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Sexual health knowledge, attitudes, and behaviors amongst South-Asian international students at the University of Central Oklahoma

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Sexual health knowledge, attitudes, and behaviors amongst South-Asian international students at the University of Central Oklahoma

A THESIS

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Abstract

The lack of sexual health knowledge among international students is multi-dimensional and is impacted by culture, society, parental guidance, environment, migration, and belongingness to the new culture. The topics of concern include lack of knowledge regarding reproductive anatomy, safer sex, the concept of consensual sex, pregnancy, abortion, and many others. Engaging in risky sexual behavior is linked with the lack of knowledge and the attitudes towards sexual health. The current study aims to explore the sexual health knowledge, attitudes, and behaviors of South-Asian international students at the University of Central Oklahoma (UCO). Students for this study were recruited from the UCO international student pool. Students from India, China, Pakistan, Bangladesh, Sri Lanka, and Nepal were asked to participate. Participants were asked to fill out the survey online through the Qualtrics system. A Kendall's Tau-b correlation was run to determine the relationship between attitude and knowledge/behavior amongst 34 participants. There was a moderate, positive correlation between sexual health attitude and sexual health knowledge/behavior, which was statistically significant at ($\tau_b = 0.531$, $p = 0.043$). The results coincide with the literature that better sexual health knowledge is correlated with less risky behavior and a positive attitude towards sex and sexual health. The results of this study will give a better understanding of the needs related to sexual health of international students at UCO.

Keywords: sexual health, knowledge, STIs, behaviors, international students, attitudes, sexual health knowledge, sexual health behaviors, sexual health attitudes.

Sexual health knowledge, attitudes, and behaviors amongst South-Asian international students at the University of Central Oklahoma

Chapter 1: Introduction

Sex and sexuality are essential aspects of people's lives (Hasan, Aggleton, & Persson, 2019; Kimmel, 2007). Sexual health shares a link with personal wellbeing (Hull, 2008; Kismödi et al., 2017). Hence, there is an increasing emphasis on sexual health in the international public health arena (Hasan, Aggleton, & Persson, 2019). International students in the United States (US) often migrate from eastern countries to pursue higher education. Those countries' school systems have customarily omitted health and sex education (Belcastro & Ramsaroop-Hansen, 2018). The international students have faced the boundaries of strict and religious culture, which makes them vulnerable to exploring new areas of the US's culture. The curiosity to explore the new culture leads them to participate in sexual behaviors and examine their sexuality while trying to orient themselves in a modern western environment (Tran, 2012). Due to a lack of knowledge and awareness about sexual health, these students are often ill-prepared to avoid adverse health outcomes (Belcastro & Ramsaroop-Hansen, 2018). The higher rates of unplanned pregnancy, abortion, violence, and sexual discrimination calls for sexual health interventions for these international students (Babatsikos & Lamoro, 2012; Burke, 2010; Deumert, Marginson, Nyland, Ramia, & Sawir, 2005; Forbes-Mewett & Nyland, 2007; Graycar, 2010; Healy & Bond, 2006; Kalsi, Do, & Gu, 2007; Nyland et al., 2009; Shepherd, 2009; Victorian Immigrant and Refugee Women's Coalition [VIRWC], 2009). Various studies have compared the rights to and accessibility of resources on university campuses between domestic and international students. The conclusion drawn from these studies reiterates the lack of knowledge about the sexual health support systems available on university campuses and personal sexual shame; international

students are reluctant to seek sexual health support systems (Coston, 2004; Fisher, Sloan, Cullen, & Lu, 1998; Forbes-Mewett, 2008; Marginson et al., 2010; Sundeen, 1984).

Recently migrated international students often do not report sexual harassment and feel shame, guilt, and embarrassment in asking questions about sexual health. Hence, universities play an important role in providing sex education to international students (Belcastro, & Ramsaroop-Hansen, 2018; Sable, Danis, Mauzy, & Gallagher, 2006).

Statement of the Problem

The lack of sexual health knowledge among international students is multi-dimensional and is impacted by culture, society, parental guidance, environment, migration, and belongingness to the new culture. The topics of concern include, but are not limited to, lack of knowledge regarding reproductive anatomy, safer sex, the concept of consensual sex, pregnancy, abortion, and many others. Engaging in risky sexual behavior is linked with the lack of knowledge and the attitudes towards sexual health (Song, Richters, Crawford, & Kippax, 2005).

Various studies have observed gender bias related to sexual health in South-Asian culture. For example, these countries' education system focuses on female sexual health more than male sexual health. This points towards another concerning matter of unawareness amongst males regarding sexual health (Chapagain, 2005; Hossain 2003; Hou & Ma, 2012; Kamal, 2000; Mullany, 2010; Säävälä & Char, 2014; Salam et al., 2006; Sharma et al., 2013; Sinha, 2015; Story, & Burgard 2012.). Males in South-Asian culture find it difficult to be open about their sexual health. Consequently, international students belonging to this culture lack confidence about sexual health (Säävälä & Char, 2014).

The social opportunity presented by the western culture encourages young males and females to participate in risky sexual behaviors. The lack of knowledge and the negative attitude

towards sexual health are the leading causes for these international students to explore various sexual options that were not possible in their home culture (Belcastro, & Ramsaroop-Hansen, 2018).

International students often find themselves in a dilemma of whether they have sexual rights like domestic students and, if so, what these rights are. The United Nations International Covenant on Economic, Social, and Cultural Rights (ICESCR) has provided an extensive clause on the right to health in international human rights law. As per Article 12(1), State Parties recognize "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health" (ICESCR, 1966). The sparse literature on sexual health knowledge, behavior, and attitudes among international students, also known as F-1 students or non-residential aliens in the US, has pointed out the lack of resources on university campuses might have to do with the temporary resident status of these students. Financially, the campus authorities and policy makers might not find it feasible to spend resources on the individuals who will leave the country after graduation (Hullett & Witte, 2001; Jung, Hecht, & Chapman Wadsworth, 2007; Lee, Koeske, & Sales, 2004; Ying & Han, 2006). Various authors have also discussed a need for a study that approaches the research regarding behavior, attitudes, and sexual health knowledge among international students through a socio-cultural lens (Skromanis et al., 2018; Song, Richters, Crawford, & Kippax, 2005).

Purpose of the Study

The current study aims to explore the sexual health knowledge, attitudes, and behaviors of South-Asian international students at the University of Central Oklahoma (UCO). Ethnicity and culture play a crucial role in sexual attitudes, sexual desires, and sexual guilt among these international students (Poljski, Quiazon, & Tran, 2014). Asian culture tends to show sexual

conservatism that provides a possible explanation for involvement in risky sexual behaviors and towards lack of seeking help concerning sexual health. This also gives rise to a negative attitudes towards sex, sexual health, and sexual orientation (Brotto et al., 2005; Chan, 1990; Meston, Trapnell, & Gorzalka, 1998). Furthermore, international students share a status of "temporary residents", which often makes them invisible to policymakers and health providers on university campuses (Poljski, Quiazon, & Tran, 2014). Consequently, it is important to explore the sexual health knowledge, attitudes, and behaviors amongst South-Asian international students on a university campus.

Hypothesis and Research Questions

H_0 (null hypothesis): There is no relationship between sexual health knowledge, attitudes, and behaviors among South-Asian international students at UCO.

H_a (alternate hypothesis): There is a relationship between sexual health knowledge, attitudes, and behaviors among South-Asian international students at UCO.

The following research questions will be examined:

Q1. What knowledge do South-Asian international students have regarding sexual health?

Q2. What are South-Asian international students' attitudes towards sexual health?

Q3. Are South-Asian international students aware of the resources available on the UCO campus?

Q4. What type of sexual activity do South-Asian international students participate in during their time at UCO?

Definition of Key Terms

This section includes definitions of important operational terms. These terms relate to the proposed study.

Acculturation. Acculturation is a process of cultural and psychological change because of contact between two or more cultural groups and their members (Berry, 2005, p. 698).

Amalgamation. The process in which separate organizations unite to form a larger organization or group (Money, 2019).

Cultural Globalization. Cultural globalization refers to specific values and beliefs shared with the world through information and communication technologies (Castells, 2009).

Migration. Human migration is the permanent change of residence by an individual or group (The Editors of Encyclopedia Britannica, 2020).

Optional Practical Training (OPT). OPT is a temporary employment that is directly related to an F-1 student's major area of study (U.S. Citizenship and Immigration Services, 2021).

Sexual Attitude. Refers to the attitude one has toward sexuality or sexual behaviors, either liberal or conservative (Avasthi, Varma, Nehra, & Das, 1992).

Sexual Conservatism. Sexual conservatism is defined as self-imposed constraints on various aspects of sexuality, including sexual partners' appropriateness, sexual activities, and the conditions under which sexual activities are conducted (Burt, 1980).

Sexual Knowledge. Refers to the knowledge about sexuality, myths, and misconceptions (Dutt & Manjula, 2017).

Limitations

This is a study conducted on a South-Central United States university campus. The university is in Edmond, Oklahoma, and is part of the greater metropolitan area of Oklahoma City. The University of Central Oklahoma is a suburban university with 17,000 domestic students and more than 1500 international students from over 100 countries (UCO, n.d.). Data was collected amidst a global pandemic, which had, in many ways, altered the life pathways of all. As the data was collected through an online survey and the questions are personal, self-report bias and social desirability bias are possible. . Precautions were taken at the beginning of the study by explaining the purpose and importance. Each participant consented to participation before starting the survey.

Delimitations

The participants were recruited from the University of Central Oklahoma international students' pool. The sample of the students at the university served as a delimitation. These students had received some form of education which might make them more aware of their sexual experiences due to the recent focus on LGBTQIA+ rights and spike in protests. The international students may have gained sexual health knowledge, which might skew the data.

Chapter 2: Literature Review

Global View on Sexual Health

Sexual health is an integral part of human life and development. According to the World Health Organization, sexual health is.

> "a state of physical, emotional, mental, and social well-being; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships and the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, all persons' sexual rights must be respected, protected, and fulfilled" (World Health Organization, 2006, p. 4).

While western culture embraces this definition of sexual health in a broader context, this portrayal of sexual health is ignored in eastern culture. Sexual rights are oppressed under cultural and religious barriers in eastern culture. Sexual rights include but are not limited to the highest attainable standard of sexual health, including access to sexual and reproductive health care services, opportunity to seek, receive, and impart information related to sexuality, provision of sexual education, respect for bodily integrity, choice of a partner, consensual sexual relations, and a pursuit of a satisfying, safe, and pleasurable sexual life (World Health Organization, 2006).

While the above definitions points towards equal rights to sexual health and emphasize the importance of sexual health, different cultures worldwide face socio-cultural constructs like any other country. For example, Latin America faces unintended pregnancy, sexually transmitted infections (STIs), reproductive tract infections in adolescents, sexual violence, and gender disparities. Sub-Saharan Africa continues to struggle with high rates of heterosexual HIV/AIDS. The increasing vulnerability among adolescents in this region is due to poverty, lack of power in

sexual relationships, violence, and traditional customs, e.g., early marriage, risky sexual practices, and gender disparities. The Eastern Mediterranean region predominantly has Arab and Muslim cultures. Social taboos and fear of stigmatization by family, school, community, government, and religious authorities limit individual sexual expression, leading to risky sexual health behaviors. Sexuality in Asia is defined by differences between sex and gender but dominated by similarities between different cultures within Asia. Problems related to sexual health persist in widescale due to male dominance in marital relations, religious traditions, and violence due to individual sexual conflicts resulting from personal sexual preferences, sexuality, and sexual behavior (World Health Organization, 2006).

International Students and Migration

As per the US embassy, more than 1 million international students are enrolled in higher education institutions,contributing more than $46 billion to the US economy. While these students are considered an essential part of diversity and the country's academic program, very little is being done to promote their sexual health and understand sexual health through their perception to provide the services they need (Monsen, 2020). In a qualitative study, an international student made a plight "From where I come from, we don't have much of the health education provided to students, and it's a kind of shy thing to talk about sex in public. So, I have some friends with insufficient sexual health knowledge. Once they come over, it's like a bird out of a cage…they start dating people. They have to know what they're doing before they get engaged in some unsafe sex, which leads to complications in future" (Tran, 2012, p. 157). When an international student migrates from a strict cultural and religious boundary, they tend to explore various aspects of the new culture they have migrated to. This also includes participating in sexual behaviors and understanding their own sexuality while orienting themselves in western

culture. Researchers from University of Tasmania (Australia) conducted a survey where international students reported having lower levels of support than domestic students in understanding sexual health (Skromanis et al., 2018).

