes Scale), sexual double standards (Double Standards Scale), gender role attitudes (Sex Role Egalitarianism Scale), religiosity (The Religiosity of Islam Scale), and perceived parental sexual attitudes (Attitudes Toward Sexuality Scale – Revised). To ensure the comparability of participants' scores on the measures I followed the original scoring rules determined by those who developed the measures. The only exception was the Religiosity of Islam Scale as it was a new measure with little presence in the literature.

**Demographics Questionnaire.** This 25-item questionnaire asked participants to indicate their religion, parents' religion, gender, age, ethnocultural group, education level, student status, country of residence, country of birth, sexual orientation, relationship status, sexual experience, and sexual education experience (see Appendix E).

**Sex Role Egalitarianism Scale-KK (SRES-KK).** King and King (1986) developed this 25-item measure which assesses gender role attitudes regarding the roles of both women and men. Specifically, this measure assesses the extent to which individuals support egalitarianism of roles between men and women. It assesses gender role attitudes in five life domains: 1) marital roles, 2) parental roles, 3) employment roles, 4) social-interpersonal-heterosexual roles, and 5) educational roles. This measure has four versions measuring the same construct– the SRES-K and the SRES-B, both 95-item measures, and their respective short form measures, the SRES-KK and the SRES-BB, both 25-item measures. King and King (1997) explain the reasoning for creating two

alternate forms was simply “the availability of a much larger set of good-quality items than initially anticipated” (p.73). The current study used the SRES-KK as this version has within it the five items which have the highest item-subscale correlations from each of the five subscales of the long form SRES-K (Berkel, 2004). The measure is bidirectional, assessing movement from traditional to non-traditional roles for both women and men, unlike another commonly used gender roles measure, the Attitudes Toward Women Scale (Spence, Helmreich, & Stapp, 1973), which assess attitudes only toward roles for women. An example of an item on the SRES-KK states “Women ought to have the same chances as men to be leaders at work” to which respondents must indicate their level of agreement. The items use a 5-point Likert scale with 1 being *strongly disagree* and 5 being *strongly agree* (see Appendix G). Items endorsing egalitarianism are reverse scored and the scores are summed. Higher scores indicate traditional gender role attitudes. McHugh and Frieze (1997) have stated that the “development and testing of the SRES are in some ways exemplary” (p. 8). Various studies have found the internal consistency to be sound with Cronbach alpha values in the .90 and above range (Beere, King, Beere & King, 1984; Berkel, 2004; King & King, 1990; King & King, 1996; King & King, 1997). Test-retest reliability has also been found to be sound with alpha values in the high .80s to low .90s range (Beere et al., 1984; King & King, 1990; King & King, 1996). Finding significant correlations with other gender role attitudes measures has provided support for the construct validity of the measure (Berkel, 2004; King & King, 1996). Various studies have found the SRES to have discriminant validity when administered with social desirability, attitudes toward women, and femininity and masculinity measures (King & King, 1986; King & King, 1996; King & King, 1997).

**Double Standard Scale (DSS).** This 10-item measure assesses acceptance of traditional sexual double standards. Each item has a 5-point Likert response format with 1 being *strongly agree* and 5 being *strongly disagree* (see Appendix H). An example of an item from this measure reads “A woman should never appear to be prepared for a sexual encounter.” Caron et al. (1993) found that among a university sample of 330 women and men, the Cronbach alpha value was .72, indicating acceptable reliability. The authors suggested the DDS to be a valid measure as the results they found on this measure with university students were consistent with expectations regarding the use of condoms among men and women holding traditional sexual double standards. To score this measure the one negative item (Item 8) is reversed and the scores on all the items are summed with an overall score range of 10 to 50. A lower score reflects more traditional sexual double standards (Caron, Davis, Halteman, & Stickle, 2011).

**Brief Sexual Attitudes Scale (BSAS).** This highly used scale was administered to assess the sexual attitudes of the respondents. The 23-item BSAS (Hendrick & Hendrick, 2011; Hendrick, Hendrick, & Reich, 2006) is a shorter version of the Sexual Attitudes Scale (Hendrick & Hendrick, 1987a) both of which are multidimensional scales for the assessment of sexual attitudes and have been found to perform similarly, though the CFA fit indices have been found to be significantly better for the BSAS. The BSAS consists of four subscales: 1) Permissiveness, which “measures a casual, open attitude toward sex,” 2) Sexual Practices, which measures responsible and tolerant sexual attitudes, 3) Communion, which assesses the view that sex is an ideal experience, and 4) Sexual Instrumentality, which assesses the view that sex is a “natural, biological, self-oriented aspect of life” (Hendrick & Hendrick, 2011). Each item is a statement requiring the respondent to indicate degree of agreement on a 5-point Likert scale with 1 being *strongly*

*agree* to 5 being *strongly disagree* (see Appendix I). For example, one item to which participants respond is “The best sex is with no strings attached.” Lower scores indicate greater endorsement of the subscale indicating a more liberal, sexual attitude. The four subscales have been found to be only marginally correlated and as such should not be summed for a total scale score (Hendrick & Hendrick, 2011). For the current study the entire scale was administered, however only the Permissiveness subscale was included in the analysis as a representation of the sexual attitudes of Muslims. The Permissiveness subscale is the longest subscale with 10 items and has been used independently in other research (e.g., Brelsford, Luquis, & Murray-Swank, 2011; Tobin, 1997). Previous use of this subscale has found the Cronbach’s alpha of the measure to be .90 and above (Brelsford et al., 2011; Hendrick et al., 2006).

**Attitudes Toward Sexuality Scale - Revised (ATSS-R).** A revised version of the Attitudes Toward Sexuality Scale was used to assess perceived parental attitudes toward sexuality. This 13-item measure was initially created by Fisher and Hall (1988) to be used with adolescents and their parents to compare the sexual attitudes of each group and can be used with various age groups. The scale assesses three dimensions of sexuality: “legality/morality, alternative modes of sexual expression, and individual rights” (Fisher & Hall, 1988, p.99) and covers topics such as abortion, contraception, premarital sex, pornography, prostitution, homosexuality, and sexually transmitted diseases (Fisher, 2011). The measure is considered simple and non-offensive (Abu-Ali, 2003; Fisher, 2011). A sample item from this measure states “My mother/father believes premarital sexual intercourse for young people is unacceptable.” Each item has a 5-point Likert response format with 1 being *strongly disagree* to 5 being *strongly agree* (see Appendix F). Abu-Ali (2003) removed one item in reference to the legality of nudist camps. For the



current study, that item was also removed for irrelevancy. The 12 items of the ATSS-R asked participants to respond to each item with the way they perceive the attitudes of the one parent who they feel was/is most influential in sexual matters (see Appendix J). A similar technique has been used by Byno (2006) with the whole Sexual Attitudes Scale (Hendrick & Hendrick, 2011). The scale is scored by reverse scoring the conservative items and summing across the remaining 12 items with a possible score range of 12 – 60. Higher scores indicate more liberal sexual attitudes. Fisher and Hall (1988) found the Cronbach's alpha to be .75 for adolescents and .84 for adults. Among Muslim adolescent girls the Cronbach's alpha was .74 (Abu-Ali, 2003). Validity tests have found the measure to be negatively correlated with church attendance and age (Fisher & Hall, 1988), and positively correlated with sexually liberal attitudes (Fisher, 2011).

**Revised Mosher Guilt Inventory (RMGI) – Sex-Guilt Subscale (Revised).** The 50-item sexual guilt measure is a subscale of the 114 item RMGI (Mosher, 2011). Each of the fifty forced choice items in the revised Sex-Guilt Subscale consists of a sentence completion stem with a pair of responses, in which one response represents presence of guilt while the other represents non-guilt. For example, one stem states “‘Dirty jokes’ in mixed company...” followed by the responses of “do not bother me” and “are something that make me very uncomfortable.” Each response option is rated on a 7-point Likert scale, in which 0 means *not at all true of (for) me* and 6 means *extremely true of (for) me* (see Appendix K). The use of the subscale separately has been approved as the construct validity of this subscale has been established by reviewing 100 studies using only the Sex-Guilt Subscale (Mosher, 1979b, as cited in Mosher, 2011). Mosher (2011) has also established the discriminant validity of this subscale, indicating that 90% of the items in the overall RMGI were correlated with other items in their own subscale and these

correlations were significantly different from correlations with items in other subscales. This subscale has been found to be highly reliable with Cronbach's alpha values from various studies averaging around .90 (Mosher, 2011). The subscale is scored by first reversing the non-guilt response options and then summing all the scores on the subscale. Higher scores indicate a greater level of sexual guilt. Using feedback obtained from the all Muslim focus groups in the pilot study, 16 more items were added to this measure to make it a 66-item measure.

**Sex Anxiety Inventory (SAI).** This 25-item, forced choice measure presents sentence completion stems with two possible response options (Janda & O'Grady, 1980). Respondents are to choose one of the two options which is closest to describing their feelings regarding sex. One response option reflects sexual anxiety while the other option reflects no sexual anxiety (see Appendix L). For example, one item begins with the stem "Masturbation..." and provides the response options of "causes me to worry" and "can be a useful substitute." Each anxiety response receives a score of one while the no anxiety response receives a score of zero. All the anxiety responses are therefore summed up to give a maximum score of 25. Higher scores indicate a greater level of anxiety. Janda and O'Grady (1980) reported the scale to be highly homogeneous with an internal consistency value of .86. The authors also established test-retest reliability by testing the measure with 27 females and 66 males with a time interval between the test and retest of 10-14 days. The reliability coefficient for females was .84 and for males, .85. Finally, concurrent validity was determined by the finding that it predicted self-reported sexual experiences of both women and men (Janda & O'Grady, 1980). In the development of the Sex Anxiety Inventory, Janda and O'Grady (1980), using the Mosher Forced-Choice Sex Guilt Inventory (Mosher, 1966), were able to establish discriminant validity of the

measure, indicating that sex anxiety and sexual guilt were indeed tapping into two different phenomena. Although, some overlap was found, as would be expected of such similar concepts, the statistical similarity was not enough to suggest measurement of the same construct (Janda & O'Grady, 2011). Based on the feedback of the focus groups in the pilot study two more questions were added to this measure for the purpose of the current study, resulting in a 27-item measure.

**Sexual Guilt and Sexual Anxiety Questions.** Two sets of questions, created for this study, were also included to assess congruency of self-reports of sexual guilt and sexual anxiety with the Revised Mosher Guilt Inventory (RMGI) – Sex-Guilt Subscale and the Sex Anxiety Inventory, respectively. One set of questions was presented after the Sex-Guilt Subscale and measured sexual guilt while the other set was presented after the SAI and assessed sexual anxiety. Respondents were asked “Have you had sex before marriage?” If they answered ‘yes’ their level of guilt and anxiety was gauged using a 10-point Likert scale in which 1 meant *no guilt at all* or *no anxiety at all* while 10 meant *extreme guilt* or *extreme anxiety*. If they answered ‘no’ they were asked if they had thought about pre-marital sex. If they answered ‘yes’ their level of guilt and anxiety in regards to thinking about it was assessed using a 10-point Likert scale in which 1 meant *no guilt at all* or *no anxiety at all* while 10 meant *extreme guilt* or *extreme anxiety*. If they answered ‘no’ they moved to the next measure. The questions were then correlated with their respective measures to analyse congruency (see Appendix M).

**Religiosity of Islam Scale (RIS).** This 19-item measure was used to assess conservative Islamic religiosity as it reflects conservative Islamic beliefs (see Appendix N). The RIS (Jana-Masri & Priester, 2007) consists of two subscales – Islamic Beliefs and Islamic Practices. The entire scale was administered. However, as the current study was

interested in conservative beliefs, only the Islamic Beliefs subscale was included in the analysis. Information regarding Islamic practices can be analyzed to provide insight on Islamic beliefs. An example of an item on this subscale is “I seek knowledge because it is a Muslim religious duty.” Each Islamic Beliefs item has a 7-point Likert response format with 1 being *strongly agree* and 7 being *strongly disagree*. Lower scores indicate greater religiosity. However, for ease of interpretation items were reverse scored so that higher scores would indicate greater conservative religiosity. The authors established content validity by having the scale reviewed by both an Imam and an Islamic scholar.

Concurrent validity was established by asking respondents to also indicate, on a one-item measure, the importance of Islam in their lives, and finding a positive correlation between the two measures. The internal consistency of this subscale was marginally acceptable with a Cronbach alpha value of .66. Although greater reliability would be preferred, many items in this subscale reflect Islamically conservative attitudes, including some relating to gender issues. Additionally, psychometrically sound measures which would assess Islamically conservative religiosity do not exist.

### **Procedure**

Participants were recruited, across Canada and the U.S., using a variety of methods. First, the snowballing technique was used where Muslim family members, friends, and acquaintances of the researcher were asked to complete the questionnaire as well as to pass the questionnaire along to their Muslim family members, friends, and acquaintances. This was done by word of mouth, emails, and Facebook. Second, the study was also advertised on relevant Facebook groups with an informative message and link to the study. Third, groups and organizations for Muslims across Canada and the US were contacted through email and asked to advertise the study to their respective members.

Finally, online sites aimed at Muslims, namely blogs, were contacted through email and asked to advertise the study on their blog sites (please see Appendix O for all recruitment correspondences sent by researcher). In the end most participants were recruited using Facebook. Table 4 provides details on participants' reports of how they heard about the study.

Table 4

*Participants' Reports on Source of Information about Study*

Method	<i>n</i>	%
Facebook	191	47.4
Email	69	17.1
Muslim group or organization	42	10.4
Listserv	43	10.7
Department of Psychology Participant Pool	28	6.9
Word of mouth	36	8.9
Blog	21	5.2
Poster	3	0.7
Other	15	3.7
Twitter	6	1.5
University class/school	6	1.5
Online/website	3	0.7

All data collection was conducted online to increase the possibility of obtaining the participation of a sufficient number of people for statistical analyses and to provide added privacy for those who may be conservative as well as those who may simply feel

discomfort answering such sensitive questions in the presence of a researcher.

Participants were directed to the website and were able to complete the survey at their own convenience. Survey software Fluid Survey, available to students through the University of Windsor IT services department, was used to develop and post the survey online. Responses to the survey were collected on a server in Canada. These responses were then downloaded into an SPSS file to be used for analysis. When first contacted electronically, potential participants were informed of the study as well as the incentive. Additionally, they were provided with the contact information of the researcher and her supervisor. A link was also provided to the study. Once at the study website, respondents were first presented with a brief electronic letter of information (Appendix P) which provided information about the researcher, the study, an assurance of confidentiality, and finally the option to accept the terms of the study and continue, or to not accept and exit the study. In electronic format, acceptance to continue was considered informed consent and prospective participants were made aware of this fact. They were also told to print the letter for their own records. Those who continued were asked to complete a demographics questionnaire followed by the seven surveys (see Appendices G – N). The surveys were presented in the following order: Sex Role Egalitarianism Scale, Double Standard Scale, Brief Sexual Attitudes Scale – Permissiveness Subscale, Attitudes Toward Sexuality Scale – Revised, Revised Mosher Guilt Inventory– Sex-Guilt Subscale (Revised), Sex Anxiety Inventory (Revised), and the Religiosity of Islam Scale. A concern about possible priming affects determined this order, with the least sexually focused measures presented first. The religiosity measure was presented last to avoid priming for religious identification.

Once participants completed all sections by advancing to the end of the survey they were given the option of entering a draw to win one of five monetary prizes (see Appendix Q). Each prize was \$100 for a total of \$500. To enter, participants entered their name and email on a secure site not linked to their survey responses. After completing this page they were presented with a post-study information letter (see Appendix R) which contained links to information on sexual health and sexual health resources, including appropriate religiously based resources as well as information on literature on the topic. The participants were also told that they would be able to have access to the findings of the study once it was complete and were provided information on how to access that information. This page once again contained contact information for me and my supervisor.

## CHAPTER V

### RESULTS

#### **Preliminary Data Analysis**

Preliminary data analysis involved six steps: 1) data were cleaned and prepared for analysis, 2) descriptives and reliabilities of all scales were computed, 3) the revised outcome measures of Revised Mosher Guilt Inventory– Sex-Guilt Subscale and the Sex Anxiety Inventory were evaluated by conducting a factor analysis on the revised versions, 4) participants' sexual and relationship history was explored to better understand the population and to aid in the interpretation of results, 5) group differences among participants were explored using analysis of variance, and 6) a correlational analysis of all scales was conducted to examine relationships between variables. The details of each step are provided below. All univariate and bivariate analyses were conducted using SPSS version 19.

**Preparing the data.** Preliminary analyses began with cleaning and preparing of the data. First, a missing values analysis was conducted. The missing values analysis determined data were missing completely at random. As Tabachnick and Fidell (2001) explain that no firm guidelines exists regarding the amount of missing data which can be tolerated. I decided that all cases with more than 50% missing data points would be eliminated from the analysis. There were five cases which matched this criterion and thus were taken out. The remaining sample was 403 participants. Missing data were handled by using the expectation-maximization method to replace missing values which is considered a strong method for handling missing data (Tabachnick & Fidell, 2001). Next, univariate outliers were identified by analysing Z-scores. Tabachnick and Fidell recommend using a cut-off value of 3.29 whereby all cases with Z-scores greater than



3.29 must be addressed. Three scores on the Sex Role Egalitarianism Scale were identified as being univariate outliers and were replaced by the mean plus two standard deviations, a method of dealing with univariate outliers explained by Field (2005). Next, histograms and skewness and kurtosis scores were used to test the normality of the distribution. It was found that the outcome variables – sexual guilt and sexual anxiety – had normal distributions. However, the predictor variable distributions were moderately skewed. Tabachnick and Fidell recommend moderately skewed non-normal data be transformed using the square root transformation method. Data were transformed and the distributions became normal. However, before continuing reliability and correlational analyses were conducted with both skewed and normally distributed data to assess any differences. No differences were found and thus the original data were used for further analyses to enable easier interpretation of the results. Using scatterplots, linearity and homoscedasticity of the data were confirmed. Finally, multivariate outliers were identified using Mahalanobis distance. Field (2005) recommends using a cut-off value of 15 for smaller sized samples (e.g.,  $N = 100$ ). Although the current sample was relatively large using this conservative value yielded no multivariate outliers. Thus, the final sample remained at 403 participants.

**Descriptives and reliabilities of the measures.** Internal consistencies of all scales were calculated using Cronbach's alpha. All scales had moderate to excellent reliabilities. Table 5 presents these values along with the means, standard deviations, and possible and actual range of the scales.

Table 5

*Internal Consistencies, Means, Standard Deviation and Range of All Scales*

Measure	Cronbach's alpha	Mean	Standard deviation	Possible range	Actual range
Sex Role Egalitarianism Scale-KK (SRES-KK)	.914	42.37	12.22	25 – 125	23– 84
Double Standard Scale (DSS)	.829	39.78	6.98	10 – 50	10 – 50
Brief Sexual Attitudes Scale (BSAS) – Permissiveness subscale	.904	40.79	8.83	10 – 50	13 – 50
Attitudes Toward Sexuality Scale - Revised (ATSS-R)	.724	31.32	7.52	12 – 60	15 – 55
Revised Mosher Guilt Inventory (RMGI) – Sex-Guilt Subscale (Revised)	.966	167.42	72.69	0 – 396	5 – 372
Sex Anxiety Inventory (SAI)	.857	15.52	5.48	0 – 27	0 – 27
Religiosity of Islam Scale (RIS)	.840	45.63	9.22	9 – 63	12 – 63

**Factor Analysis.** Due to the addition of new questions, and to better understand how Muslims in this study would conceptualize sexual guilt and sexual anxiety, the revised versions of the Sex Guilt Subscale and the Sex Anxiety Inventory were factor analysed to identify their factor structures. Previous literature has not found the Sex Guilt

Subscale to have multiple factors (Mosher, 2011) whereas Janda and O'Grady (1980) have found three factors within the Sex Anxiety Inventory (though the scale is used as one composite measure of sex anxiety).

***Sex Guilt Subscale.*** A principal components analysis with oblimin rotation was performed as it was expected that the factors would be related if found. The initial factor analysis yielded 12 factors with eigenvalues greater than one which accounted for 70.22% of variance. However, most of these factors had no conceptual meaning. In addition, the scree plot revealed three factors. Therefore, a second principal components analysis with oblimin rotation was performed with three fixed factors. These three factors accounted for 47.17% of variance and their eigenvalues ranged from 4.16 to 21.88. Factor loadings were then interpreted. Tabachnick and Fidell (2001) state that only variables with loadings of .32 and above should be interpreted. Following this rule four items were excluded from interpretation as they did not load onto any factor. These removed items, and their means and standard deviations, were

Petting (a sexually stimulating caress of any or all parts of the body)...

15. I am sorry to say is an accepted practice. ( $M = 2.07$ ,  $SD = 1.99$ )

As a child, sex play (a child's exploration of their own or friend's private body parts (e.g., "playing doctor", sexual kissing, etc.)...

32. was indulged in. ( $M = 2.26$ ,  $SD = 2.05$ )

Petting (a sexually stimulating caress of any or all parts of the body)...

38. is justified with love. ( $M = 3.11$ ,  $SD = 2.09$ )

Talking about sex with friends of the same gender...

52. should be completely avoided. ( $M = 1.01$ ,  $SD = 1.53$ )

It is difficult to ascertain the reason these items did not load onto any factor. The response range for these four items was 0 – 6 as it was with all items. The mean for item 52 (which was a newly added item) was one, indicating that most respondents did not believe the statement was true for them. The remaining three items had means ranging from 2.06 to 3.11, indicating low to moderate relevance of the items. The remaining 62 items were then interpreted. Table 26 in Appendix S presents the three factors and their respective factor loadings. It should be noted that only one new item (item 52) added to the measure did not load onto any factor and the remaining newly added items had moderate to high loadings on their respective factors.

The pattern matrix was reviewed, as is the common practice (Field, 2005), and items for each factor were determined. To determine the labels of factors, the items with the highest factor loadings on each factor were consulted. Factor one, which accounted for the most variance, reflected sexual guilt regarding sexual activity considered immoral or unacceptable in Islam and was comprised of 24 items. These 24 items included questions assessing topics such as sex before marriage and sex play as a child. This factor was labelled *Immoral and Unacceptable Sexual Behaviours*. Factor two reflected sexual guilt regarding unusual or private sexual practices and was made up of 25 items. Items in this factor covered topics private sexual behaviours such as masturbation and sexual desires. The label assigned to this factor was *Unusual or Private Sexual Behaviours*. The private sexual behaviours referenced in this factor were not ones which are necessarily considered immoral or unacceptable in Islam and are thus different from those referenced in the first factor. Factor three reflected sexual guilt regarding dirty jokes and speaking about sex and included all 12 items on dirty jokes as well as one item referring to speaking about sex with same gender company, for a total of 13 items. This

factor was labelled *Telling dirty jokes and talking about sex*. Please see Appendix T for the measure reflecting these new factors. The new factors had high internal consistency, although not as high as the entire Sex Guilt Subscale. Table 6 presents the means and alpha values for the new factors as well as the entire subscale, with the four items which did not load onto any factor removed.

Table 6

*Internal Consistencies, Means, Standard Deviation and Variance of New Factors - SGS*

Factor	Mean	Standard Deviation	Actual range	Cronbach's Alpha	No. of Items	% of variance
Sex Guilt Subscale with three factors	167.42	72.69	5 – 372	.966	66	47.17
Immoral and Unacceptable sexual behaviours	74.08	34.32	3 - 144	.947	24	33.15
Unusual or private sexual behaviours	50.73	27.93	0 - 144	.929	25	7.72
Telling dirty jokes and talking about sex	33.91	19.29	0 - 78	.940	13	6.30

A correlation analysis was also conducted with the new factors and it was found that the factors were moderately, positively correlated. Table 7 presents the correlation coefficients.

Table 7

*Correlation Coefficients of New Sex Guilt Subscale Factors*

	Immoral and Unacceptable sexual behaviours	Unusual or private sexual behaviours
Immoral and Unacceptable sexual behaviours	-	
Unusual or personal sexual behaviours	.643**	-
Telling dirty jokes and talking about sex	.600**	.500**

\*\* $p < .01$

**Sex Anxiety Inventory:** A principal components analysis with oblimin rotation was performed as it was assumed, from previous research, that the factors would be related. The initial factor analysis yielded seven factors with eigenvalues over one which accounted for 56.54% of variance. However, an examination of the scree plot indicated three factors. Therefore, a second analysis with oblimin rotation was conducted with three forced factors. These three factors had eigenvalues ranging from 1.66 to 6.10 and accounting for 37.9% of variance. Factor loadings with a value greater than .32 were examined for interpretation. One item (item 26) did not meet this criterion and was not included in the interpretation. This item was a new item which had been added based on focus group discussion in the pilot study.

26. When I first received sex education...

- a. I felt intrigued and interested.
- b. I was nervous and uncomfortable.

Once again, it is difficult to ascertain why this item did not load onto any factor. The range for this item, as all other items in the scale, was 0 – 1. The option which indicated

anxiety (option 'b') had a score of 1 while the other option had a score of 0. The mean for this item was .45, indicating that although there was a slight preference for option 'a' many chose option 'b' as well. Table 27 in Appendix U presents the three factors and their respective factor loadings. It should be noted that the other item added to this measure loaded highly onto one of the factors, indicating a good fit within the measure.

To determine factor labels the highest factor loadings for each factor, as indicated in the pattern matrix, were consulted. Factor one, which accounted for most of the variance, reflected sex anxiety regarding private sexual behaviours, cognitions and emotions and included 11 items. These items covered topics such as sexual desires, sexual thoughts, masturbation, and initiating sexual encounters and reflected sexual behaviours not occurring in social situations (such as flirting) and did not involve divulging sexual information to or discussing sexuality with others. In comparison to items in other factors the behaviours referenced in this factor were those which would be engaged with in private, either alone or with one other person. Factor one was labelled *Private Sexual Behaviours, Cognitions, and Emotions*. Factor two reflected sex anxiety regarding extramarital or casual sex with seven items included. Items in this factor covered the topics of engaging in extramarital or casual sex. This factor was therefore labelled *Extramarital or Casual Sex*. Factor three related to mild sexual behaviours in social situations and consisted of eight items, including those on the topics of flirtation and talking about sex with others. The label given this factor was *Mild Sexual Behaviours in Social Situations*.

Two items loaded onto two factors. Initially I decided to use the higher factor loading to determine in which factor to include the item. However, one of these items,

item 3, had poor conceptual fit with the factor on which it had the higher factor loading (-.43). This item was

3. Masturbation...

- a. causes me to worry.
- b. can be a useful substitute.

Item three loaded onto both factors one (*Private Sexual Behaviours*) and three (*Mild Sexual Behaviours in Social Situations*), with the higher loading being on factor three. As this item had greater conceptual fit with factor one I decided to include this item in factor one. Please see Appendix V for the measure reflecting these new factors.

Means, standard deviations and reliability coefficients were calculated for the new factors. All factors except one (*Extramarital or Casual Sex*) were found to have acceptable internal consistency. Once again the internal consistency was highest for the entire scale. It should be noted that the inclusion of item three on *Private Sexual Behaviours, Cognitions, and Emotions* increased its internal consistency. Table 8 presents the means and alpha values for the new factors as well as the entire scale.



Table 8

*Internal Consistencies, Means, Standard Deviations and Variance of New Factors - SAI*

Factor	Mean	Standard deviation	Actual range	Cronbach's alpha	No. of Items	% of variance
Sex Anxiety Inventory with three factors	15.52	5.48	0 – 27	.857	27	37.9
Private sexual behaviours, cognitions, and emotions	4.26	3.06	0 – 11	.814	11	22.57
Extramarital or casual sex	6.23	1.28	0 – 7	.671	7	9.20
Mild Sexual Behaviours in Social Situations	4.59	2.39	0 – 8	.769	8	6.13

An examination of the Cronbach's alpha values if items were deleted indicated that when items 18 and 22 (which can be seen below) on the factor of *Extramarital or Casual Sex* were deleted the Cronbach's alpha increased to .716.

18. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...

- a. it would be nobody's business but my own.
- b. I would worry about my spouse finding out.

22. Sexual advances (gestures made towards another person with the aim of gaining some sort of sexual favour or gratification)...

- a. leave me feeling tense.
- b. are welcomed.

Item 22, which had a factor loading of .366, was not in reference to extramarital or casual sex and thus its lack of contribution to this factor was understandable. It was the only item in this factor which did not refer to extramarital or casual sex. Item 18, despite addressing extramarital sex, also did not contribute to this factor and had a factor loading of .341. Although both items had factor loading values above the cut-off value, these values were nonetheless the lowest factor loadings for this factor. In addition, both items did not load onto any other factors. These items were therefore taken out for interpretation of the factor. Correlational analysis of the new factors found the new factors to be significantly correlated with weak to moderate correlation values. Table 9 presents the correlation coefficients.

Table 9

*Correlation Coefficients of New Sex Anxiety Inventory Factors*

	Private Sexual Behaviours, Cognitions, and Emotions	Extramarital and casual sex
Extramarital or casual sex	.258**	-
Mild Sexual Behaviours in Social Situations	.501**	.336**

\*\* $p < .01$ .

The factors found in this factor analysis appear to parallel those found in Janda and O’Grady’s (1980) initial factor analysis of this measure. Although the authors did not report all item loadings, the three items with the highest loadings on each factor were reported and can be compared. Janda and O’Grady’s first factor, reflecting sexual anxiety regarding sexual behaviours or sexuality in social situations, was equivalent to my third factor, *Mild Sexual Behaviours in Social Situations*, which also reflected sexual

behaviours or sexuality in social situations. Janda and O'Grady's factor analysis had items 14, 15, and 19 as those with the highest loadings. These items were the following:

14. I would...

- a. feel too nervous to tell a dirty joke in mixed company.
- b. tell a dirty joke if it were funny.

15. Dirty jokes...

- a. make me feel uncomfortable.
- b. often make me laugh.

19. Looking at pornographic materials (e.g., websites, magazines, movies, etc.)...

- a. wouldn't bother me.
- b. would make me nervous.

The current factor analysis also included those items in this factor, though the three items with the highest loading were 14, 15, and 24.

24. When talking about sex in mixed company...

- a. I feel nervous.
- b. I sometimes get excited.

It appears that in my factor analysis the items which most defined this factor were those which referred to speaking about sex or sexual behaviours with others. Janda and O'Grady found a similar trend with their non-Muslim population. It is important to note that in the original measure, item 19 was worded as the following:

19. Buying a pornographic book

- a. wouldn't bother me.
- b. would make me nervous.

Ostensibly, buying a book when this measure was created would have been a more social act, as it would have been conducted in public, than simply looking at pornographic materials today, which can be done in private. Nonetheless, the current factor analysis also found this item to align with items referencing sex or sexuality in social situations. However, this factor contributed the least variance to the overall measure of sexual anxiety for the current Muslim sample while it contributed the most amount of variance for the non-Muslim sample in Janda and O'Grady's factor analysis.

Janda and O'Grady's (1980) second factor reflected sexual anxiety in private sexual behaviours and paralleled my first factor, *Private Sexual Behaviours, Cognitions, and Emotions*, which also reflected sexual anxiety regarding private sexual behaviours along with cognitions and emotions. The analysis conducted by Janda and O'Grady found items 3, 4, and 16 to have the highest loadings. These items were the following:

3. Masturbation...

- a. causes me to worry.
- b. can be a useful substitute.

4. After having sexual thoughts...

- a. I feel aroused.
- b. I feel jittery.

16. When I awake from sexual dreams...

- a. I feel pleasant and relaxed.
- b. I feel tense.

Although once again these items appeared in the parallel factor in my factor analysis, the three items with the highest loadings in my factor analysis were 5, 17, and 23.

