Sexual Desire as Experienced by South Asian Women Living in British Columbia

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SEXUAL DESIRE AS EXPERIENCED BY SOUTH ASIAN WOMEN
LIVING IN BRITISH COLUMBIA

A Dissertation
Presented to the Faculty of
Antioch University Seattle
Seattle, WA

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

By
Seema M. Buksh
November 2019
SEXUAL DESIRE AS EXPERIENCED BY SOUTH ASIAN WOMEN LIVING IN BRITISH COLUMBIA

This dissertation, by Seema M. Buksh, has been approved by the Committee Members signed below who recommend that it be accepted by the faculty of the Antioch University Seattle at Seattle, WA in partial fulfillment of requirements for the degree of

DOCTOR OF PSYCHOLOGY

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ABSTRACT

SEXUAL DESIRE AS EXPERIENCED BY SOUTH ASIAN WOMEN
LIVING IN BRITISH COLUMBIA

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Cultural beliefs and values play a significant role in the conceptualization, expression, and experience of sexual desire and functioning. Previous studies have found higher mainstream acculturation was associated with higher sexual desire and arousal. Many of these studies have also linked the cultural effects on sexual functioning to culture-differences in sexual conservatism. Within South Asian culture there is a propensity towards sexual conservatism, especially in relation to female sexual desire, yet research with regards to sexual desire and South Asian women is absent from the literature. Given the dearth of research related to this topic, further research in this area is warranted. This study used the Vancouver Index of Acculturation (VIA) and the Sexual Desire Inventory-2 (SDI-2) to investigate the relationship between acculturation to mainstream (Canadian) culture and sexual desire and enculturation to heritage (South Asian) culture and sexual desire in South Asian females living in BC. Results of this study found a positive relationship between acculturation to mainstream culture and sexual desire. No evidence of a significant relationship between enculturation to heritage culture and sexual desire was reported. Exploratory analysis of demographic factors found that as age increased acculturation scores decreased; parents and pregnant women reported higher enculturation and lower acculturation scores; non-parents scored higher on sexual desire; married
participants reported lower acculturation scores, and participants in a relationship (but not married) reported the highest levels of sexual desire. Moreover, participants who identified as having Hindu or Islamic belief systems reported lower average solitary sexual desire scores than participants from other spirituality/religious groups. Finally, there were small positive correlations regarding those who agreed with statements related to female sexuality and their VIA and SDI-2 scores. Keeping in mind that this study was the first to explore sexual desire and South Asian women, findings from this study may further build on our understanding of South Asian female sexual desire as well as assist in supporting the sexual health of South Asian women. This dissertation is available in open access at AURA http://aura.antioch.edu/ and Ohio Link ETD Center https://etd.ohiolink.edu/etd.

Keywords: sexual desire, South Asian, acculturation, enculturation, SDI-2, VIA
Dedication

This dissertation is dedicated to women of the past, present, and future.
Acknowledgements

I begin by giving thanks to the participants of this study. Without them this study would not have been possible. Next, I would like to express my sincere gratitude to my committee chair, Dr. Dana Waters. Thank you for encouraging me to fly. I would also like to acknowledge my committee members Dr. Bill Heusler and Dr. Lori Brotto for their valuable feedback throughout this process.

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Finally, I would like to give my deepest expression of love and appreciation to my husband and children. Thank you for believing in me when I doubted myself and making me laugh when I needed it most.
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CHAPTER I: INTRODUCTION

As of June 2019, the world was home to approximately 7.7 billion people, of which 49.6% were women (Countrymeters.info, n.d.; Worldbank.org, n.d.; Worldmeters.infp, n.d.). In recognition of cultural globalization and the importance of diversity, the American Psychological Association established multicultural guidelines to promote diversity in the education, training, research, and practice of psychology (APA, 2003). Yet despite these advances there continues to be an underrepresentation of visible ethnic minority groups in sexuality research as well as limited cross-cultural research pertaining to sexuality, sexual dysfunction, and sexual desire (Brotto, Chik, Ryder, Gorzalka, & Seal, 2005; Davis, 1997; Kameya, 2001). This oversight speaks to the need for research with ethnically diverse populations as well as brings into question the generalizability of sexual health research findings across cultures.

Sexual health may be measured in terms of the ability to express one’s sexuality and safely engage in informed, consensual, mutually respectful sexual relations free of coercion, violence, discrimination, risk of sexually transmitted diseases, and unwanted pregnancy (Lottes, 2000). Diagnostically, current Euro-American measures of sexual dysfunction do not explicitly account for socio-cultural determinants of sexual desire. Culture-related diagnostic issues also indicate that while there is “marked variability in the prevalence rate of low desire across cultures… the possibility remains that such group differences are an artifact of the measures used to quantify desire” (American Psychiatric Association, 2013, p. 435). Based on these observations it is important for clinicians assessing and treating sexual dysfunctions to examine the way in which culture may influence the conceptualization and expression of sexual desire.
Rationale for Study

Visible minority as defined by the Canadian Employment Equity Act refers to those “persons other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour” (Statistics Canada, 2017b). According to the 2016 Canada census 22.3% of the country’s total population identified as being a member of a visible minority group (Statistics Canada, 2017b). Within this group, 30% (3 in 10 members) also identified as being born in Canada (Statistics Canada, 2017b). Data analysis also reported South Asians (25.1%; population: 1,924,635), Chinese (20.5%; population: 1,577,060), and Blacks (15.6%; population: 1,198,540) as the three largest visible minority populations in Canada (Statistics Canada, 2017b).

According to the 2016 Canada census South Asians comprised 5.6% of Canada’s total population, 25% of the total visible minority population, 23.9% of female visible minority population, and 26.2% of male visible minority population (Statistics Canada, 2017a). In British Columbia, South Asians comprised 26.4% of the total visible minority population, 25.1% of female visible minority population, and 27.8% of male visible minority population (Statistics Canada, 2017a). Similar to 95.9% of Canada’s visible minorities, the vast majority of South Asians live in census metropolitan areas (CMAs), with the highest population concentration being in Toronto and Vancouver (Statistics Canada, 2018a). As the ethnic diversity of Canada continues to grow, Statistics Canada (2017b) projects that by 2036 Canada’s visible minority population may represent between 31.2% and 35.9% of the total population. Statistics Canada projections also suggest that by 2031 South Asians will become the largest visible minority group overall at 28%, and will remain the largest visible minority group in 2036 (Statistics Canada, 2010, 2017c; 2018b).

A unique example of cultural diversity and unity, the South Asian diaspora consists of
many different nationalities, ethnicities, religions, languages, and traditions, collectively united by similar cultural beliefs and practices (Rangaswamy, 2005). These beliefs and practices may encourage and at times become a barrier to discussing health and wellness as well as when accessing services. Given the differences between South Asian heritage culture and mainstream Canadian culture, changes in the diversity demographics of Canada magnifies the importance of exploring ethnic disparities in health, healthcare access and utilization, and the need for culturally tailored healthcare resources in partnership with South Asian communities. This requires knowledge and understanding of South Asian cultural beliefs and their potential relevance to health-related matters.