In another Australian study, knowledge about sexual health amongst international students was minimal compared to domestic students. The international students lacked knowledge about STIs, and female international students possessed little knowledge about reproductive anatomy, contraception, safer sex, the concept of consensual sex, menstruation, menstrual disorders, pregnancy, abortion, Pap tests, etc. Even though breast cancer information is widely available, female international students lacked knowledge of the importance of self-examination and early detection (Song, Richters, Crawford, & Kippax, 2005). Cultural barriers have hindered the decision-making process among female international students. The discussion about safer sex, contraception options, and rejection of pressure to engage in sexual activity is unknown to them (Poljski, Quiazon, & Tran, 2014). Research has shown that the only source of sexual health information for international female students is their mother or a close family relative (Tran, 2012; Poljski, 2011). This information is provided within social, religious, and cultural boundaries, giving rise to inadequate knowledge or misinformation. In context to sexual health promotion, female international students perceive sexual health as merely relevant to a married woman. With culture portraying a woman's reputation through the glasses of sexuality, international female students find their "good girl" image reputation shattering when they think about engaging in sexual health promotion, sex before marriage, or are curious about sex (Poljski, Quiazon, & Tran, 2014). Furthermore, British researchers discovered international students engage in risky sexual behaviors due to factors such as religion, culture, society, sexual

exploration, negative attitudes, and poor sexual health knowledge (Vivancos, Abubakar, & Hunter, 2009).

The Interaction between International and Domestic Students

One of the main factors contributing to international students' risky sexual behaviors is the isolation and loneliness that often accompany international students' immigration experience. The lack of interaction between domestic and international students contributes to the same cultural group interactions, hindering sexual health knowledge and learning about the new culture. The lack of interaction is often caused due to limited English proficiency, poor social skills, or disinterest shown by domestic students (Sawir et al., 2017). The disconnect between cultures leads to the sexual exploitation of female international students from male international students. When international students are removed from family members' and friends' scrutiny, they start exploiting their perceived freedom. In this phase, many male international students engage in risky sexual relationships with female international students (Gloz & Smith, 2004). As per various studies, many female international students participate in sexual relationships with males to escape loneliness and isolation. The concept of such engagement involving sexual relationships is unacceptable in the country of their origin. Such factors have made international students susceptible to unprotected sex, unplanned pregnancy, STIs, and sexual exploration due to lack of knowledge. Landlords, local men, and employers also target female international students due to the lack of knowledge about sex (Forbes-Mewett & Nyland, 2007; Gloz & Smith, 2004; Graycar, 2010).

Acculturation

When international students migrate from one culture to another, they are often confused about the new culture and the values they inherit. Acculturation is a process defined by the

amalgamation of the values, attitudes, and behaviors from the new culture into the individual's self-identity (Berry, 1980; Ryder, Alden, & Paulhus, 2000; Woo, Brotto, & Gorzalka, 2011). Acculturation is assessed using subscales:

- Integration: Involves maintaining cultural heritage while endorsing intergroup relations.
- Assimilation: Involves relinquishing cultural heritage and adopting the beliefs and behaviors of the new culture.
- Separation: Involves the maintenance of heritage culture without intergroup relations.
- Marginalization: Involves non-adherence to either old or new culture.

  (Berry, 1980; Ryder, Alden, & Paulhus, 2000; Woo, Brotto, & Gorzalka, 2011)

The new culture is often referred to as "mainstream culture," whereas the original culture is called "heritage culture." Most international students are confused about whether to adhere to heritage culture or adopt the mainstream culture. To blend in, international students often adopt biculturalism, where they integrate elements of mainstream culture into their self-identity while maintaining a background with heritage culture (Arhold & Meston, 2010). While this attempt seems viable, many international students cannot maintain the balance between both cultures, which leads to poor decision-making.

Belcastro and Ramsaroop-Hansen (2018) demonstrated the effects of acculturation. Researchers drew a sample from undergraduate students at public, northeastern, and urban community colleges consisting of 23,938 international students. Almost 65% of the male international students reported participating in risky sexual behavior in the early ages of their arrival to the United States. In contrast, female international students participated in more risky sexual behaviors to blend into the native culture. The behaviors included penile-anal penetrationand coitus on the first date. Miscarriages were also more frequently observed.

Acculturation is affected by various factors such as religion, ethnicity, gender, and heritage culture. Hence, international students should be provided with better resources to help shape their self-identity without cultural restraints (Belcastro & Ramsaroop-Hansen, 2018).

South-Asian Culture and Attitudes.

Sexual conservatism is often observed among Asian countries (Chakravarti, 2011; Ismail et al., 2015; Hasan, Aggleton, & Persson, 2019; Arhold, & Meston, 2008; Woo, Brotto, & Gorzalka, 2011). Sexual conservatism is defined as self-imposed constraints on various aspects of sexuality, including sexual partners' appropriateness, sexual activities, and the conditions under which sexual activities are conducted (Burt, 1980). Conservative attitudes towards sexuality, homosexuality, gender roles in traditional sexual relationships, and non-intercourse sexual behaviors (such as oral sex or masturbation) are observed due to conservatism (Meston, Trapnell, & Gorzalka, 1998b). Research has demonstrated that the cultural norms among those of Asian descent differ from the western models regarding sexual knowledge (Brotto et al., 2005; Chan, 1990; Meston, Trapnell & Gorzalka, 1998), sexual experience (Durex, 2005), and sexual attitudes (Ahrold & Meston, 2010; Higgins & Sun, 2007; Higgins, Zheng, Liu & Sun, 2002; Kennedy & Gorzalka, 2002; Meston & Arhold, 2010). Sexual conservatism often gives rise to sexual guilt. Various studies found negative relationships between sexual responsibility and sexual functioning (Cado & Leitenber, 1990; Darling, Davidson, & Passarello, 1992; Galbraith, 1969). Woo, Brotto and Gorzalka (2011) found that cultural barriers among Asian students instigate sexual conservatism responsible for sexual difficulties. Inadequate sexual health knowledge inhibits these students in making an appropriate choice, hence participating in risky behaviors.

The research suggests that masculinity norms vary according to social and cultural context (Connell, 2005; Seidler, 2006). The concern for men's sexual health is an underdeveloped concept in South-Asia; consequently, it is believed that heterosexual males do not encounter sexual health difficulties like females (Chapagain, 2005; Collumbien & Hawkes 2000; Hasan et al. 2015; Hossain, 2003; Hou & Ma, 2012; Kamal, 2000; Mullany 2010; Salam et al., 2006; Sinha, 2015; Sharma et al., 2013; Story, & Burgard, 2012). A literature review of South-Asian sexual and reproductive health suggests that males' research was mainly motivated by sexual intercourse and HIV/AIDS. Few studies are focused on sexual-based anxiety, such as semen loss among males in South Asia (Hasan et al., 2015; Lakhani et al., 2001; Säävälä & Char, 2014). Another gap observed in the literature is the lack of sexual experience variations and sex-based practices by caste, class, ethnicity, and age. In contrast, few research studies have paid attention to the structural and cultural production of sexual risk through economic development, cultural globalization (migration to western countries), and mobility (Hassan et al., 2015). The promotion of sexual and reproductive health remains a challenge amongst people even in this age of globalization and advancement (Chandra-Mouli, Plesons, Hadi, Baig, & Lang, 2018).

The prominent religion in South-Asia is Hinduism, followed by Islam. As per Hinduism, a woman is referred to as "*Devi*" (goddess) in India's early scriptures. The examples are given by *Lord Shiva* (husband) and *Goddess Parvati* (wife) as an ideal couple. According to scriptures, *Goddess Parvati* is the mother of all creation on the earth. She has a motherly loving side of personality and Mahakali, the fearsome warrior who cannot stand any wrongs. Once *Goddess Mahakali* defeated an evil force named "*Raktabij*" (one who cannot be killed until the last drop of his blood is not sucked in), she was furious at the evil present in the world, and her wrath was beyond measures. Lord Shiva laid on the ground at that time, and when *Goddess Mahakali*

stepped on him, she realized that her wrath would destroy the same world that she and her husband (*Lord Shiva)* built. This story is often told to children to make them understand the importance of marriage and respecting females. This incident also demonstrates, in a way, that religion does not spread the concept of inequality or discrimination against females (Chakraborty & Thakurata, 2013).

Sexual Health Culture of India.

Sexual Health. Due to social and cultural norms, sexual health is not openly discussed in India. This creates the potential for incorrect information and a misunderstanding towards sexual health, which encourages adolescents not to adopt healthy practices and to change attitudes towards sex. The sexual and reproductive health needs of adolescents in India are often overlooked. Hence, a lack of knowledge regarding sexual and reproductive health persists (Gott, Hinchliff, & Galena, 2004; Haselgrave & Olatunbosun, 2003; Mamulwar et al., 2015). Medieval India was a country that had liberal views about sex and sexual health, hence "*Kamasutra"* (aphorisms of love, written between the 1st and 6th century). By the end of India's medieval period, colonial powers such as the Portuguese, British, and French were seeking ways to rule the Muslim-controlled lands in Western Asia. While the Indian Rebellion Act of 1857 made the world turn eyes towards the ineligibility portrayed by the East India Company, and giving rise to the British Raj by the Government of India Act 1858, it led the Indian society at the mercy of the morality of the official British Empire. These Victorian values created a stigma towards the liberal views of Indians towards sex. Liberal views were condemned as "barbaric" and were claimed as the inferiority of the East. Several movements, such as Brahmo Samaj in Bengal and the Prathana Samaj in the Bombay Presidency, worked to reform the private and public life of Indians to avoid the shame bestowed by the Victorians. While these reforms allowed widows to

remarry, they took a toll on the views and attitude towards sex in the home and within marriage (Chakraborty & Thakurata, 2013). Public discussions of sexual health or sex topics are considered taboo in Indian society, which acts as a barrier to a sex education curriculum. Sex education in schools has faced objections from parents, teachers, and politicians leading to no appropriate curriculum related to sex education. Due to adolescents' experimental tendencies, they tend to engage in risky behaviors that may influence their health quality (Ishmail, Shajahan, Sathyanarayana Rao, & Wylie, 2015).

Sexual Attitudes and Knowledge. Adolescents often have liberal attitudes toward sexuality and pre-marital sex, but males have been found more likely to engage in pre-marital sex than females (Abraham, 2001; Alexander et al., 1989; Carrol et al., 1985; Cernada et al., 1986; Hendrick et al., 1985; Rangaiyan, 1996). In India, sexual relations are regulated through marriage institutions, and hence pre-marital sex is frowned upon. The virtue of virginity is upheld. Indian youth are often confused between reality, fantasy, and dreams. The information that is passed on to adolescents by adults is often misleading and incomplete. Due to tremendous societal pressure, defining one's own sexual identity is problematic, leading to their inability to express doubts and fear surrounding sex (Ghule, Balaiah, & Joshi, 2007). Attitude towards menstruation is governed by religion and cultural taboos in India. Girls are considered impure during menstruation (Puri & Kapoor, 2006). The common belief underlies the thinking of menstruating women being unhygienic and impure. In a recent survey, women believed that the menstruating blood leaves an odor that turns preserved food spoiled. Hence, some places in India do not allow females to go to the kitchen and cook. They are forced to live separately in a room away from amenities and live-in solitary for 6-7 days during menstruation. Some parts of India have dietary restrictions on menstruating girls, as they do not consume curd, tamarind, or sour

foods such as pickles. The lack of reproductive health education was discovered through a survey that examined girls' attitudes towards menstrual hygiene (Garg & Anand, 2015). Results showed that over 77% of Indian women use the old cloth as sanitary pads, whereas 88% of women are forced to use newspapers, dried leaves, and even husk. The only way to combat the lack of knowledge is through comprehensive sexual health education (SOS Children's Village, 2014). King, Vidourek, and Singh (2014) affirmed that sexual health knowledge is essential for understanding sexual rights. In their study with Asian-Indian students, most students did not know about STIs, and few thought they were susceptible to these.

Male Sexual Health. While females are worried about reproductive health, males in India have anxiety about semen loss. The anxiety is related to somatic symptoms such as fatigue, weakness, sexual dysfunction, and white discharge from the penis that most men believe to be semen. This sheds light on the lack of sexual and reproductive health knowledge amongst males (Lakhani et al., 2001). In a study conducted in Mumbai, 45% of men reported having sexual health problems, categorized as anxiety. These individuals did not have STIs or problems that persist post sexual contact. However, they were anxious about their sex organs and believed that they have sexual and reproductive problems (Verma et al., 2003).

Sexual Health Culture of Pakistan.