5. When I engage in petting (a sexually stimulating caress of any or all parts of the body)...

a. I feel scared at first.

b. I thoroughly enjoy it.

17. When I have sexual desires...

a. I worry about what I should do.

b. I do something to satisfy them.

23. When I have sexual desires...

a. I feel satisfied.

b. I worry about being discovered.

These items suggest that sexual desires and petting were important in defining this factor for the Muslim sample, while masturbation, and sexual thoughts and dreams were most important for the previous non-Muslim sample. This factor contributed the most amount of variance to the overall sexual anxiety measure for this Muslim sample but not for the previous non-Muslim sample.

Janda and O'Grady's (1980) third factor, conceptualized as socially unacceptable forms of sexual behaviours, corresponded to my second factor, *Extramarital or Casual Sex*, which I interpreted as reflecting extramarital or casual sex. In the initial factor analysis it was found that items 1, 12, and 18 had the highest loadings.

1. Extramarital sex...

a. is OK if everyone agrees.

b. can break up families.

12. Group sex...

- a. would scare me to death.
- b. might be interesting.

18. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...

- a. it would be nobody's business but my own.
- b. I would worry about my spouse finding out.

In my factor analysis I did not find that item 12 loaded onto this factor (instead it loaded on the third factor – sexual behaviours and sexuality in social situations) and item 18 did not contribute to the defining of this factor and so was removed. The items with the highest loadings in my factor analysis were found to be 1, 21, and 27.

21. Extramarital sex...

- a. is sometimes necessary.
- b. can damage one's career.

27. Extramarital sex...

- a. is OK if everyone agrees.
- b. can be harmful.

Janda and O'Grady's third factor and my second factor, although overlapping, did demonstrate some difference in the ways sexual anxiety was experienced by their and my samples. My second factor included only items referring to extramarital or casual sex, suggesting that for the Muslim sample sexual anxiety regarding extramarital or casual sex had a unique influence on overall sexual anxiety.

**Summary.** The factor analyses showed that for this Muslim sample, just as in the previous non-Muslim sample, sexual guilt and sexual anxiety were influenced by context

and particular sexual behaviours. The factors contributing to participants' reports of sexual anxiety were similar to those found with another population while the factors contributing to sexual guilt appeared to be unique to this sample. Factor analysis of the Sex Guilt Subscale demonstrated that for this Muslim sample three factors were contributing to the overall reports of sexual guilt. Specifically, participants' sexual guilt regarding what many consider Islamically immoral or unacceptable sexual behaviours, sexual guilt in relation to unusual sexual practices and private sexual behaviours, and sexual guilt regarding the telling of dirty jokes and talking about sex with others contributed to overall levels of sexual guilt. Sexual guilt regarding immoral or unacceptable behaviours had the greatest influence on conceptualizations of sexual guilt, with sexual guilt regarding talking about sex or sexuality contributing the least.

Factor analysis of the Sex Anxiety Inventory also found three factors contributed to reports of sexual anxiety in this Muslim sample. Specifically, sexual anxiety regarding private sexual behaviours, cognitions, and emotions, extramarital or casual sex, and sexual behaviours involving others all contributed to participants' levels of sexual anxiety. Comparison to Janda and O'Grady's (1980) testing of the measure with non-Muslims suggests that this Muslim sample conceptualized sexual anxiety in most ways similarly to a sample of non-Muslim participants although some important differences were found. For the current Muslim sample the factor assessing sexual anxiety regarding private sexual behaviours, cognitions, and emotions was the most influential in conceptualizing sexual anxiety, whereas sexual anxiety regarding sexual behaviours or sexuality in social situations was the most defining for Janda and O'Grady's non-Muslim sample. Interestingly, sexual anxiety regarding sexual behaviours or sexuality in social situations was the least influential of this measure for Muslim respondents. Nonetheless,

the known similarities between Muslim and previous non-Muslim samples support the use of the measure with Muslims. Both factor analyses provided insight into the ways in which these Muslim participants experienced both sexual guilt and sexual anxiety. As these constructs have not been explored in a Muslim population before, the results of the factor analyses bring new information to light.

**Sexual Guilt and Anxiety Levels of Participants.** To further understand the sample's experiences of sexual guilt and anxiety I decided to examine the scores on these measures in comparison to scores of non-Muslims on these same measures. This comparison is done not with the assumption that previous respondents exemplify the norm for sexual guilt and sexual anxiety. Rather, this comparison serves only to contextualize this Muslim sample's reports of sexual guilt and anxiety. The mean scores for both the Sex Guilt Subscale and the Sex Anxiety Inventory were moderate considering the range of the scale. An examination of the mean calculated for these scales in a sample of previous research with non-Muslim populations found that for the Sex-Guilt Subscale the average mean was 96.2 with the range for the means being from 59.56 to 150.19 and an average standard deviation of 39.83 (Janda & Bazemore, 2011; Joffe & Franca-Koh, 2001; Merrell, 2009; Plaud, Gaither, Hegstad, Rowan, & Devitt, 1999; Plaud et al., 1998; Shulman & Home, 2006). For the Sex Anxiety Inventory the average mean in a sample of previous research was 10.83 with the range for the means being from 8.09 to 16.43 and an average standard deviation of 4.57 (Janda & O'Grady, 1980; Katz & Farrow, 2000; McDonagh, Morrison & McGuire, 2008; Pollock, 2000; Rondinelli, 2000; Stewart, 2006; Tolor & Barbieri, 1981). When proportional scores are calculated (to account for deleted and added items) it can be seen that the mean of the current Muslim population was higher than that found in previous research. Table 10 presents the mean of



the current sample using the original number of items in the measures and the average mean of previous research.

Table 10

*Comparison of Means of Sexual Guilt and Sexual Anxiety*

Measure	Current study mean - original number of items (Muslims)	Previous research mean (non-Muslims)	Range
Revised Mosher Guilt Inventory (RMGI) – Sex-Guilt Subscale (Revised)	133.16	96.2	0 - 300
Sex Anxiety Inventory (SAI)	14.15	10.8	0 - 25

One sample t-tests were conducted to assess the difference between the sample mean scores and previously found published (population) mean scores. The mean of the current sample was significantly higher on both the Sex Guilt Subscale  $t(402) = 13.15, p < .001$  and the Sex Anxiety Inventory  $t(402) = 12.83, p < .001$  than the average mean of previous research, indicating that this sample experienced more sexual guilt and anxiety than non-Muslim participants in previous studies.

**Additional Sexual Guilt and Sexual Anxiety Questions.** Participants were administered additional questions regarding sexual guilt and sexual anxiety to assess congruency of self-reports of guilt and anxiety with the Sex Guilt Subscale and the Sex Anxiety Inventory, respectively. Individuals who indicated they had had sex before marriage were asked to report their sexual guilt and anxiety levels, on a Likert scale, for having done so. Those who indicated that they had not engaged in sex before marriage but had thought about doing so were also asked to report their sexual guilt and sexual

anxiety levels, on a Likert scale, for having done so. Both groups of participants reported moderate levels of sexual guilt and anxiety both for having engaged in pre-marital sex and for having thought about engaging in pre-marital sex. Table 11 presents the means and standard deviations for their responses to these questions.

Table 11

*Participants' Responses to Additional Sexual Guilt and Anxiety Questions*

Engaged in premarital sex	Question	N	Range	Mean	Standard deviation
Yes	Did you feel guilt about engaging in pre-marital sex?	146	1 – 10	5.30	3.75
Yes	Did you feel anxiety about engaging in pre-marital sex?	145	1 – 10	4.89	3.79
No, but thought about it	Do you feel guilt when you think about having premarital sex?	126	1 – 10	6.30	3.21
No, but thought about it	Do you feel anxiety when you think about having premarital sex?	126	1 – 10	5.90	3.44

Participants' answers were correlated with their scores on the Sex-Guilt Subscale and the Sex Anxiety Inventory. Please see Table 12 for correlation coefficient values. The additional sexual guilt and sexual anxiety questions were found to have significant, moderate correlations with their respective measures. The correlation coefficients suggest that these questions may be addressing similar, but not identical, constructs as the measures, among those participants who have either had, or have thought about, sex before marriage. However, although indicating a relationship, these correlations, and their

meaning, must be interpreted with caution as single items do not have the reliability of multiple-item measures.

Table 12

*Correlation Coefficients between SGS, SAI, and Additional Sexual Guilt and Anxiety*

*Questions*

	Sex Guilt Subscale	Sex Anxiety Inventory
Do you feel guilt about engaging in pre-marital sex? ( <i>n</i> = 146)	.491**	.352**
Do you feel guilt when you think about having premarital sex? ( <i>n</i> = 126)	.467**	.406**
Do you feel anxiety about engaging in pre-marital sex? ( <i>n</i> = 145)	.547**	.440**
Do you feel anxiety when you think about having premarital sex? ( <i>n</i> = 126)	.334**	.409**

\*\*  $p < .01$ .

**Exploring the Muslim Sample Further.** Although the demographics of a sample help in describing the participants, further exploration of the sample deepens that understanding and provides context for the results. Therefore, to aid in the interpretation of the results it was important to understand the relationship and sexual history of the sample population as well as explore potential group differences within the sample on the study variables. For that reason, participants' reports of their relationship and sexual history were further examined and t-tests and analyses of variance tests were conducted to assess the differences among participants based on gender, relationship status, and sexual experience on the study variables of perceived parental sexual attitudes, religiosity, sexual attitudes, sexual double standard, gender role attitudes, sexual guilt, and sexual anxiety.

As the group sizes differed, the Games-Howell post-hoc procedure was used to control the Type I error (Tabachnick & Fidell, 2005). Gender differences were explored because it was hypothesized that they would be present. Only men and women were included in this assessment as only one participant identified as transgender. Differences on relationship status and sexual experience were also hypothesized and thus further explored.

**Gender.** There were few gender differences found. The t-tests for gender indicated that women held significantly more egalitarian gender role attitudes,  $t(400) = 5.34, p < .001$ , held more conservative sexual attitudes,  $t(400) = -2.15, p < .05$ , and perceived their parents' attitudes to be more liberal,  $t(400) = -2.33, p < .05$ , than men. Please see Table 13 for means and standard deviations for men and women.

Table 13

*Significantly Different Variable Means and Standard Deviations by Gender*

Variable	Men <i>M (SD)</i>	Women <i>M (SD)</i>
Gender role attitudes	49.45 (14.01)	40.52 (11.01)
Sexual attitudes	38.88 (9.50)	41.35 (8.53)
Perceived parental sexual attitudes	29.63 (7.27)	31.74 (7.54)

*Note.* Gender role attitudes: Higher scores indicate more traditional attitudes. Sexual attitudes: Higher scores indicate more traditional attitudes. Perceived parental sexual attitudes: Higher scores indicate more liberal attitudes.

**Relationship status.** In terms of relationship status, most participants in this study reported being single or married, although a few did identify that they were in a relationship but not engaged or married (i.e., dating). Of those who reported being

currently single approximately 53% reported having been in a relationship in the past.

Table 14 presents more details on the relationship status of this sample.

Table 14

*Participants' Relationship Status*

Relationship status	<i>n</i>	%
Single/no previous relationship	98	24.3
Single/relationship in the past	87	21.6
Married	114	28.3
Dating	64	15.9
Engaged	20	4.9
Divorced	11	2.7
Common-law	2	0.5
Other (e.g., separated, widowed and divorced)	4	1.0

Analyses of variance tests were conducted using five categories of relationship status. As those who were single but had been in a relationship before would have been more similar to those who were currently dating, these two groups of participants were grouped together. The five categories were single/no previous relationship, married, dating/relationship in the past, engaged, and other. As the categories of 'divorced', 'common-law,' and 'other' were very small they were all subsumed into the category of 'other.' The Games-Howell post-hoc procedure was used with a significance value of .05. The tests indicated significant differences based on relationship status such that

differences were found on religiosity, gender role attitudes, sexual guilt, and sexual anxiety. It was found that participants who were currently dating or had dated in the past were less religious than single, married, and other participants,  $F(4, 396) = 15.06, p < .001$ . Those who were currently dating or had dated in the past reported having less traditional gender role attitudes than married participants,  $F(4, 396) = 4.46, p < .01$ . Those who were dating or had dated in the past experienced less sexual guilt than single or married participants,  $F(4, 396) = 6.71, p < .001$ . Finally, those who were dating or had dated in the past, married, and engaged reported less sexual anxiety than single participants,  $F(4, 396) = 14.94, p < .001$ . Please see Table 15 for means and standard deviation for relationship status.

Table 15

*Variable Means and Standard Deviations by Relationship Status*

Variable	Single <i>M (SD)</i>	Married <i>M (SD)</i>	Dating/Dated in past <i>M (SD)</i>	Engaged <i>M (SD)</i>	Other <i>M (SD)</i>
Religiosity	46.60 <sub>a</sub> (9.07)	49.62 <sub>a</sub> (7.72)	41.59 <sub>c</sub> (9.14)	46.65 <sub>ac</sub> (7.94)	48.05 <sub>a</sub> (8.30)
Gender role attitudes	43.34 <sub>ab</sub> (12.80)	44.86 <sub>a</sub> (12.27)	39.43 <sub>b</sub> (11.28)	40.83 <sub>ab</sub> (12.22)	47.20 <sub>ab</sub> (11.78)
Sexual guilt	194.70 <sub>a</sub> (71.95)	171.89 <sub>a</sub> (68.11)	147.74 <sub>b</sub> (71.87)	161.21 <sub>ab</sub> (73.18)	167.15 <sub>ab</sub> (69.72)
Sexual anxiety	19.00 <sub>c</sub> (5.27)	14.14 <sub>ab</sub> (4.49)	14.49 <sub>ab</sub> (5.47)	14.63 <sub>ab</sub> (5.66)	15.30 <sub>abc</sub> (4.83)

*Note.* Religiosity: Higher scores indicate more conservative religiosity. Gender role attitudes: Higher scores indicate more traditional attitudes. Sexual guilt and sexual anxiety: Higher scores indicate more sexual guilt and sexual anxiety. Means sharing a subscript are not significantly different at the  $p < .05$  level according to the Games-Howell procedure.

***Sexual experience.*** Participants were asked to indicate 1) whether or not they had sexual experience, and 2) whether or not they had engaged in sexual intercourse. More than half of the participants reported being sexually experienced (54.3%) and had engaged in sexual intercourse (54.8%). Of those who had engaged in sex, slightly more than two-thirds had done so before marriage (67%). Among those who had not engaged in sex before marriage, half had thought about doing so (50.2%). When examined by gender, similarities in behaviours and differences in cognitions were found. Just more than two-thirds of the women and men who had had sex had done so before marriage (68.4% and 60.5%, respectively). However, among those who had not had sex before marriage almost two-thirds of men had thought about doing so (64.3%) compared to fewer than half the women (46.2%). Table 16 presents the results for sexual experience.

Table 16

*Participants' Sexual Experience*

Sexual experience	Total ( <i>N</i> = 403)	Female ( <i>n</i> = 320)	Male ( <i>n</i> = 82)
Sexually experienced	219	177	41
Had sexual intercourse	221	177	43
Had sex before marriage	148	121	26
Had sex only after marriage	73	56	17
Did not have sex before marriage	253	197	56
Thought about sex before marriage	127	91	36
Did not think about sex before marriage	126	105	21

Analysis of variance tests were conducted to assess any differences in attitudes based on sexual experience. Once again the Games-Howell post-hoc procedure was used with a significance value of .05. Those who reported being sexually experienced held significantly more liberal personal sexual attitudes,  $F(1, 401) = 10.03, p < .01$ , perceived their parents' sexual attitudes to be significantly more liberal,  $F(1, 401) = 9.07, p < .01$ , and reported less sexual guilt,  $F(1, 401) = 35.46, p < .001$ , and sexual anxiety,  $F(1, 401) = 69.76, p < .001$ , than those who were not sexually experienced. Significant differences existed between those who reported having had sexual intercourse and those who had not demonstrated the same patterns, with those who had engaged in sexual intercourse holding significantly more liberal personal sexual attitudes,  $F(1, 398) = 11.81, p < .01$ , perceiving their parents' sexual attitudes to be significantly more liberal,  $F(1, 398) = 14.22, p < .001$ , and reporting less sexual guilt,  $F(1, 398) = 32.34, p < .001$ , and sexual anxiety,  $F(1, 398) = 83.47, p < .001$ , than those who had not had sexual intercourse. Please see Table 17 for means and standard deviations for those with and without sexual experience as well as those who had and had not engaged in sexual intercourse.



Table 17

*Variable Means and Standard Deviations by Sexual Experience and Sexual Intercourse*

Variable	Sexual Experience (N = 219)		Sexual Intercourse (N = 221)	
	Had Sexual Experience <i>M (SD)</i>	Had No Sexual Experience <i>M (SD)</i>	Had Sexual Intercourse <i>M (SD)</i>	Had No Sexual Intercourse <i>M (SD)</i>
Sexual Attitudes	39.53 <sub>a</sub> (9.47)	42.30 <sub>b</sub> (7.76)	39.40 <sub>a</sub> (9.39)	42.42 <sub>b</sub> (7.83)
Perceived parental sexual attitudes	32.34 <sub>a</sub> (7.79)	30.10 <sub>b</sub> (7.02)	32.62 <sub>a</sub> (7.67)	29.81 <sub>b</sub> (7.07)
Sexual guilt	148.70 <sub>a</sub> (71.86)	189.70 <sub>b</sub> (67.36)	149.10 <sub>a</sub> (70.85)	189.09 <sub>b</sub> (68.80)
Sexual anxiety	13.59 <sub>a</sub> (4.92)	17.82 <sub>b</sub> (5.24)	13.44 <sub>a</sub> (4.75)	18.03 <sub>b</sub> (5.29)

*Note.* Sexual attitudes: Higher scores indicate more traditional attitudes. Perceived parental sexual attitudes: Higher scores indicate more liberal attitudes. Sexual guilt and sexual anxiety: Higher scores indicate more sexual guilt and sexual anxiety. Means sharing a subscript are not significantly different at the  $p < .05$  level according to the Games-Howell procedure. Mean comparisons occur among the two columns under 'Sexual Experience' and among the two columns under 'Sexual Intercourse.'

Significant differences were also found based on whether participants had sex before marriage such that those who had had sex before marriage held less traditional gender role attitudes,  $F(1, 399) = 12.15, p < .01$ , held more liberal sexual attitudes,  $F(1, 399) = 42.760, p < .001$ , perceived their parents to have more liberal sexual attitudes,  $F(1, 399) = 28.67, p < .001$ , were less conservatively religious,  $F(1, 399) = 28.59, p < .001$ , and reported less sexual guilt,  $F(1, 399) = 78.76, p < .001$ , and sexual anxiety,  $F(1, 399) = 82.22, p < .001$  than those who had not had sex before marriage. Table 18 presents the

means and standard deviations for those who reported having sex before marriage and those who did not have sex before marriage.

Table 18

*Statistically Significant Variable Means and Standard Deviations by Sex Before Marriage*

Variable	Had Sex Before Marriage <i>M (SD)</i>	Did Not Have Sex Before Marriage <i>M (SD)</i>
Gender role attitudes	39.57 (10.31)	43.92 (12.96)
Sexual attitudes	37.20 (9.68)	42.88 (7.58)
Perceived parental sexual attitudes	33.87 (7.97)	29.84 (6.84)
Religiosity	42.53 (9.67)	47.47 (8.47)
Sexual guilt	128.66 (64.52)	189.63 (67.46)
Sexual anxiety	12.54 (4.68)	17.23 (5.17)

*Note.* Gender role attitudes: Higher scores indicate more traditional attitudes. Sexual attitudes: Higher scores indicate more traditional attitudes. Perceived parental sexual attitudes: Higher scores indicate more liberal attitudes. Religiosity: Higher scores indicate more conservative religiosity. Sexual guilt and sexual anxiety: Higher scores indicate more sexual guilt and sexual anxiety.

Comparisons were also conducted among those who had engaged in sex, between those who had sex before marriage and those who had sex after marriage. Not surprisingly, those who had sex before marriage held less traditional gender role attitudes,  $F(1, 218) = 29.35, p < .001$ , reported lower endorsement of the sexual double standard,  $F(1, 218) = 5.50, p < .02$ , held more liberal sexual attitudes,  $F(1, 218) = 24.46, p < .001$ , perceived their parents' sexual attitudes as more liberal,  $F(1, 218) = 15.09, p < .001$ , were less religious,  $F(1, 218) = 47.61, p < .001$ , and experienced less sexual guilt,  $F(1, 218) = 41.03, p < .001$ , and sexual anxiety,  $F(1, 218) = 15.28, p < .001$ , than those who had

waited until marriage to have sex. Table 19 presents the means and standard deviations for sexually experienced participants who reported having sex before marriage and those who waited until after marriage to have sex.

Table 19

*Statistically Significant Variable Means and Standard Deviations by Sex Before and After Marriage for Individuals with Sexual Experience*

Variable	Had Sexual Experience ( <i>N</i> = 219)	
	Had Sex Before Marriage <i>M</i> ( <i>SD</i> ) ( <i>n</i> = 148)	Had Sex After Marriage <i>M</i> ( <i>SD</i> ) ( <i>n</i> = 73)
Gender role attitudes	39.66 (10.33)	48.63 (13.75)
Sexual double standard	40.53 (7.23)	38.01 (8.09)
Sexual attitudes	37.29 (9.56)	43.60 (7.57)
Perceived parental sexual attitudes	33.98 (7.96)	29.85 (6.30)
Religiosity	42.48 (9.73)	51.12 (6.47)
Sexual guilt	129.01 (64.40)	188.70 (67.03)
Sexual anxiety	12.56 (4.66)	15.13 (4.49)

*Note.* Gender role attitudes: Higher scores indicate more traditional attitudes. Sexual double standard: Higher scores indicate more liberal attitudes. Sexual attitudes: Higher scores indicate more traditional attitudes. Perceived parental sexual attitudes: Higher scores indicate more liberal attitudes. Religiosity: Higher scores indicate more conservative religiosity. Sexual guilt and sexual anxiety: Higher scores indicate more sexual guilt and sexual anxiety.

Those who reported they had not had sex before marriage, but had thought about it held more liberal sexual attitudes,  $F(1, 251) = 37.34, p < .001$ , were less conservatively

religious,  $F(1, 251) = 16.37, p < .001$ , and reported less sexual guilt,  $F(1, 251) = 57.60, p < .001$  and sexual anxiety,  $F(1, 251) = 39.49, p < .001$  than those who had not had sex before marriage and had not thought about sex before marriage. Please see Table 20 for the means and standard deviations of those who had not engaged in sex before marriage.

Table 20

*Statistically Significant Variable Means and Standard Deviations by Thoughts of Sex Before Marriage for Participants Who Did Not Have Sex Before Marriage*

Variable	Thought About Sex Before Marriage <i>M (SD)</i>	Did Not Think About Sex Before Marriage <i>M (SD)</i>
Sexual attitudes	40.07 (8.55)	45.52 (5.22)
Religiosity	45.37 (8.88)	49.53 (7.42)
Sexual guilt	160.32 (65.07)	218.63 (56.83)
Sexual anxiety	15.31 (5.19)	19.13 (4.45)

Note. Sexual attitudes: Higher scores indicate more traditional attitudes. Religiosity: Higher scores indicate more conservative religiosity. Sexual guilt and sexual anxiety: Higher scores indicate more sexual guilt and sexual anxiety.

Participants were also asked to provide some information about their sexual education experiences. Most participants reported having had sexual education in the school, while very few reported receiving sexual education in the mosque. Table 21 provides more details.

Table 21

*Participants' Source of Sexual Education*

Sexual education	Total (N = 403)	% Total	Female (n = 320)	% Female	Male (n = 82)	% Male
Received sex education at the mosque	17	4.2	14	4.4	3	3.7
Received sex education at school	307	76.2	239	74.7	67	81.7

When asked how much sexual education they believed they received from their parents, from the media, and from friends, participants were asked to rate the amount of education they received on a Likert scale of 0 to 4 with '0' being *none* and '4' being *a lot*.

Table 22 presents the range, mean, and standard deviation for sexual education experience.

Table 22

*Range, Mean, and Standard Deviations for Sexual Education Questions – Main Study*

Question	N	Range	Mean	Standard deviation
How much sex education have you received from your parents?	400	0 – 4	1.05	1.18
How much sex education have you received from the media?	403	0 – 4	2.94	1.03
How much sex education have you received from your friends?	401	0 – 4	2.46	1.16

One-way repeated measures analysis of variance tests using the Bonferroni post-hoc test at a .05 significance level were conducted to assess significant differences

between sources. An examination of the Mauchly's test indicated that the assumption of sphericity had been violated ( $\chi^2(2) = 33.04, p < .001$ ); therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ( $\epsilon = .93$ ). Significant differences were found between the amount of sexual education received from parents, media, and friends,  $F(1.85, 737.14) = 349.02, p < .001$ . It appears that media was a significantly greater source of information than either parents or friends while parents were the least likely source of sexual education. In addition, t-tests were conducted to assess any gender differences. None were found as men and women reported receiving similar amounts of sexual education from parents,  $t(397) = -.64, p = .53$ , media,  $t(400) = -2.05, p = .06$ , and friends,  $t(398) = -1.08, p = .28$ .

**Parental Sexual Attitudes.** To explore any possible difference between the perceived parental attitudes of mothers and fathers, an independent sample t-test was performed. The t-tests for parental sexual attitudes indicated no significant difference between the perceived sexual attitudes of mothers and fathers,  $t(401) = .501, p = .616$ . Please see Table 23 for means and standard deviations for perceived sexual attitudes of mothers and fathers.

Table 23

*Significantly Different Variable Means and Standard Deviations by Parent*

Variable	Mother ( <i>n</i> = 331) <i>M</i> ( <i>SD</i> )	Father ( <i>n</i> = 72) <i>M</i> ( <i>SD</i> )
Perceived parental sexual attitudes	31.41 (7.55)	30.92 (7.44)

*Note.* Perceived parental sexual attitudes: Higher scores indicate more liberal attitudes.

**Summary.** An examination of the relationship and sexual history of the participants along with group differences among the participants provides a picture of this sample which aided in the interpretation of the results of the research. From these analyses it appears that having sexual experience, and having engaged in sex, was related to reporting more liberal personal attitudes, perceptions of parents' sexual attitudes as more liberal, and lower levels of sexual guilt and sexual anxiety. Similarly, having engaged in sex before marriage was associated with more liberal attitudes, perceptions of parents' sexual attitudes as more liberal, less religiosity, and lower levels of sexual guilt and sexual anxiety than not having had sex before marriage. Even among those who had not engaged in sex before marriage, having thought about doing so was associated with relatively more liberal attitudes, less religiosity, and lower levels of sexual guilt and sexual anxiety. These analyses suggest a relationship between having sexual experience or considering sexual experience, and liberal attitudes, less religiosity, and less sexual guilt and anxiety. In terms of relationship status it appeared those who were currently dating reported more liberal attitudes, less religiosity, and less sexual guilt and anxiety than others in the sample while married participants appeared to be more conservative on religiosity, gender role attitudes, and reported more sexual guilt than others. Finally, women in this sample held more egalitarian gender role attitudes than men and perceived their parents' sexual attitudes as more liberal than did the men. However, these women did hold more conservative sexual attitudes than men. Interestingly, men and women did not differ in their levels of sexual guilt or sexual anxiety.

### **Relationships among Research Variables**

Bivariate correlational analyses using two-tailed significance tests were conducted between all variables, namely gender role attitudes, sexual double standard, sexual

attitudes, perceived parental sexual attitudes, religiosity, sexual guilt, and sexual anxiety. Table 24 presents all correlation coefficients between variables. When examining the relationship of the outcome variables (sexual guilt and sexual anxiety) with the predictor variables, both sexual guilt and anxiety were related to gender role attitudes, endorsement of the sexual double standard, personal sexual attitudes, perceived parental sexual attitudes, and religiosity. These relationships were such that liberal attitudes, gender role egalitarianism, and less conservative religiosity were related to experiencing less sexual guilt and sexual anxiety. However, sexual attitudes was the predictor variable most strongly correlated with both sexual guilt ( $r = .635, p < .01$ ) and sexual anxiety ( $r = .591, p < .01$ ). Nonetheless, the outcome variables sexual guilt and anxiety had the strongest correlation with each other ( $r = .80, p < .01$ ), followed by correlations between gender role attitudes and sexual double standard ( $r = .66, p < .01$ ) such that egalitarianism on one indicated egalitarianism on the other. The remaining correlations were weak to moderate.



Table 24

*Correlation Coefficients for All Variables*

	Gender role attitudes	Sexual double standard	Sexual attitudes	Perceived parental sexual attitudes	Religiosity	Sexual guilt	Sexual anxiety
Sexual double standard	-.656**	-					
Sexual attitudes	.062	-.099*	-				
Perceived parental sexual attitudes	-.147**	.109*	-.178**	-			
Religiosity	.399**	-.175**	.368**	-.273**	-		
Sexual guilt	.367**	-.310**	.635**	-.260**	.569**	-	
Sexual anxiety	.182**	-.238**	.591**	-.222**	.351**	.799**	
Gender	-.294**	.095	.114*	.113*	-.088	-.072	.090

*Note.* Gender role attitudes: Higher scores indicated more traditional attitudes. Sexual double standard: Higher scores indicate more liberal attitudes. Sexual attitudes: Higher scores indicate more conservative attitudes. Perceived parental attitudes: Higher scores indicate more liberal attitudes. Religiosity: Higher scores indicate more conservative religiosity. Sexual guilt: Higher scores indicate greater sexual guilt. Sexual anxiety: Higher scores indicate greater sexual anxiety. Gender: Men were designated with a zero and women with a one.

\* $p < .05$ . \*\*  $p < .01$ .

## **Main Analysis**

### **Path Analysis**

The main analysis of the study was a moderated path analysis and was conducted using AMOS version 21. Two models, which can be seen in Figures 2a and 2b, were defined, a priori, based on theoretical considerations. One model explored the mediating role of sexual attitudes while the other examined the mediating role of endorsement of sexual double standards, both personal attitude variables hypothesized to directly affect sexual health. Each model included an interaction variable as it was assumed that gender would interact with personal attitudes to predict sexual guilt and anxiety. Moderated path analysis “integrates moderated regression analysis and path analysis; expresses mediation in terms of direct, indirect, and total effects; and shows how paths that constitute these effects vary across levels of the moderator variable” (Edwards & Lambert, 2007, p.2). As the current study used observed variables, and hypothesized about relationships between variables, as well as the moderating effect involving the interaction of gender with personal attitudes, a moderated path analysis was identified as the best technique. It should be noted that the gender variable included only men and women, and the one transgender individual was removed from all analyses. The sample size for the path analyses was therefore 402. Relationships between variables in the models were estimated using the maximum likelihood (ML) method (Kline, 2011) which produced path coefficients for each parameter estimate. The coinciding statistic of path coefficients is regression weights and thus those will be reported. Jackson (2003) recommends that when using the maximum likelihood estimation method to estimate the model the  $N:q$  rule be used to determine adequate sample size.  $N$  is the sample size and  $q$  is the number of model parameters requiring estimation. The ideal sample size-to-parameters ratio is

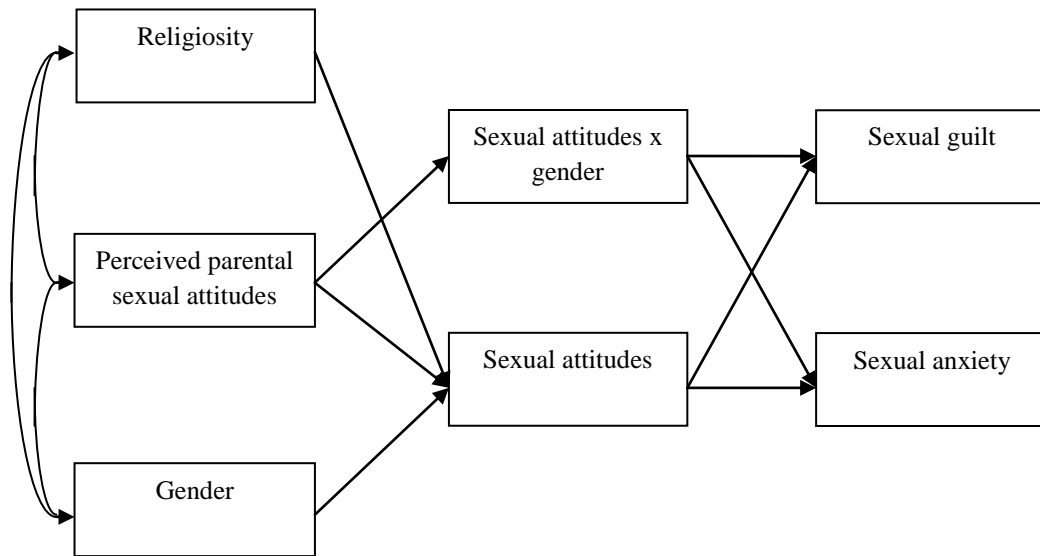


Figure 2a. Model 1: Sexual attitudes – Initial proposed model to be tested.