In 2013 the Fraser Health Authority of British Columbia established the South Asian Health Institute (SAHI) to work collaboratively with the South Asian community to develop culturally sensitive programs and resources to improve the health and wellbeing of South Asians living in BC (Fraser Health Authority, 2015, p. iii). Shortly thereafter, the Fraser Health Authority (2015) presented the South Asian Health Report. The report found 79% of South Asians in the Fraser Health region were immigrants; 34% had a household income less than $40,000; 1 out of 5 did not speak English; and 1 out of 2 were educated at the high-school level or lower (Fraser Health Authority, 2015). The report also noted poor dietary health and lower levels of physical activity amongst this group as well as found 12% of South Asians in this region had multiple chronic diseases, were three times more likely to have diabetes, and two times more likely to have heart disease (Fraser Health Authority, 2015). Although these findings have generated discussion in the South Asian community as well as contributed to the development of culturally relevant health programs such as the Fraser Health Authority’s Sehat program, the topic of sexual health has remained largely silent.
Sexual health is an integral aspect of overall health and wellbeing (World Health Organization, 2006). In addition to psycho-emotional and biological factors, it is also important to recognize the impact of socio-cultural systems on the individual since these systems act as a filter through which a person may conceptualize, express, and experience his/her sexuality. Within South Asian culture strict moral codes, family honour, and obedience are central to the culture’s value system and especially relevant to matters related to sexuality (Inman, 2006; Palak, 2005). Given the strong propensity towards sexual conservatism, South Asian cultural taboos surrounding sex may contribute to the silencing of matters related to sexuality (Amin, 2011; Inman, 2005; Palak, 2005; Schnack, 2008).

Despite the increasing number of South Asians in Canada and around the world, literature searches in Western and South Asian journals yield very few studies related to South Asian female sexuality, sexual desire, sexual behaviour, and sexual health. Of the limited sexual research studies involving South Asian populations, the majority focus on male sexual dysfunction and treatment; reproduction; homosexuality; the prevalence and treatment of STDs, and sexual abuse. Research specifically on sexual desire involving South Asian participants yielded two studies. The first was a theological dissertation analyzing the abjection of female sexual desire in Indian Christianity (Dondapati-Allen, 2008); and the second study examined sexuality, desire, and sexual activity in elderly Indian participants (Kalra, Subramanyam, & Pinto 2011). Given the limited research related to South Asian female sexual desire further exploration of this topic would add to the body of research in this area of study.

**Purpose of the Study**

According to the American Psychiatric Association (2013) “judgment about whether low sexual desire reported by a woman from a certain ethno-cultural group meets criteria for female
sexual interest/arousal disorder must take into account the fact that different cultures may
pathologize some behaviors and not others” (p. 436). With this in mind, the purpose of this
study was to utilize quantitative measures to explore the relationship between a) acculturation to
mainstream (Canadian) culture and level of sexual desire and b) enculturation to heritage (South
Asian) culture and level of sexual desire in South Asian females living in BC. Given the
exploratory nature of this investigation, findings from this study may contribute to the
understanding of cultural influences on female sexual desire as experienced by South Asian
women living in BC as well as inform diagnostic and treatment practices of female sexual
interest/arousal disorder in South Asian female clients.

Scope and Limitations of this Study

Cognizant of the subjective quality and bio-psycho-socio-cultural determinants of sexual
desire, the author recognizes the subject pool in this study does not reflect the full variation of
South Asian women’s experiences of sexual desire. South Asian women represent a diverse
group of women with a wide range of attitudes, beliefs, and experiences. With diversity also
comes numerous inter-cultural variations due to factors including, but not limited to: country of
origin, immigration, acculturation, socio-economic status, education, sexual orientation, sexual
experience, relationship status, parental status, reproductive parity, gender identity, and age. It
would therefore be inappropriate to generalize the results of this study beyond its’ participants.
CHAPTER II: LITERATURE REVIEW

Culture

As socially embedded beings, people live, learn, and grow, not in isolation, but as part of a complex socio-cultural ecosystem (Adler, 1927, 1956; Bronfenbrenner 1979, 2005; Bronfenbrenner & Cesi, 1994; Schore, 2010). Within this intricately balanced ecosystem co-exists inter-dependent sub-systems that work together to create and maintain the socio-cultural structure, norms, and values of a society. Declaring “The most significant accomplishment of anthropology in the first half of the twentieth century has been the extension and clarification of the concept of culture” (Kroeber, 1950 p. 87), Kroeber and Kluckhohn (1952) reviewed nearly 300 explanations of, references to, and statements concerning culture as well as traced the historical roots of the term. Their analysis yielded a list of 164 different definitions of culture. Based on their findings, Kroeber and Kluckhohn (1952) concluded:

Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, and on the other as conditioning elements of further action. (p. 181)

Kroeber and Kluckhohn’s (1952) study prompted several researchers to continue expanding and clarifying the concept of culture. Yet as Apte (1994) eloquently summarized in the ten-volume Encyclopedia of Language and Linguistics, “Despite a century of efforts to define culture adequately there was in the early 1990s no agreement among anthropologists regarding its nature” (p. 2001). Since then, the focus of culture has shifted from defining it to developing
models to understand it (Luzbetak, 1990). This shift has also brought attention to the importance of how the dominant discourse of a society produces, shapes, and maintains cultural beliefs, values, and practices.

**Culture and Dominant Discourse**

Culture in conjunction with the social order of society sets the tone for normality as well as influences the way in which a person interprets, navigates, and experiences the world (Bronfenbrenner, 1979, 2005; Schoenmakers, 2012). While the behavioural features of a culture are generally visible, the social order and discourse that informs culture are not always as clear (Hofstede, 1991). As Foucault (1980) states, “there are manifold relations of power which permeate, characterize and constitute the social body” and “cannot … be established, consolidated nor implemented without the production, accumulation, circulation and functioning of a discourse” (p. 93).

Difficult to define, culture is influenced by dominant discursive constructs that feed and are fuelled by the societal structure from which a culture originates. Created, enforced, and intricately linked to power, dominant discourse represents beliefs, values, thoughts, and actions that gain credibility and meaning through the steady reinforcement of dominant discursive constructs and the marginalization of alternate discourses (Fairclough, 2001; Foucault, 1969, 1980; Mullaly, 2010). Over time, dominant discursive constructs seamlessly weave into the cultural tapestry of a society such that one is indistinguishable from the other. For example, in cultures governed by a patriarchal social system discursive constructs promoting male superiority over women may be legitimized as truth through enculturation and gender role socialization (Lerner, 1986). Gender role socialization may in turn influence the developing
sexual schema and scripts of an individual thereby influencing his/her sexuality and sexual experiences (Connell, 2014; Kimmel, 2007; Manago, Greenfield, Kim, & Ward, 2014).

**Enculturation**

Present in all aspects of social interaction, culture is an integral, coherent, systematic approach to life in which shared beliefs, values, cognitive constructs, and affective understandings distinguish one group of people from another despite similar historical experiences (Banks, Banks, & McGee, 1989; Hofstede, 1984, 1991, 1994; Linton, 1945). Passed on from one generation to the next, enculturation involves learning the conventional codes for perceiving, interpreting, and navigating the world in accordance with the heritage cultural beliefs and values one is born into and taught early on in life (Banks et al., 1989; Daman, 1987, Hofstede, 1984, 1991, 1994; Lederach, 1995; Linton, 1945; Parson, 1949). Within this milieu, enculturation sets the parameter of possibilities through discursive constructs and rhetoric that reaffirm socio-political, ideological, and philosophical principles embedded within the culture and society.