Adolescents comprise 23% of the population in Pakistan. However, they have a poor sense of sexual health knowledge, which results in early marriage, unintended pregnancy, gender discrimination, violence, and low rates of contraception and sexual literacy (Swanemyr, Baig, & Chandra-Mouli, 2015; National Institute of Population Studies, 2013; World Population Foundation, 2010). Within Pakistan's Islamic context, human sexuality is considered taboo culturally. Societal norms restrict an open discussion among parents and their children

(Ramkisson, Searle, Burns, & Beksinka, 2010). Lack of sexual rights and lack of perception regarding the importance of sexual health could often lead to sexual harassment, violence, life-long psychological damage, and adverse health outcomes (Shirkat Gah, 2014). Iqbal, Zakar, Zakar, and Fischer (2017) asked for a proper sexual health-related education to boost adolescents' confidence and personal development, ensuring they are not deceived, maltreated, and exploited by anyone. The World Economic Forum's Global Gender Gap Report 2016 ranked Pakistan 143 (out of 144), pointing towards gender disparities and violence. Compared to males, females in Pakistan have little to no decision-making power, fewer educational opportunities, and less control over assets and resources (Jahangir & Mankani, 2016).

Sexual Health Culture of China.

Sexual Attitude and Behavior. Recently, China's sexual health education has shifted from sexual morality, abstinence, and pre-marital sex risks to understanding young people's needs and desires (Aresu, 2009). While young people are becoming more open-minded about pre-marital sex, they engage in sexual activities with multiple partners without adequate condom use (Xiao, Palmgreen, Zimmerman, & Noar, 2010). This puts young adolescents at the risk of unintended pregnancy, STIs, and HIV infection (Ma et al., 2006). Positive attitudes and normative beliefs regarding sexual behavior were associated with early sex initiation among adolescents. However, different cultural settings influence the behavior and sway the adolescent's attitude towards sex and sexual health (Cha, Doswell, Kim, Charron-Prochownik, & Patrick, 2007). The common underlying factor influencing the adolescents of China is the communication between parents and children. In this culture, family relationships are constructed in a hierarchy where children are expected to respect elders, preventing open conversation about sex and sexual health (Chung et al., 2004; Markus & Kitayama, 1991; Shweder et al., 1998). Some people in China believe that

discussing sexual health with adolescents encourages them to participate in sex; therefore, most parents avoid talking about sexual health with their kids (Zhang et al., 2004).

Sexual Knowledge. Zhang, Bi, Maddock, and Li (2010) indicated a significant emphasis on parental knowledge of sexual and reproductive health is needed to reduce risky sexual behaviors. Sex is a sensitive topic in China; many adolescents feel shame and guilt in asking questions about sexual and reproductive health. This cultural taboo has encouraged many adolescents to explore sex and find the answers on their own that are otherwise discouraged or unheard of by family members. Various research studies done in different regions of China have found that due to social media influences and sexual media prevalence, adolescents participate in pre-marital sex. Sexual activity often results in unintended pregnancy due to a lack of knowledge of contraceptives, reproductive health, and sexual health. Due to a lack of sex education, many adolescents employ the withdrawal method instead of proper contraception. Inadequate understanding of the consequences associated with unsafe sex and unintended pregnancy is causing distress amongst adolescents while their exploration continues (Cheng, Zhu, Li, Zhang, & Wang, 1997; Cheng, Li, Qu, Zhou, Wang, Zhang, et al., 2002; Cheng, Wang, Wang, Han, Zhao, & Ma, 2005; Turchik & Garske, 2009; Wang, Long, Cai, Wu, Xu, Shu, et al., 2015; Zhang, Bi, Maddock & Li, 2010).

Sexual Health Culture of Nepal.

The cultural society in Nepal has unhealthy traditional norms and beliefs relating to sex and sexuality. These issues are barely discussed in the family environment. Friendships between a girl and a boy are seen with an evil eye, while many parents discourage their daughters from talking to boys or meeting them. With these orthodox constraints, sexual activity before marriage is not accepted by Nepalese society (Burbank, 1994; Mahat & Scoloveno, 2001; Mathur,

Malhotra, & Mehta, 2001; Regmi, Simkhada, & Teijlingen, 2010). Against these restrictions, some private and non-government organizations are trying to spread awareness, mainly focusing on STIs, HIV/AIDS, family planning, and safe motherhood. These programs are not always accessible to Nepal's adolescents due to lack of information, social stigma, and cultural barriers, making it difficult for sexual and reproductive health services to provideeducation and spread knowledge in this field (Aryal & Adhikary, 2000; Creel & Perry, 2003; Pradhan & Strachan, 2003).

Sexual Behavior. Regmi, Teijlingen, Simkhada, and Acharya (2010) revealed that young people feel embarrassed talking about sexual health with parents, relatives, and community members. Adolescents in Nepal shared their fear of not approaching sexual health providers due to the possibility of judgment and lack of confidentiality from parents and relatives. In Nepal, restrictions on girls' freedom are observed, and they are socialized to become modest and quiet (Singh, 1990). These restrictions often lead adolescents in Nepal to find the source of their space, which encourages them to be involved in risky behaviors when they migrate, including unsafe pre-marital sex (Adhikari & Tamang, 2009; New Era/M.O.H., 2006; Tamang et al., 2001). A survey among college students in Nepal found that 39% of the participants had pre-marital sex. Fifty-five percent reported having multiple sex partners, and 23% reported having unsafe sex with commercial sex workers (Adhikari & Tamang, 2009). Nepal's adolescents are at risk for HIV, engaging in high-risk sexual behavior, and high incidence of adolescent fertility (New Era/MoH, 2006; Sanzero & Mahat, 2003; NCASC, 2008). The literature on sexual health suggests that migration opportunities often result in forced sexual activities, aggression, unwanted pregnancies, induced abortion, and STIs (Burke et al. 1988, Muñoz-Rivas et al., 2007).

Adolescents should be informed and should develop the capabilities to make choices and avoid risky health behavior.

Adhikari and Tamang (2009) revealed that youth receive inadequate education, guidance, and service on reproductive health due to sexuality topics' sensitivity from parents and society. Individuals who go to college or seek higher education are more likely to engage in sex involving intercourse. The condom is considered a hindrance in sexual activity, hence low condom use. Individual characteristics such as attitudes towards male and female virginity, family characteristics, religion, and peer sexual behavior were found in a significant relationship with pre-marital sex (Adikari & Tamang, 2009).

Sexual Health Culture of Bangladesh.

Sexual Attitude, Knowledge and Behavior. Reeuwijik and Nahar (2013) conducted group discussions and interviews where adolescents in Bangladesh expressed their feelings regarding sexual health, sexuality, curiosity, desires, pleasures, and feelings of insecurity and concerns. Girls showed interest related to virginity, menstruation, sexual power, STIs, and misconceptions. Many older adolescent girls were concerned about "sexual power." Due to a lack of knowledge, these girls used the "sexual power" expression to know if sexual power is a societal norm or reality. Their mothers primed these girls: "If you cannot please a husband, they go to different women." Most of the girls in the study were clueless about menstruation and the physiology associated with menstruation. Misconceptions are widespread in the culture, such as a girl becoming pregnant by kissing or hugging a boy. The appropriateness of girl masturbation was asked during these sessions. Girls also expressed their desire to experience sexual excitement, orgasm, arousal, and voiced concerns about parental pressure to not participate in sexual intercourse before marriage. Boys had different misconceptions and questions than females.

Most boys wanted to know the physiology of the female body and sexual intercourse. The boys never got answers from their adults about puberty, such as wet dreams and masturbation. They shared a strong desire to be in a romantic relationship to kiss and stay closer to the girls' bodies. Many boys expressed their opinion of getting married early as society and culture will not stop them from having sex after marriage. A qualitative study showed an immense gap between the sexual health information that is being spread among the youth and the experiences, feelings, and needs of these Bangladeshi adolescents. In a typical setting, the adolescents do not express their sexual desires or emotions due to religious prohibitions, fear of social stigma, and punishment. The controlling nature of the parents in Bangladesh has led youth to believe in two types of love, "bad love," which includes sexual intercourse, and "good love," which results in marriage (Reeuwijik & Nahar, 2013). These curiosities and inaccurate information can often lead to sexual guilt and insecurities related to sexual performance and body image among adolescents. Appropriate reproductive health knowledge is lacking amongst youth in Bangladesh due to conservative attitudes towards sexuality and reproduction. The culture of Bangladesh makes it difficult for women teachers to address sensitive topics with adolescent boys. In turn, adolescents feel frustrated that the teachers provide little knowledge of sexuality and STIs, motivating them to explore sexual content (Rashid, 2000).

Reproductive Health. While many studies explore sexual and reproductive health amongst females, Hasan, Aggleton, and Persson (2019) analyzed sexual practice and sexual health among men in Bangladesh across three generations. The older generations emphasized their sexual lives being controlled by the institution of marriage. Most of these men had no knowledge about sex, sexual activity, or knowledge about sexual intercourse before the wedding night. The middle generation shared their variety of first sexual experiences, such as feeling

sexually aroused, experiencing wet dreams, having sex with wives and girlfriends, and having paid sex with women. Men felt that there was no answer available for sexual arousal due to the taboo attached with pre-marital sex, a strict code of sexual conduct in culture, lack of sex education, and a public shame attached to talking about sex. The younger generation confessed to experiencing confusion and guilt surrounding sex and sexual activity due to previous generations' information. With social media advances, this generation watched porn; however, their sexual hopes, expectations, and practices were shaped by marriage and religion. While female sexual health is most researched, this study draws attention to male sexual knowledge and sexual health (Hasan, Aggleton, & Persson, 2019)

Sexual Health Culture of Sri-Lanka.

Sexual Attitude and Behavior. Pre-marital sex is not culturally accepted in Sri Lanka. Despite cultural restrictions, sexual debut for both males and females is found to be around 15 years (Thalagala & Rajapakse, 2004). Studies showed that youth in the 15-25 age group participated in illegal abortions (De Silva, Rankapuge, & Perera, 2000; Rajapaksa & De Silva, 2000). In a study to understand adolescents' perceptions in Sri Lanka, Agampodi, Agampodi, and Piyaseeli (2008) found that psychological distress is caused due to various reasons and problems regarding the menstrual cycle and masturbation. The knowledge-based services provided in this region are low. In contrast, boys are not aware of public health systems that provide sexual health and reproductive health knowledge. Lack of access to reproductive health knowledge was a critical reason for the low self-confidence among Sri-Lankan adolescents.

A survey conducted in Sri Lanka revealed low sexual and reproductive health and knowledge among students from 16-19. This survey also revealed that males are more likely to accept sexual relationships before marriage than females when sexual attitudes and behaviors

were analyzed (Rajapaksa-Hewageegana, 2015). A longitudinal study examining 2,020 students in Sri Lanka revealed that less than 25% of the participants were aware that STIs could be transmitted during the first sexual encounter and that pregnancy is possible. One in 10 students accurately identified the contraceptive, and only six percent could identify ways to prevent STI transmission. Individuals in the study were unable to locate the phase of the menstrual cycle when conception might occur. The measurement of sexual attitude revealed that 39% of males compared to 24% believed it is acceptable to have more than friendship relationships. Twenty-one percent of males, compared to 8% of females, acknowledged that sexual relationships are proper. This statistic portrays gender bias and the difference between the attitudes of adolescent males and females. Eighty-three percent of females strongly believed that a female should be a virgin at the time of marriage. In contrast, only 66% of males believed so. The lower statistic is observed when asked about male virginity. Fifty-three percent of females believed that males should be virgins at the time of the marriage, and only 44% of males believed so. Twenty-three percent of the adolescents confessed to having participated in nonconsensual pre-marital sex, which accounts for rape, domestic violence, marital rape, and gender discrimination (Institute, 2015).

Chapter 3: Methodology

The current cross-sectional study analyzes the sexual health knowledge, attitudes, and behaviors amongst South-Asian international students at the University Central Oklahoma. The Institutional Review Board (IRB) approved all the recruitments strategies and the survey through application #2021-006. The UCO IRB approval letter can be found in *Appendix A.*

Participants

Students for this study were recruited from the UCO international student pool. UCO is a university in Edmond, Oklahoma, US. Students from India, China, Pakistan, Bangladesh, Sri Lanka, and Nepal were asked to participate. The students' minimum age was 18 years, and all were able to comprehend the English language. Both graduate and undergraduate international students from South-Asia were included in the participant pool.