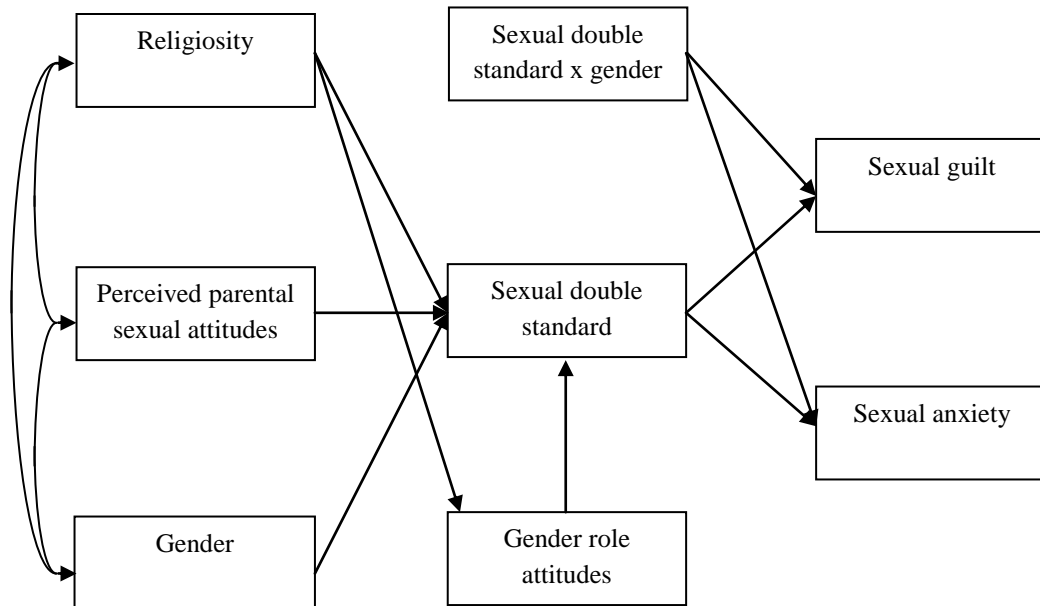


Figure 2b. Model 2: Sexual double standard – Initial proposed model to be tested.

20:1. The current study tested two models which had q values of 18 and 20. Therefore, the sample size requirement was met.

To evaluate how well the two models fit the data several steps were taken. First, fit indices were examined to evaluate model fit. The first fit index consulted was the chi-square goodness-of-fit test which is a measure comparing observed data with data which may be expected by chance. A significant chi-square value would therefore indicate that the data and the hypothesized model were significantly different and thereby making the model a poor fit for the data (Field, 2005). However, the chi-square goodness-of-fit statistic is sensitive to sample size and thus can be unreliable (Byrne, 2001; Tabachnick & Fidell, 2005). Therefore, other fit indices were also used to assess fit, as is accepted practice (Byrne, 2001; Tabachnick & Fidell, 2005). Specifically, the Bentler-Bonett normed fit index (NFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) were consulted. Kline (2011) and Hu and Bentler (1999) were consulted for the evaluation and interpretation of goodness-of-fit indices. Table 25 presents evaluation and interpretation criterion of goodness-of-fit indices consulted.

Table 25

*Evaluation and Interpretation Criterion of Goodness-of-Fit Indices*

Goodness of fit index	Evaluation criterion	Interpretation of criterion
$\chi^2$	Non-significant ( $p > .05$ )	Validity in specification of model
Bentler-Bonett normed fit index (NFI)	0 no fit 1 perfect fit	$\geq .95$ good model fit
Comparative fit index (CFI)	0 no fit 1 perfect fit	$\geq .95$ good model fit
Root mean square error of approximation (RMSEA)	0 perfect fit .08 acceptable fit	$< .06$ good model fit $> .08$ poor fit

*Note.* Table adapted from St. Pierre (2013).

The goodness-of-fit indices revealed that the initial models had poor fit with the data. Therefore, it was decided that post hoc analyses would be conducted and models would be modified and re-tested, as is standard practice (Kline, 2011). The analysis thus transformed from confirmatory to exploratory (Byrne, 2001). Kline (2011) states that the goal of modifying models is to “‘discover’ a model with three properties: It makes theoretical sense, it is reasonably parsimonious, and its correspondence to the data is acceptably close” (p.8).

The initial modification process involved three main steps. First, parameter estimates (e.g., both unstandardized and standardized regression weights) were examined for non-significant parameters. Byrne (2001) states that non-significant parameter estimates are not important to the model and recommends their associated paths be removed from the model. Next, to further improve model fit, modification indices were examined for suggestions of paths to be added to the model. After paths were taken out and/or added to the model, the estimates were once again calculated and the model was once again evaluated. Regression weights of the paths, which indicate effect size, were examined to interpret the relationships of the variables. Table 26 presents the criteria used to assess effect sizes. The modification process of the two models is presented separately below.

Table 26

*Effect Size Criteria*

	Small effect	Medium effect	Large effect
Direct effect	.20	.50	.80
Indirect effect	.10	.30	.50
If predictor is dichotomous	.02	.15	.40

*Note.* Cohen (1988) and Kenny (2013) were consulted to determine effect size criteria.

**Model 1: Sexual attitudes.** The initial model, seen in Figure 2a, was deemed a poor fit after an examination of the chi-square goodness-of-fit value and fit indices, which can be seen in Table 27. The model, therefore, needed to be modified. First, parameter estimates were consulted and it was found that the path from the interaction variable to sexual anxiety was non-significant ( $p = .46$ ) and so was removed. Modification indices suggested the addition of a path from the interaction variable to sexual attitudes, which was added to the model. Estimates were recalculated and once again the model was determined to have poor fit with the data. Therefore, further modifications were necessary. Parameter estimates and modification indices were again consulted which suggested an addition of paths from sexual guilt to sexual anxiety and sexual anxiety to sexual guilt. These paths were added and estimates were once again calculated. The fit of the model remained poor. Parameter estimates were once again calculated and paths from sexual attitudes to sexual guilt ( $p = .31$ ) and from sexual guilt to sexual anxiety ( $p = .68$ ) were no longer significant and so were dropped. This time when estimates were calculated they demonstrated that model fit once again remained poor. Modification indices suggested an addition of a direct path from gender to sexual guilt. After the

addition of this path model fit improved although not to acceptable levels. Parameter estimates and modification indices provided no further insight into possible improvements in the model. Therefore, as I was unable to achieve good fit with the data, I decided to consult previous analyses for suggestions of change.

Table 27

*Goodness-of-Fit Indices of Models Tested – Model 1: Sexual Attitudes*

Model	$\chi^2$ (df)	NFI	CFI	RMSEA
Initial model	978.86 (10) <i>p</i> < .001	.337	.334	.492
Dropped direct path interaction term to sexual anxiety Added path from interaction term to sexual attitudes	447.51 (10) <i>p</i> < .001	.697	.699	.330
Added paths sexual guilt to sexual anxiety and sexual anxiety to sexual guilt	191.25 (8) <i>p</i> < .001	.870	.874	.239
Dropped paths from sexual attitudes to sexual guilt and from sexual guilt to sexual anxiety	193.54 (10) <i>p</i> < .001	.869	.874	.214
Added direct path from gender to sexual guilt	167.39(9) <i>p</i> < .001	.887	.891	.209

First, t-tests were assessed and it was found that men and women differed on only three predictor variables and neither of the outcome variables. As men and women did not differ on their levels of sexual guilt and sexual anxiety it was expected that gender would not predict either outcome variable. Therefore, I decided to first remove the interaction variable from the initial model. This did not improve model fit. Analysis of the modification indices suggested adding a path from sexual guilt to sexual anxiety and from

sexual anxiety to sexual guilt. However, the modification index (MI) value of the sexual guilt to sexual anxiety path was greater, indicating a greater decrease in the chi-square value. Byrne (2001) recommends assessing the MI value to determine which paths to add to the model. I, therefore, first added a path from sexual guilt to sexual anxiety. This change did not improve the fit of the model. Since model fit was not acceptable, parameter estimates were all significant, and modification indices did not recommend any changes, I decided to go back to the theoretical basis of my research. The literature suggests a relationship between religiosity, sexual guilt, and sexual anxiety such that greater religiosity is related to higher levels of sexual guilt and anxiety (Abdolsalehi, 2010; Cowden & Bradshaw, 2007; Davidson et al., 2004; Fehr and Stamps, 1979; Gunderson & McCary, 1979; Tobin, 1996; Weis et al., 1986). Additionally, previous correlational analyses demonstrated a relationship between these variables. I therefore decided to add a direct path from religiosity to sexual guilt. This additional path greatly improved the fit of the model, though not to ideal levels. I therefore decided to add another path from religiosity to sexual anxiety as well. This additional path improved the fit of the model once again, although still not to ideal levels. At this point I decided to remove gender from the model as men and women did not differ on the outcome variables of this model. Doing so improved the model greatly and to ideal levels. However, the parameter estimates showed the path from perceived parental sexual attitudes to sexual attitudes was now non-significant. The path was dropped and the model remained a good fit. This model was therefore determined to be the best fitting model, for model one. Table 28 presents all modifications and fit statistics of the model. Figure 3b presents the best fitting model.



Table 28

*Goodness-of-Fit Indices of Alternate Models Tested – Model 1: Sexual Attitudes*

Model	$\chi^2$ (df)	NFI	CFI	RMSEA
Initial model	978.86 (10) <i>p</i> < .001	.337	.334	.492
Dropped interaction variable	404.97 (7) <i>p</i> < .001	.544	.544	.377
Added direct path from sexual guilt to sexual anxiety	152.96 (6) <i>p</i> < .001	.828	.832	.247
Added direct path from religiosity to sexual guilt	53.03 (5) <i>p</i> < .001	.940	.945	.155
Added direct path from religiosity to sexual anxiety	32.21 (4) <i>p</i> < .001	.964	.968	.133
Dropped gender	5.56 (2) <i>p</i> = .062	.993	.996	.067
Dropped path from perceived parental attitudes to sexual attitudes	8.55 (3) <i>p</i> = .036	.990	.993	.068

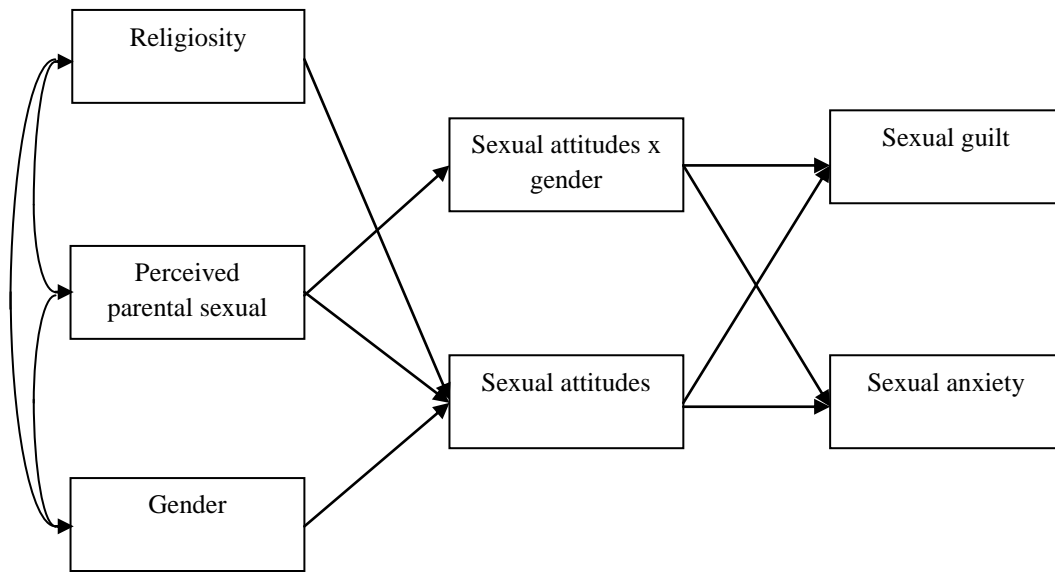


Figure 3a. Model 1: Sexual attitudes – Initial proposed model. This model did not fit the data.

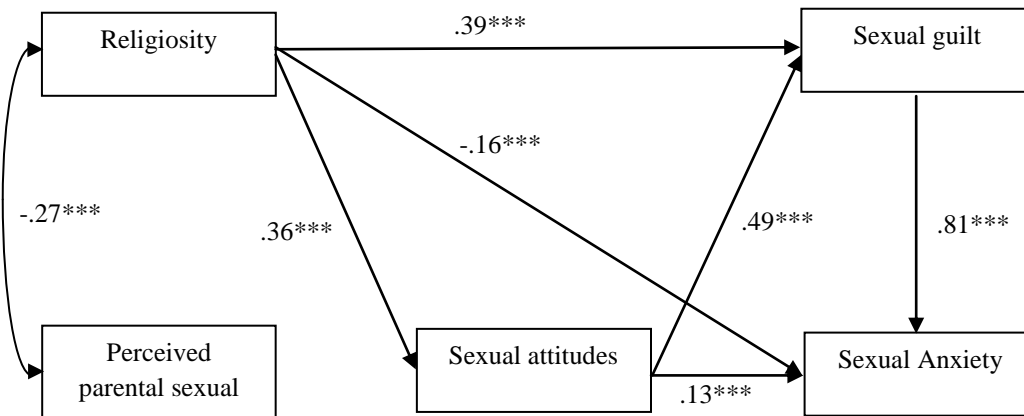


Figure 3b. Model 1: Sexual attitudes - Best fitting model. After modifications this model was found to be the model which had good fit with the data.

\*\*\*  $p < .001$ .

The best fitting model for Model 1 demonstrates that religiosity had both a direct and indirect effect on sexual guilt and sexual anxiety. Sexual attitudes provide partial mediation for this relationship, while perceived parental attitudes have no predictive value in the model. Sexual attitudes also have a direct effect on sexual guilt and both a direct and indirect effect on sexual anxiety, while sexual guilt had a direct effect on sexual anxiety. This model suggests that, for this population, gender did not predict sexual guilt or anxiety. Religiosity, however, was an important variable having a direct and indirect effect on both sexual guilt and sexual anxiety such that greater conservative religiosity directly predicted higher levels of sexual guilt (.39) and sexual anxiety (-.16). Religiosity also had an indirect effect on sexual guilt through sexual attitudes (.36 x .49 = .18) with the total effect of religiosity on sexual guilt being moderate (.39 + .18 = .57). The indirect effect that religiosity had on sexual anxiety, through sexual attitudes and sexual guilt (.36 x .49 x .81 = .14), and through sexual attitudes (.36 x .13 = .05) was small, but the indirect effect religiosity had on sexual anxiety through sexual guilt alone was moderate (.39 x .81 = .32). Although the direction of the direct effect of religiosity on sexual anxiety was negative<sup>4</sup>, its indirect effect on the outcome variable, which was stronger than the direct effect, changed directions and was positive. It appears that sexual guilt moderates this relationship. The sum effect that religiosity had on sexual anxiety was also moderate and positive (.32 - .16 + .14 + .05 = .35). Conservative religiosity also directly predicted sexual attitudes (.36) which in turn had direct effects on both sexual guilt (.49)

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<sup>4</sup> When considering the positive correlation value between religiosity and sexual anxiety, this negative effect may mean a moderated mediation is occurring in which the variable of sexual guilt is moderating the direction of the relationship between religiosity and sexual anxiety. In other words, the direction of this relationship may depend upon the level of sexual guilt experienced. For more on moderated mediations please see Preacher, Rucker, and Hayes (2007). It should be noted that the change in direction of this relationship, from the correlation coefficient to the path coefficient, is not a suppressor effect as defined by Cohen, Cohen, West, and Aiken (2003).

and anxiety (.13). More conservative sexual attitudes on permissiveness predicted more sexual guilt and anxiety, though the direct effect was stronger on sexual guilt than anxiety. Like religiosity, sexual attitudes had a stronger indirect effect on sexual anxiety, through sexual guilt ( $.49 \times .80 = .39$ ), than a direct effect, indicating that sexual guilt was moderating this relationship as well. The total effect of sexual attitudes on sexual anxiety was moderate ( $.13 + .40 = .53$ ) but the strongest after sexual guilt. Perceived parental sexual attitudes served as a covariate of religiosity and did not predict any other variables. In this model, sexual guilt was most directly influenced by sexual attitudes while religiosity was also a strong direct determinant. However, the total effect of religiosity on sexual guilt was stronger than that of sexual attitudes. Sexual anxiety was most strongly predicted by sexual guilt while religiosity and sexual attitudes had moderate, indirect effects.

**Model 2: Double standards.** The initial model, seen in Figure 2b, was deemed a poor fit after an examination of the chi-square goodness-of-fit value and fit indices, which can be seen in Table 21. The model, therefore, needed to be modified. First, parameter estimates were consulted and it was found that paths from perceived parental sexual attitudes to sexual double standard ( $p = .21$ ) and sexual double standard to sexual anxiety ( $p = .66$ ) were non-significant and so were removed from the model. Modification indices suggested the addition of paths from the interaction variable to sexual double standard and from sexual guilt to sexual anxiety. These paths were added and estimates were recalculated. Model fit improved slightly though it remained poor. Parameter estimates and modification indices were once again consulted. Non-significant paths from gender to sexual double standard, sexual double standard to sexual guilt, interaction variable to sexual guilt, and interaction variable to sexual anxiety were dropped. A path was added

from the interaction variable to gender role attitudes. It should be noted that all paths leading directly to the outcome variables were non-significant in this iteration of the model. Model fit slightly improved. Modification indices suggested the addition of a path from the interaction variable to sexual guilt. Model fit improved only marginally. Parameter estimates were once again consulted and paths from religiosity to sexual guilt and from gender to sexual anxiety were added. Estimates calculated demonstrated some improvement in the model though not all fit indices values were acceptable. Table 29 presents all modifications and fit statistics of the model.

Table 29

*Goodness-of-Fit Indices of Models Tested – Model 2: Sexual Double Standard*

Model	$\chi^2$ (df)	NFI	CFI	RMSEA
Initial model	1240.69 (16) $p < .001$	.255	.252	.437
Dropped paths from perceived parental sexual attitudes to sexual double standard, and sexual double standard to sexual anxiety	377.60 (16) $p < .001$	.773	.779	.237
Added direct paths from the interaction term to sexual double standard and sexual guilt to sexual anxiety				
Dropped paths from gender to sexual double standard, interaction term to sexual guilt, sexual double standard to sexual guilt, and interaction term to sexual anxiety Added direct path from the interaction term to gender role attitudes	306.08 (19) $p < .001$	.816	.825	.194
Added direct path from interaction term to sexual guilt	264.82 (18) $p < .001$	.841	.849	.185
Added direct paths from religiosity to sexual guilt and from gender to sexual anxiety	96.19 (16) $p < .001$	.942	.951	.112

As I was unable to achieve good fit for this model as well, I decided to make similar changes to this model as with the first model. I therefore, first decided to remove the interaction variable from the initial model. Model fit was not greatly improved. Parameter estimates indicated that the path from perceived parental sexual attitudes to sexual double standard was non-significant. Modification indices indicated adding a path from sexual guilt to sexual anxiety and from sexual anxiety to sexual guilt. However, the

modification index (MI) value of the sexual guilt to sexual anxiety path was greater, indicating a greater decrease in the chi-square value. I, therefore, first added a path from sexual guilt to sexual anxiety. Changes were made and although fit was improved the fit indices suggested a less than ideal fit with the data. The path from sexual double standard to sexual anxiety was non-significant and thus dropped from the model. Calculation of estimates determined the model to not have improved from the previous model. Modification indices suggested adding a path from gender to gender role attitudes. Additionally, previous analyses of variance and correlational analyses indicated gender differences on gender role attitudes. Therefore, a path was added from gender to gender role attitudes. Once again model fit was not much improved.

In trying to achieve better fit I once again referred to the literature which suggested a relationship between religiosity and sexual guilt and sexual anxiety. Correlational analysis for this sample provided support for this relationship. In addition, modification indices for the last analysis suggested a path be added between religiosity and sexual guilt. I therefore decided to add a path from religiosity to sexual guilt. This improved the model greatly, though not to ideal levels. I then decided to also add a path from religiosity to sexual anxiety. Previous analyses demonstrated no gender differences on sexual double standard levels, therefore the path from gender to sexual double standard was dropped. Model fit improved only marginally. Modification indices suggested adding a path from gender to sexual anxiety. Once added the model fit improved, though the chi-square value remained significant. Although there remained significant paths from gender to two other variables, as gender did not correlate with one of those variables (sexual anxiety – an outcome variable), and there were not any significant gender differences on that outcome variable, I decided to remove gender from

the model. It should be noted that when gender was dropped from this model, model fit did not change as indicated by a chi-square difference test  $\chi^2_{\text{diff}}(2) = 1.15, p = .95$ . Table 30 presents all modifications and fit statistics of the model. Figure 4b presents the best fitting model.

Table 30

*Goodness-of-Fit Indices of Alternate Models Tested – Model 2: Sexual Double Standard*

Model	$\chi^2(df)$	NFI	CFI	RMSEA
Initial model	1240.69 (16) $p < .001$	.255	.252	.437
Dropped the interaction variable	618.42 (11) $p < .001$	.402	.401	.371
Dropped path from perceived parental sexual attitudes to sexual double standard Added path from sexual guilt to sexual anxiety	236.75 (11) $p < .001$	.771	.777	.226
Dropped path from sexual double standard to sexual anxiety	236.76 (12) $p < .001$	.771	.778	.216
Added path from gender to gender role attitudes	203.02 (11) $p < .01$	.804	.811	.209
Added path from religiosity to sexual guilt	60.46 (10) $p < .001$	.942	.950	.112
Dropped path from gender to sexual double standard	68.48 (11) $p < .001$	.934	.943	.114
Added path from religiosity to sexual anxiety	48.33 (10) $p < .001$	.953	.962	.098
Added path from gender to sexual anxiety	24.39 (9) $p = .004$	.976	.985	.065
Dropped gender	23.24 (7) $p = .002$	.976	.983	.076



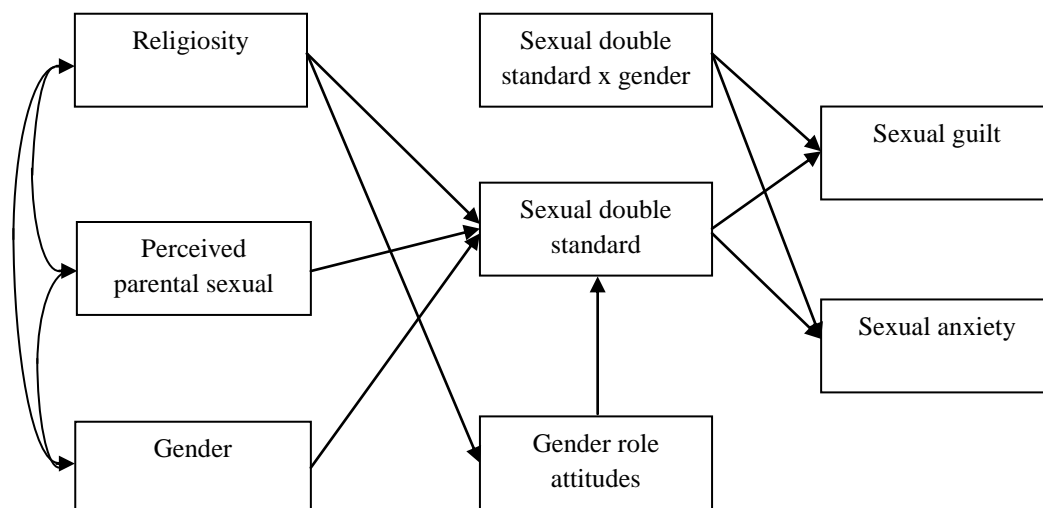


Figure 4a. Model 2: Sexual double standard – Initial proposed model. This model did not fit the data.

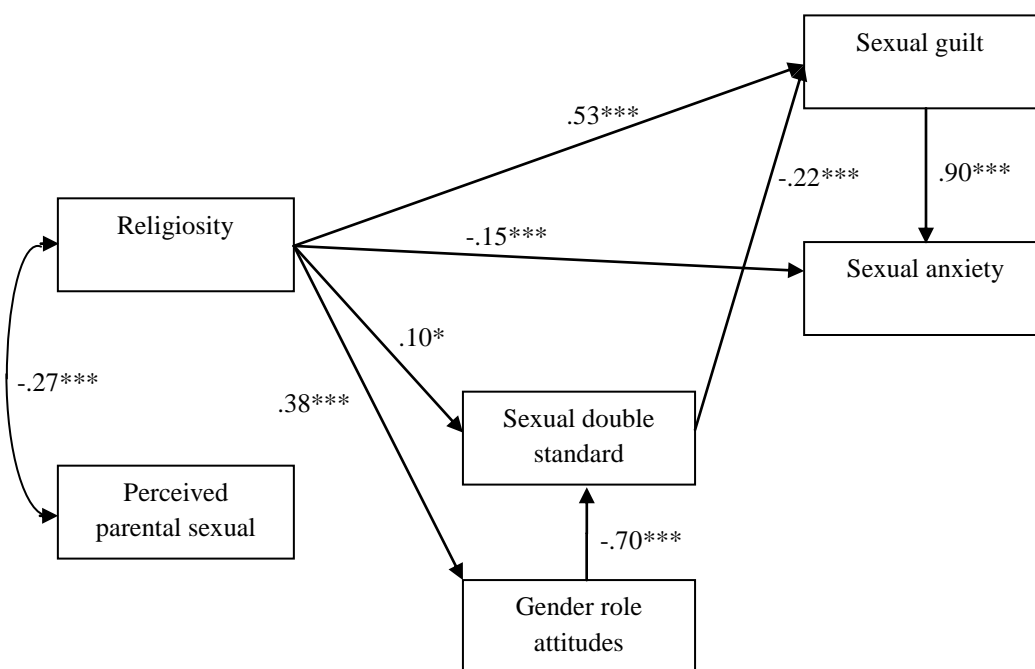


Figure 4b. Model 2: Sexual double standard - Best fitting model. After modifications this model was found to be the model which had good fit with the data.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

The best model for Model 2 demonstrates once again that religiosity had both a direct and indirect effect on both sexual guilt and sexual anxiety. Belief in the sexual double standard and gender role attitudes partially mediated the effect of religiosity on sexual guilt, while sexual guilt had a direct effect on sexual anxiety. Similar to Model 1, perceived parental sexual attitudes did not have any predictive value in this path model. This model was also one without gender. Once again, like Model 1, the strongest predictor of sexual guilt was religiosity. Directly, greater religiosity predicted higher levels of sexual guilt (.53). Religiosity also had an indirect effect on sexual guilt through gender role attitudes and sexual double standard ( $.38 \times -.70 \times -.22 = .06$ ) and through only sexual double standard ( $.10 \times -.22 = -.02$ ) making the total effect of religiosity on sexual guilt slightly stronger than the direct effect ( $.53 + .06 - .02 = .57$ ). Also like Model 1 religiosity had a weak and negative direct effect on sexual anxiety (-.15), while its indirect effect on sexual anxiety, through sexual guilt, was moderate and positive ( $.53 \times .90 = .48$ ) and stronger than the direct effect. Religiosity also had very weak indirect effects on sexual anxiety through gender role attitudes, sexual double standard, and sexual guilt ( $.38 \times -.70 \times -.22 \times .90 = .05$ ) and through the sexual double standard and sexual guilt ( $.10 \times -.22 \times .90 = -.02$ ). The sum effect of religiosity on sexual anxiety, however, remained moderate and positive ( $-.15 + .48 + .05 - .02 = .36$ ). Sexual double standard also had a direct effect on sexual guilt (-.22) such that liberalism on the sexual double standard was related to less sexual guilt. However, it was not as strong a determinant of sexual guilt as religiosity, similar to what was found in Model 1. Sexual guilt remained the strongest determinant of sexual anxiety in Model 2. The sexual double standard also had an indirect effect on sexual anxiety ( $-.23 \times .89 = -.20$ ), through sexual guilt as well. This time sexual guilt served as a mediator between the sexual double standard and sexual

anxiety indicating that sexual double standards influenced sexual anxiety only when sexual guilt was present. Finally, gender role attitudes indirectly predicted sexual guilt ( $.70 \times -.22 = -.15$ ) with the influence of gender role attitudes on sexual guilt being mediated by the sexual double standard. Gender role attitudes also indirectly predicted sexual anxiety ( $.70 \times -.22 \times .90 = -.14$ ) with both the sexual double standard and sexual guilt mediating its influence on this outcome variable.

Religiosity had a direct effect on gender role attitudes (.40) such that greater conservative religiosity predicted more traditional gender role attitudes. Gender role attitudes, in turn, had a strong direct effect on belief in the sexual double standard (.70) such that viewing gender roles as more egalitarian predicted less endorsement of the sexual double standard. It should be noted that although a direct relationship was found from religiosity to the sexual double standard, the corresponding coefficient was quite small ( $r = .10, p < .05$ ). To control for Type I error I decided to exclude this path from interpretation of the model, though it can be seen in the model in Figure 3b. The indirect relationship between religiosity and the sexual double standard, which was moderated by gender role attitudes, resulted in conservative religiosity being associated with greater endorsement of the sexual double standard. The indirect effect of religiosity on the sexual double standard ( $.38 \times -.70 = -.27$ ) was medium and stronger than its direct effect, implying that religiosity would more strongly influence endorsement of the sexual double standard when gender role attitudes were taken into account as opposed to when the influence of gender role attitudes on the sexual double standard was not considered. Nevertheless, the total effect of religiosity on the sexual double standard remained relatively small ( $-.27 + .10 = -.17$ ). Finally, perceived parental attitudes did not have a direct effect on any variable though it co-varied with religiosity ( $r = -.26, p < .001$ ).