Indoctrinated and reinforced early on in life through the process of socialization, enculturation steers group members towards gradually internalizing beliefs, values, norms, thinking, and behavioural patterns preserved and instituted within the society in which the culture exists (Daman, 1987, Lederach, 1995; Parson, 1949). Over time the resulting constellation of values, beliefs, and behaviours become a part of a person’s ethnic identity (Phinney & Ong, 2007). When successful, enculturation results in an individual “who is competent in the culture, including its language, its rituals, its values” and way of being in the world (Berry, 2002, p. 32). This sense of ethnic identity also contributes to a person’s self-definition, identification with, and affiliation to his/her heritage cultural group (Phinney & Ong,
Cognitively described as the combined network of meanings that unites group members together, it is this collective programming of the mind that brings together as well as distinguishes individuals and cultural groups from one another (Barnard & Spencer, 2002; Hofstede, 1991, 1994, 2001).

**Canadian and South Asian Culture**

When exploring the impact of enculturation and acculturation on the individual it is important to view culture as having an influence on behaviour rather than being a determinant of behaviour (Hofstede, 1991, 1994, 2001, Matsumoto 1996; Spencer-Oatey, 2008). This perspective acknowledges individual differences amongst group members as well as recognizes the social control mechanisms and cultural dimensions that may influence a person’s experience of culture (Berry, 1980, 2005; Hofstede, 1991, 1994, 2001, 2010; Matsumoto 1996; Spencer-Oatey, 2008). As Hofstede (1991) states “cultural meaning ... lies precisely and only in the way these practices are interpreted by the insiders” (p. 8). Therefore, in order to gain a general understanding of Canadian and South Asian cultures it may be useful to explore both cultures at a national level.

Hofstede’s (2001) model of national culture depicts the unique relationship between culture, societal discourse, and individual behaviour. Originally comprised of four dimensions: Power Distance, Individualism vs. Collectivism, Masculinity vs. Femininity, and Uncertainty Avoidance, Hofstede and Bond (1984) identified a fifth dimension, known as Long-term Orientation. Later on, Hofstede, Hofstede, and Minkov (2010) included a sixth dimension, referred to as Indulgence vs. Restraint. Reflective of the overall cultural values of a nation rather than the individual, the 6-D Model allows for meaningful comparison of cultural values between countries. As such, data from Hofstede’s research (Appendix D) was used to provide a general
understanding of Canadian and South Asian cultural values. Research suggests South Asian countries share common cultural values, norms, and social codes related to primacy of the family, respect for elders and authority; and the appropriation of sex only within the context of marriage (Anwar, 1998; Okazaki, 2002).

**Power Distance**

Keeping in mind all societies are marked by some degree of inequality, the Power Distance dimension measures the extent to which less powerful members of society accept and expect power to be distributed unequally (Hofstede, 2011). Similar to other low scoring countries Canadians have little use for hierarchical class systems and instead place value on interdependence and egalitarianism (Hofstede, 2001; Hofstede et al., 2010). In contrast, higher scoring countries such as Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka have a strong hierarchical paternalistic power structure in which conformity, loyalty, obedience, and acceptance of the power-privileged dynamic is expected (Hofstede, 2001; Hofstede et al., 2010).

Reflective of the inherent inequality present in these male-dominant societies, women’s obedience towards men and children’s obedience towards parents are also highly valued (Hofstede, 1991, 1998). Keeping in mind high power distance cultures also support authoritarian attitudes, patriarchal societies may sexually objectify and simultaneously restrict female sexual expression, limit female sexuality to procreation, and quash female sexual agency. These cultural constructs may in turn sexually oppress women as well as contribute to greater female sexual inhibition.

**Individualism vs. Collectivism**

Cultures vary in terms of their endorsement of individualist vs. collectivist values. The social framework of individualist cultures are typically loose-knit and the importance of the
individual, self-reliance, and personal independence is emphasized (Hofstede, 2011). In contrast, collectivist cultures are tightly woven societies in which the collective takes precedence over the individual and members are integrated into strong, cohesive in-groups that take care of them in exchange for unquestioning loyalty (Hofstede, 2011). Similar to other high scoring countries, Canada is considered an individualist culture in which members are expected to take care of themselves and their immediate families (Hofstede, 2011).

Unlike Canada, South Asian countries such as Bangladesh, Nepal, Sri Lanka, and Pakistan are considered highly collectivistic societies in which loyalty and commitment to the in-group (e.g. family, relatives, community) is of utmost importance (Hofstede, 2001; Hofstede et al., 2010). Although India scores at the intermediate level in this domain, research suggests members of this group also share collectivist values and act in accordance with the in-group (Hofstede, 2001; Hofstede et al., 2010; Talbani & Hasanali, 2000). Moreover, individualist values reflected by India’s intermediate score may be linked to dominant Hindu beliefs related to reincarnation, which suggest that one’s next life is dependent upon the manner in which s/he lives his/her current life (Hofstede, 2011).

From a collectivist perspective extended kinship and a strong emphasis on protecting family honour serves as a form of social control within these societies by reinforcing closeness and obedience (Talbani & Hasanali, 2000). This form of socialization may also deepen ethnic and family bonds that protect South Asian families from conflicts due to their minority status in the host culture (Talbani & Hasanali, 2000). As Rudrappa (2002) states:

the private space/home is one of the most crucial anchors for the non-white immigrant family as we negotiate our ways through a sea of American “whiteness.” Indian immigrants perceive the home as a utopia, and autonomous space outside the influences
of a competitive, uncertain, and potentially alienating world where they are marginal to a public discourse that takes the white society as the norm. The home remains a safe haven to which the immigrant retires from public scrutiny. This private sphere is seen as a separate social universe, unsullied by the happenings of the public world. In the privacy of their homes Indian Americans are able to practice their religion, speak their language, cook their Indian foods, and crucially, reproduce their families in what is considered to be the “Indian” way. The Indian family becomes a repository of cultural values, exemplar family ideals, and, I subsequently argue, idealized heterosexuality in opposition to “American values” existing outside home. (p. 92)

Finally, whereas individualistic cultures pursue relationships based on love, personal pleasure, and/or self-fulfilment, in collectivistic cultures love and personal pleasure are considered secondary to the fulfillment of one’s social duties (Dion & Dion, 1993; Triandis, 1995). Within collectivist cultures, marital relationships are pragmatic arrangements made by elders. In the context of these arrangements, brides are valued for their obedience and grooms for their societal status (Dion & Dion, 1993). Based on these practices, one may assume that shared relationship satisfaction and mutual sexual pleasure may be given greater attention and importance in individualistic as opposed to collectivistic societies.