Instruments

The self-report questionnaire (*Appendix B)* is informed by Poljski (2011) and Parker, Harris, and Haire (2020). Questions on behavior and knowledge about sexual health were reformed from these questionnaires. The reliability and validity of both questionnaires have been evaluated through various studies (Botfield, Zwi & Newman, 2016; Botfield, Zwi, Rutherford, & Newman, 2018; Baek, Akbar, & Baguley, 2012; Baek, Kanaani & Akbar, 2013; Canales & Leonar, 2016; Forbes-Mewett & McCulloch, 2016; Poljski, Quiazon, & Tran, 2019; Martin, 2020; Vaughan, Chen, Sullivan, & Mariyam, 2020; Bunner, 2015). Additional questions on sexual health attitude were derived from Ghule, Balaiah, and Joshi (2007) that analyzed the associations between sexual behavior and misconceptions through attitude-based questions in Mumbai, India. The scoring procedures are not discussed in Poljski (2011), Parker, Harris, and

Haire (2020), and Ghule, Balaiah, and Joshi (2007). Hence, the researcher has used standard scoring and creating a cumulative score by simply adding all the scores obtained from questions from each section. This approach is supported by Abraham and Kumar (1999) and King, Vidourek, and Singh (2014). The participants could choose one option per question. In case of any other options, the participants were provided with a text box to add additional responses.

Procedures

Participants were recruited through an email blast (*Appendix C)* and recruitment flyers (*Appendix D*) posted across the university campus. The recruitment flyers included a QR code for the online survey. The Office of Global Affairs on campus was contacted to send out the email blast to international students to recruit more participants. Recruitment flyers were also posted on two social media platforms, Facebook and Instagram. Participants were directed to a link provided in the email and social media posts to start the survey. Participants were asked to fill out the survey online through the Qualtrics system (Qualtrics, Provo, UT). Participants were asked to agree to the informed consent form (*Appendix E*), which states their voluntary participation and gives information regarding the research. This research was conducted between February 2021 and April 2021 at the University of Central Oklahoma. All researchers involved in this study had completed the National Institutes of Health (NIH) “Protecting Human Research Participants” online course to assure that participants were treated ethically.

Statistical Analysis

Background information was summarized in frequency tables. Subsequent, Statistical analysis was conducted using IBM SPSS 24. Cumulative scores of questions belonging to

attitudes and knowledge/behavior were calculated. The knowledge/behavior was combined as one variable as they often go hand in hand and are used interchangeably in South-Asian culture (King, Vidourek, & Singh, 2004). The cumulative scores were the sum of the responses received on the quantitative close-ended questions. Note that these are not composite scores where Likert scales and Yes/No questions are often separated. For this study, cumulative scores were calculated. Kendall's Tau-b is considered an appropriate statistical test due to two assumptions related to the data.

- The two cumulative scores that were calculated are on a continuous/ordinal scale. Note: the raw scores can be categorized as nominal data but cumulative scores are on a continuous/ordinal scale.
- There is a monotonic relationship between the two cumulative scores as they both include Likert Scale answers and yes/no answers.

The *p*-value was evaluated at $p<0.05$. The knowledge/behavior variables were used as a cumulative score. The concepts of knowledge and behaviors are interchangeably used in the context of sexual health in South-Asia as seen in the literature (Abraham, & Kumar, 1999; King, Vidourek, & Singh, 2014). Various open-ended responses were reported to understand the results in depth.

Chapter 4: Results

Background Information

Three hundred UCO South-Asian students were emailed the survey link. Fifty-eight students opened the survey link. Thirty-four students completed more than the demographic questions. Twenty-four students opted out of the survey after answering demographic questions. These 16 students were excluded from the statistical analysis. Of the total participants (n = 34), 58.8% identified as males and 41.2% identified themselves as females. Of these, 58.8% of students were undergraduate students, 32.4% were graduate students, and 8.8% were on Optional Practical Training (OPT).

Table 1

The relative frequencies of the demographic information.

Categories	Choices	Percentage (%)
Sexual Orientation	Heterosexual	73.5
	Homosexual	14.7
	Bisexual	5.9
	Queer	2.9
Country	India	41.2
	China	20.6
	Nepal	3.0
	Bangladesh	9.1
	Pakistan	24.2
Religion	Hinduism	44.1
	Islam	41.2
	Christianity	8.8
	Other	5.9

Attitudes towards sex and sexual health

A total of 26 questions related to attitude towards sex and sexual health were included in the survey. *Table 2* presents the distribution of students according to two

response categories provided (yes/no). The table also shows how many students opted not to answer each question.

Table 2

Percentage distribution of students regarding attitude towards sex or sexual health.

Question	Yes (%)	No (%)	Opted-out (%)
Believe females should be virgin at the time of the marriage.	17.6	41.2	41.2
Believe males should be virgin at the time of the marriage.	17.6	41.2	41.2
Virginity is the female's most valuable possession.	17.6	29.4	52.9
If I love a girl/boy, I will force him/her to have sex with me.	2.9	47.1	50
I believe in taking my pleasures when I find them.	23.5	23.5	52.9
I think it is right for a boy to masturbate.	44.1	5.9	50
While it is natural for men to have multiple sexual relations, it is morally incorrect for women to do so.	5.9	41.2	52.9
Pre-marital sexual relations often equip a person for more stable and happier marriages.	26.5	20.6	52.9
Extramarital sexual relations are not bad.	8.8	41.2	50
I think about sex almost every day.	17.6	29.4	52.9
I like to look at sexy pictures of naked people.	5.9	44.1	50
Sometimes sexual feelings empower me.	23.5	26.5	50
I am embarrassed to talk about sex with friends.	17.6	32.4	50
Menstruation is impure and unnatural.	2.9	47.1	50
My religious beliefs are against sex.	8.8	41.2	50
My parent's influence has inhibited me sexually	11.8	38.2	50
Children should be given sex education	52.9	47.1	0
I will use condoms only when my sexual partner requests	17.6	32.4	50

Question	Yes (%)	No (%)	Opted-out (%)
I believe that a single steady sexual partner relationship is no fun	5.9	44.1	50
I believe that love is not necessary for sex	17.6	32.4	50

Sexual Health Knowledge and Behavior

Of the participants who answered sexual behavior questions, 41% never had sex after coming to UCO. Approximately 12% (11.8%) had sex without protection. Approximately 38.5% claimed to use a condom as a contraceptive method, whereas 38.5% of students did not feel the need to use contraception.

Approximately 47.1% claimed that they learned about sexual health from a family member or friends. *Table 3* represents students' distribution according to three response categories provided (yes/no/maybe).

Table 3

The percentage distribution of the responses acquired from the participants regarding sexual health knowledge and behavior.

Question	Yes (%)	No (%)	Maybe (%)	Opted Out (%)
Possess adequate knowledge of different types of sexually transmitted diseases.	35.3	14.7	0	50
Participate in any type of sexual activity after coming to the UCO	26.5	0	17.6	55.9
As an international student, I wish someone would have given me sexual knowledge or education when I first came to UCO. Do you agree?	23.5	23.5	2.9	50

Question	Yes (%)	No (%)	Maybe (%)	Opted Out (%)
As an international student, I know that I have sexual rights the same as domestic students?	44.1	5.9	0	50
I prefer talking about sex and sexual health to someone who belongs to my country, gender, or religion.	20.6	26.5	2.9	50
You do not want to have sex because you are afraid that you will be pregnant or impregnate someone.	8.8	38.2	2.9	50
Does your family talk about sex at home?	8.8	35.3	2.9	52.9
I do not think that sexual health is important.	8.8	29.4	0	61.8

The yes/no questions included in the sexual health knowledge and behavior survey asked the students to write a response for the choice they made. Students in the study did not provide their reason for a 'yes' answer. However, some (n = 12) gave reasoning for a 'no' answer.

Information Seeking Behavior

Thirty eight percent of students sought sexual health information in their country of origin, and 23% sought after coming to the US. In comparison, 35% never attempted to find any information on sexual health or sex-related topics. Thirty-five percent of students do not know about the sexual health resources provided on the university campus. Half of the students responded that they discuss sexual health with their friends. Seventy percent of the students recognized Google as their source to answer any questions regarding sexual health during their lifetime.

Statistical Analysis

A Kendall's Tau-b correlation was run to determine the relationship between attitude and knowledge/behavior amongst 34 participants. There was a moderate, positive correlation

between sexual health attitude and sexual health knowledge/behavior, which was statistically significant, considered moderate in strength while positive in direction. The results are statistically significant at ($\tau_b = 0.531$, $p = 0.043$).

Table 4

Kendall's Tau-b correlation, its significance value at p = 0.05 that the calculation was based on.

			Cumulative Scores of Attitude Questions	Cumulative scores of Knowledge/Behavior Questions
Kendall's Tau-b	Cumulative Scores of Attitude Questions	T_b	1.000	0.531*
		Sig. (1-tailed)	-	0.043
	Cumulative scores of Knowledge/Behavior Questions	T_b	0.531*	1.000
		Sig. (1-tailed)	0.043	-

**Correlation is significant at 0.05 level (1-tailed)*

The results indicate a significant positive relationship between attitude and knowledge/behavior while participating in sexual activities. The null hypothesis (there is no relationship between sexual health knowledge, attitudes, and behaviors amongst South-Asian international students at UCO) will be rejected due to statistical significance.

Summary of Open-Ended Questions

The open-ended responses to questionnaire are reported below.

Table 5

The following table showcases the students' response to "Does your family talk about sex at home? No, why?"

Student Number	Response
4.	It’s not something you need to talk about that often.
3.	Considered shameful.
8.	they are against it before marriage
26.	Family is conservative
29.	Indian family awkwardness
32.	because its against our culture
34.	It's an awkward conversation

*These responses were provided by those who selected “NO”.

Table 6

The following table showcases the students’ response for “Is there anything that you think would be important as a part of sex education or international student resources?”

Student Number	Response
1.	Friendly atmosphere and freedom to present individual thoughts with utmost privacy
3.	Educate them with proper laws and limitations which are often not as properly understood or recognized by new international students especially due to education from Hollywood that the world have been receiving about US.
4.	I think it is pretty thorough.
8.	make sure everyone is mentally and physically safe when it comes to situations like this.
26.	Talk about the bad effects of taking pills or abortion, so that boys are more alert to wear a condom
27.	I think before talking about sexual health, we should consider religious believes and also respect other believes
29.	Knowledge should be provided for them to make their own decisions rather than be influenced by the sexual culture of the United States. Being in a place with different ideologies could make someone feel the need to

	try it for the sake of it, and I don't think that is healthy from a mental perspective. Talk to students about and mention to them that they are the decision-makers after all and that they don't need to be influenced by external stimuli in either case of being active or inactive.
34.	A representative from my country (preferably the same gender as me) to provide me with information that is present in UCO.

Table 7

The following table showcases the students' response for "I do not think that sexual health is important. Do you agree? - No, why?"

Student Number	Response
1.	It is extremely, as if one has no idea about their individual right and safety than nothing worst can never happen to that individual other than no knowledge or partial knowledge
3.	It is unhealthy to not have it being important.
4.	People being unaware of serious consequences of having unprotected sex whether it be STDs or unwanted pregnancies is a serious issue.
6.	It's important so that we don't end up getting/abusing others boundaries. Also, practicing safe sexual health helps to maintain less stress, unprotected pregnancy, STIs, STDs, and HIV/AIDS.
8.	you should get to know your own body better
9.	it is health, after all
26.	Sexual health is important to everyone!
29.	It is very important because it is part of the primal existence of being human.
27.	It is important so that we donot destroy our sexual health.

*These responses were provided by those who selected "NO".

Table 8

The following table showcases the response of the students for "According to you, what is sexual health? (You can be as elaborative as you want; please be honest and do not Google)".

Student Number	Response
1.	Being in a safe sexual environment is each one's right to individuality, yet at the same time place, people, individual viewpoint play a major role in the theory of acceptance and understandability!
3.	Sexual health is satisfying the sexual needs of a human being in healthy and safe manner.
4.	It is the awareness of how to take care of one's sexual health. To practice safe sex, knowing different methods of contraception and being aware of which ones have side effects and which is most effective at preventing STDs not just pregnancies. Getting regular health checks and screenings if sexually active. The psychological aspect of sexual health is also important, defining and setting boundaries and what you are or not comfortable with without hesitation and most importantly asking for consent or talking to a licensed therapist in case of past sexual trauma.
6.	Sexual health is respecting each other's boundaries, ask for consent, practicing safe sex by using protective measures to minimize the exposure or transmission of STDs or STIs, and unplanned pregnancy. Also if any partner doesn't want to continue at any time, respecting that.
26.	Do precautions while having sexual activities?
8.	your body's response to how your reproductive system works
19.	To protect your health when in sex, which means to use condom and be warned of hygiene
9.	To explore what i like and do not like sexually and to understand what is normal
27.	Sexual health brings awareness about sex positivity and helps you explore sexual orientations of other cultures.