**Role of sexual experience.** As previous analyses of variance tests demonstrated group differences based on sexual experience, I decided to explore the role of this variable in the models. I therefore tested the two final best fitting models with the added variable of sexual experience. Correlational analyses were consulted to determine additional paths for these models. Sexual experience significantly correlated with sexual guilt ( $r = -.28, p < .001$ ), sexual anxiety ( $r = -.38, p < .001$ ), perceived parental sexual attitudes ( $r = .14, p < .001$ ), and sexual attitudes ( $r = -.13, p < .001$ ). I decided to test sexual experience as a predictor variable, viewing sexual experience as an indication of having engaged in (or not) sexual behaviours. Although the relationship between sexual experience and sexual attitudes may be bidirectional (Meier, 2003) research suggests that the direction of the relationship may be dependent upon the strength of the attitude in question (Fazio & Williams, 1986). It has been found that behaviour often influences attitudes when those attitudes are relatively weak. While the participants' levels of sexual guilt and anxiety may be significantly higher than non-Muslim participants in previous research, their mean scores on these variables were nonetheless moderate. It will be recalled that participants' mean score on the Sex Guilt Subscale was 167.42 ( $SD = 72.69$ ) with a scale range of 0 – 396, while on the Sex Anxiety inventory the mean score was 15.52 ( $SD = 5.48$ ) with a scale range of 0 – 27. The participants' mean score on the Brief Sexual Attitudes Scale, however, was 40.79 ( $SD = 8.83$ ) with a scale range of 10 – 50, indicating relatively conservative sexual attitudes and suggesting that the sexual attitudes of this participant population may be relatively strong. I, therefore, decided to test sexual experience as both an outcome of sexual attitudes as well as a predictor of sexual attitudes, in two separate models. First, paths were added from sexual experience to sexual guilt and sexual anxiety and from sexual attitudes to sexual experience. I then

tested the model in which the paths from sexual experience to sexual guilt and sexual anxiety remained, while the path from sexual attitudes to sexual experience was reversed, making sexual attitudes the outcome of sexual experience. Table 31 presents the chi-square and fit indices values.

Table 31

*Goodness-of-Fit Indices for Model 1 with Sexual Experience Variable*

Model	$\chi^2$ (df)	NFI	CFI	RMSEA
Model 1: Sexual attitudes - Best fitting model	8.55 (3) $p = .036$	.990	.993	.068
Added sexual experience variable with paths from sexual experience to sexual guilt, sexual anxiety, and from sexual attitudes to sexual experience	11.90 (5) $p = .036$	.987	.992	.059
Added sexual experience variable with paths from sexual experience to sexual guilt, sexual anxiety, and sexual attitudes	4.34 (3) $p = .227$	.995	.999	.033

As both models tested with the variable of sexual experience appeared to fit well I conducted a chi-square difference test, using the chi-square distribution table, to examine if one of the models including sexual experience had better fit with the data. The test was significant which meant there was a significant difference between the fit of the models ( $\chi^2_{diff} (2) = 7.56, p = .025$ ). Werner and Schermelleh-Engel (2010) suggest that when a significant difference is found between competing models, the model with more freely estimated parameters, and consequently fewer degrees of freedom, fits the data better than the model with fewer parameters and more degrees of freedom. Therefore, I decided to retain and interpret the model in which sexual experience predicted sexual attitudes. This

model is presented in Figure 5a. Similar to Model 1, the variable of sexual experience was added to Model 2 with paths added from this variable to sexual guilt and sexual anxiety. Figure 5b presents this model and Table 32 presents the chi-square and fit indices values. The final model produced good fit with the data.

Table 32

*Goodness-of-Fit Indices for Model 2 with Sexual Experience Variable*

Model	$\chi^2$ (df)	NFI	CFI	RMSEA
Model 2: Sexual double standard – Best fitting model	24.39 (9) <i>p</i> = .004	.976	.985	.065
Added sexual experience variable with paths from sexual experience to sexual guilt and sexual anxiety	21.35 (11) <i>p</i> = .030	.981	.990	.048

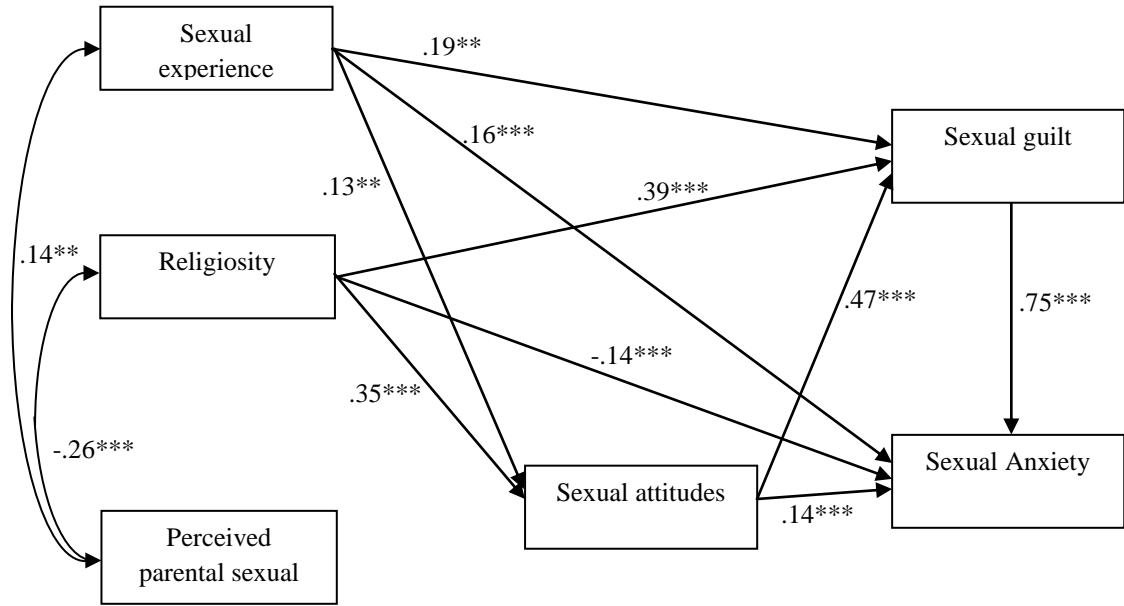


Figure 5a. Final Model 1 with variable of sexual experience.  
 \*\* $p < .01$ . \*\*\* $p < .001$ .

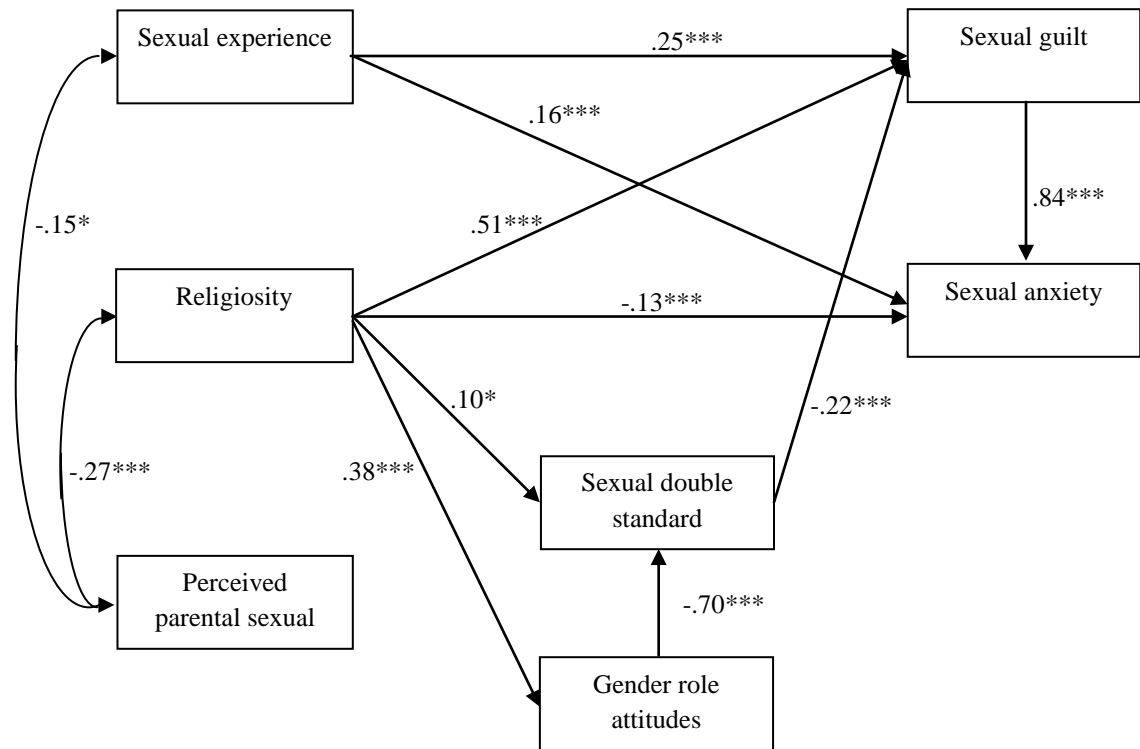


Figure 5b. Final Model 2 with variable of sexual experience.  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Chi-square difference tests, using the chi-square distribution table, were conducted to examine if the models including sexual experience had better fit with the data. These tests were not significant which meant both Model 1 with sexual experience ( $\chi^2_{\text{diff}}(0) = 4.21, p = -$ ), and Model 2 with sexual experience ( $\chi^2_{\text{diff}}(2) = -3.04, p = .90$ ), did not have better fit with the data. These models were another way to understand the relationships between variables but were not a better explanation of the data.

These additional models demonstrate the possible role of sexual experience. Sexual experience had both a direct and indirect relationship with the outcome variables, while in Model 1 sexual attitudes provided partial mediation for the relationship between sexual experience and sexual guilt and anxiety. In Model 1, the total effect of sexual experience on both sexual guilt (.19 + .06 = .25) and sexual anxiety (.16 + .05 = .21) was relatively weak. In this model religiosity remained the strongest predictor of sexual guilt (.39 + (.35 x .47) = .55) while sexual attitudes, after sexual guilt, remained the strongest predictor of sexual anxiety (.14 + (.47 x .75) = .49). In Model 2 the total effects of sexual experience on sexual guilt (.25) and sexual anxiety (.16 + .21 = .37) were weak to moderate. Once again, when examining total effects, religiosity was the greatest determinant of sexual guilt (.55) and sexual anxiety (.33) after sexual guilt. These models indicated that having sexual experience predicted less sexual guilt, less sexual anxiety, and more liberal sexual attitudes regarding permissiveness. However, sexual experience was not a stronger determinant of sexual guilt than religiosity or sexual attitudes, nor was it a greater predictor of sexual anxiety than sexual guilt, religiosity, or sexual attitudes. In other words, the outcome variables were determined mostly by other predictor variables, not sexual experience.



Models with the variable of 'relationship status' were also tested. For the purposes of testing in the model relationship status was reduced to four categories - dating, single, married, and other. Table 33 presents the fit indices for all models tested for Models 1 and 2 with relationship status. In the first model relationship status was found to be a very weak predictor of sexual anxiety while in Model 2 it did not predict any other variable. For Model 1, first, relationship status was added to the model and, based on correlational analyses, paths added from relationship status to both sexual anxiety and sexual guilt. Model fit remained good, though parameter estimates demonstrated the path from relationship status to sexual guilt was non-significant ( $p = .56$ ). Once dropped, parameter estimates were once again calculated. No other parameters were non-significant and modification indices did not suggest the addition of any paths. This was deemed the final model for Model 1 with relationship status. For Model 2, once again relationship status was added to the model and, based on correlational analyses, paths were added from relationship status to sexual guilt and to gender role attitudes. Parameter estimates were calculated and both paths from relationship status to sexual guilt ( $p = .70$ ) and gender role attitudes ( $p = .95$ ) were non-significant. The paths were dropped and the remaining model was deemed the best fitting model for Model 2 with relationship status.

Table 33

*Goodness-of-Fit Indices for Models with Relationship Status Variable*

Model	$\chi^2$ (df)	NFI	CFI	RMSEA
Model 1: Sexual attitudes - Best fitting model	8.55 (3) $p = .036$	.990	.993	.068
Added relationship status variable with paths from relationship status to sexual guilt and sexual anxiety	10.11 (4) $p = .039$	.988	.993	.062
Dropped path from relationship status to sexual guilt – Final model	10.45 (5) $p = .064$	.988	.994	.052
Model 2: Sexual double standard – Best fitting model	24.39 (9) $p = .004$	.976	.985	.065
Added relationship status variable with paths from relationship status to sexual guilt and gender role attitudes	31.08 (11) $p = .001$	.971	.981	.067
Dropped paths from relationship status to sexual guilt and gender role attitudes - Final Model	31.24 (13) $p = .003$	.971	.982	.059

Chi-square difference tests, using the chi-distribution table, were conducted to examine if the models including relationship status had better fit with the data. These tests were not significant which meant both Model 1 with relationship status ( $\chi^2_{\text{diff}}(2) = 1.90, p = .90$ ), and Model 2 with relationship status ( $\chi^2_{\text{diff}}(4) = 6.85, p = .90$ ), did not have better fit with the data. These models were once again another way to understand the relationships between variables but were not a better explanation of the data. However, as relationship status was a very weak predictor in Model 1 and did not predict any variables in Model 2, I decided not to interpret these models as relationship status did not appear to be an important variable in the models.

**Combining the Models.** Considering that the best fitting models were very similar to each other I decided to also test one composite model, combining the two best fitting models with the variable of sexual experience (seen in Figures 5a and 5b). This composite model can be seen in Figure 6. Although the composite model had good fit, similar to previous best fitting models, its chi-square value was significant, as can be seen in Table 34, suggesting a significant difference between the data and the model. Chi-square difference tests, using the chi-distribution table, were conducted to examine if the composite model had better fit with the data than the other two models. The tests were significant for both best fitting model 1 with sexual experience ( $\chi^2_{\text{diff}}(9) = 31.75, p < .01$ ), and best fitting model 2 with sexual experience ( $\chi^2_{\text{diff}}(1) = 14.74, p < .01$ ) indicating significant differences between the fit of the models. Following the suggestion of Werner and Schermelleh-Engel (2010) of retaining the model with more freely estimated parameters I decided to interpret the two best fitting models with the variable of sexual experience, both of which had more freely estimated parameters than the composite model.

Table 34

*Goodness-of-Fit Indices for Best Fitting Models and Composite Model*

Model	$\chi^2$ (df)	NFI	CFI	RMSEA
Model 1 – Best fitting model	8.55 (3) <i>p</i> = .036	.990	.993	.068
Model 2- Best fitting model	23.24 (7) <i>p</i> = .002	.976	.983	.076
Model 1 with Sexual Experience – Best fitting model	4.34 (3) <i>p</i> = .227	.995	.999	.033
Model 2 with Sexual Experience – Best fitting model	21.35 (11) <i>p</i> = .030	.981	.990	.048
Composite model	36.09 (12) <i>p</i> < .001	.972	.981	.071

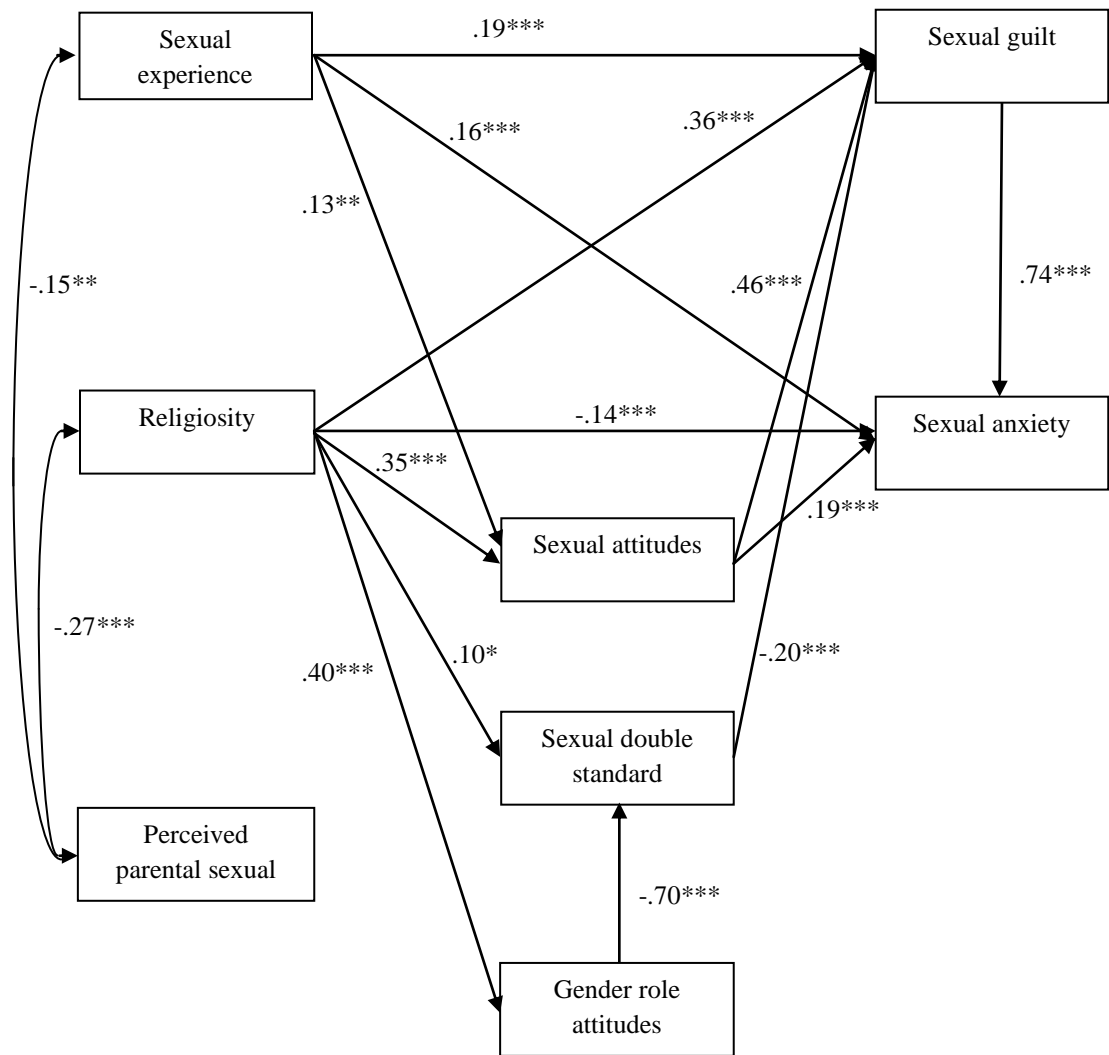


Figure 6. Composite model. This model combined both best fitting models.  
 $*p < .05$ .  $** p < .01$ .  $*** p < .001$ .

**Summary.** The initial path analyses models proposed were determined to have poor fit with the data. These models, therefore, needed to be modified. The modification process produced two new models which exhibited good fit with the data. The modification process determined that gender had little relevance to either model. The new models suggested that religiosity was the strongest determinant of sexual guilt, while sexual guilt was the strongest determinant of sexual anxiety. Although religiosity directly predicted sexual guilt and anxiety in this sample, an examination of the parameter estimates demonstrated that the relationship between religiosity and sexual guilt was stronger than the relationship between religiosity and sexual anxiety. However, the effect of religiosity on sexual anxiety strengthened, and changed direction, when sexual guilt was also present<sup>5</sup>. Sexual attitudes, belief in sexual double standard, and gender role attitudes partially mediated the influence of religiosity on sexual guilt and sexual anxiety. Along with religiosity, sexual attitudes were shown to be a strong predictor of sexual guilt as well. Sexual guilt and anxiety were also predicted by endorsement of the sexual double standard, although the effect of sexual double standard was not as strong on the outcome variables as was the effect of sexual attitudes. Perceived parental sexual attitudes did not predict any other variable, though it co-varied with religiosity. When sexual experience was included in the model it maintained good fit in the model but had weak effects on other variables, demonstrating that although it may affect other variables, namely sexual guilt, sexual anxiety, and sexual attitudes, it was not a strong determinant of those variables. Sexual attitudes provided partial mediation to the relationship of sexual experience with sexual guilt and sexual anxiety.

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<sup>5</sup> As mentioned previously, this change in direction may be due to the occurrence of a moderated mediation. See Preacher, Rucker, and Hayes (2007) for more information on moderated mediation.

## CHAPTER VI

### Discussion

Empirically based knowledge about the sexual health of Muslims in North America, including research on their sexual guilt and sexual anxiety, is extremely limited. Considering the difficult sexual space inhabited by many young Muslims in the North American context, generating knowledge to better understand their sexual realities can be one step toward understanding that space. The goal of my study was therefore to explore how background factors would impact the sexual guilt and sexual anxiety of young Muslim adults living in Canada and the United States and the mediating effect of attitudinal factors on that relationship. In other words, I explored their levels of worry and fear of harshly judging themselves, or having others do the same to them, for (potentially) violating standards of sexual behaviours. This investigation of their sexual guilt and sexual anxiety proved to be challenging as the previous literature provided little to no targeted information. Most of the factors which I examined as possible predictors of sexual guilt and anxiety were well researched among presumably non-Muslim populations, but their manifestation among Muslims was unknown. My primary strategy was to test a path model of hypothesized relationships among these factors and sexual guilt and anxiety. The path models were designed based on the relationships established among factors in previous research with non-Muslims.

The final path models demonstrated that religiosity both directly and indirectly predicted sexual guilt and sexual anxiety. This relationship was partially mediated by sexual attitudes. Participants' support for the sexual double standard with regard to the sexual behaviours of men and women was strongly influenced by their gender role attitudes, and provided an additional explanation for the influence of religiosity on sexual

guilt and anxiety. For this sample of young, educated, and ethnically diverse Muslims living (and mostly raised) in Canada and the United States (as citizens or permanent residents), religiosity, followed by attitudes regarding sexually permissive behaviours, were determined to be the two most important contributors to experience of sexual guilt and sexual anxiety. The direct relationship of religiosity with sexual guilt and sexual anxiety demonstrated the importance of religion in determining levels of both, while the partial mediating role of sexual attitudes, belief in the sexual double standard, and gender role attitudes aided in understanding the relationship as one affected by the sexual and gender attitudes one holds. Perceived parental sexual attitudes did not demonstrate any predictive value and instead simply co-varied with religiosity. Indeed, levels of sexual guilt and anxiety were not influenced by participants' perceptions of their parents' sexual attitudes. Sexual experience, however, did directly and indirectly influence young Muslim adults' levels of sexual guilt and anxiety while their sexual attitudes had some influence on that relationship. Finally, counter to what the previous literature had suggested about the influence of gender in varying populations, few differences were found between Muslim men and women and as such gender did not predict sexual guilt and anxiety. This study therefore provides new information which could help both young Muslim adults, and those working with them, understand how various factors in their lives have an impact on their sexual guilt and sexual anxiety.

### **Conceptualization of Sexual Guilt and Anxiety**

Before I could interpret how sexual guilt and sexual anxiety related to background factors and personal attitudes, it was important to understand the meaning of these constructs for young Muslim adults and how they manifested in this population. In the literature sexual guilt has been conceptualized as a type of self-imposed punishment one



assigns for either violating or anticipating the violation of one's standards of proper sexual conduct (Mosher & Cross, 1971). It is considered a stable personality disposition colouring the way in which individuals view the world and regulating responses to sexual situations (Mosher & O'Grady, 1979). Sexual guilt, therefore, is worry about negative self-judgement and punishment and is dependent upon one's standards of proper sexual behaviour. Sexual anxiety is related to sexual guilt and can be defined as "a generalized expectancy for nonspecific external punishment for the violation of, or the anticipation of violating, perceived normative standards of acceptable sexual behaviour" (Janda & O'Grady, 1980, p.170). It is worry about negative judgement and punishment from others. The source of sexual standards is an important difference between the two constructs. Sexual guilt involves worry about violating the standards individuals have for themselves, whereas sexual anxiety involves worry about violating normative societal standards. The young Muslim women and men in the pilot study expressed their beliefs that the two measures used to assess these constructs – Sexual Guilt Subscale and the Sex Anxiety Inventory – were appropriate for Muslims. When a factor analysis was conducted on the measures the measure held together in a meaningful way for this population. However, the factor analysis also revealed some nuances which provided insight into the context of sexual behaviours which contributed more to the sexual guilt and sexual anxiety of this population.

Previous literature on the Sex Guilt Subscale has not indicated a multifactor factor structure for the measure, suggesting that previous, mixed samples experienced sexual guilt similarly in different contexts. Such was not the case for this sample of young Muslims. As suggested by the factor analysis, for the Muslim participants in the present study the sexual context which seemed to contribute the most to their worries of negative

self-judgement and punishment, or sexual guilt, was one involving immoral or unacceptable sexual behaviours (according to common Islamic teachings; *Immoral and Unacceptable Sexual Behaviours* factor). These young Muslim adults were concerned that they would judge and punish themselves most if they were to engage in sexual behaviours which are commonly deemed inappropriate within Islam. Most Islamic scholars have delineated clear rules and regulations on sexual behaviours considered lawful within the religion. Any sexual relations which occur outside of those rules, namely sex before marriage, are prohibited (Ali, 2006). Interestingly, focus group participants predicted as much, sharing that they felt that topics such as sex before marriage and masturbation, both of which were considered unIslamic by most of these participants, would serve as good indicators of sexual guilt in Muslims. The congruency between the focus groups' predictions and the way in which sexual guilt was experienced by Muslim participants in the main study appears to serve as a validity check for the way in which sexual guilt was assessed. It also served as an indication that Islam and Islamic teachings may be an important factor for young Muslim adults when defining appropriate and acceptable sexual behaviours. Young Muslim adult participants in the present study may be basing their personal standards of appropriate sexual behaviours on Islamic teachings regarding sex, the violation of which may contribute most to feelings of sexual guilt.

In their factor analysis of the Sex Anxiety Inventory with a sample of non-Muslims, Janda and O'Grady (1980) found that worries about negative judgement and punishment from others were experienced most with regard to the violation of societal standards of sexual behaviours or sexuality in social situations. The factor analysis which I conducted of the Sex Anxiety Inventory revealed that the factor which accounted for the

most variance in the scale was *Private Sexual Behaviours, Cognitions, and Emotions*. This suggests that for these young Muslim adults, violation of societal standards regarding private sexual behaviours, thoughts, and feelings contributed most to their worries about negative judgement or punishment from others. These included behaviours such as masturbation and sex, cognitions such as sexual thoughts, and emotions such as sexual desires, all of which individuals would not share with others (except one's sexual partner) and which would not be seen or observed by others. These results suggest that sexual privacy may be quite important for these young Muslim adults and violation of that privacy would be cause for worry. This emphasis on privacy may be understood, at least in part, as being derived from religion. Along with providing guidelines for sexual behaviours, many Islamic scholars argue that Islam places an emphasis on the importance of keeping sex a private act, preferably between a husband and wife, as an expression of modesty (Ali, 2006). It therefore is reasonable to suggest that many Muslims would maintain that privacy, while those who do not, or cannot, may be subject to harsh judgement from others.

**Sexual Guilt and Sexual Anxiety Levels of Muslims.** Research suggests a strong relationship between sexual anxiety and sexual guilt (Janda & O'Grady, 1980). In fact, Janda and O'Grady (1980) speculate that sexual guilt and sexual anxiety examined together would reveal more about sexual behaviour than examining each separately. Janda and O'Grady's acknowledgment of this strong relationship was validated in the present study. The current study found a similar relationship between the two factors for this Muslim sample. Young Muslim adults' sexual guilt was the strongest predictor of their sexual anxiety. Although both religiosity and attitudes regarding sexual permissiveness also had an impact on Muslims' worries about being negatively judged by

others, this influence was minimal and sexual anxiety was most determined by how much concern they felt about harshly judging themselves. The participants' fear of harsh self-judgement was by far the strongest predictor of how much they would worry about being judged by others. In fact, the influence of their religiosity and their sexual attitudes on their levels of sexual anxiety became stronger when sexual guilt was also present. Indeed, it is important to note that the influences of all factors on sexual anxiety were strongest with the presence of sexual guilt.

It is interesting to note that these young Muslim adults reported higher levels of sexual guilt and sexual anxiety than has been reported for previous non-Muslim populations (Janda & Bazemore, 2011; Janda & O'Grady, 1980; Joffe & Franca-Koh, 2001; Katz & Farrow, 2000; McDonagh et al., 2008; Merrell, 2009; Plaud, et al., 1999; Plaud, et al., 1998; Pollock, 2000; Rondinelli, 2000; Shulman & Home, 2006; Stewart, 2006; Tolor & Barbieri, 1981). It appears that these young Muslim adult participants worried about judgement and punishment from themselves and from others more than non-Muslim participants in previously published studies. Although research has suggested that greater levels of sexual guilt and anxiety are associated with poor overall sexual health and sexual dysfunction (Cado & Leitenberg, 1990; Darling et al., 1992; D'Augelli & Cross, 1975; Galbraith, 1969; Gerrard, 1987; Love et al., 1976; Morokoff, 1985; Mosher, 1979a; Sack et al., 1984; Woo et al., 2011) it would be premature to suggest this is the case for young Muslims based on this information alone. These greater levels of sexual guilt and anxiety are better understood when examined in context.

### **Factors Influencing the Sexual Guilt and Sexual Anxiety of Young Muslim Adults**

Understanding the sexual guilt and sexual anxiety of young Muslim adults requires exploring factors which may contribute to the increase or decrease in guilt and

anxiety. I, therefore, decided to explore how the sexual guilt and anxiety of the participants would be affected by their conservative religiosity, their perceptions of their parents' sexual attitudes, their own sexual attitudes, their gender role attitudes, sexual experience and gender. I found a complex picture of relationships among factors, but greater understanding of Muslim sexual guilt and anxiety.

**Religiosity, Sexual Attitudes, and Sexual Guilt and Sexual Anxiety.** One of the most expected, yet also most interesting, findings was the importance of religion for young Muslim adults. In the previous section it was noted that Islam was immediately raised by participants in the focus groups as a contributing factor to the way in which Muslims experienced sexual guilt. The religiosity of these participants was assessed by measuring their adherence to conservative Islamic beliefs. The results indicated that these young Muslim adults had medium to high levels of conservative religiosity. This finding was not surprising as it has been suggested that Islam is important to the identity of many Muslims (Abu-Ali, 2003; Abu Raiya & Pargament, 2010, 2011; Albelaikhi, 1998; Carolan et al., 2000; Jamal & Badawi, 1993).

Adherence to conservative Islamic teachings was a prominent contributor to sexual guilt and anxiety of the young Muslim adults in this study. This relationship, that greater religiosity is associated with greater worries of self-judgement and punishment, has been established in the literature previously for other populations (Abdolsalehi, 2010; Cowden & Bradshaw, 2007; Davidson et al., 2004; Fehr & Stamps, 1979; Gunderson & McCary, 1979; Tobin, 1996; Weis et al., 1986). In the current study, young Muslim adults' religiosity levels, directly and indirectly, influenced both their worries of judgement and punishment from the self (i.e., sexual guilt) and from others (i.e., sexual anxiety). When all other factors were taken into account, their religiosity was the

strongest predictor of how much they may negatively judge and punish themselves for (potentially) violating their own standards of sexual behaviours.

Common interpretations of Islam, as those of most religions, provide clear and strict guidelines for what constitute appropriate and inappropriate sexual behaviours (Cochran & Beeghley, 1991). Religions, including Islam, tend to regulate when, with whom, and how one can engage in sexual behaviours. Although many Islamic scholars argue that historically the religion has been sex positive (Kugle, 2003), contemporary traditional scholars propose that sex positivity be constrained to sex within a contractual marriage, either temporary (which only Shi'a schools of thought allow) or permanent (Ali, 2006). Many progressive Islamic scholars propose that sexual relationships may occur outside a marriage where there is a verbal contract stipulating a commitment to that relationship (Kugle, 2003; Wadud, 2010). However, a minority of Muslims prescribe to progressive interpretations as traditional interpretations remain the dominant discourse (Ali, 2006). Muslims' adherence to Islamic beliefs, in general, would reflect the weight they place on Islamic guidelines for sexual behaviours and would serve as an appropriate illustration of their adherence to those guidelines. Adherence to religion could therefore provide a 'moral compass' against which to judge one's own sexual behaviours. A violation of that moral compass, or a noncompliance with those Islamic guidelines, could result in feelings of guilt for breaking religious rules.