**Masculinity vs. Femininity**

As a societal construct masculine versus feminine traits refers to the distribution of values between men and women within society. Highly masculine societies value competition, achievement, assertiveness, being the best, and material success whereas feminine societies value cooperation, modesty, caring for others, and quality of life (Hofstede, 1998, 2011). South Asian countries such as Nepal, Sri Lanka, and Bhutan value modesty and humility over status and are
considered feminine societies (Hofstede, 2001; Hofstede et al., 2010). In contrast, Canada is considered a moderately masculine country in which high levels of achievement, success, and work-life balance is valued (Hofstede, 2001; Hofstede et al., 2010). Although Bangladesh, Pakistan, and India are also moderately masculine countries, unlike Canada, these countries score higher on the power distance dimension and have a distinct class and caste system that controls access to the ladder of success (Hofstede, 2001; Hofstede et al., 2010). The power distance dynamic in these countries also lends itself to public displays of success, power, and prestige (Hofstede, 2001; Hofstede et al., 2010). Highly masculine societies with strong power distance dynamics are also known to have sharp gender role distinctions such that in patriarchal cultures the association of female chastity with male honour is used to legitimize male control over women and female sexuality.

**Uncertainty Avoidance**

The dimension of Uncertainty Avoidance reflects a society’s tolerance for ambiguity (Hofstede, 2011). Low scoring countries are considered uncertainty-accepting societies because of their tolerance for uncertainty and ambiguity; openness to different perspectives; and perception of conflict as an unavoidable aspect of social life. Within these cultures, members are socialized to be less emotionally expressive and more contemplative in their demeanour (Hofstede, 2011). In contrast, high scoring uncertainty avoidant cultures are less tolerant of ambiguity, avoid conflict, and may implement stringent codes of conduct to reduce the likelihood of such circumstances (Hofstede, 2011). Members of uncertainty avoidant cultures may also display higher levels of stress, anxiety, and emotionality (Hofstede, 2011).

Canada is considered an uncertainty accepting culture because it encourages freedom of expression, welcomes new perspectives, and approaches tasks with an open-minded flexibility
rather than a rigid, rule-oriented manner (Hofstede, 2001; Hofstede et al., 2010). Canada is also less emotionally expressive than countries with higher scores on this dimension (Hofstede, 2001; Hofstede et al., 2010). In contrast, uncertainty avoidant countries such as Bangladesh and Pakistan score higher on this dimension. In these countries people are expected to abide by the rules and deviation from the norm is highly discouraged (Hofstede, 2001; Hofstede et al., 2010). Societies with a high tolerance for the unexpected, such as India, Nepal, and Sri Lanka, score in the medium-low range on this dimension, while Bhutan scores in the very low range (Hofstede, 2001; Hofstede et al., 2010). Members of these countries see the world as a benevolent place in which care, compassion, tolerance, and acceptance is key (Hofstede, 2001; Hofstede et al., 2010). Research suggests people in these societies may also internalize personal stress in an effort to display their acceptance (Hofstede, 2001; Hofstede et al., 2010). Given the power differential in male-dominant South Asian societies, the desire to avoid conflict may also prompt women in these countries to not report sexual harassment (Luthar & Luthar, 2002).

**Long-term Orientation**

This dimension examines the manner in which societies maintain their connection with the past while navigating the present, and preparing for the future (Hofstede, 2011). With a focus on “virtues oriented towards future rewards” (Hofstede, 2001, p. 359), higher scoring, long-term oriented societies encourage persistence, perseverance, thriftiness, and the delaying/denying of self-gratification (Hofstede, 2001; Hofstede et al., 2010). Ordering relationships in terms of status and observing these orders as well as having a sense of shame are also important aspects of these cultures (Hofstede, 2001; Hofstede et al., 2010). On the opposite end, low scoring, short-term oriented societies value traditions, see truth as absolute, and view the fulfillment of social obligations and personal stability as important (Hofstede, 2001; Hofstede
et al., 2010). As a short-term oriented society, Canada’s score on this dimension reflects a society that is normative in its’ thinking, strong in its need for establishing the absolute truth, and while respectful of traditions, favours quick results, and displays little inclination towards saving for the future (Hofstede, 2001; Hofstede et al., 2010). In contrast, countries with intermediate scores such as India, Bangladesh, Pakistan, and Sri Lanka which view time as relative rather than linear, and truth as dependent on the truth seeker, do not have a strong preference for either side of this dimension (Hofstede, 2001; Hofstede et al., 2010).

**Indulgence**

Known as “happiness research”, the indulgence dimension is a measure of subjective happiness and personal control (Hofstede, 2011, p. 15). According to this dimension indulgent societies permit reasonably free gratification of natural human desires related to life’s simple pleasures (Hofstede et al., 2010; Hofstede, 2011). Members of indulgent societies also view themselves as being in control of their personal lives (Hofstede et al., 2010; Hofstede, 2011). As an indulgent society, Canada is viewed as having an optimistic attitude and willingness to encourage its’ members to actively engage in activities which bring joy and happiness (Hofstede et al., 2010). In contrast, restrained societies such as India, Pakistan, and Bangladesh frown upon self-indulgence, encourage self-restraint, and may suppress or heavily regulate human needs for gratification through strict religious and social codes (Hofstede et al., 2010; Hofstede, 2011). Based on these differences restrained societies may also have stricter sexual norms than more indulgent societies. For example, Canada accepts and allows for a greater variety of sexual lifestyle choices and freedoms as well as permits the initiation of pre-marital consensual sexual relationships as well as consensual sexual relationships during adolescence (Barrett et al., 2004). In contrast, South Asian societies view pre-marital relationships as inappropriate and view
women involved in pre-marital relationships as having dishonoured themselves and their family (Bhavsar & Bhugra, 2013). These differences may in turn bring forth various challenges (e.g. acculturative stress) during the process of acculturation for South Asians living in Canada (Bhavsar & Bhugra, 2013; Talabani & Hasanali, 2000; Tolman, 1994, 2002).

**Acculturation**

Whereas enculturation connects the developing individual to his/her heritage culture, acculturation reflects the process people “undergo in response to a changing cultural context” (Berry, 2002, p. 349). More than short-term cultural exchanges and long-distance cultural diffusion, acculturation requires continuous firsthand contact between an immigrant and the receiving culture, or in the case of ethnic minority enclaves, continuous contact between a person and the dominant mainstream culture s/he lives in (Berry, 2002; Gordon, 1964, 1978; Redfield, Linton, & Herkovtis, 1936; Ryder, Alden, & Paulhus, 2000; Talabani & Hasanali, 2000). Acculturation is thus different “from culture change, of which it is but one aspect, and assimilation, which is at times a phase of acculturation” (Redfield et al., 1936, p. 149-150).

Although there are many ways to conceptualize the process that occurs during transitions within, between, and among cultures, the unidimensional assimilation theory and the bidimensional acculturation theory appear to be the most influential (Berry, 1974, 1980; Cabassa, 2003; Gordon, 1964, 1978). While both schools agree a positive relationship with mainstream culture is relevant to the acquisition of a new culture, the manner in which each school defines successful cultural adaptation is different.

**Unidimensional Assimilation Theory**

Often described as a homogenous, culturally monolithic society, North America places great value on conformity and national identity (Snipps & Hirschman, 2004). The value of
conformity was most poignantly reflected during the late 19th and early 20th centuries, when European immigrants were compelled to shed their ethnic identity and adopt Anglo-American values in order to participate in mainstream society (Snipps & Hirschman, 2005). This process of Anglo-centric cultural absorption was initially described by Park and Burgess (1921) as “a process of interpenetration infusion in which persons in groups ... are incorporated ... into a common cultural life” (p. 360). The absorption of European immigrants was later described by Park (1950) as an assimilation process in which culturally distinct groups come into contact and eventually fuse together into a unified cultural whole (Snipps & Hirschman, 2005). Park’s (1950) perspective set the stage for assimilation theory as well as influenced Gordon’s (1964, 1978) work in this area.