Student Number	Response
29.	In all honesty, I can't think of a nuanced answer in terms of sexual activity because I haven't had any sexual encounters in my life other than self-entertainment. But I have been abstaining from that for close to 9 months as well. There are levels to sexual health which include the physical and mental in my opinion. Good care of the genitalia along with a healthy approach to sexual life play a role in good overall sexual health from my perspective. Constant seeking of sexual pleasure could possibly turn into a crutch as well, which does not help overall sexual health.
32.	sexual health is to maintain a healthy relationship with your partner.
34.	Sexual health is about the well-being of people's sexual needs and hygiene.

Chapter 5: Discussion

The current study explores the sexual health knowledge, attitude, and behavior of South-Asian international students at the University of Central Oklahoma. Ethnicity and culture play a crucial role in sexual attitudes, sexual desires, and sexual guilt among international students (Poljski, Quiazon, & Tran, 2014). This study shows evidence that students are influenced by culture and ethnicity when discussing sex and sexual health in general (Poljski, Quiazon, & Tran, 2014). The results coincide with the literature that better sexual health knowledge is correlated with less risky behavior and a positive attitude towards sex and sexual health.

Implications for South-Asian International Students

This study reveals critical details regarding South-Asian international students' views and experiences in sexual health content. Although this study is conducted on a single university campus in the US, the results likely resonate with other US universities. The central focus of this study was knowledge, attitudes, and behaviors regarding sexual health. Students had various views about how sexual health is defined. Students also suggested the potential future options or resources that they would like on the university campus. Pachauri and Santhya (2002) suggested that the number of young individuals participating in sexual activities has increased in Asian countries, which might indicate why risky behaviors observed among those students were common. In the current study, several students highlighted cultural and family taboos towards sex, sexuality, premarital sex, and sexual activity as discussed in the previous study by Parker, Harris, and Haire (2020). This provides evidence towards negative attitudes surrounding sexual health.

The commonly shared experiences of international students having minimum sex education before arriving at the university are reflected through literature (Song, Ritchers, Crawford, & Kippax, 2005; Simpson, Clifford, Ross, Sefton, Owen, et al., 2015). Similarly, in this study, many students linked their lack of sexual health knowledge to the cultural taboo or taboo within a family. These include but are not limited to being unable to talk about sex with elders due to shame and guilt. Research has demonstrated that the cultural norms among those of Asian descent differ from the western models regarding sexual knowledge (Brotto et al., 2005; Chan, 1990; Meston, Trapnell, & Gorzalka, 1998), sexual experience (Durex, 2005), and sexual attitudes (Ahrold & Meston, 2010; Higgins & Sun, 2007; Higgins, Zheng, Liu & Sun, 2002; Kennedy & Gorzalka, 2002; Meston & Arhold, 2010). This study demonstrates the difference between the western view and personal attitude amongst these South-Asian international students.

Implications for Sexual Attitudes

Woo, Brotto and Gorzalka (2011) found that cultural barriers among Asian students instigate sexual conservatism responsible for sexual difficulties. This study affirms sexual conservatism among South-Asian students. Many students skipped questions regarding sex, premarital sex, and extra-marital sex. More than half of the students appeared to answer the questions which they felt comfortable. This may indicate that acculturation has limited effect on the sexual health knowledge and attitude amongst the students as discussed by Belcastro and Ramsaroop-Hansen (2018).Though the students have portrayed elements of westernizing, they seem to uphold sexual conservatism. These results are consistent with Brotto et al., (2005) supporting that ethnic differences contribute to conservatism in the sexual attitude variable.

Different cultural settings influence the behavior and adolescent's attitude towards sex and sexual health (Cha, Doswell, Kim, Charron-Prochownik, & Patrick, 2007). In the present study, some students responded to the questions regarding their sexual encounters while other students seemed resistant to answering the questions regarding their attitudes towards premarital sex, contraceptives, and sexual desires.

Implications for Sexual Health Knowledge and Behavior

There is strong evidence that religiosity, social values, and culture affect sexual behavior and sexual health knowledge (Barbour, & Salameh, 2009; Ege et al., 2011; Ganczak et al., 2007; Milani & Azarghashb, 2011) which is consistent with the present study. When the students opted to skip some survey questions, this may indicate discrepancies in some of their responses (Ghule, Balaiah, & Joshi, 2007). For example, students mentioned wanting better sexual health resources on the university campus, but when asked if they want more knowledge, they indicated that they were not open to discussing various aspects of sexual health. King, Vidourek, and Singh (2014) showed that sexual health knowledge is essential for understanding sexual rights. Among Asian-Indian students, most students did not know about STIs, and few thought they were susceptible to them (King, Vidourek, & Singh, 2014). The students in the current study showed similar results as per the previously mentioned study. A lack of understanding how one's health can be negatively impacted due to unsafe sex and unintended pregnancy is causing distress amongst adolescents while their exploration continues (Turchik & Garske, 2009; Cheng, Zhu, Li, Zhang, & Wang, 1997; Cheng, Li, Qu, Zhou, Wang, Zhang, et al., 2002; Cheng, Wang, Wang, Han, Zhao, & Ma, 2005; Zhang, Bi, Maddock & Li, 2010; Wang, Long, Cai, Wu, Xu, Shu, et al., 2015). Many students in the present study suggested the need to promote resources and education regarding STIs, sex, and contraceptives within the university campus.

Implications for Universities

Findings suggest strategies for universities to better support healthy sexual behaviors in international college students. These include:

- provide sexual health content and resources during the global orientation for international students,
- offer sexual health credit-bearing courses to support the assimilation into the US culture,
- increase outreach to international students to assess their sexual health needs,
- create and implement programs designed specifically for international students and sexual health, and
- involve international students in the creation of sexual health related university policies and programs.

Implications for Future Research

Most students in this study were undergraduate students. Future studies could be conducted with South-Asian undergraduate and graduate students to examine knowledge, behaviors, and attitudes towards sexual health among traditional college students. Additionally, researchers are encouraged to conduct analyses on various college campuses globally to gain extensive insight into South-Asian international students' knowledge about STIs, sexual behaviors, and sexual health attitudes. Specific US-based university information on South-Asian sexual health and sexual behaviors lacks literature; therefore, a comparative analysis study could be conducted across various campuses in the US and globally to better understand international students' needs. This will allow future studies to assess the general South-Asian population and enhance existing university prevention and intervention programs.

Limitations and Conclusion

This study had several limitations. First, the sample size for this study was minimal. If the sample size is more, then it can show a better representation of students and a more robust statistical analysis can be conducted. Second, the sample comprises South-Asian international students at one university, with many respondents opting out of the survey statements. Conducting a similar research study at numerous university campuses could yield more participants from South-Asia. Third, the results cannot be generalized to all the international students or geographical locations as this study focuses on six countries namely, India, China, Bangladesh, Pakistan, Nepal, and Sri-Lanka. It likewise cannot be generalized due to convenience sample used. Fourth, the sensitive nature of the questions may have elicited socially desirable responses. The questions included in the survey are sensitive to Asian culture. Fifth, the data acquired is self-reported. Hence the data cannot be fully trusted due to possible self-report bias. An interview with each student from this study can yield more in-depth explanation of the choices made by them. There is also a high probability that many students might not have responded honestly due to individual guilt or shyness toward questions/statements presented in the survey.

References

Abraham, L. (2001). Understanding youth sexuality: A study of college students in Mumbai City, India. *Journal of Social Work, 62*(2), April 2001.

Adhikari, R., & Tamang, J. (2009). Pre-marital sexual behaviour among male college students of Kathmandu, Nepal. *B.M.C. Public Health, 9,* 241.

Agampodi, S. B., Agampodi, T. C., & U.K.D., P. (2008). Adolescents' perception of reproductive health care services in Sri Lanka. *B.M.C. Health Services Research, 8*(98), 1 –8. doi:10.1186/1472-6963-8-98

Ahrold, T. K., & Meston, C. M. (2010). Ethnic differences in sexual attitudes of U.S. college students: Gender, acculturation, and religiosity factors. *Archives of Sexual Behavior, 39,* 190–202.

Alexander, C. S., Ensminger, M. E., Kim, Y. J., Smith, B. J., Johnson, K. E., & Dolam, L. J. (1989). Early sexual activity among adolescents in small towns and rural areas: Race and gender patterns. *Family Planning Perspectives, 21,* 261–266.

Aresu, A. (2009). Sex education in modern and contemporary China: Interrupted debates across the last century. *International Journal of Educational Development, 29,* 532–541.

Aryal, R., & Adhikary, U. (2003). Adolescent and youth in Nepal in population monograph of Nepal 2000. *Kathmandu: National Planning Commission Secretariat.*

Avasthi, A. K., Varma, V. K., Nehra, R., & Das, K. (1992). Construction and standardization of a sex knowledge and attitude questionnaire (S.K.A.Q.), in simple Hindi, for North Indian population. *Indian Journal of Psychiatry ,34,* 24 –27.

Babatsikos, G., & Lamaro, G. (2012). *Unplanned pregnancies and sexually transmitted infections in international university students*. Melbourne: Deakin University.

Baek, Y., Akbar, H., & Baguley, G. (2012). Relationships and sexual health promotion project for Q.U.T. international students. In Chang, S., McGrath, T., & Richardson, K. (Eds.) *23rd I.S.A.N.A. International Education Association Conference Proceedings.* I.S.A.N.A. International Education Association Inc., Australia, pp. 1 –13.

Barbour, S., & Salameh, P. (2009). Knowledge and practice of university students in Lebanon regarding contraception. *Eastern Mediterranean Health Journal, 15*, 387–399

Belcastro, P. A., & Ramsaroop-Hansen, H. (2018). Examining the sexual enigma of the immigrant paradox with international students. *Journal of International Students, 8*(4), 1783–1814. doi:10.5281/zenodo.1469857

Berry, J. W. (1980). Acculturation as varieties of adaptation. In A. M. Padilla (Ed.), *Acculturation: Theory, models, and some new findings* (pp. 9–25). Boulder, CO: Westview Press.

Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations, 2*, 697 –712.

Botfield, J. R., Zwi, A. B., & Newman, C. E. (2016). Young migrants and sexual and reproductive healthcare. In F. Thomas, *Handbook of Migration and Health* (pp. 438-458). https://doi.org/10.4337/9781784714789.00036

Botfield, J. R., Newman, C. E. & Zwi, A. B. (2018). Engaging Migrant and Refugee Young People with Sexual Health Care: Does Generation Matter More Than Culture? *Sex Res Soc Policy, 15***,** 398–408. https://doi.org/10.1007/s13178-018-0320-6

Botfield, J., Zwi, A. B., Rutherford, A., & Newman, C. (2018). Learning about sex and relationships among migrant and refugee young people in Sydney, Australia: 'I never got

the talk about the birds and the bees', *Sex Education, 18*(6), 705 –720. doi: 10.1080/14681811.2018.1464905

Brotto, L. A., Chik, H. M., Ryder, A. G., Gorzalka, B. B., & Seal, B. N. (2005). Acculturation and sexual function in Asian women. *Archives of Sexual Behavior, 34*, 613–626.

Burbank, J. (1994). Culture shock: Nepal. A guide to customs and etiquette. *London: Kuperard Ltd.*

Burke, P., Stets, J., & Pirog-Good, M. (1988). Gender Identity, Self Esteem and Physical and Sexual Abuses in Dating Relationships. *Social Psychology Quarterly, 51* (3), 272 –285.

Burt, M. R. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology, 38*, 217–230.

Cado, S., & Leitenberg, H. (1990). Guilt reactions to sexual fantasies during intercourse. *Archives of Sexual Behavior, 19*(1), 49–63. https://doi.org/10.1007/BF01541825

Carrol, J. L., Volk, K. D., & Hyde, J. S. (1985). Differences between males and females in motives for engaging in sexual intercourse. *Archives of Sexual Behaviour, 14*, 131–139.

Castells, M. (2009). *Communication Power*. New York: Oxford University Press.

Cernada, G. P., Chang, M. C., Lin, H. S., Sun, T. H., & Chen Cernada, C. C. (1986). Implications for adolescents' sex education in Taiwan. *Studies in Family Planning, 17*(4), 181–187.

Chakraborty, K., & Thakurata, R. G. (2013). Indian concepts of sexuality. *Indian Journal of Psychiatry, 55*, 250 –255. doi:10.4103/0019-5545.105546

Chan, D. W. (1990). Sex knowledge, attitudes, and experiences of Chinese medical students in Hong Kong. *Archives of Sexual Behavior,19*, 73-93.