Due to the fact that religions provide such guidelines on various aspects of sexual behaviours, and that sexual attitudes similarly reflect beliefs one has of appropriate and inappropriate sexual behaviours, partners, and activities (Woo et al., 2011), the influence of participants' sexual attitudes on guilt and anxiety was unsurprising. These young Muslim adults' sexual attitudes partially explained the relationship between their

religiosity and their sexual guilt and anxiety, and these attitudes also directly predicted sexual guilt and anxiety. Sexual attitudes are the beliefs one has about sexuality and, in the present study, about sexually permissive behaviours. For these relatively young Muslim individuals, adherence to Islamic beliefs was both directly determining their harsh self-judgement and informing their attitudes regarding permissive sexual behaviours. This finding corroborated previous research which has found greater religiosity to be related to conservative sexual attitudes and less endorsement of sexual permissiveness (Beckwith & Morrow, 2005; Hendrick & Hendrick, 1987b; Lefkowitz et al., 2004) including among Muslims (Abu-Ali, 2003). In concordance with these previous findings, I found these young Muslims' religiosity was not only related to their attitudes regarding sexual permissiveness but it also predicted these attitudes, which were relatively conservative. Overall, participants expressed little support for sexual permissiveness and instead preferred more conservatism in sexual behaviours.

Young participants' attitudes regarding sexual permissiveness contributed to their worry about judging themselves for (possibly) violating their standards of appropriate sexual behaviours. Indeed, with all other factors accounted for, their attitudes regarding sexually permissive behaviours alone had a substantial influence on their sexual guilt levels. Considering conservatism of sexual attitudes has previously been found to be associated with higher levels of sexual guilt (DiVasto, 1977; Hendrick & Hendrick, 1987a; Mendelsohn & Mosher, 1979; Woo et al., 2011), this relationship was anticipated. While adherence to Islam may provide guidelines for sexual behaviours, these young Muslims' sexual attitudes represent the constraints which they place on various "aspects of sexuality, including the appropriateness of sexual partners, sexual activities, and conditions under which sexual activity should occur" (Woo et al., 2011, p. 386). Young

Muslim adults holding conservative attitudes would place many constraints on their sexual behaviours, while those with liberal attitudes would endorse fewer constraints. Much like the moral compass provided by religion, these constraints, whether many or few, provide a standard of sexual behaviours against which they may judge themselves. The presence of many constraints translates into stricter standards of sexual behaviours. It would, therefore, appear that when examining young Muslim adults' sexual guilt and sexual anxiety both their religiosity and their attitudes regarding sexual behaviours should be considered as sources informing their standards of sexual behaviours.

Religiosity levels had a weaker influence on sexual anxiety than on sexual guilt. Islamic sexual guidelines and sexual behaviour constraints are personal in nature. They are used to judge our own or others' sexual behaviours. However, these personal guidelines for and constraints on sexual behaviours would have little bearing on how we may be judged by others. The personal nature of adherence to a religion (and its associated guidelines) and attitudes regarding sexual behaviour (and its associated constraints) could therefore have less influence on levels of sexual anxiety than on sexual guilt. This seemed to be the case for the young Muslims in the present study. Their adherence to Islamic beliefs and their sexual attitudes were not as strongly linked to their sexual anxiety as they were to their sexual guilt. Considering the literature has not established a strong association between either religiosity and sexual anxiety or sexual attitudes and sexual anxiety the weakness of that relationship was not surprising. The limited research that exists suggests patterns similar to those with sexual guilt such that being accepting of sexual permissiveness and sexuality has been found to be related to less sexual anxiety (Cyranski & Andersen, 1998; Stewart, 2006). For these young



Muslims, although a relationship between religiosity, sexual attitudes, and sexual anxiety was found, it was not as strong as that with sexual guilt.

In consideration of the importance of religiosity in predicting sexual guilt and anxiety for these young Muslim adults, both directly and indirectly, as well as the central role that Islam appears to play in the lives of many Muslims in North America (Abu-Ali, 2003; Abu Raiya & Pargament, 2010, 2011; Carolan et al., 2000), it seems critical to consider the implications of such a relationship for young Muslim adults. The literature has established that increased sexual guilt and anxiety are associated with negative sexual outcomes such as sexual dysfunction (Merrell, 2009; Nobre & Pinto-Gouveia, 2006), sexual dissatisfaction (Cado & Leitenberg, 1990), and limited sexual knowledge (Mendelsohn & Mosher, 1979; Mosher, 1979a). Therefore, in the literature, sexual guilt and anxiety have understandably been conceptualized as undesirable affective-cognitive states. Yet, when considered from a traditional religious perspective both sexual guilt and anxiety may be viewed as functional, and indeed desirable, methods of controlling the sexual behaviours of individuals so as to discourage engagement in unsanctioned sexual activities. As sexual guilt has also been associated with lack of engagement in sexual activities (Love et al., 1976) and less sexual experience (D'Augelli & Cross, 1975; Gerrard, 1987; Mosher, 1979a; Sack et al., 1984) the presence of sexual guilt may be viewed as an affective-cognitive personality disposition which may ensure that young Muslim adults behave in accordance with Islamic guidelines regarding sexual behaviours. Sexual guidelines delineated by religions serve as social norms for those individuals who identify with that religion. Religious teachings often indicate negative consequences for engaging in behaviours considered unacceptable (Uecker, 2008). When individuals violate these social norms they often feel discomfort, indeed guilt, for doing so, and may

worry about others' judgement of them (Uecker, 2008). The purpose of that guilt and fear of judgement is therefore to ensure that social norms and religious rules are obeyed. From a traditional Islamic perspective sexual guilt and sexual anxiety may therefore work to ensure that young Muslim adults adhere to religious guidelines and do not engage in unsanctioned sexual behaviours, namely sex before marriage.

The complication is, however, that within the confines of a religiously sanctioned sexual relationship, sexual guilt and anxiety would serve as an unnecessary hindrance. Indeed, within a sanctioned sexual relationship the negative outcomes associated with sexual guilt and anxiety may prove to be problematic for the individuals and the relationship. Apart from the dilemmas which sexual dysfunction and dissatisfaction may create in a marriage, the possible lack of sexual activities, which has been associated with sexual guilt, could also result in divorce (Yabiku & Gager, 2009). The results of the present study showed that participants who were married reported more fear of negative self-judgement than those who were dating. This finding suggests that marriage, in itself, may not decrease fear of self-judgement and punishment for (possibly) violating one's standards of sexual behaviour, despite the understanding that Islamic guidelines for sexual behaviours allow for sexual activity and pleasure within marriage (Ali, 2006). Married young Muslim adults were also more religious than those who were dating, suggesting that adherence to Islamic beliefs, regardless of any sex-positive messages within Islam, may continue to shape young Muslims' fear of self-judgement after marriage. Therefore, from a traditional religious perspective, sexual guilt and anxiety may work to decrease incidents of unsanctioned sexual behaviours, but the presence of sexual guilt and anxiety within a sanctioned sexual relationship could be cause for concern.

From a progressive or non-traditional religious perspective, however, sexual guilt and sexual anxiety may seem problematic and undesirable regardless of marital status. Various feminist and progressive scholars have proposed that since verbally contracted and committed sexual relationships, which were not marriages, were lawful during the time of the Prophet Muhammad, lawful sexual relationships may only require a verbal contract demonstrating a commitment to that relationship (Kugle, 2003; Wadud, 2010). Therefore, a progressive religious perspective may not necessarily view sex before marriage as prohibited. Taking into account that many of these young Muslim adults reported having engaged in sex before marriage, their experiences of sexual guilt and sexual anxiety cannot simply be considered a functional method of discouraging unsanctioned sexual behaviours. The consistent and enduring nature of sexual guilt and anxiety represent stable negative thoughts and feelings about sex and sexuality. These negative thoughts and feelings may continue into contracted sexual relationships and have a harmful impact. From this perspective sexual guilt and sexual anxiety would be viewed as undesirable affective-cognitive personality dispositions regardless of marital status.

**Sexual Double Standard and Gender Role Attitudes.** The sexual double standard is, in essence, a set of conservative sexual attitudes which are operationalized as holding different standards for acceptable sexual behaviour of men and women (Crawford & Popp, 2003). These attitudes are informed by the traditional sexual script. Sexual script theory states that “sexuality is learned from culturally available messages that define what ‘counts’ as sex, how to recognize sexual situations, and what to do in sexual encounters” (Frith & Kitzinger, 2001, p.210). Sexual scripts demonstrate commonly understood expectations of sexual encounters. The North American traditional heterosexual script expects men to be assertive and always initiate and pursue sex, while the expectation of

women is to act passively and be the recipient of sexual activity. Endorsement of the sexual double standard would demonstrate support for the traditional sexual script. Therefore, endorsement of the sexual double standard would indicate gender specific constraints on sexual behaviour. As with attitudes regarding sexually permissive behaviours, these attitudes regarding appropriate sexual behaviours for men and women would provide the constraints against which individuals could judge their own sexual behaviour.

Along with religiosity and attitudes regarding sexually permissive behaviours, young Muslim adults' support for the sexual double standard also determined how much fear they had of negatively judging themselves and of being negatively judged by others. However, its influence on their sexual guilt and anxiety was weaker than the influence of their religiosity and other sexual attitudes. Previous studies have suggested that belief in the sexual double standard is related to higher levels of sexual guilt and anxiety (Alexander & Fisher, 2003; Langston, 1975). For the current sample, support for the sexual double standard contributed directly to levels of sexual guilt and indirectly to levels of sexual anxiety. In other words, support for a sexual double standard for the sexual behaviour of men and women predicted fear of self-judgement, which in turn contributed to fear of judgement from others. Support for a sexual double standard did not contribute directly to levels of fear of judgement and punishment from others.

Support for the sexual double standard combined with traditional gender role attitudes also provided partial explanation for the relationship between religiosity and sexual guilt. The sexual double standard not only represents sexual attitudes, but it also represents attitudes regarding gender roles, albeit only in sexual situations. It was therefore not surprising that these young Muslim adults' gender role attitudes were the

strongest determinant of their support for the sexual double standard. Their religiosity was a moderate determinant of their gender role attitudes, thereby having an indirect impact on their belief in the sexual double standard. The relationship found between religiosity and gender role attitudes has previously been established in the literature which has found that those who report conservative religious beliefs, including religious Muslims, also support traditional gender roles for men and women (Brinkerhoff & MacKie, 1985; Diehl et al., 2009; Khalid & Frieze, 2004; Peek et al., 1991; Read, 2003). The same was found for this population as those young Muslim men and women who reported greater conservative religiosity also held traditional gender role attitudes and consequently endorsed the sexual double standard.

**Sexual Experience.** Research on the sexual experiences of Muslims in Canada and the United States is virtually non-existent. Therefore, although I assessed few details about the participants' sexual experiences, the information which I was able to gather provided some interesting and new insights on young Muslim adults. Half of these young Muslim adults reported being sexually experienced and most of these individuals had engaged in sexual intercourse before marriage. Some of these individuals were currently married. It is difficult to comment on whether this is representative of the general Muslim population in North America, as no clear data exist. Nonetheless, given what is known about the relatively high religiosity levels of Muslims, including in this sample, it is quite surprising that the majority of sexually experienced Muslims in this study had engaged in sex before marriage. It is often assumed that because Muslims hold relatively conservative sexual attitudes and place an importance on Islam many Muslims wait until after marriage to engage in sexual behaviours. In a study examining the relationship between religiosity and sexuality among non-religious, and practicing Catholic,

Protestant, Buddhist, and Muslim Australian adults, de Visser et al. (2007) found Muslims, along with Catholics and Protestants, to have engaged in significantly less premarital sex, and to be less tolerant of premarital sex, than non-religious individuals. Similarly, in an examination of an international health survey, Adamczyk and Hayes (2012) found Muslims and Hindus to be less likely to report having engaged in premarital sex than Christian or Jewish respondents. In a United Kingdom based study on South Asians' first heterosexual experience, Muslim Pakistanis were more likely to believe premarital sex was wrong than individuals of other ethnicities (Griffiths et al., 2011) while a study conducted with Nigerian Muslim women found their rates of premarital sex to be low (Agha, 2009). Again, although we do not know how representative the sample in the present study is regarding sexual experience, the results do paint an informative and illuminating picture of the sexual experience of these young Muslim women and men and its relationship to their levels of sexual guilt and sexual anxiety.

Compared to those with no sexual experience, young Muslim adults with sexual experience expressed less fear of harsh self-judgement and punishment, and less fear of negative judgement from others. When other factors were accounted for, sexual experience was found to be related to lower fears of harsh judgement from themselves, and from others. This is not unlike research conducted on non-Muslims which has found greater sexual experience to be related to lower levels of both sexual guilt (D'Augelli & Cross, 1975; Gerrard, 1987; Mosher, 1979a; Sack et al., 1984) and sexual anxiety (Hensel et al., 2011).

However, as most research examining the relationship between sexual experience and sexual guilt and sexual anxiety has been cross-sectional, the directionality of this relationship is unclear. Nonetheless, a longitudinal study conducted by Hensel et al.

(2011) may provide some insight. In a four-year long study following African-American adolescent women the researchers sought to understand the development of a sexual self-concept and sexual behaviour. Their findings revealed that as engagement in sexual behaviours increased over time the sexual self-concept of these young women improved as well. Included within the construct of sexual self-concept was sexual anxiety, along with sexual esteem and sexual openness. In other words, as these young women gained sexual experience over the years their levels of sexual anxiety decreased. Those women whose sexual anxiety levels decreased slowly over the four years also engaged in fewer sexual behaviours than those who sexual anxiety levels dropped faster. The researchers speculated that as these young women gained sexual experience they also gained sexual confidence (i.e., having a positive evaluation of one's sexuality, sexual thoughts, feelings, and behaviours, and one's body in a sexual context), which may have resulted in decreased levels of sexual anxiety. These decreased levels of sexual anxiety may then have created a positive environment in which the women felt comfortable engaging in more sexual behaviours. In other words, the relationship may be bidirectional (Hensel et al., 2011).

As the present study was not longitudinal the order of a similar process for the Muslim participants could not be explored. It is clear that having sexual experience did contribute to lower levels of sexual guilt and sexual anxiety, though this contribution remained much weaker than that of their religiosity and sexual attitudes. Considering these participants' level of sexual guilt and anxiety were moderate, in other words neither were they extremely worried about judgement nor did they lack worry, their levels of sexual guilt and anxiety may have been more susceptible to their sexual experience than had their levels of sexual guilt and anxiety been high or low. Had their sexual guilt and

anxiety levels been high sexual experience may have had minimal influence in lowering those levels. Conversely, had their levels already been low, sexual experience may have had little impact. Instead, as their levels of guilt and anxiety were moderate, sexual experience may have been more likely to inform their levels of sexual guilt and sexual anxiety.

The relationship between sexual experience and sexual guilt and anxiety was quite nuanced. This relationship was partially explained by these young Muslim adults' sexual attitudes. Those who had sexual experience were more accepting of sexual permissiveness than those who had no experience, a finding supporting previous research which has found a relationship between having sexual experience and increased liberal sexual attitudes (Miller & Olson, 1988). When examining the model, it appeared that these young Muslim adults' sexual experience was informing their sexual attitudes (i.e., constraints on sexual behaviours), which in turn were contributing to their levels of sexual guilt and sexual anxiety. Social psychological theory would suggest that the relationship between behaviours and attitudes is bidirectional (Bem, 1972 as cited in Holland et al., 2002; Festinger, 1962; Kraus, 1995) and dependent on the strength of the attitude (Fazio & Williams, 1986). Attitudes will influence behaviour if the attitude is strong, but behaviour will influence attitudes if the attitude is weak. To explain the latter relationship cognitive dissonance theory states that a discrepancy between one's attitudes and behaviours results in individuals changing their attitude to match their behaviour in an attempt to reduce that discrepancy (Festinger, 1962); similarly, self-perception theory explains that individuals infer their attitudes from their behaviour (Bem, 1972 as cited in Holland et al., 2002) and on that basis will modify their attitudes. The Muslims in the present study did not have weak sexual attitudes, but their attitudes were not particularly



strong either. Instead their attitudes were relatively moderate and influenced by their sexual experience.

In addition to recognizing the role of sexual attitudes to better understand the relationship between sexual experience and sexual guilt and anxiety, it is also important to examine whether or not the participants engaged in sex before or after marriage. Of the participants who reported being sexually experienced, those who had waited until after marriage to have sex (either by choice or not) expressed more fear of harshly judging themselves and being negatively judged by others than those who had sex before marriage despite the fact that both groups had sexual experience. Therefore, it appears levels of sexual guilt and anxiety are also associated with when, pre- or post-marriage, individuals engaged in sexual behaviours.

It is noteworthy that the young Muslim adults who had sex before marriage also held more liberal sexual attitudes, reported less religiosity, and perceived their parents' sexual attitudes as more liberal than those who waited until after marriage. In other words, those who engaged in sex before marriage placed less importance on Islam, held more liberal sexual attitudes, and may have come from more permissive families than those who waited until after marriage. Interestingly, when examining the attitudes and religiosity of those who waited until after marriage, it seems that those who had considered engaging in premarital sex held more permissive sexual attitudes, placed less importance on adherence to Islamic beliefs, and viewed their parents' sexual attitudes as more liberal than those who reported having never considered premarital sex. In addition, those who considered premarital sex also reported less fear of self-judgement and judgement from others than those who did not consider it. Indeed, simply considering the possibility of engaging in sex before marriage was associated with these young Muslim

adults expressing fewer worries about judging themselves and being judged by others. These results are similar to those found in non-Muslim samples. Research on non-Muslim samples has found that those who engage in premarital sex tend to have less affiliation with conservative religious beliefs (Beck, Cole, & Hammond, 1991) and church attendance (Marsiglio & Mott, 1986). Other research has found that religious participation is related to attitudes about premarital sex such that increased participation would be associated with less acceptance of premarital sex (Thornton & Camburn, 1989). Moreover, permissive sexual attitudes may also predict intention to engage in premarital sex (Cha, Doswell, Kim, Charron-Prochownik, & Patrick, 2007) and may lead adolescents to do so (Meier, 2003). The path models demonstrated the important role of religiosity and sexual attitudes in determining sexual guilt and sexual anxiety levels of young Muslim adults. It appears, therefore, that a complex interplay may be occurring between sexual experience, religiosity, sexual attitudes, and sexual guilt and anxiety such that any future consideration of the relationship of sexual experience with sexual guilt and anxiety of young Muslim adults would need to acknowledge the differences associated with sex before marriage and after marriage, the sexual attitudes of those individuals, their adherence to Islamic beliefs, and the influence of parents' attitudes regarding sex.

**Perceived Parental Sexual Attitudes.** One finding which was surprising was that these young Muslim adults' perceptions of their parents' sexual attitudes were not as influential on their sexual guilt and sexual anxiety levels as had been anticipated. Considering these young Muslim adults viewed their parents' attitudes regarding sexual behaviours as relatively conservative it appears that their parents relayed messages advocating sexual conservatism. Previous studies in which Muslim parents were interviewed regarding the sexual health and education of their children have found that

parents believe that their children should not engage in sexual activities before marriage. In fact, any messages, direct or indirect, the parents reported relaying to their children involved a focus on abstinence and the risks associated with sexual activity (Griffiths et al., 2008; Orgocka, 2004). These studies suggest that when Muslim parents do express any messages about sex the purpose of these messages is to discourage any sexual activity until marriage.

Young Muslim adults in the present study reported that their parents were the least likely source of sexual education and information. Indeed, not unlike non-Muslim parents who are often a minimal source of sexual education for their children (Jaccard et al., 2000), the participants in my study reported having received little sexual education from their parents. This is not unusual as past research has found that Muslim parents engage in very little communication with their children regarding sexual issues (Fernandez et al., 2008; Griffiths et al., 2008; Orgocka, 2004). According to socialization theory individuals learn attitudes and behaviours early in life from adult role models, mainly parents. Parents model certain attitudes and behaviours which children then pick up on and often internalize (Clawson & Reese-Weber, 2003). Children will often learn their parents' attitudes either by being taught directly or by observing their parents' behaviours (Glass et al., 1986; Hendrickx et al., 2002). Considering that participants received very little information about sex from their parents, their knowledge of their parents' sexual attitudes would have come mainly from observation of their parents' actions.

The correlation found between perceived parental sexual attitudes and other factors examined in the present study further demonstrates that parents' sexual attitudes are important for their children. For these young Muslim adults it appeared that their own

sexual attitudes, including those regarding the sexual roles of men and women, along with their gender role attitudes, their religiosity, and their sexual guilt and sexual anxiety were all associated with how they perceived their parents' sexual attitudes. Those Muslim adults who viewed their parents' sexual attitudes as conservative held conservative sexual attitudes themselves, were less egalitarian, were more religious, and experienced higher levels of sexual guilt and sexual anxiety than those perceiving their parents' sexual attitudes as liberal. This relationship between the sexual attitudes of young Muslim adults' sexual attitudes and those of their parents supports past research which has found that parental sexual attitudes influence those of their children (Sanders & Mullis, 1988; Thornton & Camburn, 1987; Weinstein & Thornton, 1989; Werner-Wilson, 1998). In addition, and as mentioned in a previous section, those who had engaged in premarital sex viewed their parents' sexual attitudes as more liberal than those who had not done so. Once again these findings corroborate past research which suggests that parents with permissive attitudes are more likely to have children who behave in permissive ways (e.g., Jaccard et al., 1996; Miller et al., 1998) while parents who hold more traditional attitudes have children who hold on to traditional attitudes and engage in more traditional sexual behaviours (Fisher, 1989; Moore et al., 1986). Although perceived parental sexual attitudes were related to levels of sexual guilt and sexual anxiety, when all other factors were accounted for, young Muslims' perceptions of their parents' sexual attitudes did not predict their levels of sexual guilt and anxiety. Instead, their religiosity and sexual attitudes regarding permissive behaviours remained the most important determinants of their levels of sexual guilt and sexual anxiety. These young Muslim participants' reports suggested that their perceptions of their parents' sexual attitudes were based mainly on observations of their parents' behaviours, as very little communication in regard to sex

was occurring. It may have been the case, then, that young Muslims' perceptions may have become redundant with their religiosity. Conservative religiosity may have subsumed and overshadowed their observations of their parents' sexual attitudes. Parents not only have a strong influence on the sexual attitudes of their children, they are also highly influential on their children's religious beliefs (Smith, Faris, Denton, & Regnerus, 2003), as parental religiosity is one of the strongest influential factors on children's religiosity (Myers, 1996). It, therefore, may be the case that the religiosity levels of the parents of these young Muslim adults may well be similar to their own and better known to them. Participants may have been interpreting their parents' sexual attitudes by inferring them from their own religious beliefs.

### **Gender Differences**

I had hypothesized that gender would be an important contributor in understanding sexual guilt and anxiety experiences of young Muslim adults. The previous literature has suggested that women experience more sexual guilt and anxiety than men (Fugère et al., 2008; Oliver & Hyde, 1993; Plaud et al., 1998). Young Muslim adults in the focus groups in the present study demonstrated a similar expectation, suggesting that Muslim men and women experience sexual guilt in different ways. They felt that because the sexual behaviours of men and women were viewed differently, both sexual guilt and anxiety among Muslims would be conceptualized differently based on gender. Their conversations revealed an understanding, although not necessarily endorsement, of the sexual double standard which asserts that the standards of acceptable sexual behaviour are different for men and women.

Nonetheless, I found very few differences between Muslim men and women including on levels of sexual guilt and anxiety. This was surprising, though the lack of

gender differences may be explained at least in part, by participants' relatively high levels of education. The Muslim men and women in the present study were highly educated. Research has demonstrated that gender differences tend to decrease as education levels increase. It is speculated that as the university environment can often be relatively egalitarian in terms of gender and gender roles, it will influence students' attitudes and beliefs toward egalitarianism (Brewster & Padavic, 200; Calvo-Salguero, García-Martínez, & Monteoliva, 2008; Kulik, 2002; Myers & Booth, 2002). The lack of gender difference between young Muslim men and women could, therefore, be (partially) explained by their high level of education. However, education may not fully explain the lack of gender differences in sexual guilt and anxiety, as published research finding gender differences have often used university samples (Plaud et al., 1998), and have found that women experience more sexual guilt than men (Oliver & Hyde, 1993). As noted previously, religiosity was the greatest contributor to levels of sexual guilt, and sexual guilt was the strongest predictor of levels of sexual anxiety. Young Muslim men and women did not differ in their religiosity levels. This lack of difference in adherence to conservative Islamic beliefs may account for similarities between men and women in their levels of worry of self-judgement and punishment.

Women and men did differ in their sexual attitudes, gender role attitudes, and their perceptions of their parents' attitudes. As hypothesized, Muslim women held more conservative sexual attitudes regarding sexual permissiveness than Muslim men, a finding corroborating previous research which has found the same to occur among presumably non-Muslim groups of men and women (Alexander & Fisher, 2003; Fugère et al., 2008; Leiblum et al., 2003; Oliver & Hyde, 1993). Women often find themselves the targets of negative judgement if they are accepting of sexual permissiveness whereas the same

standard does not apply to men. Consequently, sexually permissive behaviour among women is often frowned upon. It has been suggested that this sexual double standard often shapes the sexual attitudes of women in more conservative ways compared to men (Fugère et al., 2008). Although Muslim women did demonstrate greater conservatism in their sexual attitudes, interestingly they did not demonstrate any difference in their support for the sexual double standard than men. Participants' relatively high levels of religiosity may provide an explanation for this similarity between men and women. Islamic guidelines for sexual behaviours prescribe equally conservative rules for men and women who are both expected to refrain from and reject sexual permissiveness. As a result, the current sample may have espoused similar (more restrictive) sexual behaviour standards for both men and women.

Muslim women supported egalitarianism regarding gender roles more than men. Previous research has suggested that across cultural communities women hold more egalitarian gender role attitudes than do men (Bryant, 2003; Damji & Lee, 1995; Hartman & Hartman, 1983; Herzog et al., 1983; Khalid & Frieze, 2004; King et al., 1994; Leiblum et al., 2003; McBroom, 1984; Mensch et al., 2003). Traditional gender roles have been defined by patriarchal notions which place women in a subordinate position and provide power to men. It is therefore not surprising that women are so often found to support equality in gender roles as equality would provide women with more power. The current study supports these previous findings as Muslim women demonstrated more support for equality in power than did men.

Finally, women were more likely than men to perceive their parents' sexual attitudes as liberal. The research suggests that parental attitudes may affect their sons and daughters differently. Daughters of parents with traditional attitudes regarding sex are less

likely to engage in premarital sexual activity than daughters of parents with permissive or liberal sexual attitudes (Fisher, 1989; Moore et al., 1986) whereas for sons this may not be the case as congruency between parents' attitudes and sons' sexual behaviours has not been established (Moore et al., 1986). Participants in the present study had been asked to identify which parent they felt was more influential on matters of sex and sexuality and then to report their perceptions of that parent's sexual attitudes. The vast majority of Muslim women identified their mothers while only half the men did the same. Research examining parental communication regarding sex and sexuality has found the gender of both the parent and the child to be an important factor. Mothers are more likely to discuss matters of sexuality with their children than are fathers (Nolin & Petersen, 1992) and they tend to do so more with their daughters than with their sons (Leland & Barth, 1993; Nolin & Petersen, 1992). Fathers, on the other hand, tend to communicate infrequently with both sons and daughters (Feldman & Rosenthal, 2000). Indeed, adolescents will often view their mothers' communications about sex more positively than they will view their fathers' communications (Feldman & Rosenthal, 2000). It is, therefore, not surprising that that young Muslim women overwhelmingly identified with their mothers while only half of the young men did the same. However, as both men and women reported receiving similar amounts of sexual education from their parent, and there were no differences in how the sexual attitudes of mothers and fathers were perceived, it is unclear if these mothers were indeed discussing issues of sexuality more with their daughters than their sons.

### **Summary**

In summary, the findings of the present study suggest adherence to conservative Islamic beliefs was the greatest determinant of young Muslim adults' sexual guilt, which



in turn was the strongest predictor of sexual anxiety. Following religiosity, attitudes regarding sexual permissiveness served as an important predictor of levels of sexual guilt and anxiety as well as a partial mediator, explaining the relationship between religiosity and sexual guilt and anxiety. Although endorsement of the sexual double standard did contribute to levels of sexual guilt and anxiety, its role was smaller than religiosity and sexual attitudes, while perceived parental attitudes did not contribute at all. The relationship between young Muslim adults' sexual experience and their sexual guilt and anxiety was nuanced and affected by background and attitudinal factors as well. Finally, and surprisingly, very few differences were found between Muslim men and women. The results of the present study provide some insight into the experience of sexual guilt and sexual anxiety for young Muslim adults in Canada and the United States. An exploration of the impact of various background and attitudinal factors revealed a complex story of the relationship between these factors and the sexual guilt and sexual anxiety of young Muslim adults.

### **Strengths**

The current study had many strengths. The first strength was the assessment of the Sexual Guilt Subscale and Sex Anxiety Inventory for use with Muslims. To my knowledge this study is the first to use these scales exclusively with a Muslim sample. In the pilot study I asked Muslim male and female focus groups to provide their feedback on the two measures, namely comment on their appropriateness for Muslims and suggestions for improvements. Pilot studies are often used as a method to confirm the clarity of items on a measure and the appropriateness of an entire scale (Bryman, Teevan, & Bell, 2009). Focus group participants believed the measures, with certain changes, were appropriate and relevant to Muslims. Their suggestions highlighted the importance of including items

which reflect the sexual reality of a wide range of Muslims. Along with keeping the original items of the measures, new items were added which reflected the conservatism and religiosity of many Muslims in Canada and the United States. Factor analysis of the scales demonstrated that both scales, with a few definitions and new questions, held together in a meaningful way for this Muslim population.

The second strength was my use of valid and reliable measures. The Sexual Guilt Subscale and Sex Anxiety Inventory were not the only scales utilized for the first time on this Muslim-only sample. Indeed, most scales, with the exception of the Religiosity of Islam Scale – Islamic Beliefs Subscale and the Attitudes Toward Sexuality Scale, have not been used on Muslim populations in published research. The present study was, therefore, able to speak to the use of these scales with Muslim populations. The study findings, demonstrated by the high internal consistencies and the explanatory power in models, suggest that most of these measures were appropriate to use with Muslims. The Religiosity of Islam Scale – Islamic Beliefs Subscale had been used in only one published study previously, which found the internal consistency of the subscale to be mediocre (Jana-Masri & Priester, 2007). The internal consistency of this subscale with the Muslim population in this study improved greatly from its previous use, providing methodological support for its suitability to assess Muslims' religious beliefs. I may have been able to establish acceptable internal consistency due to the large sample size in this study which the initial study did not possess (Jana-Masri & Priester, 2007).

The third strength of the present study was its contribution to the study of sexual guilt and sexual anxiety, made through the formation of the path models. Based on previous research I was able to design path models with theoretically and empirically informed relationships between constructs. The ways in which the constructs related to

each other, and their relative contribution to further understanding sexual guilt and sexual anxiety, was demonstrated in the final path models. As many of the relationships are supported by previous research findings on presumably non-Muslim mixed samples, these path models indicate relationships among constructs which would not necessarily be unique to Muslims and could easily be tested on and applicable to other populations.