Developed by Gordon (1964, 1978), the unidimensional assimilation theory considers assimilation as synonymous with acculturation. Claiming inter-cultural harmony could be achieved through cultural absorption of immigrant and ethnic minorities into the dominant group, Gordon’s (1964) theory requires immigrants and ethnic minorities to relinquish enculturation identity traits that distinguish them from the dominant culture and adopt the national identity, values, and “middle-class cultural patterns of, largely, white Protestant, Anglo-Saxon origins” (p. 72).

Gordon (1964, 1978) proposed assimilation could be categorized into seven typologies, each with its own unique marker, collectively contributing to the same underlying goal of absorbing ethnic minorities into dominant culture at both the individual and group levels (Berry, 1998; Berry & Sam, 1996; Ngo, 2008; Trimble, 2003). The seven typologies proposed by Gordon (1964) were: cultural (adopting to dominant cultural patterns); structural (large-scale entrance of minorities into societal institutions); marital (large scale inter-ethnic marriages);
identity (minorities exclusively identify and bind with dominant culture); attitude reception (absence of prejudice); behaviour reception (absence of discrimination); and civic (absence of power struggles and value conflict).

Of the seven dimensions, Gordon (1964) viewed structural assimilation as key to the absorption process stating, “once structural assimilation has occurred, either simultaneously with or subsequent to acculturation, all other types of assimilation will naturally follow” (p. 81, original italicized). Viewing structural assimilation as “the keystone of the arch of assimilation” the theory claims structural assimilation leads to greater opportunities for marital assimilation which in turn contributes to stronger ties to the dominant culture, extinction of ethnic identity, and less discrimination over each successive generation (Gordon, 1964, p. 81). Gordon (1964) supported his assertions with the argument that although African Americans have culturally assimilated, the absence of structural assimilation has thwarted the development of other dimensions of assimilations.

Since Gordon’s (1964) work, theorists such as Ruiz (1981) continue to argue that people lose their enculturation identity as they acquire the cultural patterns of, and seek social acceptance from, the new culture in which they live. To account for uneven patterns of assimilation the theory also argue that loss of support from the culture from which a person distances him/herself from, combined with the initial inability to access support and acceptance from the new culture may contribute to socio-emotional stress and adjustment difficulties (Gans, 1973, 1992; LaFromboise, Coleman, & Gerton, 1993; Sandberg, 1973; Sung, 1985).

Researchers have also discovered different aspects of cultural self-identity occur at different points along the acculturation continuum, with “the potential for overexaggeration of mainstream culture elements or even backtracking as a result of ethnic reaffirmation” (Triandis,
Kashima, Shimada, & Villareal, 1988, as cited by Ryder et al., 2000, p. 50). This in turn contributes to the development of segmented assimilation. Segmented assimilation combines straight-line assimilation and the ethnic disadvantage perspectives to identify contextual, structural, and cultural factors that separate successful assimilation from unsuccessful assimilation (Portes & Zhou, 1993). Despite these expansions, the model is often criticized for the “ethnocentric, patronizing demands on minority people struggling to maintain their cultural and ethnic integrity” (Alba & Nee, 1997, p. 827).

As argued by Kallen (1915, 1916, 1970), the scholar who coined the term cultural pluralism, the melting pot notion of assimilation into Anglo-Saxon American identity contradicts the premise of democracy and is not necessary for cultural adaptation to occur (Kallen, 1915, 1916, 1970). Kallen (1970) states,

> Democracy involves, not the elimination of differences, but the perfection and conservation of differences. It aims, through Union, not at uniformity, but at variety, at a one out of many, as the dollars say in Latin, and a many in one. It involves a give and take between radically different types, and a mutual respect and mutual cooperation based on mutual understanding. (p. 53)

With the exception of segmented assimilation, the unidimensional perspective reinforces the notion of equal opportunities with the assumption that immigrants and ethnic minorities have access to the same privileges as the dominant culture once they have shed their enculturation identity and fully assimilated into mainstream society (Alba & Nee, 1997, 2003; Ngo, 2007; Portes & Zhou, 1995). In addition to neglecting diversity across and within cultures, the theory also perpetuates the myth of equality by ignoring mainstream society’s marginalization of ethnic minorities (Mullaly, 2002; Ngo, 2008; Williams & Ortega, 1990). Finally, the unidimensional
perspective also does not appear to acknowledge the changes host cultures undergo as a result of the presence of culturally distinct ethnic minorities (Sayegh & Lasry, 1993).

**Bidimensional Acculturation Theory**

Criticism of assimilation theory led to the development of the bidimensional acculturation theory. Within this school of thought there are many models of acculturation such as Bourhis, Moise, Perrault & Senecal’s (1997) Interactive Acculturation Model (IAM); Gleason’s (1979) Fusion Model; and the Alternative Model developed by Lafromboise et al. (1993). The Interactive Acculturation Model (IAM) presents acculturation as a non-determinist, dynamic account of immigrant and host community interactions (Bourhis et al., 1997). Similar to the melting pot theory, Gleason’s (1979) Fusion Model views immigrant and host cultures as fusing together over time to create a new culture. In contrast, the Alternative Model of Acculturation emphasizes biculturalism (Lafromboise et al., 1993). While these theories are well recognized, the Bidimensional Model of Acculturation Strategies proposed by Berry and his colleagues continues to be the most prominent (Berry, 1974, 1980, 1984, 1990, 1997, 1998; 2002, 2005; Berry & Sam, 1996; Berry, Kim, Minde, & Mok, 1987; Berry, Kim, Power, Young, & Bujaki, 1989; Sam & Berry, 2006).

Defined as the “culture change that is initiated by the conjunction of two or more autonomous cultural systems” (p. 233) acculturation may be described as the way in which a person incorporates values from the receiving culture with values previously acquired in his/her heritage culture (Berry, 1990). Central to Berry’s (1974, 1980) Bidimensional model is the belief that acculturation does not require or imply abandoning one’s heritage culture in order to acculturate. Viewing heritage culture retention and receiving culture acquisition as independent rather than competing entities, the model views the maintenance of heritage cultural identity
during and after the acquisition of a new culture as essential to successful adjustment, integration, and navigation of both cultures (Berry, 1974, 1980, 1998, 2002; Berry & Sam, 1996; Ryder et al., 2000; Talabani & Hasanali, 2000). Seeing acculturation as relative to one’s engagement with their heritage and receiving culture, the model posits that acculturation requires immigrants to decide the degree to which they will retain their heritage culture and whether connections with the receiving culture should be developed or avoided (Berry, 1974, 1980, 2002).