Chandra-Mouli, V., Plesons, M., Hadi, S., Baig, Q., & Lang, I. (2018). Building support for adolescent sexuality and reproductive health education and responding to resistance in conservative contexts: Cases from Pakistan. *Global Health Science Practice, 6*(1), 128–136.

Chapagain, M. (2005). Masculine interest behind high prevalence of female contraceptive methods in rural Nepal. *Australian Journal of Rural Health, 13*(1), 35–42.

Chen, B., Wang, L. P., Wang, H. X., Han, Y. F., Zhao, X. M., Ma, Q. L. (2005). Survey on reproductive health status of Shanghai college students. *Zhonghua nan ke xue, 11*,744–747.

Cheng, Y., Li, S., Qu, A., Zhou, Y., Wang, J., Zhang, J., et al. (2002). Sexual coercion among adolescent women seeking abortion in China. *Journal of Adolescent Health, 31*, 482–486. doi:10.1016/S1054-139X (02)00449-4

Cheng, Y., Zhu, W., Li, Z., Zhang, Y., & Wang, A. (1997). Contraceptive practices of women requesting termination pregnancy: a study from China. *Contraception, 55*,15–17. doi: 10.1016/S0010-7824(96)00237-5

Chung, P. J., Borneo, H., Kilpatrick, S. D., Lopez, D. M., Travis, R., Jr., Lui, C., Khandwala, S., & Schuster, M. A. (2005). Parent-adolescent communication about sex in Filipino American families: A demonstration of community-based participatory research. *Ambulatory Pediatrics*, *5*, 50-55.

Collumbien, M., & Hawkes, S. (2000). Missing men's messages: Does the reproductive health approach respond to men's sexual health needs? *Culture, Health and Sexuality, 2*(2), 135–150.

Connell, R. (2005). Masculinities (2nd ed.). Sydney: Allen & Unwin.

Coston, C. (2004). Worries about crime among foreign students studying in the United States. In Coston, C. T. M. (Ed.), *Victimizing vulnerable groups: Images of uniquely high-risk crime targets* (pp. 161-176). Westport, CT: Praeger.

Creel, L. C, & Perry, R. J. (2003). Improving the quality of reproductive health care for young people. Washington, DC: Population Council.

Darling, C. A., Davidson, J. K., Sr, & Passarello, L. C. (1992). The mystique of first intercourse among college youth: the role of partners, contraceptive practices, and psychological reactions. *Journal of Youth and Adolescence*, *21*(1), 97–117. https://doi.org/10.1007/BF01536984

De Silva, W. I., Rankapuge, L., Perera, R. (2000). *Induced Abortion in Sri Lanka: Who Goes to Providers for Pregnancy Termination,* Department of Demography, University of Colombo.

Deumert, A., Marginson S., Nyland C., Ramia G., & Sawir E. (2005). *The social and economic security of international students in Australia: Study of 202 student cases (Summary report).* Clayton: Monash Institute for the Study of Global Movements, Monash University.

Dunn, M. E, & Abulu, J. (2010). Psychiatrists' role in teaching human sexuality to other medical specialties. *Academy of Psychiatry, 34,* 381–385.

Durex. (2005). Give and receive. 2005 Global Sex Survey results. http://www.durex.com/cm/gss2005result.pdf

Dutt, S., & Manjula, M. (2017). Sexual knowledge, attitude, behaviors and sources of influences in Urban college youth: A study from India. *Indian Journal of Social Psychiatry, 33*(4), 319 –326. doi: 10.4103/0971-9962.218602

Dziech, B. W., Weiner, L. (1984). The lecherous professor. Boston, MA: Beacon.

Ege, E., Akin, B., Can, R. K., & Arias, A. (2011). Knowledge and practices about sexual and reproductive health in university students. *Sexuality and Disability, 29*, 229–238. doi:10.1007/s11195-011-9205-9

Fisher, B. S., Sloan, J. J., Cullen, F. T., & Lu, C. (1998). Crime in the ivory tower: The level and sources of student victimization. *Criminology, 36*, 671-710.

Forbes-Mewett, H. (2008). Understanding and managing international student security (Unpublished doctoral thesis). Monash University, Melbourne, Australia.

Forbes-Mewett, H., & McCulloch, J. (2015). International students and gender-based violence. *Violence Against Women, 22*(3), 344 –365.

Forbes-Mewett, H., & Nyland C. (2007). *Cultural diversity, relocation and the security of international students at an internationalised university*. (Working paper). Clayton: Monash University. Retrieved from http://www.buseco.monash.edu.au/mgt/research/working-papers/2007/wp22-07.pdf

Galbraith, G. G. (1968). Effects of sexual arousal and guilt upon free associative sexual responses. *Journal of Consulting and Clinical Psychology, 32*(6), 707–711. https://doi.org/10.1037/h0026584

Ganczak, M., Barss, P., Alfaresi, F., Almazrouei, S., Muraddad, A., & Al-Maskari, F. (2007). Break the silence: HIV/AIDS knowledge, attitudes, and educational needs among Arab University students in United Arab Emirates. *Journal of Adolescent Health, 40*, 572.e1–572.e8.

Ghule, Mohan, Donta Balaiah and Beena Joshi. (2007) “Attitude towards premarital sex among rural college youth in Maharashtra, India.” *Sex Cult*, *11*, 1 –17.

Gloz, V., & Smith K. (2004). *The safety of women international students: Consultation findings.* Melbourne: Royal Melbourne Institute of Technology University.

Gott, M., Hinchliff, S., & Galena, E. (2004). General practitioner attitudes to discussing sexual health issues with older people. *Soc Sci Med, 58,* 2093–2103.

Graycar, A. (2010). *Racism and the tertiary student experience in Australia.* Occasional Paper no. 5. Canberra: Academy of Social Sciences in Australia. Retrieved from http://www.assa.edu.au/publications/occasional_papers/2010_No5.php

Hasan, M. K., Aggleton, P., & Persson, A. (2015). Rethinking gender, men and masculinity: Representations of men in the South Asian reproductive and sexual health literatures. *International Journal of Men's Health, 14*(2), 146–162.

Haslegrave, M., & Olatunbosun, O. (2003). Incorporating sexual and reproductive health care in the medical curriculum in developing countries. *Reproductive Health Matters, 11*, 49-58.

Healy, C., & Bond, R. (2006). *International students: Sexual health, contraception and terminations.* Paper presented at the 8th I.S.A.N.A. Victoria State Conference, Melbourne.

Hendrick, S., Hendrick, C., Sampion-Foote, M. J., & Foote, F. H. (1985). Gender differences in sexual attitudes. *Journal of Personality and Social Psychology, 49,* 1630–1642.

Higgins, L. T., Zheng, M., Liu, Y., & Sun, C. H. (2002). Attitudes to marriage and sexual behaviours: A survey of gender and culture differences in China and United Kingdom. *Sex Roles, 46,* 75–89.

Higgins, L. T., & Sun, C. H. (2007). Gender, social background and sexual attitudes among Chinese students. *Culture, Health & Sexuality, 9,* 31–42.

Hossain, K. J. (2003). Male involvement in family planning in Bangladesh: Factors constraining low use and the potential for augmenting the C.P.R. *Dhaka: Centre for Policy Dialogue (C.P.D.).*

Hou, X., & Ma, N. (2012). The effect of women's decision-making power on maternal health services uptake: Evidence from Pakistan. *Health Policy and Planning, 28*(2), 176–184

Hull, T. H. (2008). Sexual pleasure and wellbeing. *International Journal of Sexual Health, 20*(1–2), 133–145.

Hullett, C. R., & Witte, K. (2001). Predicting intercultural adaptation and isolation: Using the extended parallel process model to test anxiety/uncertainty management theory. *International Journal of Intercultural Relations, 25*, 125 –139.

Institute, G. (2015). Low levels of sexual and reproductive health knowledge found among students in Sri-Lanka. *International Perspectives on Sexual and Reproductive Health, 41*(1), 54.

International Covenant on Economic, Social and Cultural Rights. (1966). Adopted Dec. 16, 1966, G.A. Res. 2200A (XXI), UN GAOR, 21st Sess., Supp. No.16, U.N. Doc. A/6316 993 U.N.T.S. 3 (entered into force Jan.3, 1976).

Iqbal, S., Zakar, R., Zakar, M. Z., & Fischer, F. (2017). Perceptions of adolescents' sexual and reproductive health and rights: a cross-sectional study in Lahore District, Pakistan. *B.M.C. International Health and Human Rights, 17*(5), 1-13. doi:10.1186/s12914-017-0113-7

Ismail, S., Shajahan, A., Sathyanarayana Rao, T. S., & Wylie, K. (2015). Adolescent sex education in India: Current perspectives. *Indian Journal of Psychiatry, 57*, 333 –337.

Jahangir, A., & Mankani, N. (2016). *Case Study: Aahung–Empowering Adolescents in Pakistan Through Life Skills-Based Education.* New York: United Nations Girls' Education Initiative. https:// www.goodpracticefund.org/documents/Aahung-UNGEI-Final.pdf.

Jung, E., Hecht, M. L., & Chapman Wadsworth, B. (2007). The role of identity in international students' well-being in the United States: A model of depression level, identity gaps, discrimination, and acculturation. *International Journal of Intercultural Relations, 31*, 605 –624.

Kalsi, H., Do, H., & Gu, Z. (2007). Risks, choices and consequences: International students and sexual health promotion. *Sexual Health. 4*(4), 290.

Kamal, N. (2000). The influence of husbands on contraceptive use by Bangladeshi women. *Health Policy and Planning, 15*(1), 43–51.

Kennedy, M. A., & Gorzalka, B. B. (2002). Asian and non-Asian attitudes toward rape, sexual harassment, and sexuality. *Sex Roles: A Journal of Research, 46*(7-8), 227–238. https://doi.org/10.1023/A:1020145815129

Kimmel, M. S. (2007). The sexual self: The construction of sexual scripts. Nashville, TN: Vanderbilt University Press.

King, K. A., Vidourek, R. A., & Singh, A. (2014). Condoms, sex and sexually transmitted diseases: Exploring sexual health issues among Asian-Indian college students. *Sexuality and Culture, 18*, 649–663. doi:10.1007/s12119-013-9214-1

Kismödi, E., Corona, E., Maticka-Tyndale, E., Rubio-Aurioles, E., & Coleman, E. (2017). Sexual rights as human rights: A guide for the WAS declaration of sexual rights. *International Journal of Sexual Health, 29*(1), 1–92.

Lakhani, A., Gandhi, K., & Collumbien, M. (2001). Addressing semen loss concerns: Towards culturally appropriate HIV/AIDS interventions in Gujarat, India. *Reproductive Health Matters, 9*(18), 49–59.

Lee, J. S., Koeske, G. F., & Sales, E. (2004). Social support buffering of acculturative stress: A study of mental health symptoms among Korean international students. *International Journal of Intercultural Relations, 28*, 399 –414.

Ma, Q. Q., Ono-Kihara, M., Cong, L. M., Xu, G. Z., Pan, X. H., Zamani, S., . . . Kihara, M. (2006). Sexual behavior and awareness of Chinese university students in transition with implied risk of sexually transmitted diseases and H.I.V. infection: A cross-sectional study. *B.M.C. Public Health, 6*, 232.

Mahat, G., & Scoloveno, M. (2001). Factors influencing health practices of Nepalese adolescent girls. *J Pediatr Health Care, 15*, 251 –255.

Mamulwar, M., Bhawalkar, J., Dhone, A., Pandage, A., Kalkute, J., & Chitnis, U. (2015). A study to assess the knowledge about sexual health among male students of junior colleges of an urban area. *Med J DY Patil Univ, 8*(5).

Marginson, S., Nyland, C., Sawir, E., & Forbes-Mewett, H. (2010). International student security. Cambridge, UK: Cambridge University Press.

Markus, H. M., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224 –253.

Martin, F. (2020). Chinese International Students' Well-being in Australia: The Road to Recovery. The University of Melbourne

Mathur, S., Malhotra, A., & Mehta, M. (2001). Adolescent girls' life aspirations and reproductive health in Nepal. *Reproductive Health Matters, 9*, 91 –100.

Mejia-Canales, D., & Leonard, W. (2016) Something for them: Meeting the support needs of same sex attracted and sex and gender diverse (S.S.A.S.G.D.) young people who are recently arrived, refugees or asylum seekers. Monograph Series No. 107. GLHV@ARCSHS, La Trobe University: Melbourne.

Meston, C. M., & Ahrold, T. K. (2010). Ethnic, gender, and acculturation influences on sexual behaviors. *Archives of Sexual Behavior, 39*, 179–189.

Meston, C. M., Trapnell, P. D., & Gorzalka, B. B. (1998b). Ethnic, gender, and length-of-residency influences on sexual knowledge and attitudes. *Journal of Sex Research, 35*, 176–188.