The final strength of this study was the sample size and diversity of the sample. The substantial sample enabled me to conduct complex analyses of various relevant factors. Path analyses require the use of large samples to attain adequate power, specifying certain variable-to-participant ratios. As I was able to satisfy this statistical requirement I can maintain greater confidence in the results of the study. This sample was not only substantial in size, but was also ethnically diverse and included Muslims from both Canada and the United States. As Muslims are a diverse population in many ways, it is important to have a sample which represents some of that diversity. In addition, the sample included comparable numbers of individuals both with and without sexual experience. When assessing issues pertaining to sexual health it is important to understand the experiences of both those with and without sexual experience. As approximately half the participants had sexual experience and half did not, this increased my confidence that the results would provide insight into the experiences of both groups. My sample also consisted of those aged 17 to 35, allowing for increased focus on one generation. In fact, two-thirds of the young Muslim adults were born in Canada or the United States. Of the remaining one-third who were born elsewhere, most moved to Canada or the United States before becoming teenagers. Therefore, the majority of this sample of young Muslim adults has spent their adolescence in North America. This

sample represented a young, new generation allowing for greater understanding of this particular age group and limiting generational confounds.

### **Limitations**

Despite its contributions and strengths the current study had some limitations which must be considered. The first limitation of this study was that although the sample was large and ethnically diverse, it was a highly educated and therefore relatively privileged sample. Most participants in this sample had at least an undergraduate degree. Unfortunately, those with less education were not well represented in this study. In general young Muslims in Canada and the United States are a relatively highly educated group (MacFarlane, 2012). Therefore, although future research should strive to access Muslims from a variety of educational backgrounds, the high percentage of highly educated Muslims may be a reflection of the North American Muslim population.

The second limitation of my study was the lack of gender diversity. This sample consisted mainly of Muslim women. Although every effort was made to recruit more Muslim men, obtaining equivalent numbers of Muslim men and women proved difficult. Such ratios are not unusual in psychological research. Researchers in psychology often find the recruitment of women to be much easier and more straightforward than the recruitment of men (Senn, Desmarais, Verberg, & Wood, 2000). Although it is ideal to have equal numbers of men and women, the results of this study do, nonetheless, provide some insights about both Muslim men and women. In a related issue, the present study did include one individual who identified as transgender. Unfortunately, due to statistical reasons I was unable to include them in any path analysis or any gender analyses. Although this choice was necessary for the integrity of the statistical analyses, in the future efforts should be made, if possible, to include more individuals who identify as

transgender. However, with the inclusion of Muslims who identify as transgender it is important to recognize and understand not only any issues that may be unique to gender identity but also the marginalization of their identity in both the Muslim and general North American populations. Therefore, although I believe that the sexual guilt and sexual anxiety of transgender individuals must be assessed, it should not be done without these important considerations.

The third limitation of this study was the lack of in depth exploration of participants' sexual experience. Participants were simply asked if they had sexual experience, if they engaged in sexual intercourse, if they had sex before marriage, and if they had ever thought about engaging in sex before marriage. Participants responded with a simple 'yes' or 'no' as an answer. Sexual experience proved to be an important variable, yet information about that sexual experience was insufficient to fully understand its role in the sexual guilt and sexual anxiety of young Muslim adults. However, had I assessed sexual experience in depth, along with the other sexuality related variables measured, the study could have risked appearing unduly intrusive and making the Muslim participants uncomfortable. The topic of sexuality is highly sensitive and private among Muslims, including among the participants of this study. The measures which I did use to assess sexuality related factors in detail inquired about personal sexuality related attitudes and views. Being asked to provide details of their sexual experiences may not have been received well. Nonetheless, future research should aim to understand the sexual experiences of Muslims in a manner which would be comfortable and still provide sufficient feedback for interpretation and understanding of this population. Pilot testing to determine how best to do this may be required.

The assessment of perceptions of parents' sexual attitudes was the fourth limitation of the present study. Statistical analyses found perceived parental sexual attitudes to have weak correlations with other factors examined and to have no predictive value in the path model. The measure used to assess this construct, the Attitudes Toward Sexuality Scale, was a self-report measure which was adapted so that participants would respond in reference to their parents' attitudes. A previous administration of this scale as a self-report measure on a young Muslim population found the internal consistency to be high (Abu-Ali, 2003). Although a similar technique has been used in other research with another sexual attitudes measure (Byno, 2006), the moderate internal consistency of this scale in my study would suggest that all items on this scale may not have been measuring the same construct. Therefore, it is unclear if this measure was inappropriate for this Muslim sample, or if the adaptation of this scale was unsuitable for this population. As research has found that along with peers, adolescents report that parents are the main socialization agents who impact their sexual behaviour (Miller & Fox, 1987), it is clear that parents are an important socialization agent for Muslims and that the construct of perceived parental sexual attitudes should be examined. However, the way in which it was assessed for the young Muslim adults in this study should be reconsidered. Considering that participants engaged in few conversations about sex with their parents, they may not have possessed enough knowledge to make an accurate judgement of their parents' sexual attitudes. If possible, in the future, a direct measurement of parental sexual attitudes and beliefs could be conducted, providing more accurate reports of parents' sexual attitudes.

The final limitation of the present study was my use of a convenience sample. Use of a convenience sample reduces generalizability. These Muslim participants self-selected

into the study, resulting in a participant sample which may have had more comfort with issues of sex and sexuality than those who chose not to participate (Wolchik, Braver, & Jensen, 1985), thus potentially making this sample unrepresentative in terms of comfort with sexuality. Alternatively, individuals holding strong opinions against sexual permissiveness may also have been more likely to participate. However, when conducting research on minority populations, using random sampling to access that population can be difficult. Muslims constitute approximately 3.2% of the Canadian population (Statistics Canada, 2011) and from 0.8% to 2.2% of the United States population (Sirin & Fine, 2008; Pew Research Center, 2011). Accessing Muslims in such a way as to ensure a random sample can prove a challenge. As approaching potential Muslim participants requires targeting specific Muslim focused organizations, groups, and locations, the potential to produce a biased sample is present. Recruitment of Muslims can be additionally difficult when researching a sensitive and private issue such as sexuality. Therefore, convenience sampling from a variety of Muslim organizations, groups, and locations becomes the best option.

### **Implications for Sexual Guilt and Sexual Anxiety of Young Muslim Adults**

The main goal of the present study was to assess factors which would impact the sexual guilt and sexual anxiety of young heterosexual Muslim adults. Both sexual guilt, or fear of one judging and punishing oneself for the (potential) violation of one's own standard of sexual behaviours, and sexual anxiety, or fear that others judge and punish us for the (potential) violation of normative standards of sexual behaviours have been found to be associated with overall sexual health and thus are important constructs to explore and understand. I did so by exploring the role various background and attitudinal variables had on experiences of sexual guilt and sexual anxiety. The results of my study

have multiple implications in different contexts. It should be noted that although the current study examined the sexual guilt and sexual anxiety of heterosexual Muslims, and as such they have remained the focus of this discussion, the results may also have implications for young Muslim adults who do not identify as heterosexual.

**Meaning of Sexual Guilt and Sexual Anxiety for Young Muslim Adults.** The young Muslim adults in the present study had higher levels of sexual guilt and anxiety than non-Muslim populations. Research has demonstrated that increased levels of both sexual guilt and sexual anxiety are related to various sexuality related obstacles. High levels of sexual guilt are associated with significantly lowered sex drive and interest among men (Galbraith, 1969), less sexual arousal among women (Morokoff, 1985; Woo et al., 2011), greater sexual dissatisfaction, higher frequency of sexual problems, and dissatisfaction with a current sexual relationship among both men and women (Cado & Leitenberg, 1990; Darling et al., 1992), and sexual dysfunction in women at both the affective (arousal, desire, lubrication, orgasm, and satisfaction) and physical (pain) levels (Merrell, 2009; Nobre & Pinto-Gouveia, 2006). Similarly, the presence of sexual anxiety has also been implicated in an increase in sexual inhibition and decrease in sexual arousal in women (Aluja, 2004; Beggs et al., 1987) and decreased sexual confidence (Hensel et al., 2011). Therefore, young Muslim adults with increased levels of sexual guilt and anxiety may be encountering, or could be at risk of encountering, similar sexual problems in their lives. Young Muslim adults in North America may therefore be at increased risk for sexual problems in their sexual relationships. This implication becomes all the more concerning given that in women decreased sexual functioning and dissatisfaction have been associated with decreased relationship (Witting et al., 2008) and marital satisfaction (Brezsnyak & Whisman, 2004; Trudel & Goldfarb, 2010), increased depression (Dobkin,



Leiblum, Rosen, Menza, & Marin, 2006), and decreased overall well-being (Davison, Bell, LaChina, Holden, & Davis, 2009). For young Muslim adults presence of sexual guilt and anxiety may therefore mean unhealthy sexual relationships, including within marriage. For young Muslim women the implications of experiencing sexual guilt and anxiety may also include experiencing depression and decreased well-being, related to sexual dysfunction in their sexual relationships.

Presence of sexual guilt has also been connected to a belief in sexual myths and lack of sexual knowledge. In both men and women greater sexual guilt is positively correlated with believing sexual myths (e.g., myths about the dangers of masturbation and sexual activity during pregnancy, misinformation about the female orgasm, conception, and male and female genitalia) (Mendelsohn & Mosher, 1979; Mosher, 1979a). Although it is unknown if sexual guilt inhibits one from accessing sexual education, or if gaining sexual education leads to decrease in sexual guilt, the relationship between the two is nonetheless disconcerting. Once again, the high levels of sexual guilt and anxiety among these young Muslim adults imply this population may not be obtaining adequate sexual information. This implication becomes more troubling considering that sampling bias may have resulted in a sample which possessed more comfort with sexuality related issues than those who chose not to participate. Individuals possessing less comfort with sexuality may be less likely to seek out sexual information. Young Muslim adults who may identify as traditionally or conservatively religious, and who believe sex before marriage to be immoral, may consider sexual guilt and anxiety to be functional deterrents to engaging in unsanctioned sexual activity. Although young Muslims may use their fear of self-judgement and judgement from others to their own benefit and avoid religiously unsanctioned sexual behaviours, they must also recognize that this sexual guilt and

anxiety may not decrease or disappear when they enter a sanctioned sexual relationship. Indeed, young Muslim adults, regardless of religiosity type or level, should recognize the possible detrimental effects of sexual guilt and anxiety within a sexual relationship.

The results of the present study also have implications for addressing sexual guilt and anxiety experience of young Muslim adults. Young Muslims' religiosity levels and sexual attitudes about appropriate and inappropriate sexual behaviours were the most important factors determining their sexual guilt and anxiety. For these individuals beliefs about what constitute appropriate sexual behaviours were informed by the dictates of Islam. Their religiosity and sexual attitudes then determined their levels of sexual guilt and sexual anxiety. Therefore, any attempts to address the sexual guilt or sexual anxiety of young Muslim adults must recognize the role of both Islam and Muslims' sexual attitudes.

Young Muslim adults who place an importance on Islam and want to address their experience of sexual guilt and anxiety may need to examine the role of their religious beliefs and their sexual attitudes. This does not imply they would need to decrease their identification with Islam. Rather, they may need to further explore Islamic guidelines for sexual behaviours within a sanctioned sexual relationship and understand the way these guidelines may inform their attitudes about sex. In addition, and supplemental to religious teachings, young Muslim adults could increase their knowledge of sex, sexuality, and sexual health. Doing so may provide young Muslim adults who experience sexual guilt and sexual anxiety with a set of sexual guidelines accepting of various sexual activities within a sanctioned relationship.

### **Implications for Practitioners, Religious Personnel, and Community**

**Workers.** The results of this study have many practical implications for those who work

with Muslim populations, both from within and outside the Canadian and American Muslim communities, including practitioners, such as social workers, nurses, counsellors/therapists, and health care workers, religious clergy, leaders, and educators who are often consulted regarding personal problems and are asked to take on the role of guide or counsellor, and community workers from both within and outside the community.

For practitioners it would be important to recognize the role of religion in the sexual guilt and sexual anxiety of young Muslim adults. The results of the present study imply that greater conservative religiosity results in higher levels of sexual guilt and sexual anxiety for young Muslims. However, as discussed in the previous section, this does not mean to suggest that in an effort to decrease Muslims' levels of sexual guilt and anxiety they should be discouraged from engaging with Islam in such a manner. As religion is often an important component of the identity of many Muslims, identity should not be threatened while attempting to decrease fears of negative judgement and punishment from the self and others. Instead, the role of religion in the lives of young Muslim adults must be respected while trying to mitigate experiences of sexual guilt and sexual anxiety. To this effort religious clergy, leaders, and educators may have an important role to play.

The implications for religious clergy, leaders, and educators will depend upon their approach to Islam and Islamic interpretations and what they consider sanctioned versus unsanctioned sexual behaviours. Those who adhere to traditional interpretations may choose to focus on sexual guilt and sexual anxiety which is experienced by married Muslims. As the results of the present study demonstrate, marriage does not imply that individuals will not worry about negatively judging themselves, or worry about having

others judge them, for engaging in sexual behaviours. Considering the importance of religion to the married young Muslim adults who were experiencing sexual guilt and anxiety, religious clergy, leaders, and educators may be particularly influential in addressing this issue. While maintaining traditional guidelines for sexual behaviours, religious clergy, leaders, and educators could work to decrease and discourage sexual guilt and anxiety by promoting, to married couples, the sex positive messages found within Islamic scholarship. Using appropriate means of dissemination such messages could be shared in classes in mosques, Islamic schools, or community health centres, through accessible written materials, and the use of social media and online resources. Doing so may provide sex positive standards of sexual behaviours against which individuals could judge their own behaviours and those of others.

Religious scholars and educators who approach Islam from a progressive or feminist perspective may be inclined to recognize the prevalence of sex before marriage among Muslims, as well as within marriage, when addressing sexual guilt and anxiety. These individuals may work with community practitioners to create an approach to addressing sexual guilt and anxiety which is religiously sensitive yet inclusive and non-judgemental of those who have engaged in premarital sexual behaviours. Indeed, that many Muslims indicated that they engage in sexual behaviours before marriage, namely sexual intercourse, tells us a story not often told within the Muslim community but one to which we must pay attention. Those scholars and educators who approach Islam from a progressive or feminist perspective may work with community workers as well as young Muslim adults to create emancipatory sexual education which would respect religious teachings while being inclusive of a variety of experiences. The literature has established the positive impact of sexual education on the sexual behaviours of adolescents and

young adults (Kirby, Laris, & Rolleri, 2007) such as reduction in likelihood of engaging in sexual intercourse (Kohler, Manhart, & Lafferty, 2008) and decrease in teen pregnancy (Kirby et al., 2007; Kohler et al., 2008). Conversely, education programs which promote abstinence-only have been found to be relatively ineffective at influencing sexual behaviours of adolescents (Kohler et al., 2008). Within the community, whether the Muslim community or outside, support and educational work could manifest itself as community educational workshops, accessible written materials, social media and online resources, and building supportive spaces and networks for young adult Muslims. In the case of both traditional and progressive approaches the goal would be to affect attitudes regarding sex both from Islamic and secular perspectives to provide a different framework within which young adult Muslims may understand their own sexual behaviours. Although religion is an important factor in determining the sexual health of Muslims, it may not always be a relevant factor for all Muslims when it comes to their sexual guilt and anxiety. In the present study, I found that those who engaged in sex before marriage had less adherence to Islamic beliefs than both those who waited until after marriage and those who had not had sex. Regardless of the religiosity levels of those engaging in sex before marriage, the larger Muslim community must appreciate that this is occurring. Both young Muslim adults who decide to engage in sex before marriage and those who decide to wait until marriage must be given appropriate sexual support and education.

The present study also demonstrated the important role of sexual experience in young Muslim adults' levels of sexual guilt and sexual anxiety. Many young Muslims had sexual experience, and most of those with sexual experience had engaged in sex before marriage. Individuals with sexual experience reported less sexual guilt and sexual anxiety

then those without experience while those who had engaged in premarital sex reported less sexual guilt and sexual anxiety than those who had waited until after marriage. For young Muslim adults these findings suggest that sexual experience, including sex before marriage, are related to less fear of harsh self-judgement and judgement from others. However, advocating for young Muslim adults to engage in more sexual activities or sex before marriage as a means of reducing sexual guilt and anxiety levels would not only be unreasonable and unrealistic, it may also be offensive to many and premature as the direction of this relationship has not been established. Instead, a better approach may be to encourage sexual confidence among young Muslim adults. As mentioned previously, Hensel et al. (2011) found increased sexual experience to result in decreased levels of sexual anxiety, speculating the decrease in sexual anxiety may have been related to an increase in sexual confidence (i.e., having a positive evaluation of one's sexuality, sexual thoughts, feelings, and behaviours, and one's body in a sexual context). Therefore, attempts at decreasing the sexual anxiety, as well as sexual guilt, of young Muslim adults may be accomplished by creating methods of increasing their sexual confidence while remaining religiously and culturally sensitive. These should be open and inclusive spaces, ideally created by Muslim community workers, and could include educational programs and workshops, supportive groups and networks of peers and experts, and online and social media resources

Finally, the recognition that young Muslims are engaging in sex before marriage, and that those who wait until marriage are experiencing higher levels of sexual guilt and anxiety than those who do not wait, is of special importance to Muslim parents. Muslim parents are engaging in very little communication regarding sexuality issues with their children. In Britain, research suggests that Muslims parents prefer their children to

receive sex education but just before they get married, and not sooner (Fernandez et al., 2008) while some mothers even prefer that their daughters be given information about sex after marriage and from their husbands (Orgocka, 2004). Many Muslim parents fear that their children may engage in sex before marriage (Griffiths et al., 2008). The findings of my research suggest that parents should be engaging in more communication regarding sex and sexuality with their children, and educators within the Muslim community could provide resources for parents, explaining sex from a sex positive Islamic perspective to facilitate the communication process. Not only would those young Muslims who choose to engage in sex before marriage be better educated, but those who choose to wait may experience less sexual guilt and anxiety as a result of the sex positive Islamic messages and their impact on personal standards of sexual behaviours and thus happier and healthier sexual lives within marriage.

### **Directions for future research**

While the present study provided many new insights regarding the sexual health of Muslims in Canada and the United States, many aspects remain unexplored. Future research on the sexual guilt and anxiety of Muslims could increase the knowledge on this issue in many important ways. First, as was mentioned previously, the measurement of perceived parental sexual attitudes was a limitation of this study. Previous research has found parents to be an important socialization agent in influencing individuals' sexual behaviours (Miller & Fox, 1987). Therefore, future research should continue to explore the role of parental attitudes. However, this construct could be addressed differently than it was in the current study. One option may be to administer a survey directly to parents assessing their sexual attitudes. Another option may be to explore other ways in which parents may impact their children's sexual health. Research has found parental

monitoring (DeVore & Ginsburg, 2005) and control (Taris & Semin, 1998) to be related to their children's sexual behaviours, and perceptions of parental discipline to be related to both sexual attitudes and behaviour in adolescents (Miller, McCoy, Olson, & Wallace, 1986). Many Muslim parents in Canada and the United States maintain strong control over their children for fear their children will otherwise lose their culture (Mohammad-Arif, 2002). Therefore, an exploration of parental control and discipline would be highly relevant in future research on the sexual guilt and anxiety of young Muslim adults. Similarly, research also suggests that the influence which parents have over their children's sexual attitudes and behaviour may be dependent on the quality and closeness of that relationship (Weinstein & Thornton, 1989). Therefore, future examination of the influence of parental sexual attitudes on young Muslim adults could also be accompanied by an investigation of the quality of their parent-child relationships. Finally, considering that sexual anxiety is the fear or worry about being judged by others for (possibly) engaging in sexual behaviours which violate societal standards it is possible the 'others' which young Muslim adults may be concerned about may be their parents. Young Muslims living in North American or European countries often describe living double lives in which any sexual or romantic activity outside of marriage is hidden from their parents (Muhammad-Arif, 2002). Sexual anxiety for many young Muslim adults may be tied to their parents' judgements of them. Future research could, therefore, explore young Muslim adults' concerns of being judged or punished by their parents and how that may relate to their sexual anxiety, as well as guilt, levels.

Second, as conservative religiosity was determined to be an important factor contributing to sexual health of this sample of Muslims, I believe future research could further explore the role of religiosity by assessing varying dimensions and types of



religiosity. Many theorists have argued that religiosity is a multidimensional construct. They have identified numerous dimensions representing motivations, beliefs, practices, and religious experiences among others (e.g., Allen & Spilka, 1967; Allport & Ross, 1967; Batson, 1993; Glock & Stark, 1967; Ryan, Rigby, & King, 1993). Religiosity can also be experienced and practiced according to ideological viewpoints. For example, religiosity may be conservative (as that measured in the present study), liberal, progressive (e.g., Safi, 2008), feminist (e.g., Wadud, 1999; 2006), and so on and so forth. Therefore, in future research, to further explore the role of Islamic religiosity, various dimensions and ideological standpoints could be measured in relation to sexual health.

Third, future research on this issue could also examine the role of sexual experiences in more depth. As mentioned earlier, previous research has found a relationship between greater sexual experience and decreased levels of both sexual guilt and sexual anxiety. By measuring sexual experience as a dichotomous variable I was also able to establish its relationship with the sexual guilt and sexual anxiety of Muslims. However, the limited information regarding the sexual experiences of Muslims did not allow for in-depth interpretations of its role. First, details about the meaning of sexual experience for Muslims could be gathered, providing a more complex understanding of the construct than I was able to provide. As research suggests that contextual factors surrounding first intercourse may impact sexual guilt (Else-Quest, Shibley Hyde, & DeLamater, 2005), examining the context of sexual experience would provide greater insight into the issue. Second, future research could try to unpack the direction of the relationship between sexual experience and sexual guilt and anxiety by exploring the order in which events occur. The utilization of longitudinal research methods could help uncover whether sexual experience is influencing sexual guilt and anxiety or vice versa,

and how other factors (i.e., sexual attitudes, religiosity, gender role attitudes, and parental sexual attitudes) may be influencing that relationship. And finally, future research could explore the ways in which young Muslim adults view sanctioned versus unsanctioned sexual behaviours, investigating the congruency of their beliefs with those espoused by traditional Islamic scholars and proposed by progressive ones, and examining how that nuance may impact the sexual guilt and sexual anxiety experiences of young Muslim adults.

Finally, qualitative research could be conducted to seek more detailed and in-depth awareness of the issues related to Muslims' sexual guilt and anxiety. Qualitative methodologies provide several approaches to acquiring knowledge and are often most useful when exploring the experiences of those individuals underrepresented in the literature (Stein & Mankowski, 2004), such as Muslims. Through interviews and/or focus groups, young Muslims could be asked to discuss, in depth and in their own words, their experiences of fear of judgement and punishment from themselves and from others, and what they believe contributes to those feelings. Qualitative approaches would also grant the opportunity to further explore the role of parents and their sexual attitudes in the formation of sexual guilt and sexual anxiety as well as a more nuanced understanding of the role of religiosity and sexual experience. In addition, the use of qualitative methodology would allow an in-depth exploration of parental communication with their children about sexual issues. Knowledge could be solicited from both parents and their children to better understand the manner and content of the communication.

## **Conclusions**

The sexual guilt and anxiety of Muslims is impacted by a number of factors, including religiosity, sexual attitudes, belief in the sexual double standard, and sexual

experience. The current study demonstrated that when considering the sexual guilt and sexual anxiety of Muslims, the most important among these may be their adherence to Islamic beliefs. Participants reported relatively high levels of fear of judgement from themselves for violating, or possibly violating, their own standards of sexual behaviour (i.e., sexual guilt) and fear of judgement from others for violating, or possibly violating, societal standards of sexual behaviour (i.e., sexual anxiety). Their fear of self-judgement was most determined by their level of religiosity, followed by their attitudes regarding sexually permissive behaviours. Moreover, their attitudes regarding sexually permissive behaviours provided some explanation for how their religiosity may be associated with changes in their fear of self-judgement. Fear of self-judgement was the strongest determinant of their fear of judgement from others, which meant all other factors influenced fear of judgement from others most strongly through fear of self-judgement. Support for the sexual double standard, which was most influenced by participants' gender role attitudes, also contributed to sexual guilt, but its contribution was less than that of their religiosity and sexual attitudes. Participants' sexual experience also contributed to sexual guilt and sexual anxiety, but this relationship was associated with their conservative religiosity levels, their sexual attitudes, how permissive they felt their parents' sexual attitudes to be, and whether or not they had engaged in, or thought about engaging in, sex before marriage. Finally, although more differences were anticipated, Muslim men and women differed only in their sexual attitudes, their gender role attitudes, and their perceptions of their parents' sexual attitudes. For this reason gender did not contribute to the experience of sexual guilt and anxiety.

Exploring an issue rarely examined in the literature can be exciting and challenging. Muslim sexual health in Canada and the United States has received little

attention. It was my hope to therefore produce some knowledge to address this gap. The results of the present study demonstrate that the sexual guilt and sexual anxiety of Muslims is impacted by many of the same factors affecting the sexual guilt and sexual anxiety of non-Muslims. Yet, these results still provide a unique understanding of Muslims in Canada and the United States, the important role of religion and religiosity being an exemplar. For that reason, it is my hope that the results of this research help young Muslim adults in Canada and the United States, an under-researched population, and those who work with young Muslims, address issues related to sexual guilt and sexual anxiety and their impact on the overall sexual health of young Muslim adults.

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## APPENDIX A

### Recruitment materials – Pilot Study

#### Pilot Study Focus Group Recruitment Email to Acquaintances

AsSalaam Alaikum

This is Sobia Ali-Faisal and I am currently a PhD Candidate in the Department of Psychology. I am currently conducting a pilot study for my dissertation and I am writing to you today to see if you would be interested in participating in my study. [Charlene: My student, Sobia Ali-Faisal is currently a PhD Candidate in the Department of Psychology and is conducting a pilot study for her dissertation. I am writing to you today to see if you would be interested in participating in her study.]

To be eligible to participate you need to be living in Canada as a citizen or permanent resident, be between the ages of 17 and 35, and be Muslim. Participation would involve taking part in a focus group session with 4 other Muslims of the same gender as you. You would be asked to read over two sexuality related surveys and providing your feedback on the questions of the survey. You will NOT be asked to answer the questions for yourself. You WILL be asked to evaluate each question. You will be asked how you interpret the questions, if you think the questions are relevant to Canadian and American Muslims, and how you think the surveys could be improved. You will NOT be asked to share any personal sexual information.

Focus group sessions will take approximately 90 minutes, will only have people of the same gender as you, and will be conducted on campus in a comfortable and safe environment. Refreshments will be provided.

Participants will have the opportunity to enter a draw to win \$100. If you are registered with the Psychology Participant Pool you will be eligible for either 1.5 bonus points or the cash draw.

If you are interested in participating please email me, Sobia Ali-Faisal. If you cannot or do not want to participate, please do consider telling others, who might be interested, about this study.

Thank you for your time and consideration.

Wasalaam

## Participant Pool Ad

Title: Muslim assessment of sexuality related measures

Description of study:

If you are Muslim, living in Canada or the US as a citizen or permanent resident, and are between the ages of 17 and 35, you may be interested in this study involving focus groups. If you decide to participate you will take part in a group discussion, or focus group, with four other Muslims of the same gender. In this discussion you will be asked to read over two sexuality related surveys and to discuss what you think the sexuality related questions on the surveys mean, if they make sense to you, how relevant you think they are to Canadian and American Muslims, and how the surveys could be improved. You will NOT be asked to answer the questions for yourself. You will only have to evaluate the questions. The researcher present will also be of the same gender as you. The focus group session will take approximately 90 minutes and will take place in a comfortable and casual environment on campus. Participants will receive 1.5 bonus points for 90 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses.

## APPENDIX B

### Revised Mosher Guilt Inventory (RMGI) – Sex-Guilt Subscale (Mosher, 2011)

This inventory consists of 50 items arranged in pairs of responses. Please respond to each item as honestly as you can by rating your response on a 7-point scale from 0, which means *not at all true of (for) me* to 6, which means *extremely true of (for) me*. Rating of 1 – 5 represent rating of agreement to disagreement that are intermediate between the extreme anchors of *not at all true* and *extremely true* for you. The items are arranged in pairs of two to permit you to compare the intensity of a *trueness* for you. This limited comparison is often useful since people frequently agree with only one item in a pair. In some instances, it may be the case that both items or neither item is true for you, but you will usually be able to distinguish between items in a pair by using different rating from the 7-point range for each item.

Rate each of the 50 items from 0 – 6 as you keep in mind the value of comparing items within pairs. Click on the rating number you choose.

If there are situations you have not experienced then try to answer the questions thinking about how you would feel if they did happen.

“Dirty jokes” in mixed company...

1. do not bother me.
2. are something that make me very uncomfortable.

Masturbation...

3. is wrong and will ruin you.
4. helps one feel eased and relaxed.

Sex relations before marriage...

5. should be permitted.
6. are wrong and immoral.

Sex relations before marriage...

7. ruin many a happy couple.
8. are good in my opinion.

Unusual sexual practices (sexual practices which are uncommon)...

9. might be interesting.
10. don't interest me.

When I have sexual dreams (dreams with sexual content)...

11. I sometimes wake up feeling excited.
12. I try to forget them.

“Dirty jokes” in mixed company...

- 13. are in bad taste.
- 14. can be funny depending on the company.

Petting (a sexually stimulating caress of any or all parts of the body)...

- 15. I am sorry to say is an accepted practice.
- 16. is an expression of affection which is satisfying.

Unusual sexual practices (sexual practices which are uncommon)...

- 17. are not so unusual.
- 18. don't interest me.

Sex...

- 19. is good and enjoyable.
- 20. should be saved for wedlock and childbearing.

“Dirty jokes” in mixed company...

- 21. are coarse to say the least.
- 22. are lots of fun.

When I have sexual desires...

- 23. I enjoy it like all healthy human beings.
- 24. I fight them for I must have complete control of my body.

Unusual sexual practices (sexual practices which are uncommon)...

- 25. are unwise and lead to trouble.
- 26. are all in how you look at it.

Unusual sexual practices (sexual practices which are uncommon)...

- 27. are ok as long as they are heterosexual.
- 28. usually aren't pleasurable because you have preconceived feelings about their being wrong.

Sex relations before marriage...

- 29. in my opinion, should not be practiced.
- 30. are practiced too much to be wrong.

As a child, sex play (a child's exploration of their own or friend's private body parts - e.g., “playing doctor”, sexual kissing, etc.)...

- 31. is immature and ridiculous.
- 32. was indulged in.

Unusual sexual practices (sexual practices which are uncommon)...

- 33. are dangerous to one's health and mental condition.
- 34. are the business of those who carry them out and no one else's.

When I have sexual desires...

- 35. I attempt to repress them
- 36. they are quite strong.

Petting (a sexually stimulating caress of any or all parts of the body)...

- 37. is not a good practice until after marriage.
- 38. is justified with love.

Sex relations before marriage...

- 39. help people adjust.
- 40. should not be recommended.

Masturbation...

- 41. is wrong and a sin.
- 42. is a normal outlet for sexual desire.

Masturbation...

- 43. is alright.
- 44. is a form of self destruction.

Unusual sexual practices (sexual practices which are uncommon)...

- 45. are awful and unthinkable.
- 46. are alright if both partners agree.

If I had sexual relations, I would feel....

- 47. alright, I think.
- 48. I was being used not loved.

Masturbation...

- 49. is alright.
- 50. should not be practiced.

## APPENDIX C

### Sex Anxiety Inventory (Janda & O'Grady, 1980)

This inventory consists of 25 sentence completion items. Each item has two possible response options. Please choose the response option (“a” or “b”) which best describes your feelings, for each item. Remember, there is no right or wrong answer. Please answer honestly.

If there are situations you have not experienced then try to answer the questions thinking about how you would feel if they did happen.

1. Extramarital sex...
  - a. is OK if everyone agrees.
  - b. can break up families.
2. Sex...
  - a. can cause as much anxiety as pleasure.
  - b. on the whole is good and enjoyable.
3. Masturbation...
  - a. causes me to worry.
  - b. can be a useful substitute.
4. After having sexual thoughts...
  - a. I feel aroused.
  - b. I feel jittery.
5. When I engage in petting (a sexually stimulating caress of any or all parts of the body)...
  - a. I feel scared at first.
  - b. I thoroughly enjoy it.
6. Initiating sexual relationships...
  - a. is a very stressful experience.
  - b. causes me no problem.
7. Oral sex...
  - a. would arouse me.
  - b. would terrify me.