The bidimensional model contends that receiving culture acquisition and heritage culture retention intersect to create four acculturation strategies, namely, assimilation, separation, marginalization, and integration (Berry, 1974, 1980, 2002). Assimilation strategies involve severing ties with one’s heritage culture and adopting the values, beliefs, and practices of the receiving culture (Berry & Sam, 1996). Consequently, assimilated individuals are highly acculturated to the receiving culture however may not fare well in their heritage culture (Kim & Omizo, 2005). In contrast, separation occurs when a person abides solely by the tenets of their heritage culture and rejects the receiving culture (Berry & Sam, 1996). Although these individuals are highly enculturated and able to navigate their heritage culture, their lower levels of acculturation may result in greater difficulty navigating the receiving culture in which they now live. Unlike assimilation and separation, marginalization occurs when a person rejects their heritage and receiving culture and in so doing “loses cultural and psychological contact” with both cultures (Berry, 1998, p. 119). Marginalized individuals are neither acculturated nor encultured.

Considered the most optimal of all acculturation strategies, integration occurs when a person is able to maintain strong ties with their heritage culture while concurrently adopting
aspects of the receiving culture (Berry & Kim, 1988; Berry & Sam, 1997; Kim & Omizo, 2005). Integration strategies thus reflect a person’s sense of belonging, positivity, and proficiency navigating both cultures (Berry & Kim, 1988; Portes & Rumbaut, 2001, 2006). Integration strategies are also associated with positive cognitive, psychosocial, and health related outcomes, especially among younger immigrants (Benet-Martínez & Haritatos, 2005; Berry & Sam, 1997; Chen, Benet-Martínez, & Harris, 2008; Coatsworth, Maldonado-Molina, Pantin, & Szapocznik, 2005; David, Okazaki, & Saw, 2009; Kim & Omizo, 2005; Lafromboise et al., 1993; Nguyen & Benet-Martínez, 2013; Schwartz, Zamboanga, & Jarvis, 2007; Schwartz, Unger, Zamboanga, & Szapocznik, 2010; Tadmor, Tetlock, & Peng, 2009; Wei et al., 2010). While these results are promising, the difficulty involved in integrating heritage and receiving mainstream cultures is impacted by demographic factors and the degree of actual and perceived similarities between the heritage and receiving cultures (Rudmin, 2003).

Similar to the unidimensional model, the bidimensional model also approaches acculturation categorically and, in this way, fails to account for the dimensionality of the acculturation experience. Although the bidimensional model acknowledges the value of heritage culture, fundamental to the integration strategy is the assumption of universality. Berry and Sam (1997), suggest that while there are “substantial variations in the life circumstances of the cultural groups that experience acculturation, the psychological processes that operate during acculturation are essentially the same for all groups; that is, we adopt a universalist perspective on acculturation” (p. 296). Based on this statement the model appears to view the psychological processes of acculturation as identical for all immigrants and disregards the complexity of the immigrant experience (Bhatia, 2007; Ngo, 2008). Berry and colleagues also state “we seek to avoid the extra baggage that often accompanies terms such as mainstream, majority, dominant,
minority, non-dominant and host society” (Berry, Phinney, Sam, & Vedder, 2006, p. 11). While this statement is made on the grounds of terminology, it conveys an unwillingness to acknowledge the socio-political power-privilege dynamics which impact acculturation (Bhatia & Ram, 2004, 2009, Ngo, 2008). The statement also seems to echo the unidimensional assimilation model in that it narrowly focuses on how immigrants must change their identity and behaviours in order to acculturate into dominant culture.

The validity of marginalization as an approach to acculturation is also problematic given the likelihood of a person developing a cultural identity without drawing on either heritage or receiving culture is relatively low (Del Pilar & Udasco, 2004; Rudiman, 2003). Empirical studies such as Schwartz and Zamboanga (2008) have also found the “absence of marginalization as an appreciably sized cluster” (p. 281) and suggest “that what appears to be marginalization may actually represent a sense of discomfort or lack of clarity in terms of who one is as a cultural being” (p. 281). Moreover, efforts to measure the marginalization strategy have resulted in poor reliability, especially when compared to the reliability measures of the other strategies (Unger et al., 2002).

South Asian Diaspora

The term “South Asia” is the product of a variety of global political power configurations over the course of history (Bayly, 1988; Peers & Gooptu, 2012; Mohammad-Arif, 2014). These configurations have significantly contributed to South Asian culture and the development of the South Asian diaspora (Rangaswamy, 2005). Beginning with the arrival of the East India Company in the early 1600s, to being labelled an extension of the British Raj from 1858-1947, the Indian sub-continent has experienced the impact of the British Empire for centuries (Akhtar et al., 2016; Bayly, 1988; Dalrymple, 2015; Peers & Gooptu, 2012). During this time in addition
to colonization, thousands of South Asians were taken from their homeland and forced to work as indentured labourers for the British Empire. This in turn led to the settlement of South Asians in various British governed colonies including the Caribbean, East and Central Africa, Fiji, Malaya, and South America (Bayly, 1988; Peers & Gooptu, 2012; Mohammad-Arif, 2014).

Following approximately 347 years of British occupation, on August 15th, 1947 the British House of Commons passed the Indian Independence Act. The Act led to the division of Asia into regional blocks, the partition of India and Pakistan, and the creation of Bangladesh (Akhtar et al., 2016; Bayly, 1988; Dalrymple, 2015; Hajari, 2015; Khan, 2007; Peers & Gooptu, 2012; Mohammad-Arif, 2014). During this time the Indian sub-continent was re-named South Asia. The newly coined southern region included Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka, the British Indian Ocean Territory, and the Tibet Autonomous Region (Mohammad-Arif, 2014).

In 1947 the Indian Independence Act signified the end of the British Raj, however partition to a Hindu-majority India and Muslim-majority Pakistan shattered the subcontinent’s unity, pitting Hindus and Sikhs against Muslims (Akhtar et al., 2016; Dalrymple, 2015, Hajari, 2015; Khan, 2007). Known as one of the greatest migrations in history, millions of Muslims migrated to East and West Pakistan (now known as Bangladesh), while millions of Hindus and Sikhs made their way to India and Punjab (Akhtar et al., 2016; Dalrymple, 2015; Hajari, 2015; Khan, 2007). The tensions and violence that accompanied this mass migration resulted in the burning of villages, mass abduction of women and children, forced religious conversions, and the massacre of millions (Akhtar et al., 2016; Dalrymple, 2015; Hajari, 2015; Khan, 2007). By 1948, after having uprooted over 15 million people and claiming the lives of an estimated 1-2 million, the mass exodus was nearly complete (Dalrymple, 2015). A defining moment in South
Asian history, the partition continues to influence post-colonial South Asian views of South Asia’s past, present, and future (Jalal, 2013).

Following the partition, the demand for professionals and labourers in post-war Britain and the US during the 1950s and 1960s coupled with the expulsion of South Asians from East Africa during the 1970s, resulted in a mass immigration of South Asians overseas (Banks, 1994; Chatterji & Washbrook, 2014; Clarke & Peach, 1990; Poros, 2013; Sahoo, 2016). Since then the South Asian diaspora has continued to expand around the world. In 2015 the United Nations survey on international migrant trends reported India’s diaspora to be the largest in the world at 16 million, followed by Mexico at 12 million, the Russian Federation at 11 million, China at 10 million, Bangladesh at 7 million, and Pakistan and the Ukraine both at 6 million (United Nations, Department of Economic and Social Affairs, Population Division, 2016). As the South Asian diaspora continues to grow so too does the population of South Asia. As of 2019 there were approximately 1.9 billion people living in South Asia, 48.4% of which are women (Southern Asia Population LIVE, 2019). Keeping in mind the ever-growing South Asian diaspora and differences between Western and South Asian cultures, understanding the process of acculturation for South Asian women is important.