Milani, H. S., & Azarghashb, E. (2011). Knowledge and attitudes of female students who live in Tehran dormitories, towards STDs and sexual relationship. *Iranian Journal of Clinical Infectious Diseases, 6*, 35–40.

Money. (2019). In *Oxford Online Dictionary*. Retrieved from https://en.oxforddictionaries.com/definition/money

Monsen, L. (2020). *U.S. Universities adapt to help International Students*. Washington: U.S. Embassy Tbilisi.

Mullany, B. C. (2010). Spousal agreement on maternal health practices in Kathmandu, Nepal. *Journal of Biosocial Science*, *42*(5), 689–693.

Muñoz-Rivas, M., Graña, J., O'Leary, K., & González, M. (2007). Aggression in adolescent dating relationships: prevalence, justification, and health consequences. *Journal of Adolescent Health, 40*, 298–304.

N.C.A.S.C. (2008). Cumulative Data of H.I.V. and AIDS. Kathmandu: National Centre for AIDS and S.T.D. Control.

National Institute of Population Studies (2013). Pakistan Demographic and Health Survey (P.D.H.S.) 2012-13. Maryland: Macro International Inc.

New Era/ Ministry of Health. (2006). *Nepal Demographic Health Survey*. Kathmandu: New Era/Ministry of Health.

Nyland, C., Forbes-Mewett, H., Marginson, S., Ramia, G., Sawir, E., & Smith, S. (2009). International student-workers in Australia: A new vulnerable workforce. [Electronic version]. *Journal of Education and Work. 22*(1), 1 –14.

Pachauri, S., & Santhya, K.G. (2002). Reproductive choices for Asian adolescents: A focus on contraceptive behavior. *International Family Planning Perspectives, 28(*4), 186 –195.

Parker, A., Harris, P., & Haire, B. (2020). International students' views on sexual health: a qualitative study at an Australian university. *Sexual Health, 17*, 231-238. Retrieved from https://doi.org/10.1071/SH19209

Poljski, C. (2011). On your own: *Sexual and reproductive health of female international students in Australia.* Melbourne: M.C.W.H.

Poljski, C., Quiazon, R., & Tran, C. (2014). Ensuring Rights: Improving access to sexual and reporductive health services for female international students in Australia. *Journal of International Students, 4*(2), 150 –163.

Pradhan, A., & Strachan, M. (2003). *Adolescent and youth reproductive health in Nepal: status, issues, policies, and programmes.* Kathmandu: Policy Project, 18.

Puri, S., & Kapoor, S. (2006). Taboos and myths associated with women health among rural and urban adolescent girls in Punjab. *India Journal of Community Medicine,* 168 –170.

Rajapaksa, L., & De Silva, W. I. (2000). *Profile of Women Seeking Abortion*. Colombo, University of Colombo.

Rajapaksa-Hewageegana N et al., (2015). Sexual and reproductive Knowledge, attitudes and behaviours in a school going population of Sri Lankan adolescents, *Sexual and Reproductive Healthcare, 6*(1),3–8.

Ramkisson, A., Searle, C., Burns, C., & Beksinka, M. (2010). Sexual and Reproductive Health, Rights and Services. *South African Health Review. Durban: Health Systems Trust*.

Rangaiyan, G. (1996). Sexuality & sexual behaviour in the age of AIDS: A study among college youth in Mumbai. Ph.D. Dissertation (Unpublished), *International Institute for Population Sciences (I.I.P.S.),* Mumbai.

Rashid, S. F. (2000). Providing sex education in rural Bangladesh: experiences from BRAC. *Gender and Lifecycles.* Oxford: Oxfam.

Reeuwijk, M. v., & Nahar, P. (2013). The importance of a positive approach to sexuality in sexual health programmes for unmarried adolescents in Bangladesh. *Reproductive Health Matters, 21*(14), 69 –77. doi:10.1 01 6/S0968-8080(13)41694-4

Regmi, P. R., Teijlingen, E. v., Simkhada, P., & Raj, D. (2010). Barriers to sexual health services for young people in Nepal. *Journal of Health Popul Nutr, 28*(6), 619–627.

Regmi, P. R., Simkhada, P., & Van Teijlingen, E. R. (2010). Boys remain prestigious, girls become prostitutes: socio-cultural context of relationships and sex among young people in Nepal. *Global Journal of Health Science, 2,* 60 –72.

Ryder, A. G., Alden, L. E., & Paulhus, D. L. (2000). Is acculturation unidimensional or bidimensional? A head-to-head comparison in the prediction of personality, self-identity, and adjustment. *Journal of Personality and Social Psychology, 79,* 49–65.

S.O.S. Children's Village (2014). Social taboos damage the health of girls and women.

Säävälä, M., & Char, A. (2014). Semen loss and sexual anxiety among young unmarried men: Being young and vulnerable in rural India. *Sexuality and Culture, 18*(1), 103–118.

Sable, M., Danis, F., Mauzy, D., & Gallagher, S. (2006). Barriers to reporting sexual assault for women and men: Perspectives of college students. *Journal of American College Health, 55*, 157 –162.

Salam, M. A., Alim, M. A., & Noguchi, T. (2006). Spousal abuse against women and its consequences on reproductive health: A study in the urban slums in Bangladesh. *Maternal and Child Health Journal, 10*(1), 83–94.

Sanzero, L., & Mahat, G. (2003). Psychological Factors in Nepali Former Commercial Sex Workers with H.I.V. *Journal of Nursing Scholarship, 35*(1), 53 –60.

Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2007). Loneliness and international students: An Australian study. [Electronic version]. *Journal of Studies in International Education*. doi:10.1177/102831530729969

Seidler, V. J. (2006*). Transforming masculinities: Men, culture, bodies, power, sex and love.* London: Routledge.

Sharma, N., Singh, S., & Mondal, S. (2013). Understanding the factors affecting the H.I.V. epidemic in Maharashtra: Application of proximate determinants framework. *Sexuality and Culture, 17*(4), 540–567.

Shepherd, T. (2009). Facts of life: Alarm at high abortion rates for overseas students. *Adelaide Advertiser.*

Shirkat, G. (2014). Country Profile on Universal Access to Sexual and Reproductive Health-Blue-Pakistan. http://arrow.org.my/wp-content/uploads/2015/ 04/Country-Profile-SRH-Pakistan.pdf.

Shweder, R. A., Goodnow, J., Hatano, G., LeVine, R. A., Markus, H., & Miller, P. (1998). The cultural psychology of development: One mind, many mentalities. In W. Damon (Ed.), *Handbook of child psychology* (5th ed., Vol. 1, pp. 865-937). New York: Wiley.

Simpson, S., Clifford, C., Ross, K., Sefton, N., Owen, L., Blizzard, L., et al. (2015). Sexual health literacy of the student population of the University of Tasmania: results of the RUSSL Study. *Sex Health, 12*, 207–216. doi:10.1071/SH14223

Singh, I. (1990). Socio-cultural factors affecting girl children in Nepal. *Journal of Public Health, 4*, 251 –254.

Sinha, S. (2015). Reasons for women's entry into sex work: A case study of Kolkata, India. *Sexuality and Culture, 19*(1), 216–235.

Skromanis S., Cooling N., Rodgers B., Purton T., Fan F., Bridgman H., et al. (2018). Health and well-being of international university students, and comparison with domestic students, in Tasmania. *Australia. Int J Environ Res Public Health, 15*(6), 1147. doi:10.3390/ ijerph15061147

Song, A., Richters, J., Crawford, J., & Kippax, S. (2005). HIV and sexual health knowledge and sexual experience among Australian-born and overseas-born students in Sydney. *Journal of Adolescent Health, 37*(3), 243.e9–e14. doi:10.1016/j.jadohealth.2004.08.032.

Song, A., Richters, J., Crawford, J., & Kippax, S. (2005). H.I.V. and sexual health knowledge and sexual experience among Australian-born and overseas-born students in Sydney. [Electronic version]. *Journal of Adolescent Health, 37*(3), 243.

Story, W. T., & Burgard, S. A. (2012). Couples' reports of household decision-making and the utilization of maternal health services in Bangladesh. *Social Science and Medicine, 75*(12), 2403–2411.

Sundeen, R. (1984). Explaining the fear of crime among international students from developing countries: A revised model. *Criminal Justice Review, 9,* 7 –13.

Svanemyr, J., Baig, Q., & Chandra-Mouli, V. (2015). Scaling up of Life Skills Based Education in Pakistan: A case study. *Sex Education, 15*(3), 249–262.

Tamang, A., Nepal, B., Puri, M., & Shrestha, D. (2001). Sexual behaviour and risk perceptions among young men in boarder towns of Nepal. *Asia-Pacific Population Journal, 16* (2), 195 –210.

Thalagala, N. I., & Rajapakse, L. (2004). *National survey on emerging issues among adolescents in Sri Lanka.* Colombo, UNICEF.

The Editors of Encyclopedia Britannica. (2020, May 19). *Human migration.* Retrieved from Encyclopedia Britannica: https://www.britannica.com/topic/human-migration

Tran, C. (2012). *A qualitative study on the sexual and reproductive health of female international students in Australia.* Unpublished Action Learning Assessment Research Project, 14th November 2012, Melbourne: Latrobe University.

Turchik, J. A., & Garske, J. P. (2009). Measurement of sexual risk taking among college students. *Arch Sex Behav, 38,* 936–948. doi:10.1007/s10508-00809388-z

Vaughan, C., Chen, J., Sullivan, C., Suha, M., Sandhu, M., Hourani, J., … Murdolo, A. (2020). Multicultural and settlement services supporting women experiencing violence: The MuSeS project (Research report, 11/2020). Sydney: A.N.R.O.W.S.

Verma, R. K., Sharma, S., Singh, R., Rangayan, G., & Pelto, P. J. (2003). Beliefs concerning sexual health problems and treatment seeking among men in an Indian slum community. Culture, *Health and Sexuality, 5*(3), 265–276.

Victorian Immigrant and Refugee Women's Coalition. (2009). *A survey report on female international students*. Melbourne: V.I.R.W.C. Retrieved from http://www.virwc.org.au/reports/VIRWC%20Report%20(Final)%2007-10-09%20(2).pdf

Vivancos, R., Abubakar, I., & Hunter, P.R. (2009). Sexual behaviour, drugs and alcohol use of international students at a British university: a crosssectional survey. *International Journal of STD & AIDS, 20*, 619–622. doi:10.1258/ijsa.2008.008421

Wang, H., Long, L., Cai, H., Wu, Y., Xu, J., Shu, C., et al. (2015). Contraception and Unintended Pregnancy among Unmarried Female University Students: A Cross-sectional Study from China. *PLoS ONE,10*(6), e0130212. doi:10.1371/journal.pone.0130212

Woo, J. S., Brotto, L. A., & Gorzalka, B. B. (2011). The role of sex guilt in the relationship between culture and women's sexual desire. *Arch Sex Behavior, 40*, 385 –394. doi:10.1007/s10508-010-9609-0

World Economic Forum. (W.E.F.). The Global Gender Gap Report 2016. Cologny, Switzerland: W.E.F.; 2016. http://reports.weforum.

World Health Organization. (2006). Defining Sexual Health: Report of a Technical Consultation on Sexual Health. Geneva: WHO Press.

World Population Foundation (2010). A research study on status of Sexual and Reproductive Health and Rights of young people in Pakistan. Islamabad: WPF Pakistan.

Xiao, Z. W., Palmgreen, P., Zimmerman, R. S., & Noar, S. (2010). Adapting and applying a multiple domain model of condom use to Chinese college students. *AIDS Care, 22*(3), 332–338.

Ying, Y. W., & Han, M. (2006). The contribution of personality, acculturative stressors, and social affiliation to adjustment: A longitudinal study of Taiwanese students in the United States. *International Journal of Intercultural Relations*, *30*, 623 –635.

Zhang, D., Bi, Y., Maddock, J. E., & Li, S. (2010). Sexual and reproductive health knowledge among female college students in Wuhan, China. *Asia-Pacific Journal of Public Health*, *22*(1), 118 –126. doi:10.1177/1010539509350614

Zhang, L. Y., Jejeebhoy, S., Shah, I. H., Zhang, L. H., Hsia, J., & Im-em, W. (2004). Access to contraceptive services among unmarried young people in the north-east of China. *European Journal of Contraceptive and Reproductive Health Care*, *9*(3), 147–154.

Appendices

Appendix A

February 05, 2021 IRB Application #: 2021-006

Proposal Title: Sexual health knowledge, attitudes, and behaviors amongst South-Asian international students at the University of Central Oklahoma.