8. I feel nervous....
  - a. about initiating sexual relations.
  - b. about nothing when it comes to members of the opposite sex.
  
9. When I meet someone I'm attracted to....
  - a. I get to know him or her.
  - b. I feel nervous.
  
10. When I was younger...
  - a. I was looking forward to having sex.
  - b. I felt nervous about the prospect of having sex.
  
11. When others flirt with me...
  - a. I don't know what to do.
  - b. I flirt back.
  
12. Group sex...
  - a. would scare me to death.
  - b. might be interesting.
  
13. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...
  - a. I would probably get caught.
  - b. I wouldn't feel bad about it.
  
14. I would...
  - a. feel too nervous to tell a dirty joke in mixed company.
  - b. tell a dirty joke if it were funny.
  
15. Dirty jokes...
  - a. make me feel uncomfortable.
  - b. often make me laugh.
  
16. When I awake from sexual dreams...
  - a. I feel pleasant and relaxed.
  - b. I feel tense.
  
17. When I have sexual desires...
  - a. I worry about what I should do.
  - b. I do something to satisfy them.

18. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...
  - a. it would be nobody's business but my own.
  - b. I would worry about my spouse finding out.
  
19. Looking at pornographic materials (e.g., websites, magazines, movies, etc.)...
  - a. wouldn't bother me.
  - b. would make me nervous.
  
20. Casual sex...
  - a. is better than no sex at all.
  - b. can hurt many people.
  
21. Extramarital sex...
  - a. is sometimes necessary.
  - b. can damage one's career.
  
22. Sexual advances (gestures made towards another person with the aim of gaining some sort of sexual favour or gratification)...
  - a. leave me feeling tense.
  - b. are welcomed.
  
23. When I have sexual desires...
  - a. I feel satisfied.
  - b. I worry about being discovered.
  
24. When talking about sex in mixed company...
  - a. I feel nervous.
  - b. I sometimes get excited.
  
25. If I were to flirt with someone...
  - a. I would worry about his or her reaction.
  - b. I would enjoy it.



## APPENDIX D

### Focus Group Consent Form

#### CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: **Muslim Men and Women's Assessment of Sexuality Related Measures**

You are asked to participate in a research study conducted by Sobia Ali-Faisal, M.A. (Ph.D. Candidate), from the Department of Psychology at the University of Windsor, under the supervision of Dr. Charlene Senn, Department of Psychology, University of Windsor. The results of this study will be contributing to a Ph.D. dissertation. Male participants will have contact with [name of male facilitator] who has been trained and will be supervised by Sobia Ali-Faisal.

If you have any questions or concerns about the research, please feel free to contact Sobia Ali-Faisal. Or you may contact her supervisor, Dr. Charlene Senn.

#### PURPOSE OF THE STUDY

This study is being conducted to investigate the interpretation of and relevancy of questions in sexuality related surveys used in other cultural groups, by Muslims in Canada.

#### PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things: You will fill out a demographics questionnaire. Then you will participate in a focus group discussion. In this discussion you would be asked to read over two sexuality related measures, one with 50 questions and the other with 25 questions, and to personally evaluate each question for its meaning, its relevance for Muslims in Canada and the US, and make suggestions about improvements you believe should be made. This focus group session will take approximately 90 minutes. The focus group discussion will be audio taped.

#### POTENTIAL RISKS AND DISCOMFORTS

No major risks or discomforts are anticipated. The questions you are being asked to discuss are sexual in nature. Your discussions are being held in small same-sex groups by a same-sex researcher in a private and secure environment. You may still experience some mild discomfort as you would discussing these types of matters at other times. However, you will not be asked to answer the questions for yourself or share any personal sexual information. Additionally, all participants will be required to promise to maintain confidentiality of other members of the group. If you believe that these types of questions would make you uncomfortable please feel free to discontinue your participation now.

## POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Although there may not be any substantial immediate benefits to you, the opportunity to reflect on and talk about some of these issues may be interesting and help clarify your views.

Your participation in this study will help us to improve the surveys and research on sexuality with Muslim people. Using culturally relevant measures is a very important part of the research process and your participation is contributing to improving the research process for Muslims.

## PAYMENT FOR PARTICIPATION

Those who are registered with the Psychology Participant Pool will receive 1.5 bonus points. Those not registered with the Psychology Participant Pool will have a chance to win a \$100 cash prize. Everyone will receive refreshments during the focus group session.

## CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Although there will be no anonymity within the focus group because you will be meeting other people face to face, everyone will commit to keep what is said within the walls of the room. To prevent violations of your own and others privacy, you are asked not to talk about your own or others' private experiences that you would consider too personal or revealing. You also have an obligation to respect the privacy of the other participants by not disclosing any personal information that they share during the intervention. For research purposes, information shared in the focus group sessions will be kept completely confidential. Only first names will be used during the session and all audio recordings will be erased once a written transcript has been verified. The transcript will not use real first names.

## PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. If you withdraw you will still be able to either receive bonus points or enter the draw if you are registered in the Psychology Participant Pool, and if you are not registered in the Psychology Participant Pool you will still be eligible to enter the draw, if you discontinue part way through the focus group. You may also refuse to answer any questions you do not want to answer and still remain in the study. However, you are encouraged to participate in the discussion. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

## AUDIOTAPING OF FOCUS GROUP

The focus group session will be audio-taped and the discussion will later be listened to and transcribed by Sobia Ali-Faisal without the use of real names. Audiotapes will be used for this purpose only and will be destroyed once the study is concluded.

I understand that I am free to withdraw at any time but because these are group situations the taping cannot be stopped. I also understand that my name will not be revealed to anyone and that taping will be kept confidential. Tapes are filed by number only and store in a locked cabinet. I understand that confidentiality will be respected and that the audio tape will be for professional use only.

I consent to the audio-taping of the intervention sessions.

Yes       No

## FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

Results will be made available at the following website:  
Web address: [www.uwindsor.ca/reb](http://www.uwindsor.ca/reb)

Date when results are available: May 2013

## SUBSEQUENT USE OF DATA

This data may be used in subsequent studies involving the same researchers.

## RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: [ethics@uwindsor.ca](mailto:ethics@uwindsor.ca)

## SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study *Muslim Assessment of Sexuality Related Measures* as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

---

Name of Subject

---

Signature of Subject

---

Date

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

---

Signature of Investigator

---

Date

## APPENDIX E

### Demographics Questionnaire – Pilot and Main Study

1. Do you identify as a Muslim?

Yes

No

2. Where do you live?

Canada

United States

Other \_\_\_\_\_

3. Are you

Canadian?

citizen

permanent resident

other

American?

citizen

permanent resident

other

Other \_\_\_\_\_

3b. If other, are you an international student studying at a Canadian or American educational institution?

Yes

No] [Question 3b only for main study

4. Where were you born?
- Canada
  - United States
  - Other: \_\_\_\_\_
5. If you were born outside Canada or the U.S. at what age did you move to Canada or the U.S.?
- \_\_\_\_\_
6. Were you born Muslim?
- Yes
  - No
- a) If no, approximately how long have you been Muslim? \_\_\_\_\_
7. Would your mother identify as Muslim?
- Yes
  - No
8. Would your father identify as Muslim?
- Yes
  - No
9. Would your step-mother identify as Muslim?
- Yes
  - No
  - N/A

10. Would your step-father identify as Muslim?

Yes

No

N/A

11. Age \_\_\_\_\_

12. Gender

Female

Male

Transgender

Other

13. What ethnic group do you identify as? (e.g., Arab, South Asian, African American/Canadian, etc.)

\_\_\_\_\_

14. What is your highest level of education?

Grade school (elementary or junior high school)

Some high school

High school diploma

Some university or college

College diploma

Associates degree (US only)

Undergraduate university degree

Graduate degree (e.g., Master's, Doctorate, law degree, medical degree, etc.)

15. I am currently a student at college/university.

Yes

No

16. Do you identify as

heterosexual/straight

homosexual/gay/lesbian

bisexual

Other (e.g. asexual)

17. What is your romantic relationship status?

Single

17b. Have you ever been in a romantic relationship in the past?

Yes

No

Engaged

Married

Common-law

In a relationship but not engaged or married

Widowed

Divorced

Other, please specify \_\_\_\_\_

18. Would you say you are sexually experienced?

Yes

No



19. Have you ever had sexual intercourse?

Yes

No

20. Have you had formal sex education in school?

Yes

No

21. Have you had formal sex education in the mosque?

Yes

No

22. How much sex education have you received from your parents?

None		a little		a lot
0	1	2	3	4

23. How much sex education have you received from the media?

None		a little		a lot
0	1	2	3	4

24. How much sex education have you received from your friends?

None		a little		a lot
0	1	2	3	4

25. How did you hear about this study?

Poster

Muslim group or organization

Blog

Facebook

Listserv

Word of mouth

Other \_\_\_\_\_

## APPENDIX F

### Pilot Study Focus Group Questions

Participants will be asked to first read through all the items silently. They will first be asked to provide general feedback followed by the assessment of each item.

1. Are there any general thoughts about the survey overall?
  - a. (Probe) What do you think it is measuring/trying to find out?
  
2. Are there any items that you feel are unclear or that you don't understand?
  - a. (Probe) Would any of these questions be something you would not be able to answer if you were asked to?
  - b. (Probe) Do any of the questions not make sense to you?
  
3. Are there any of the questions you think would be particularly relevant for Muslims? Or that you really like?
  
4. Are there any of the questions you think would not be particularly relevant for Muslims? Or that you really don't like?
  
5. Is there anything you think is missing if we want to understand sexual guilt/sexual anxiety in Muslims?

## APPENDIX G

### Sex Role Egalitarianism Scale (King & King, 1986)

Below are statements about men and women. Read each statement and decide how much you agree or disagree. We are not interested in what society says. We are interested in *your personal opinions*. For each statement, click on/circle the letter(s) that describe(s) your opinion. (Please do not omit any statements).

SA= strongly Agree      A= agree      N= neutral or undecided      D=disagree  
SD=strongly disagree      or no opinion

1. Women should have as much right as men to go to a bar alone.
2. Clubs for students in nursing should admit only women.
3. Industrial training schools ought to admit more qualified women.
4. Women ought to have the same chances as men to be leaders at work.
5. Keeping track of a child's activities should be mostly the mother's task.
6. Things work out best in a marriage if the husband stays away from housekeeping tasks.
7. Both the husband's and wife's earnings should be controlled by the husband.
8. A woman should not be the president/prime minister of a country.
9. Women should feel as free to "drop in" on a male friend as vice versa.
10. Males should be given first choice to take courses that train people as school principals.
11. When both husband and wife work outside the home, housework should be equally shared.
12. Women can handle job pressure as well as men can.
13. Male managers are more valuable to a business than female managers.

14. A woman should have as much right to ask a man for a date as a man has to ask a woman for a date.
15. The father, rather than the mother, should give teenage children permission to use the family car.
16. Sons and daughters ought to have an equal chance for higher education.
17. A marriage will be more successful if the husband's needs are considered first.
18. Fathers are better able than mothers to decide the amount of a child's allowance.
19. The mother should be in charge of getting children to after-school activities.
20. A person should be more polite to a woman than a man.
21. Women should feel as free as men to express their honest opinion.
22. Fathers are not as able to care for their sick children as mothers are.
23. An applicant's sex should be important in job screening.
24. Wives are better able than husbands to send thank you notes for gifts.
25. Choice of college is not as important for women as for men.

## APPENDIX H

### Double Standard Scale (Caron, Davis, Haltemen, & Stickle, 1993)

Please click on/circle your response to the following questions regarding your attitudes about the sex roles of men and women. Please keep in mind that there are no right or wrong answers. Please answer honestly.

1	2	3	4	5
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

1. It is expected that a woman be less sexually experienced than her partner.
2. A woman who is sexually active is less likely to be considered a desirable partner.
3. A woman should never appear to be prepared for a sexual encounter.
4. It is important that the men be sexually experienced so as to teach the women.
5. A “good” woman would never have a one-night stand, but it is expected of a man.
6. It is important for a man to have multiple sexual experiences in order to gain experience.
7. In sex the man should take the dominant role and the woman should assume the passive role.
8. It is acceptable for a woman to carry condoms.
9. It is worse for a woman to sleep around than it is for a man.
10. It is up to the man to initiate sex.



13. A man should share responsibility for birth control.
14. Sex is the closest form of communication between two people.
15. A sexual encounter between two people deeply in love is the ultimate human interaction.
16. At its best, sex seems to be the merging of two souls.
17. Sex is a very important part of life.
18. Sex is usually an intensive, almost overwhelming experience.
19. Sex is best when you let yourself go and focus on your own pleasure.
20. Sex is primarily the taking of pleasure from another person.
21. The main purpose of sex is to enjoy oneself.
22. Sex is primarily physical.
23. Sex is primarily a bodily function, like eating.

## APPENDIX J

### Attitudes Toward Sexuality Scale – Revised (Fisher & Hall, 1988)

Please identify which of your parents was or is more influential when it comes to matters of sex and sexuality. In other words, which parent would you be more likely to listen to on matters of sex and sexuality?

mother

father

Then keeping that person in mind, for each of the following statements please indicate the response which best reflects your mother's/father's reaction to that statement. [Note: Fluid Surveys will fill in the appropriate referent based on answer above]

1	2	3	4	5
strongly disagree	somewhat disagree	neutral	somewhat agree	strongly agree

1. My mother/father believes abortion should be made available whenever a woman feels it would be the best decision.
2. My mother/father believes information and advice about contraception (birth control) should be given to any individual who intends to have intercourse.
3. My mother/father believes that parents should be informed if their children under the age of 18 have visited a clinic to obtain a contraceptive device.
4. My mother/father believes our government should try harder to prevent the distribution of pornography.
5. My mother/father believes prostitution should be legalized.
6. My mother/father believes petting (a stimulation caress of any or all parts of the body) is immoral behaviour unless the couple is married.



7. My mother/father believes premarital sexual intercourse for young people is unacceptable.
8. My mother/father believes sexual intercourse for unmarried young people is acceptable without affection existing if both partners agree.
9. My mother/father believes homosexual behaviour is an acceptable variation in sexual orientation.
10. My mother/father believes a person who catches a sexually transmitted disease is probably getting exactly what he/she deserves.
11. My mother/father believes a person's sexual behaviour is his/her own business, and nobody should make value judgements about it.
12. My mother/father believes sexual intercourse should only occur between two people who are married to each other.

## APPENDIX K

### Revised Mosher Guilt Inventory (RMGI) – Sex-Guilt Subscale (Revised) (Mosher, 2011)

This inventory consists of 50 items arranged in pairs of responses. Please respond to each item as honestly as you can by rating your response on a 7-point scale from 0, which means *not at all true of (for) me* to 6, which means *extremely true of (for) me*. Rating of 1 – 5 represent rating of agreement to disagreement that are intermediate between the extreme anchors of *not at all true* and *extremely true* for you. The items are arranged in pairs of two to permit you to compare the intensity of a *trueness* for you. This limited comparison is often useful since people frequently agree with only one item in a pair. In some instances, it may be the case that both items or neither item is true for you, but you will usually be able to distinguish between items in a pair by using different rating from the 7-point range for each item.

Rate each of the 50 items from 0 – 6 as you keep in mind the value of comparing items within pairs. Click on the rating number you choose.

If there are situations you have not experienced then try to answer the questions thinking about how you would feel if they did happen.

“Dirty jokes” in mixed company...

1. do not bother me.
2. are something that make me very uncomfortable.

Masturbation...

3. is wrong and will ruin you.
4. helps one feel eased and relaxed.

Sex relations before marriage...

5. should be permitted.
6. are wrong and immoral.

Sex relations before marriage...

7. ruin many a happy couple.
8. are good in my opinion.

Unusual sexual practices (sexual practices which are uncommon)...

9. might be interesting.
10. don't interest me.

When I have sexual dreams (dreams with sexual content)...

11. I sometimes wake up feeling excited.
12. I try to forget them.

“Dirty jokes” in mixed company...

- 13. are in bad taste.
- 14. can be funny depending on the company.

Petting (a sexually stimulating caress of any or all parts of the body)...

- 15. I am sorry to say is an accepted practice.
- 16. is an expression of affection which is satisfying.

Unusual sexual practices (sexual practices which are uncommon)...

- 17. are not so unusual.
- 18. don't interest me.

Sex...

- 19. is good and enjoyable.
- 20. should be saved for wedlock and childbearing.

“Dirty jokes” in mixed company...

- 21. are coarse to say the least.
- 22. are lots of fun.

When I have sexual desires...

- 23. I enjoy it like all healthy human beings.
- 24. I fight them for I must have complete control of my body.

Unusual sexual practices (sexual practices which are uncommon)...

- 25. are unwise and lead to trouble.
- 26. are all in how you look at it.

Unusual sexual practices (sexual practices which are uncommon)...

- 27. are ok as long as they are heterosexual.
- 28. usually aren't pleasurable because you have preconceived feelings about their being wrong.

Sex relations before marriage...

- 29. in my opinion, should not be practiced.
- 30. are practiced too much to be wrong.

As a child, sex play (a child's exploration of their own or friend's private body parts - e.g., “playing doctor”, sexual kissing, etc.)...

- 31. is immature and ridiculous.
- 32. was indulged in.

Unusual sexual practices (sexual practices which are uncommon)...

- 33. are dangerous to one's health and mental condition.
- 34. are the business of those who carry them out and no one else's.

When I have sexual desires...

- 35. I attempt to repress them
- 36. they are quite strong.

Petting (a sexually stimulating caress of any or all parts of the body)...

- 37. is not a good practice until after marriage.
- 38. is justified with love.

Sex relations before marriage...

- 39. help people adjust.
- 40. should not be recommended.

Masturbation...

- 41. is wrong and a sin.
- 42. is a normal outlet for sexual desire.

Masturbation...

- 43. is alright.
- 44. is a form of self destruction.

Unusual sexual practices (sexual practices which are uncommon)...

- 45. are awful and unthinkable.
- 46. are alright if both partners agree.

If I had sexual relations, I would feel....

- 47. alright, I think.
- 48. I was being used not loved.

Masturbation...

- 49. is alright.
- 50. should not be practiced.

Talking about sex with friends of the same gender...

- 51. is perfectly acceptable.
- 52. should be completely avoided.

Talking about sex with mixed company...

- 53. is perfectly acceptable.
- 54. should be completely avoided.

Looking at pornographic materials....

- 55. is fine depending on the content of the pornographic materials.
- 56. is wrong and unacceptable under all circumstances.

Men and women shaking hands....

57. is normal and acceptable behaviour.

58. can lead to sexual thoughts and so should not be engaged in.

Looking up information on sex on your own...

59. is healthy and empowering.

60. can elicit sexual desires and so should not be done.

“Dirty jokes” in same gender company...

61. do not bother me.

62. are something that make me very uncomfortable.

“Dirty jokes” in same gender company...

63. are in bad taste.

64. can be funny depending on the company.

“Dirty jokes” in same gender company...

65. are coarse to say the least.

66. are lots of fun.

## APPENDIX L

### Sex Anxiety Inventory (Revised) (Janda & O'Grady, 1980)

This inventory consists of 25 sentence completion items. Each item has two possible response options. Please choose the response option (“a” or “b”) which best describes your feelings, for each item. Remember, there is no right or wrong answer. Please answer honestly.

If there are situations you have not experienced then try to answer the questions thinking about how you would feel if they did happen.

1. Extramarital sex...
  - a. is OK if everyone agrees.
  - b. can break up families.
  
2. Sex...
  - a. can cause as much anxiety as pleasure.
  - b. on the whole is good and enjoyable.
  
3. Masturbation...
  - a. causes me to worry.
  - b. can be a useful substitute.
  
4. After having sexual thoughts...
  - a. I feel aroused.
  - b. I feel jittery.
  
5. When I engage in petting (a sexually stimulating caress of any or all parts of the body)...
  - a. I feel scared at first.
  - b. I thoroughly enjoy it.
  
6. Initiating sexual relationships...
  - a. is a very stressful experience.
  - b. causes me no problem.
  
7. Oral sex...
  - a. would arouse me.
  - b. would terrify me.

8. I feel nervous....
  - a. about initiating sexual relations.
  - b. about nothing when it comes to members of the opposite sex.
  
9. When I meet someone I'm attracted to....
  - a. I get to know him or her.
  - b. I feel nervous.
  
10. When I was younger...
  - a. I was looking forward to having sex.
  - b. I felt nervous about the prospect of having sex.
  
11. When others flirt with me...
  - a. I don't know what to do.
  - b. I flirt back.
  
12. Group sex...
  - a. would scare me to death.
  - b. might be interesting.
  
13. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...
  - a. I would probably get caught.
  - b. I wouldn't feel bad about it.
  
14. I would...
  - a. feel too nervous to tell a dirty joke in mixed company.
  - b. tell a dirty joke if it were funny.
  
15. Dirty jokes...
  - a. make me feel uncomfortable.
  - b. often make me laugh.
  
16. When I awake from sexual dreams...
  - a. I feel pleasant and relaxed.
  - b. I feel tense.
  
17. When I have sexual desires...
  - a. I worry about what I should do.
  - b. I do something to satisfy them.

18. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...
  - a. it would be nobody's business but my own.
  - b. I would worry about my spouse finding out.
  
19. Looking at pornographic materials (e.g., websites, magazines, movies, etc.)...
  - a. wouldn't bother me.
  - b. would make me nervous.
  
20. Casual sex...
  - a. is better than no sex at all.
  - b. can hurt many people.
  
21. Extramarital sex...
  - a. is sometimes necessary.
  - b. can damage one's career.
  
22. Sexual advances (gestures made towards another person with the aim of gaining some sort of sexual favour or gratification)...
  - a. leave me feeling tense.
  - b. are welcomed.
  
23. When I have sexual desires...
  - a. I feel satisfied.
  - b. I worry about being discovered.
  
24. When talking about sex in mixed company...
  - a. I feel nervous.
  - b. I sometimes get excited.
  
25. If I were to flirt with someone...
  - a. I would worry about his or her reaction.
  - b. I would enjoy it.
  
26. When I first received sex education...
  - a. I felt intrigued and interested.
  - b. I was nervous and uncomfortable.
  
27. Extramarital sex...
  - a. is OK if everyone agrees.
  - b. can be harmful.



## APPENDIX M

### Additional questions: Sexual Guilt

Have you had sex before marriage?

Yes

Did you feel guilt about engaging in pre-marital sex?

No guilt at all												Extreme guilt
0	1	2	3	4	5	6	7	8	9	10		

No

If no, then ...

Have you thought about having pre-marital sex?

Yes

If yes, then ...

Do you feel guilt when you think about having premarital sex?

No guilt at all												Extreme guilt
0	1	2	3	4	5	6	7	8	9	10		

No

### Additional questions: Sexual Anxiety

Have you had sex before marriage?

Yes

Do you feel anxiety about engaging in pre-marital sex?

No anxiety at all												Extreme anxiety
0	1	2	3	4	5	6	7	8	9	10		

No

If no, then ...

Have you thought about having premarital sex?

Yes

If yes, then ...

Do you feel anxiety when you think about having premarital sex?



## APPENDIX N

### Religiosity of Islam Scale (Jana-Masri & Priester, 2007)

Below are statements concerning your religious life. Please indicate your reaction to each statement by clicking on/circling the answer that best fits you. There are no wrong or right answers. Your answers will remain completely confidential. We are interested only in getting your point of view. [Note: Male/female versions will be presented appropriately by Fluid Survey based on the demographic response.]

1. I wear the hijab as a woman (for women). My wife does/would wear the hijab (for men)

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

2. I go to the mosque on Friday

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

3. I give Zakah

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

4. I believe that the final and complete religion is Islam

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

5. I pray five times a day

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

\*6. I believe that a woman can wear perfume when she goes out

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

7. I read the Qur'an more than two times a week

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

\*8. I believe that men can shake hands with women

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

9. I believe Jinn exist

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

\*10. I gamble

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

11. I believe that the Qur'an is the final word of Allah

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

12. I seek knowledge because it is a Muslim religious duty

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

13. I believe Allah created angels from light in order that they worship Him, obey Him and carry out His commands

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

\*14. I drink alcohol

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

15. When I go to social gathering, I sit with my own gender separate from the other gender

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

16. I believe that a man can marry up to four wives

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

\*17. I smoke cigarettes

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

18. I believe that Hajj is obligatory only once during the lifetime of a Muslim.

1	2	3	4	5	6	7
Strongly agree	Mostly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Mostly disagree	Strongly disagree

19. I perform ablution (wash face, hands, arms, head and feet with water) before I pray.

1	2	3	4	5
Always	Usually	Sometimes	Rarely	Never

\*Reverse scored items

## APPENDIX O

### Recruitment materials – Main study Main Study Recruitment Email to Acquaintances

Salaam,

Hope you are well. As you may or may not know I am currently working on my dissertation under the supervision of Dr. Charlene Senn in the Department of Psychology at the University of Windsor. I am now ready to begin the data collection for my dissertation and am writing to you to tell you about my study. For my dissertation I am investigating the attitudes of Canadian and American Muslims regarding romantic relationships and sexual beliefs. Today I am writing to tell you about my study in case you would be eligible and willing to participate and to see if you would not mind telling other Muslims about this study who may be interested in participating.

Participation would involve filling out an online survey which should take you approximately 20 minutes. Please be aware that there are some questions relating to sexuality and sexual issues. But also know that your responses will be anonymous and confidential and that a Canadian server is being used to host the survey, ensuring further privacy and confidentiality.

To be eligible to participate you have to be Muslim, live in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35. If you are eligible and are interested in participating in this study then please follow this link:

[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)

If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.

If you are not eligible, or do not want to participate, I would kindly ask you to forward the information for this study on to others who are eligible and who you think would be interested.

There is currently very little research on Muslims' relationship and sexual attitudes and my hope is that this study will contribute to this limited knowledge. Your help in this humble effort would be appreciated. As a gesture of appreciation there will be an opportunity to enter a draw to win one of five \$100 cash prizes as well if you so choose. There is no obligation to enter the draw.

This study has the clearance of the University of Windsor Research Ethics Board.

Thank you for your time and consideration.

## Main Study Facebook Recruitment Message – Facebook Wall

Hello everyone,

My dissertation study is up and running and I am currently in the process of collecting data. If you are eligible for my study I would kindly ask you to consider participating in my project. To be eligible you must be Muslim, living in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35. The research is on Muslims' attitudes regarding romantic relationships and sexual beliefs so there will be some sex related questions on the survey. The survey is online and should take approximately 20 minutes to complete. Your responses will be anonymous and confidential and a Canadian server is being used to ensure privacy. I would also ask that you send the information to others who are eligible to participate. There is very little research on this topic and your help in adding to this knowledge would be appreciated. For those who complete the survey there will be an opportunity to enter a draw for one of five \$100 cash prizes as well. If interested please follow the link below and please share if you feel comfortable doing so.

[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)

If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.

Thank you!

### Main Study Facebook Recruitment Message – Facebook Groups:

My name is Sobia Ali-Faisal and I am a PhD Candidate, working under the supervision of Dr. Charlene Senn in the Department of Psychology at the University of Windsor in Windsor, Ontario, Canada. I am currently investigating the relationship and sex beliefs of Muslims in Canada and the US for my PhD dissertation. If you are eligible for my study I would kindly ask you to consider participating in my project or forwarding the information to others you think would be interested in participating.

There is currently very little research on Muslims' relationship and sexual beliefs and my hope is that this study will contribute to this limited knowledge. Your help in this humble effort would be appreciated.

Participation in this study involves completing a 20 minute online survey. There are questions that are sexual in nature but responses will be completely confidential and any information that could identify you (your draw entry) is kept separate and cannot be matched to your responses. The survey is hosted by a Canadian server.

To be eligible to participate one has to be Muslim, live in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35. Participants will have the opportunity to enter a draw to win one of five \$100 cash prizes.

If you are eligible for the survey and interest please follow the link. Thank you!

[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)

If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.



## Main Study Psychology Participant Pool Ad

Title: An exploration of North American Muslims' relationship attitudes and sexual beliefs

### Description of study:

If you are Muslim, living in Canada or the US as a citizen or permanent resident, and are between the ages of 17 and 35, you may be interested in this study involving an online survey. If you decide to participate you will fill out an online survey asking questions about Muslims' relationship attitudes and sexual beliefs. There will be questions of a sexual nature however your responses will be anonymous and confidential. The online survey should take you approximately 20 minutes and you can do it from any computer you choose. Simply follow the link provided. By participating you will be eligible for Psychology Participant Pool bonus marks OR to enter a draw for one of five \$100 cash prizes. If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you. Participants will receive .5 bonus points for 20 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses.

## Main Study Recruitment Email to Bloggers

Hello,

My name is Sobia Ali-Faisal and I am a PhD Candidate, working under the supervision of Dr. Charlene Senn in the Department of Psychology at the University of Windsor in Windsor, Ontario, Canada. I am currently investigating the relationship and sex beliefs of Muslims in Canada and the US for my PhD dissertation. I was hoping you would be able to help me recruit participants for this study by advertising the study on your site, through Twitter, and/or on your Facebook page.

There is currently very little research on Muslims' relationship and sexual attitudes and my hope is that this study will contribute to this limited knowledge. Your help in this humble effort would be appreciated.

Participation in this study involves completing a 20 minute online survey. There are questions that are sexual in nature but responses will be completely confidential and any information that could identify participants (draw entry) is kept separate and cannot be matched to participants' responses. It is hosted by a Canadian server.

To be eligible to participate one has to be Muslim, live in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35. Participants will have the opportunity to enter a draw to win one of five \$100 cash prizes.

If you are eligible yourself you are also invited to participate.

This link for the survey is:

[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)

If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.

This study has received the clearance of the University of Windsor Research Ethics Board.

If you would like to advertise the study through *Twitter* or *Facebook* please link to [uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/) using the following Tweet:

*PhD Candidate @SobiaF conducting research on Muslims' beliefs about relationships and sex [uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)*

If you would like to advertise the study on your site you must use the following blurb:

*My name is Sobia Ali-Faisal. I am a PhD Candidate in the Department of Psychology at the University of Windsor, Windsor, Ontario. For my dissertation I am investigating*

*Muslims' beliefs about relationships and sex. If you are eligible for my study I would kindly ask you to consider participating in my project. To be eligible you must be Muslim, living in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35.*

*Participation would involve doing an online survey which should take approximately 20 minutes to complete. This research is on Muslims' attitudes regarding relationships and sex so there will be some sex related questions on the survey. However, your responses will be **confidential** (and a Canadian server is being used) and any information that could identify you (your draw entry) is kept separate and cannot be matched to your responses. I would also ask that you forward information about the study to others who are eligible to participate. There is very little research on this topic and your help in adding to this knowledge pool would be appreciated.*

*For those who complete the survey there will be an opportunity to enter a draw for one of five \$100 cash prizes as well.*

*If interested please follow the link below and please share if you feel comfortable doing so.*

*[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)*

*If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.*

*This study has received the clearance of the University of Windsor Research Ethics Board. If you have any questions or concerns please feel free to email me.*

*Thank you!*

*Sobia Ali-Faisal*

*Thank you for your time and consideration.*

## Main Study Recruitment Email to Muslim Organizations and Groups

Hello,

My name is Sobia Ali-Faisal and I am a PhD Candidate, working under the supervision of Dr. Charlene Senn in the Department of Psychology at the University of Windsor in Windsor, Ontario, Canada. I am currently investigating the relationship and sex beliefs of Muslims in Canada and the US for my PhD dissertation. I was hoping you would be able to help me recruit participants for this study by advertising the study on your site, through Twitter, and/or on your Facebook page.