**South Asian Women and Acculturation to Western Culture**

In South Asian culture there exists a strong inclination to retain traditional socio-cultural values and families serve as the primary vessel through which this is achieved (Palak, 2005). In their study examining the influence of family on adolescents’ acculturation, ethnic identity, achievement, and psychological functioning, Farver, Narang, and Bhadha (2002) found second-generation South Asian adolescents (ages 16–19) parents’ and adolescents’ ratings of their self-identification and ethnic identity were positively associated. Data analysis revealed adolescents
with integrated or assimilated styles reported higher self-esteem, less anxiety, and less family conflict as opposed to participants with separation or marginalization styles. Integrated adolescents were also found to have higher GPAs, greater perceived academic and social competence, more friendship, and greater global self-worth than marginalized or separated adolescents (Farver et al., 2002). The study also found family conflict (especially those related to gender roles, sexuality, friendships, dating, marriage, and pre-marital sexual activities) was highest in families with larger acculturation gaps. Higher family conflict may in part be attributed to acculturative stress and tension between heritage and receiving-cultural values (Abouguena & Noels, 2001; Berry, 1980, 1990, 2002; Farver et al., 2002). In addition to family conflict, studies have also found South Asians are more likely to experience acculturative stress as a result of language barriers as well as in the presence of actual and perceived discrimination (Abouguena & Noels, 2001; Aycan & Kanungo, 1998; Farver et al., 2002; Krishna & Berry, 1992).

Whereas families are considered the primary vessel of South Asian culture and men are viewed as the rulers of the family, it is the women who are required to abide by, preserve, and transmit cultural knowledge as well as maintain the family’s honour (Dasgupta & Dasgupta, 1996; Palak, 2005; Talabani & Hasanali, 2000). Literature related to acculturative stress experienced by South Asian families suggests cultural value conflict, especially in the case of women, is most often related to dating, marriage, sexuality, and pre-marital sexual intimacy (Agarwal, 1991; Dasgupta, 1986, 1998; Dasgupta & Dasgupta, 1996; Inman, 2006; Menon, 1989; Naidoo, 1980, 1985, 1986; Talabani & Hasanali, 2000; Wakil, Siddique, & Wakil, 1981; Zaidi, & Shuraydi, 2002). This may be attributed to differing values with regards to female sexuality. In sexually liberal countries such as Canada, female sexuality and sexual expression
are considered normal and acceptable. In contrast, in sexually conservative societies such as South Asia, discussion related to sex is taboo and the expression of female sexuality is forbidden (Abouguendia & Noels, 2001; Chakravarti, 1993; Inman, 2006; Leonard, 1999; Talabani & Hasanali, 2000). In fact, women who do engage in pre-marital relationships are seen as having dishonoured themselves and their family as well as risk being shunned by their community and labelled as having become Westernized (Inman, 2006; Ali, 2004; Kapadia, 2009; Ali, 2008). For some South Asian women navigating this complex matrix of personal experiences and competing socio-cultural expectations may contribute to cultural value conflict and/or acculturative stress (Abouguendia & Noels, 2001; Ali, 2008; Dasgupta, 1986, 1998; Dasgupta & Dasgupta, 1996; Gupta, 1999; Inman, Constantine, & Ladany, 1999; Inman, Ladany, Constantine, & Morano, 2001; Inman, 2006; Inman, Howard, Beaumont, & Walker, 2007; Mehta & Belk, 1991; Naidoo, 1985; Patel, Power, & Bhavnagri, 1996; Talabani & Hasanali, 2000). Depending on the degree of acculturation to heritage and receiving cultural values, some South Asians may decide to lead double-lives in order to create and maintain relationships in both Western and South Asian contexts (Ali, 2004).

**Patriarchy**

Research suggests that the first human hunter-gatherer societies were egalitarian in nature, with both men and women holding positions of key importance (Kramer, 1991; Strozier, 2002). Derived from the Greek word for father, patriarchy privileges males and renders the experiences and perspectives of women as insignificant (Learner, 1986). While some theorists view patriarchy as an inherent biological trait, the majority argue socio-cultural conditioning and gender role socialization as having significantly contributed to the perpetuation of patriarchy (Goldberg, 1973; Lerner, 1986; Sanderson, 2001). Findings have also linked the spread of
farming, domestication of animals, and conceptualization of fatherhood between 4000 BCE and 2000 BCE to changes in the egalitarian structure of civilization (Ferguson, 1999; Kramer, 1991; Lerner, 1986; Strozier, 2002). Over time families became patriarchal in structure, power was associated with land and lineage, marriages were property-based exchanges arranged by men, and male authority replaced an egalitarian way of life (Ferguson, 1999; Kramer, 1991; Lerner, 1986; Strozier, 2002).

As male dominance flourished women were systematically “excluded from the process of representing or the construction of history” (Strozier, 2002 p. 46). With patriarchy also came patrilineal ownership and the commodification of women (Kramer, 1991; Lerner, 1986; Strozier, 2002). Considered “a resource” (Lerner 1986, p. 212) subject to male control, female sex drive was assumed to be innately stronger than that of the male and therefore a threat to the developing social order of patriarchy (Sherfey, 1966). This assumed threat prompted those in power to oppress female sexuality and restrict women’s sexual activities and reproduction by means of oppressive patriarchal discourse, socio-cultural conditioning, and gender role socialization (Kramer, 1991; Lerner, 1986; Foucault, 1978; Strozier, 2002).

**Patriarchy in South Asia**

South Asian culture may be traced back to the Indus Valley civilization, which existed during the time of ancient Egyptian and Sumerian civilizations. Located near the Indus River in what is now referred to as Pakistan and Northwest India, historians suggest religious practices in this region date back to approximately 5500 BCE, with agricultural settlements beginning approximately 4000 BCE (Kenoyer, 1991; Kosambi, 1965; McIntosh, 2008). Archaeological evidence suggests the first sign of urbanization took place 3000 BCE with the emergence of cities 2600 BCE (Kenoyer, 1991; Kosambi, 1965; McIntosh, 2008). Between 2500–2000 BCE
the Indus Valley civilization was at its’ peak, however, by 1800 BCE written language slowly disappeared, trade and taxation regulations were abandoned and cities in this region were gradually deserted (Kenoyer, 1991; Kosambi, 1965; McIntosh, 2008). While it is unclear as to what exactly led to this decline, historians believe flooding, drying of the Sarasvati River, and large migration of Aryan nomads from Europe, Central, and Northwest Asia contributed to the decline of civic order, disappearance of the Indus language, and eventual collapse of the Indus Valley civilization (Kenoyer, 1991; Kosambi, 1965; McIntosh, 2008).