Type of Review: Initial Review-Expedited
Investigator(s):
Kruti Chaliawala
Amy Townsend,
Ed.D.

Dear Ms. Chaliawala and Dr. Townsend:

Re: Application for IRB Review of Research Involving Human Subjects

We have received your materials for your application. The UCO IRB has determined that the above named application is APPROVED BY EXPEDITED REVIEW. The Board has provided expedited review under 45 CFR 46.110, for research involving no more that minimal risk and research Category 7.
Date of Approval: February 05, 2021

If applicable, informed consent (and HIPAA authorization) must be obtained from subjects or their legally authorized representatives and documented prior to research involvement. A stamped, approved copy of the informed consent form will be made available to you. The IRB-approved consent form and process must be used, where applicable. Any modification to the procedures and/or consent form must be approved prior to incorporation into the study. At the completion of the study, please submit a closure request form to close your file.

It is the responsibility of the investigators to promptly report to the IRB any serious or unexpected adverse events or unanticipated problems that may be a risk to the subjects.

Please let us know if the IRB or Office of Research Integrity and Compliance can be of any further assistance to your research efforts. Never hesitate to contact us.
Sincerely,

Melissa Powers, Ph.D.

Chair, Institutional Review
Board University of Central
Oklahoma 100 N. University
Dr.
Edmond, OK 73034
405-974-5497
irb@uco.edu

Office of Research Integrity and Compliance
100 North University Drive /
Edmond, OK 73034 Phone (405)
974-5497 Fax (405) 974-3818

Appendix B

Demographics

1. What is your gender?
    a. Male
    b. Female
    c. Non-binary/third gender
2. What is your sexual orientation?
    a. Heterosexual (male/female)
    b. Homosexual (male/male, female/female)
    c. Queer (Exploring)
    d. Bi-sexual (male or female)
    e. Other
3. In which country were you born?
    a. India
    b. China
    c. Nepal
    d. Bangladesh
    e. Sri-Lanka
    f. Pakistan
4. Specify your religion:
    a. Hinduism
    b. Sikhism
    c. Islam
    d. Buddhism

    e. Christianity

    f. Other: _____

5. Are you:

    a. Single

    b. In a relationship

    c. Exploring

6. Which visa are you on?

    a. F-1 (Student Visa)

    b. J-1 (Exchange)

    c. Study Abroad Program

    d. H1B

    e. Green Card Holder

7. Are you:

    a. Undergraduate

    b. Graduate

    c. Post-Graduate

    d. O.P.T. (Optional Practical Training)

8. What are you majoring in? _____

9. Have you ever looked for any form of sexual health information in?

    a. Your country of origin

    b. The U.S.A.

    c. Never

10. What are your thoughts about the sexual health resources available on the campus of the University of Central Oklahoma?
    a. Excellent
    b. Good
    c. Average
    d. Poor
    e. Terrible
    f. Do not know

Sexual Attitude

11. Do you talk to your friends about sexual health?
    a. Yes
    b. No
12. According to you, what is sexual health? (You can be as elaborative as you want; please be honest and do not Google)

    _____

    _____

    _____

    _____

    _____

    _____

13. Do you feel like you can find correct answers to any questions you have about sexual health?
    a. Yes, I Google

b. Yes, from health care provider

c. Yes, I asked friend or family member

d. No, never asked

e. I do not want to ask anyone as I feel guilty

f. I do not want to ask anyone as I am ashamed

g. I do not know who to ask

14. What are your beliefs about pre-marital sex?

a. Open to sex before marriage in the U.S.A.

b. Open to sex before marriage anywhere

c. Will not have sex before marriage

d. Will not have sex before marriage in home country

15. Do you believe that females should be virgin at the time of the marriage?

a. Yes

b. No

16. Do you believe that males should be virgin at the time of the marriage?

a. Yes

b. No

17. Do you have sexual desires? What do you do about those?

_____

_____

_____

_____

_____

Answer Yes or No for the following statements.

18. Virginity is a female's most valuable possession.
19. If I love a girl/boy, I will force him/her to have sex with me
20. I believe in taking my pleasures when I find them
21. I think it is right for a boy to masturbate
22. While it is natural for men to have multiple sexual relations, it is morally incorrect for women to do so
23. Pre-marital sexual relations often equip persons for more stable and happier marriages
24. Extramarital sexual relations are not bad
25. I think about sex almost every day
26. I like to look at sexy pictures of naked people
27. Sometimes sexual feelings empower me
28. I am embarrassed to talk about sex with friends
29. Menstruation is impure and unnatural
30. My religious beliefs are against sex
31. My parent's influence has inhibited me sexually
32. Children should be given sex education
33. I will use condoms only when my sexual partner request
34. I believe that a single steady sexual partner relationship is no fun
35. I believe that love is not necessary for sex

Sexual Behavior and Knowledge

36. Do you think you possess adequate knowledge of different types of sexually transmitted diseases?

a. Yes
b. No
c. Other

37. Did you participate in any type of sexual activity after coming to the University of Central Oklahoma? (oral sex, intercourse, anal sex, masturbation)
    a. Yes
    b. No
38. After coming to UCO, you had sex with:
    a. Multiple partners but, using protection
    b. Multiple partners, unprotected
    c. Single partner, but using protection
    d. Single partner, unprotected
    e. Never
39. Did you use contraceptives when conducting sexual activity?
    a. Yes, a condom
    b. Yes, a contraceptive other than condom
    c. No, did not felt the need to
    d. I do not know where to find contraception on campus
40. As an international student, I wish someone would have given me sexual knowledge or education when I first came to UCO. Do you agree?
    a. Yes
    b. No

c. Other:_____

_____

_____

41. As an international student, I know that I have sexual rights the same as domestic students. Do you agree?

a. Yes

b. No

c. Other:_____

_____

_____

42. I prefer talking about sex and sexual health to someone who belongs to my country, gender, or religion. Do you agree?

a. Yes

b. No

c. Other:_____

_____

_____

43. I do not think that sexual health is important. Do you agree?

a. Yes, why?

b. No, why?

44. You do not want to have sex because you are afraid that you will be pregnant or impregnate someone. Do you agree?

a. Yes

b. No

c. Other:

_____

_____

45. Is there anything that you think would be important as part of sex education or international students' resources?

_____

_____

_____

_____

46. Does your family talk about sex at home?

a. Yes

b. No, why? _____

c. Other (please state) _____

47. How did you learn about sex?

a. Mother

b. Father

c. Siblings/Cousins

d. School

e. Peers (Friends)

f. Porn

g. Other (please state) _____

Appendix C

Email Blast

Are you an international student from India, Pakistan, Bangladesh, China, Nepal, or Sri-Lanka?

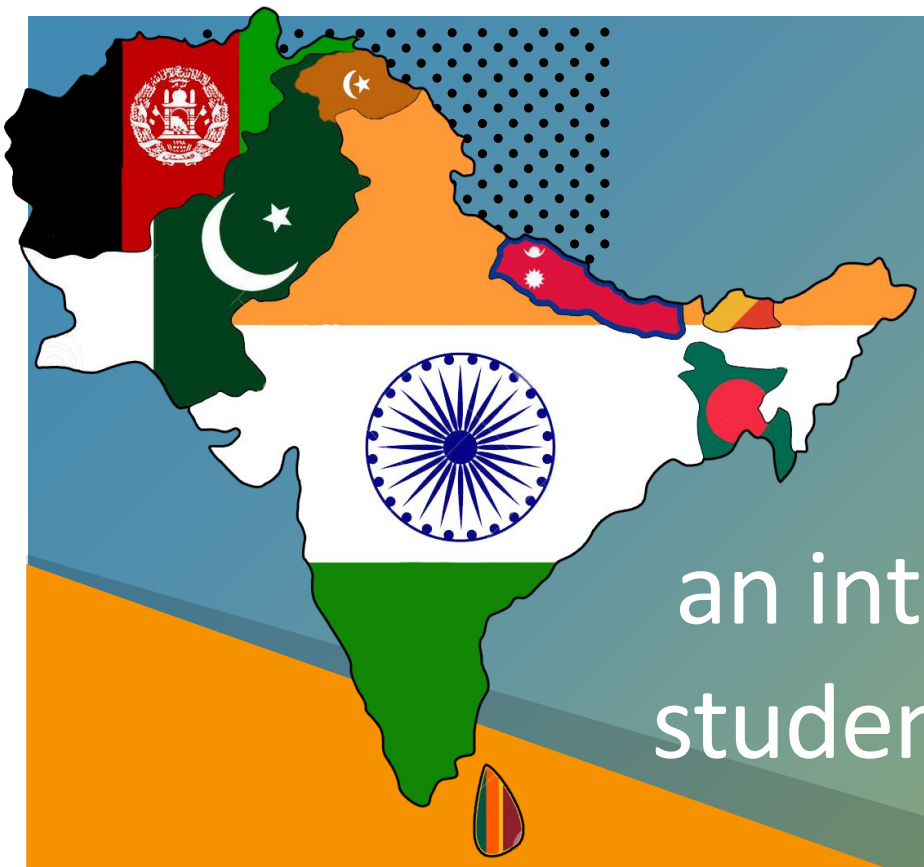
You are invited to be part of a study exploring the sexual health knowledge, behaviors, and attitudes on UCO campus. The data from this anonymous survey will help understand the needs of the international students on the UCO campus and thus help formulating a curriculum or an orientation program for incoming international students to better assist them with their sexual health needs and gaining more knowledge in that area. This survey will take approximately an hour to complete.

This project has been approved by the University of Central Oklahoma Institutional Review Board (#2021-006)

For any questions about this survey or project, contact Kruti Chaliawala (kchaliawala@uco.edu, student) or Dr. Amy Townsend (atownsend3@uco.edu, Chairperson).

Scan the barcode to start the survey.

App**endix D**



Are you an international student at UCO?

▸▸▸ If you are a student from ***India, China, Nepal, Bangladesh, Pakistan, or Sri Lanka***, take part in the online survey exploring the sexual health knowledge, behavior, and attitudes. The study will help understand the needs of international students on UCO campus.

Scan this QR CODE to begin the survey.

For concerns e-mail: Kruti Chaliawala (kchaliawala@uco.edu).

This project has been approved by the University of Central Oklahoma Institutional Review Board (#2021-006)

ARE YOU AN INTERNATIONAL STUDENT @ UCO?

If you are a student from ***India, China, Nepal, Bangladesh, Pakistan, or Sri Lanka***, take part in the online survey exploring the sexual health knowledge, behavior, and attitudes. The study will help understand the needs of international students on UCO campus.

Scan the QR code to begin the survey.

For concerns email Kruti Chaliawala (kchaliawala@uco.edu)

This project has been approved by the University of Central Oklahoma Institutional Review Board (#2021-006)

Appendix E

University of Central Oklahoma

Informed Consent Form for Participation

This is to certify that I, the undersigned, am an international student that belongs from India, China, Nepal, Bangladesh, Pakistan, and/or Sri-Lanka and agree to participate in a research study aiming to learn more about the sexual health knowledge, behavior, and attitudes of South-Asian international students. The study is a part of an authorized research program of the University of Central Oklahoma, under Dr. Amy Townsend's supervision. If I have any questions about this study, I may contact Kruti Chaliawala by phone (405)738-8736, or by e-mail, at kchaliawala@uco.edu. I may also contact Dr. Amy Townsend by e-mail at atownsend3@uco.edu. If I have any questions about my rights as a research participant, I may contact the UCO Institutional Review Board by phone at (405) 974-5479 or by e-mail at irb@uco.edu.

- For this study, I will participate in one online session, lasting approximately 1 hour, during which I will answer the questions to a survey.
- My participation in this study does not pose more than minimal risk to me; however, answering questions about sexual health behaviors and attitudes may cause a certain amount of emotional or psychological discomfort. To reduce these potential risks, the following steps are being taken:
    - I have the option to end participation in this study at any time, for any reason, without penalty.
    - I may skip any question that I do not wish to answer.
    - My participation in this study is anonymous. The researcher is collecting nothing that can identify me.

    - I will be provided with the UCO Student Counseling Center's contact information at the end of the survey if I feel the need to seek out such services. This information is also provided here: UCO Student Counseling Center {(405) 974-2215} or visit the website https://www.uco.edu/student-resources/center-for-counseling-and-wellbeing/counseling-center.
- I understand that I will have to be truthful and answer each question on the survey honestly and after reading carefully.
- Data is coded, securely stored, and reported in aggregate form.

I understand that I do not waive any of my legal rights by agreeing to participate in this research and signing this form. I understand that the research investigator named above will answer my questions about the research procedures and my rights as a participant. I understand all the above information.

ð Agree

ð Disagree