There is currently very little research on Muslims' relationship and sexual attitudes and my hope is that this study will contribute to this limited knowledge. Your help in this humble effort would be appreciated.

Participation in this study involves completing a 20 minute online survey. There are questions that are sexual in nature but responses will be completely confidential and any information that could identify participants (draw entry) is kept separate and cannot be matched to participants' responses. It is hosted by a Canadian server.

To be eligible to participate one has to be Muslim, live in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35. Participants will have the opportunity to enter a draw to win one of five \$100 cash prizes.

If you are eligible yourself you are also invited to participate.

This link for the survey is:

[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)

If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.

This study has received the clearance of the University of Windsor Research Ethics Board.

If you would like to advertise the study through *Twitter* or *Facebook* please link to [uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/) using the following Tweet:

*PhD Candidate @SobiaF conducting research on Muslims' beliefs about relationships and sex [uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)*

If you would like to advertise the study on your site you must use the following blurb:

*My name is Sobia Ali-Faisal. I am a PhD Candidate in the Department of Psychology at the University of Windsor, Windsor, Ontario. For my dissertation I am investigating*

*Muslims' beliefs about relationships and sex. If you are eligible for my study I would kindly ask you to consider participating in my project. To be eligible you must be Muslim, living in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35.*

*Participation would involve doing an online survey which should take approximately 20 minutes to complete. This research is on Muslims' attitudes regarding relationships and sex so there will be some sex related questions on the survey. However, your responses will be **confidential** (and a Canadian server is being used) and any information that could identify you (your draw entry) is kept separate and cannot be matched to your responses.*

*I would also ask that you forward information about the study to others who are eligible to participate. There is very little research on this topic and your help in adding to this knowledge pool would be appreciated.*

*For those who complete the survey there will be an opportunity to enter a draw for one of five \$100 cash prizes as well.*

*If interested please follow the link below and please share if you feel comfortable doing so.*

*[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)*

*If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.*

*This study has received the clearance of the University of Windsor Research Ethics Board. If you have any questions or concerns please feel free to email me .*

*Thank you!*

*Sobia Ali-Faisal*

*Thank you for your time and consideration.*

## Mailing list email advertisement

*If I am a member:*

Salaams everyone,

My name is Sobia Ali-Faisal. I am a PhD Candidate working under the supervision of Dr. Charlene Senn in the Department of Psychology at the University of Windsor, Windsor, Ontario. For my dissertation I am investigating Muslims' beliefs about relationships and sex. If you are eligible for my study I would kindly ask you to consider participating in my project. To be eligible you must be Muslim, living in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35.

Participation would involve doing an online survey which should take approximately 20 minutes to complete. This research is on Muslims' attitudes regarding relationships and sex so there will be some sex related questions on the survey. However, your responses will be completely **confidential** (and a Canadian server is being used) and any information that could identify you (your draw entry) is kept separate and cannot be matched to your responses.

I would also ask that you ask others who are eligible to participate. There is very little empirical research on this topic and your help in adding to this knowledge would be appreciated.

For those who complete the survey there will be an opportunity to enter a draw for one of five \$100 cash prizes as well.

If interested please follow the link below and please share if you feel comfortable doing so.

[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)

If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.

This study has received the clearance of the University of Windsor Research Ethics Board. If you have any questions or concerns please feel free to email or respond to this message.

Thank you!

*If I am not a member:*

Hello,

I hope this email finds you well. My name is Sobia Ali-Faisal and I am a PhD Candidate working under the supervision of Dr. Charlene Senn in the Department of Psychology at the University of Windsor in Windsor, Ontario, Canada. I am currently investigating the relationship and sex beliefs of Muslims in Canada and the US for my PhD dissertation. I was hoping you would be able to help me recruit participants for this study by advertising to listserv membership.

There is currently very little research on Muslims' relationship and sexual attitudes and my hope is that this study will contribute to this limited knowledge. Your help in this humble effort would be appreciated.

Participation in this study involves completing a 20 minute online survey. There are questions that are sexual in nature but responses will be completely confidential and any information that could identify participants (draw entry) is kept separate and cannot be matched to participants' responses. It is hosted by a Canadian server.

To be eligible to participate one has to be Muslim, live in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35. Participants will have the opportunity to enter a draw to win one of five \$100 cash prizes.

If you are eligible yourself you are also invited to participate.

This link for the survey is:

[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)

If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.

This study has received the clearance of the University of Windsor Research Ethics Board.

If you would like to advertise the study through *Twitter* or *Facebook* please link to [uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/) using the following Tweet:

*PhD Candidate @SobiaF conducting research on Muslims' beliefs about relationships and sex uwindsor.fluidsurveys.com/s/relationship-beliefs/*

If you would like to advertise the study to your membership you must use the following blurb:

*My name is Sobia Ali-Faisal. I am a PhD Candidate in the Department of Psychology at the University of Windsor, Windsor, Ontario. For my dissertation I am investigating Muslims' beliefs about relationships and sex. If you are eligible for my study I would kindly ask you to consider participating in my project. To be eligible you must be Muslim, living in Canada or the US as a citizen or permanent resident, and be between the ages of 18 and 35.*

*Participation would involve doing an online survey which should take approximately 20 minutes to complete. This research is on Muslims' attitudes regarding relationships and sex so there will be some sex related questions on the survey. However, your responses will be completely **confidential** (and a Canadian server is being used) and any information that could identify you (your draw entry) is kept separate and cannot be matched to your responses.*

*I would also ask that you ask others who are eligible to participate. There is very little research on this topic and your help in adding to this knowledge pool would be appreciated.*

*For those who complete the survey there will be an opportunity to enter a draw for one of five \$100 cash prizes as well.*

*If interested please follow the link below and please share if you feel comfortable doing so.*

*[uwindsor.fluidsurveys.com/s/relationship-beliefs/](http://uwindsor.fluidsurveys.com/s/relationship-beliefs/)*

*If you are eligible but would rather fill out the survey in paper form instead of online then please email me, Sobia Ali-Faisal. The paper survey will be mailed to you.*

*This study has received the clearance of the University of Windsor Research Ethics Board. If you have any questions or concerns please feel free to email me .*

*Thank you!*

*Sobia Ali-Faisal*

*Thank you for your time and consideration.*



## APPENDIX P

### Main Study Letter of Information

#### CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: **An exploration of North American Muslims' relationship attitudes and sexual beliefs**

You are asked to participate in a research study conducted by Sobia Ali-Faisal, M.A. (Ph.D. Candidate), from the Department of Psychology at the University of Windsor, under the supervision of Dr. Charlene Senn, Department of Psychology, University of Windsor. The results of this study will be contributing to a Ph.D. dissertation.

If you have any questions or concerns about the research, please feel free to contact Sobia Ali-Faisal. Or you may contact her supervisor, Dr. Charlene Senn.

#### PURPOSE OF THE STUDY

This study is being conducted to explore the sexual attitudes and beliefs of Muslims in Canada and the U.S.

#### PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things: You will complete the survey online. [Paper: You will complete the survey in the survey booklet.] This survey will ask you about your views on romantic and sexual behaviours in relationships between men and women. You do not have to have had sexual experience to participate. This should take you approximately 20 minutes. Once you have completed the survey you will have the opportunity to enter a draw for one of five monetary prizes of \$100.

#### POTENTIAL RISKS AND DISCOMFORTS

No major risks or discomforts are anticipated. The nature of the study means questions regarding sex and your opinion on sexual matters as well as regarding your sexual behaviours will be asked, which may cause some mild discomfort in some participants. Sometimes people have unpleasant feelings when they reflect on their sexual behaviours and views. This discomfort is not expected to be more than if you were thinking these types of topics raised in the media or in a discussion with people. If you believe that these types of questions would make you uncomfortable please feel free to discontinue your participation now.

#### POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Although there may not be any substantial immediate benefits to you, the opportunity to think about some of these issues may help clarify your views.

This study could potentially benefit both the North American Muslim community as well as larger society. We know very little about Canadian and American Muslims' opinions and beliefs around romantic and sexual behaviours and relationships. This study will help in understanding more about Muslims' opinions and beliefs around romantic and sexual relationships. Mainstream society could benefit as issues highlighted for Muslims from this study, may be relevant to other, similar, communities within larger society. Additionally, mainstream society would learn more about North American Muslims and their realities enabling relevant mainstream organizations to better serve this population.

#### PAYMENT FOR PARTICIPATION

There is no payment for participation. For those registered with the University of Windsor Psychology Participant Pool you will receive **1 bonus point**. Your name will not be linked to your survey responses in any way.

For those not registered with the University of Windsor Psychology Participant Pool, following the completion of this study, you will have the opportunity to enter a draw for one of five \$100 cash prizes. The information you provide to enter the draw will not be linked to your survey responses in any way. Winners will be randomly selected by the researcher and contacted directly.

#### CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. To ensure confidentiality and anonymity, you will not be asked to provide any identifiable information on the survey such as name or city of residence. [Paper: To ensure confidentiality, the information you provide for the draw will be mailed in separately than your surveys responses and the two will not be linked to each other.] Your survey responses will be entered into a data file with all other data. Individual information will not be released to any third parties. Submission for your entry into the draw is accomplished through a procedure that does not link your name or contact information with your answers on the surveys.

#### PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without any consequences. You may also refuse to answer any questions you do not want to answer and still remain in the study. You may also choose to skip any questions that you do not wish to answer. However, you are encouraged to answer as completely as possible. Once you have advanced to a new page in the survey you cannot withdraw your answers, however closing your browser will end your participation beyond that point. [Paper: Once you have mailed in the survey you cannot withdraw your answers.] The investigator may withdraw you from this research if circumstances arise which warrant doing so.

## FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

Results will be made available at the following website:

Web address: [www.uwindsor.ca/reb](http://www.uwindsor.ca/reb)

Date when results are available: May 2013

## SUBSEQUENT USE OF DATA

This data may be used in subsequent studies involving the same researchers.

## RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: [ethics@uwindsor.ca](mailto:ethics@uwindsor.ca)

## SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study *An exploration of North American Muslims' relationship attitudes and sexual beliefs* as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. My consent to participate is presumed when I click "Continue" to continue to the survey page. Please print a copy of this page for your records. [Paper: My consent to participate is presumed when I complete this survey and mail it back. I have been given a copy of this form].

[Online only: If you consent to participating in the study (i.e., choose to continue) please click the "Continue" button. If you decide to not participate please click the "Exit" button. Also, if at any point during the survey you wish to withdraw, please do so using the "Exit" button at the bottom of the page.]

## APPENDIX Q

### Main Study Online Draw page

Would you like to enter the draw for one of five \$100 cash prizes or would you like to receive Psychology Participant Pool bonus points?

Draw

Bonus points

[If they choose bonus points they will be presented with the following:]

Please enter your name and student ID number so that you may receive your bonus points. Any information you enter here will NOT be connected to your responses on the survey therefore maintaining the anonymity of your survey responses

Name: \_\_\_\_\_ Student ID number: \_\_\_\_\_

[If they choose the draw then the following:]

Thank you for taking the time to complete this survey. You now have the opportunity to enter a draw for one of five \$100 cash prizes. Any information you enter here will NOT be connected to your responses on the survey therefore maintaining the anonymity of your survey responses. If you would like to enter the draw please fill in the following information. The draw will take place once data collection has ended (approximately late fall 2012) after which point winners will be contacted.

Thank you again.

Name \_\_\_\_\_

Mailing address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If you prefer to be contacted in another way please enter it here:

\_\_\_\_\_

I decline an incentive [They will be taken to the post study information page]

## APPENDIX R

### Post-study information letter – Main study

Thank you for your participation in this study. This study is being conducted to examine relationship and sexual beliefs and attitudes of Muslims in Canada and the US.

#### **What was this study about?**

##### What am I looking at?

I am looking at three things: sexual health, personal attitudes and background factors. To be more specific, I am looking at how people's perceptions of their parents' sexual attitudes and their religiosity affect their attitudes about sex and relationships. I am also looking at how those attitudes about sex and relationships affect their experiences of sexual guilt and anxiety. Sexual guilt and sexual anxiety are two factors which are believed to get in the way of sexual health and well-being and thus become important to study. The sexual health of Muslims is rarely studied and thus, it is my belief, that such studies are important.

##### A few more things:

Thank you once again for your participation. Without your participation further research on this topic would not be possible.

If you know other Canadian or American Muslims who you think would be interested, please pass the link of the study along to them as well. *However*, please do not tell them the details of the study as that may affect their responses. Thank you.

If you have any questions, concerns or comments about the research, please feel to contact Sobia Ali-Faisal. Or you may contact her supervisor, Dr. Charlene Senn.

Here are some resources you may find useful:

##### Sexual health websites:

- Canadian Federation of Sexual Health (<http://www.cfsh.ca/>)
- SexualHealth (<http://www.sexualhealth.com/>)
- Toronto Public Health: Sexual Health (<http://www.toronto.ca/health/sexualhealth/index.htm>)
- American Social Health Association (<http://www.ashastd.org/>)

### Blogs by Muslims:

- Hair in New Places (hairinnewplaces.com/)
  - This is a blog run by Muslims, for Muslims, as a forum for Muslims to share their awkward, funny, or serious stories about their sexualities.
- Altmuslimah: Exploring both sides of the gender divide (altmuslimah.com)
  - This blog discusses many issues having to do with gender, relationships, and sexuality of Muslims

### Books:

- Love, Insha‘Allah: The Secret Love Lives of American Muslim Women (<http://loveinshallah.com/>)

### Some journal articles that may interest you:

Hessini, L. (2008). Islam and abortion: The diversity of discourses and practices. *Institute of Development Studies*, 39, 18-27.

Griffiths, C., French, R. S., Patel-Kanwal, H., & Rait, G. (2008). "Always between two cultures": Young British Bangladeshis and their mothers views on sex and relationships. *Culture, Health & Sexuality*, 10, 709-723.

Sanjakdar, F. (2009). Participatory action research: Creating spaces for beginning conversations in sexual health education for young Australian Muslims. *Educational Action Research*, 17, 259-275.

Sanjakdar, F. (2009). Teacher talk: The problems, perspectives and possibilities of developing a comprehensive sexual health education curriculum for Australian Muslim students. *Sex Education*, 9, 261-275.

## APPENDIX S

Table 35

*Factor loading values for Sex Guilt Subscale*

	Moral and acceptable sexual behaviours	Unusual or personal sexual behaviours	Telling dirty jokes and talking about sex
“Dirty jokes” in mixed company...			
1. do not bother me.	.147	-.016	<b>.649</b>
2. are something that make me very uncomfortable	.132	.024	<b>.700</b>
Masturbation...			
3. is wrong and will ruin you.	<b>.526</b>	.394	.040
4. helps one feel eased and relaxed.	.272	<b>.470</b>	.081
Sex relations before marriage...			
5. should be permitted.	<b>.765</b>	-.004	.068
6. are wrong and immoral.	<b>.752</b>	.035	.063
Sex relations before marriage...			
7. ruin many a happy couple.	<b>.629</b>	.120	.049
8. are good in my opinion.	<b>.761</b>	.037	.088
Unusual sexual practices (sexual practices which are uncommon)...			
9. might be interesting.	-.237	<b>.750</b>	.128
10. don't interest me.	-.158	<b>.632</b>	.123
When I have sexual dreams (dreams with sexual content)...			
11. I sometimes wake up feeling excited.	-.115	<b>.572</b>	.161
12. I try to forget them.	.206	<b>.469</b>	.040
“Dirty jokes” in mixed company...			
13. are in bad taste.	.163	-.079	<b>.723</b>
14. can be funny depending on the company.	-.096	.034	<b>.828</b>

	Moral and acceptable sexual behaviours	Unusual or personal sexual behaviours	Telling dirty jokes and talking about sex
Petting (a sexually stimulating caress of any or all parts of the body)...			
15. I am sorry to say is an accepted practice.	.257	.212	-.087
16. is an expression of affection which is satisfying.	-.045	<b>.587</b>	.075
Unusual sexual practices (sexual practices which are uncommon)...			
17. are not so unusual.	-.039	<b>.659</b>	.049
18. don't interest me.	-.107	<b>.628</b>	.061
Sex...			
19. is good and enjoyable.	-.093	<b>.597</b>	-.059
20. should be saved for wedlock and childbearing.	<b>.590</b>	.141	.090
"Dirty jokes" in mixed company...			
21. are coarse to say the least.	.101	-.012	<b>.699</b>
22. are lots of fun.	-.048	.049	<b>.829</b>
When I have sexual desires...			
23. I enjoy it like all healthy human beings.	.122	<b>.610</b>	.003
24. I fight them for I must have complete control of my body.	.369	<b>.424</b>	-.058
Unusual sexual practices (sexual practices which are uncommon)...			
25. are unwise and lead to trouble.	.098	<b>.642</b>	-.024
26. are all in how you look at it.	-.037	<b>.660</b>	.099
Unusual sexual practices (sexual practices which are uncommon)...			
27. are ok as long as they are heterosexual.	<b>-.667</b>	.329	.018
28. usually aren't pleasurable because you have preconceived feelings about their being wrong.	-.029	<b>.583</b>	.023



	Moral and acceptable sexual behaviours	Unusual or personal sexual behaviours	Telling dirty jokes and talking about sex
Sex relations before marriage...			
29. in my opinion, should not be practiced.	<b>.878</b>	-.062	.032
30. are practiced too much to be wrong.	<b>.654</b>	-.219	.082
As a child, sex play (a child's exploration of their own or friend's private body parts - e.g., "playing doctor", sexual kissing, etc.)...			
31. is immature and ridiculous.	<b>.346</b>	.318	-.003
32. was indulged in.	.078	.281	.088
Unusual sexual practices (sexual practices which are uncommon)...			
33. are dangerous to one's health and mental condition.	.117	<b>.622</b>	.004
34. are the business of those who carry them out and no one else's.	.049	<b>.369</b>	.085
When I have sexual desires...			
35. I attempt to repress them	.280	<b>.508</b>	-.113
36. they are quite strong.	-.164	<b>.495</b>	.090
Petting (a sexually stimulating caress of any or all parts of the body)...			
37. is not a good practice until after marriage.	<b>.759</b>	-.027	.084
38. is justified with love.	.280	.092	.118
Sex relations before marriage...			
39. help people adjust.	<b>.724</b>	-.048	.145
40. should not be recommended.	<b>.809</b>	-.027	.029
Masturbation...			
41. is wrong and a sin.	<b>.583</b>	.368	.036
42. is a normal outlet for sexual desire.	.333	<b>.461</b>	.134
Masturbation...			
43. is alright.	<b>.489</b>	.425	.086
44. is a form of self destruction.	<b>.498</b>	.419	.001

	Moral and acceptable sexual behaviours	Unusual or personal sexual behaviours	Telling dirty jokes and talking about sex
Unusual sexual practices (sexual practices which are uncommon)...			
45. are awful and unthinkable.	.153	<b>.628</b>	.077
46. are alright if both partners agree.	.041	<b>.653</b>	.158
If I had sexual relations, I would feel....			
47. alright, I think.	.051	<b>.583</b>	-.095
48. I was being used not loved.	.075	<b>.475</b>	-.125
Masturbation...			
49. is alright.	<b>.493</b>	.450	.080
50. should not be practiced.	<b>.580</b>	.379	.025
Talking about sex with friends of the same gender...			
51. is perfectly acceptable.	.099	.095	<b>.401</b>
52. should be completely avoided.	.183	.057	.311
Talking about sex with mixed company...			
53. is perfectly acceptable.	<b>.429</b>	.080	.325
54. should be completely avoided.	<b>.451</b>	-.022	.322
Looking at pornographic materials...			
55. is fine depending on the content of the pornographic materials.	<b>.544</b>	.154	.173
56. is wrong and unacceptable under all circumstances.	<b>.562</b>	.168	.130
Men and women shaking hands....			
57. is normal and acceptable behaviour.	<b>.446</b>	.041	.166
58. can lead to sexual thoughts and so should not be engaged in.	<b>.455</b>	.033	.105
Looking up information on sex on your own...			
59. is healthy and empowering.	.058	<b>.538</b>	.103
60. can elicit sexual desires and so should not be done.	.278	<b>.427</b>	.030

	Moral and acceptable sexual behaviours	Unusual or personal sexual behaviours	Telling dirty jokes and talking about sex
“Dirty jokes” in same gender company...			
61. do not bother me.	.007	.018	<b>.792</b>
62. are something that make me very uncomfortable.	.066	.026	<b>.706</b>
“Dirty jokes” in same gender company...			
63. are in bad taste.	.055	-.009	<b>.796</b>
64. can be funny depending on the company.	-.122	.030	<b>.849</b>
“Dirty jokes” in same gender company...			
65. are coarse to say the least.	.071	.057	<b>.699</b>
66. are lots of fun.	-.079	.024	<b>.835</b>

## APPENDIX T

### Sex Guilt Subscale with new subscales

#### Factor 1: Moral and acceptable sexual behaviours

##### Masturbation...

3. is wrong and will ruin you.

##### Sex relations before marriage...

5. should be permitted.
6. are wrong and immoral.

##### Sex relations before marriage...

7. ruin many a happy couple.
8. are good in my opinion.

##### Sex...

20. should be saved for wedlock and childbearing.

##### Unusual sexual practices (sexual practices which are uncommon)...

27. are ok as long as they are heterosexual.

##### Sex relations before marriage...

29. in my opinion, should not be practiced.
30. are practiced too much to be wrong.

##### As a child, sex play (a child's exploration of their own or friend's private body parts (e.g., "playing doctor", sexual kissing, etc.)...

31. is immature and ridiculous.

##### Petting (a sexually stimulating caress of any or all parts of the body)...

37. is not a good practice until after marriage.

##### Sex relations before marriage...

39. help people adjust.
40. should not be recommended.

##### Masturbation...

41. is wrong and a sin.

Masturbation...

- 43. is alright.
- 44. is a form of self destruction.

Masturbation...

- 49. is alright.
- 50. should not be practiced.

Talking about sex with mixed company...

- 53. is perfectly acceptable.
- 54. should be completely avoided.

Looking at pornographic materials....

- 55. is fine depending on the content of the pornographic materials.
- 56. is wrong and unacceptable under all circumstances.

Men and women shaking hands....

- 57. is normal and acceptable behaviour.
- 58. can lead to sexual thoughts and so should not be engaged in.

## **Factor 2: Unusual or private sexual behaviours**

Masturbation...

- 4. helps one feel eased and relaxed.

Unusual sexual practices (sexual practices which are uncommon)...

- 9. might be interesting.
- 10. don't interest me.

When I have sexual dreams (dreams with sexual content)...

- 11. I sometimes wake up feeling excited.
- 12. I try to forget them.

Petting (a sexually stimulating caress of any or all parts of the body)...

- 16. is an expression of affection which is satisfying.

Unusual sexual practices (sexual practices which are uncommon)...

- 17. are not so unusual.
- 18. don't interest me.

Sex...

19. is good and enjoyable.

When I have sexual desires...

23. I enjoy it like all healthy human beings.

24. I fight them for I must have complete control of my body.

Unusual sexual practices (sexual practices which are uncommon)...

25. are unwise and lead to trouble.

26. are all in how you look at it.

Unusual sexual practices (sexual practices which are uncommon)...

28. usually aren't pleasurable because you have preconceived feelings about their being wrong.

Unusual sexual practices (sexual practices which are uncommon)...

33. are dangerous to one's health and mental condition.

34. are the business of those who carry them out and no one else's.

When I have sexual desires...

35. I attempt to repress them

36. they are quite strong.

Masturbation...

42. is a normal outlet for sexual desire.

Unusual sexual practices (sexual practices which are uncommon)...

45. are awful and unthinkable.

46. are alright if both partners agree.

If I had sexual relations, I would feel....

47. alright, I think.

48. I was being used not loved.

Looking up information on sex on your own...

59. is healthy and empowering.

60. can elicit sexual desires and so should not be done.

### **Factor 3: Telling dirty jokes and talking about sex**

“Dirty jokes” in mixed company...

3. do not bother me.
4. are something that make me very uncomfortable.

“Dirty jokes” in mixed company...

13. are in bad taste.
14. can be funny depending on the company.

“Dirty jokes” in mixed company...

21. are coarse to say the least.
22. are lots of fun.

Talking about sex with friends of the same gender...

51. is perfectly acceptable.

“Dirty jokes” in same gender company...

61. do not bother me.
62. are something that make me very uncomfortable.

“Dirty jokes” in same gender company...

63. are in bad taste.
64. can be funny depending on the company.

“Dirty jokes” in same gender company...

65. are coarse to say the least.
66. are lots of fun.

## APPENDIX U

Table 36

*Factor loading values for Sex Anxiety Inventory*

	Personal/ private sexual behaviours	Extramarital or casual sex	Sexual behaviours in social situations
1. Extramarital sex... a. is OK if everyone agrees. b. can break up families.	-.038	<b>.707</b>	-.077
2. Sex... a. can cause as much anxiety as pleasure. b. on the whole is good and enjoyable.	<b>.505</b>	.054	.265
3. Masturbation... a. causes me to worry. b. can be a useful substitute.	.395	-.021	<b>-.425</b>
4. After having sexual thoughts... a. I feel aroused. b. I feel jittery.	<b>.621</b>	-.072	-.033
5. When I engage in petting (a sexually stimulating caress of any or all parts of the body)... a. I feel scared at first. b. I thoroughly enjoy it.	<b>.688</b>	-.076	-.146
6. Initiating sexual relationships... a. is a very stressful experience. b. causes me no problem.	<b>.683</b>	.064	.094
7. Oral sex... a. would arouse me. b. would terrify me.	<b>.521</b>	-.033	-.213
8. I feel nervous.... a. about initiating sexual relations. b. about nothing when it comes to members of the opposite sex.	<b>.514</b>	.094	.058



	Personal/ private sexual behaviours	Extramarital or casual sex	Sexual behaviours in social situations
9. When I meet someone I'm attracted to...	.126	-.058	<b>-.439</b>
a. I get to know him or her.			
b. I feel nervous.			
10. When I was younger...	<b>.391</b>	.014	-.018
a. I was looking forward to having sex.			
b. I felt nervous about the prospect of having sex.			
11. When others flirt with me...	.093	-.032	<b>-.542</b>
a. I don't know what to do.			
b. I flirt back.			
12. Group sex...	-.039	.312	<b>-.425</b>
a. would scare me to death.			
b. might be interesting.			
13. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...	.064	<b>.602</b>	.088
a. I would probably get caught.			
b. I wouldn't feel bad about it.			
14. I would...	-.181	.083	<b>-.770</b>
a. feel too nervous to tell a dirty joke in mixed company.			
b. tell a dirty joke if it were funny.			
15. Dirty jokes...	-.059	-.013	<b>-.699</b>
a. make me feel uncomfortable.			
b. often make me laugh.			
16. When I awake from sexual dreams...	<b>.413</b>	-.023	-.327
a. I feel pleasant and relaxed.			
b. I feel tense.			
17. When I have sexual desires...	<b>.645</b>	-.001	-.198
a. I worry about what I should do.			
b. I do something to satisfy them.			

	Private sexual behaviours	Extramarital or casual sex	Sexual behaviours in social situations
18. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...	-.034	<b>.362</b>	.084
a. it would be nobody's business but my own.			
b. I would worry about my spouse finding out.			
19. Looking at pornographic materials (e.g., websites, magazines, movies, etc.)...	.079	.221	<b>-.554</b>
a. wouldn't bother me.			
b. would make me nervous.			
20. Casual sex...	.086	<b>.525</b>	-.186
a. is better than no sex at all.			
b. can hurt many people.			
21. Extramarital sex...	.047	<b>.665</b>	.014
a. is sometimes necessary.			
b. can damage one's career.			
22. Sexual advances (gestures made towards another person with the aim of gaining some sort of sexual favour or gratification)...	.143	<b>.353</b>	-.222
a. leave me feeling tense.			
b. are welcomed.			
23. When I have sexual desires...	<b>.640</b>	.031	-.175
a. I feel satisfied.			
b. I worry about being discovered.			
24. When talking about sex in mixed company...	.025	.171	<b>-.654</b>
a. I feel nervous.			
b. I sometimes get excited.			
25. If I were to flirt with someone...	.157	-.088	<b>-.455</b>
a. I would worry about his or her reaction.			
b. I would enjoy it.			

	Private sexual behaviours	Extramarital or casual sex	Sexual behaviours in social situations
26. When I first received sex education...	.188	-.020	-.203
a. I felt intrigued and interested.			
b. I was nervous and uncomfortable.			
27. Extramarital sex...	-.052	<b>.757</b>	-.082
a. is OK if everyone agrees.			
b. can be harmful.			

## APPENDIX V

### Sex Anxiety Inventory with new subscales

#### **Factor 1: Private sexual behaviours, cognitions, and emotions**

2. Sex...
  - a. can cause as much anxiety as pleasure.
  - b. on the whole is good and enjoyable.
  
3. Masturbation...
  - a. causes me to worry.
  - b. can be a useful substitute.
  
4. After having sexual thoughts...
  - a. I feel aroused.
  - b. I feel jittery.
  
5. When I engage in petting (a sexually stimulating caress of any or all parts of the body)...
  - a. I feel scared at first.
  - b. I thoroughly enjoy it.
  
6. Initiating sexual relationships...
  - a. is a very stressful experience.
  - b. causes me no problem.
  
7. Oral sex...
  - a. would arouse me.
  - b. would terrify me.
  
8. I feel nervous....
  - a. about initiating sexual relations.
  - b. about nothing when it comes to members of the opposite sex.
  
10. When I was younger...
  - a. I was looking forward to having sex.
  - b. I felt nervous about the prospect of having sex.

16. When I awake from sexual dreams...
- a. I feel pleasant and relaxed.
  - b. I feel tense.
17. When I have sexual desires...
- a. I worry about what I should do.
  - b. I do something to satisfy them.
23. When I have sexual desires...
- a. I feel satisfied.
  - b. I worry about being discovered.

**Factor 2: Extramarital or casual sex**

1. Extramarital sex (being married and having sex with someone who is not your spouse)...
- c. is OK if everyone agrees.
  - d. can break up families.
13. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...
- c. I would probably get caught.
  - d. I wouldn't feel bad about it.
18. If in the future I committed adultery (being married and having sex with someone who is not your spouse)...
- c. it would be nobody's business but my own.
  - d. I would worry about my spouse finding out.
20. Casual sex...
- c. is better than no sex at all.
  - d. can hurt many people.
21. Extramarital sex...
- c. is sometimes necessary.
  - d. can damage one's career.
22. Sexual advances (gestures made towards another person with the aim of gaining some sort of sexual favour or gratification)...
- c. leave me feeling tense.
  - d. are welcomed.

27. Extramarital sex (being married and having sex with someone who is not your spouse)...
- c. is OK if everyone agrees.
  - d. can be harmful.

**Factor 3: Sexual behaviours in social situations**

9. When I meet someone I'm attracted to....
- a. I get to know him or her.
  - b. I feel nervous.
11. When others flirt with me...
- a. I don't know what to do.
  - b. I flirt back.
12. Group sex...
- c. would scare me to death.
  - d. might be interesting.
14. I would...
- c. feel too nervous to tell a dirty joke in mixed company.
  - d. tell a dirty joke if it were funny.
15. Dirty jokes...
- c. make me feel uncomfortable.
  - d. often make me laugh.
19. Looking at pornographic materials (e.g., websites, magazines, movies, etc.)...
- c. wouldn't bother me.
  - d. would make me nervous.
24. When talking about sex in mixed company...
- c. I feel nervous.
  - d. I sometimes get excited.
25. If I were to flirt with someone...
- c. I would worry about his or her reaction.
  - d. I would enjoy it.

## **VITA AUCTORIS**

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