The Indus Valley era was followed by the Vedic (1500 BCE–500 BCE) period (Kenoyer, 1991; Kosambi, 1965; McIntosh, 2008). During this time Indo-Aryans settled and gradually gained supremacy over the Indus Valley (Devi & Subrahmanyam, 2014; Kenoyer, 1991; Kosambi, 1965; McIntosh, 2008). Described as the formative age of South Asia, the Vedic period marked the settlement of the Indic people in Northern South Asia and the development of South Asian cultural beliefs, practices, religions, languages, and eventual caste division (Kenoyer, 1991; Kosambi, 1965; McIntosh, 2008). During the early years the Vedic period was known for its egalitarianism (Altekar, 1956; Devi & Subrahmanyam 2014; Mitra & Knotnnerus, 2004; Sastri, 1969). Despite the absence of a class or caste system, historical review of this time depicts a society in which political leadership was organized by rank, with rajan (i.e. the wealthy) at the top and dasi (i.e. slaves) at the bottom of the political hierarchy (Altekar, 1956; Devi & Subrahmanyam 2014; Mitra & Knotnnerus, 2004; Sastri, 1969). Although families were patrilineal in structure, women were afforded similar educational, property, religious, political, and marital rights as men; participated in authoring hymns in the Vedas (e.g. Vedic Samhitas and Rig Vedic); and contributed to the advancement of philosophy, theology, literature, politics, law, art, education, agriculture, medicine, business and trade (Altekar, 1956; Devi & Subrahmanyam
Over time the notion of egalitarianism deteriorated, the value of women declined, and gender became more polarized.

During the Indian Kingdom period (500 BCE–1200 AD) Greek invasions beginning with the conquest of Alexander the Great (327 BCE–326 BCE) led to the development of Indo-Greek kingdoms, a formalized class system, and the rise of private property (Boardman, 2015; Hinton, 2016; Rapson, 1968). During this time the rights and value of women rapidly declined, and the regulations of female sexuality and mobility were soon incorporated into Brahmanism, the dominant religious faith of the time (Boardman, 2015; Hinton, 2016; Rapson, 1968). As Brahmanical patriarchy firmly rooted itself as an ideology, caste purity became increasingly important (Chakravarti, 1993, 2004). To ensure caste purity and patrilineal decent, female mobility and sexuality was restricted through the implementation of laws, customs (e.g. patrilocal residence), religious rituals, and Brahmanical social codes which reinforced chastity, fidelity, and legitimate (i.e. within the context of marriage) motherhood (Chakravarti, 1993, 2004; Mitra & Knottnerus, 2004). These social codes were, and continue to be, reinforced through the use of legends and religious stories which depict the ideal woman as virtuous, submissive, self-sacrificing, self-effacing, obedient, chaste, faithful, and devout daughters, wives, and mothers; and men as superior beings to be worshipped and obeyed (Chakravarti, 1993, 2004; George, 2008).

During the latter half of the Indian Kingdom period, between 711 and 712 A.D., parts of South Asia, namely Baluchistan, Sind, and Multan were taken over by the Arab under the direction of General Muhammed bin Qasim by order of the Umayaad Kingdom (Thapar, 1990, 2002). Although other smaller Arab invasions soon followed, it was not until Rajputana was defeated in 1192 AD that the Early Islamic (1200–1500) and Mughal periods (1500–1800)
began. During this time the practice of female seclusion known as the Muslim purdah system and the Rajputana Ghunghat system were also introduced (Chakraborty & Thakurata, 2013; Chowdhry, 1993; Minturn, 1993; Vyas & Kumar, 2014). Following the Islamic rule came the British Raj (1800–WWII) of India (Akhtar et al., 2016; Bayly, 1988; Dalrymple, 2015; Peers & Gooptu, 2012). Given that Europe was not an egalitarian society during this time, the British Raj brought its’ own form of patriarchy to South Asia (Burton, 1994; Chitnis & Wright, 2007). For example, while the age of consent, sati (i.e. burning of widows), widow re-marriages, and dowry reforms were introduced to protect women during the time of British rule, these legal rights and protections were not acknowledged in everyday life (Burton, 1994; Chitnis & Wright, 2007). Instead, alliances between colonial rulers, South Asia’s male elite, and British women, interpreted and implemented these law reforms through the lens of colonialism and patriarchy to reflect and serve their own needs and agendas (Burton, 1994; Chitnis & Wright, 2007).

In modern times (World War II–present), while South Asia has grown to include many countries, diverse languages, religious beliefs, and customs, they continue to share similar socio-cultural values (Inman, 2006; Navsaria & Petersen, 2007). Governed by a system that perpetuates male dominance, patriarchy configures many of the cultural values and practices as it pertains to women in South Asian societies (Ahmed, Reavey, & Majumdar, 2009; Dasgupta, 1986, 1998; Gilbert, Gilbert, & Sanghera, 2004; Patel, 2007). Beginning at the microsystem with a patrilineal family structure and extending outwards to the macrosystem, patriarchy controls the lives and identities of South Asian women (Dasgupta, 1998; Gilbert et al., 2004; Lerner, 1986; Patel, 2007). Beginning in childhood, girls are told that they are someone else’s asset (i.e. “paraya dhan” or “someone else’s property”), whereas boys are considered the inheritors and caretakers (i.e. “budhape ka sahara” or “old age support”) of the family.
(Almond, Edlund, & Milligan, 2013; Das Gupta et al., 2003; Majmdar, 2005). As the enculturation process continues, girls are also taught to be obedient, submissive, patient, and self-sacrificing (Almond et al., 2013; Das Gupta et al., 2003; Majmdar, 2005). Moreover, while women are said to have gender equality under the law in many South Asian countries and abroad, patriarchal social practices and interpretation of the laws coupled with conflicting cultural values continue to dominate the discourse of South Asia culture.

Patriarchal constructions of social practices are also legitimized through male governed religious institutions, such that while many South Asian faiths respect and honour female religious figures, women are still seen as possessions subject to male control (Navsaria & Petersen, 2007; Patel, 2007). Norms, and customs regarding family, marriage, divorce, and inheritance, also legitimize the belief that women should not be recognized as independent of their male kinship (Dasgupta, 1998; Gilbert et al., 2004; Patel, 2007). Rather, “as a daughter she should be under the surveillance of her father, as a wife of her husband, and as a widow of her son” (Majumdar, 2005, p. 29). These centuries old practices continue to serve as the foundation for patriarchal ideologies that rationalize and reinforce the differential access of women and men to both the material and symbolic resources of society (Almond et al., 2013; Dasgupta, 1998; Das Gupta et al., 2003; Hapke, 2013; Koening & Foo, 1992; Majmdar, 2005; Niaz, 2003).

**Sexuality and Cultural Discourse**

An integral aspect of human development, sexuality, which includes sexual desire, is informed by biology, influenced by culture, and best understood through a bio-psycho-socio-cultural lens (Bancroft, 2009; DeLamater & Friedrich, 2002; Hall & Graham, 2012; Hogben & Byrne, 1998; Jones, Meneses da Silva, & Soloski, 2011; Kimmel, 2007; Lefokowitz, Gillen, Shearer & Boone, 2004; McCabe et al., 2010; Simon & Gagnon, 1986; Tolman & Diamond,
Traditionally influenced by religious beliefs and philosophical constructs, in the realm of sexual research, sexual behaviour was initially associated with procreation (Heinemann et al., 2016; Meston & Buss, 2007). However as research has demonstrated, people engage in sexual activities for a variety of reasons including, but not limited to: desire; stress/tension relief, pleasure, self-expression, experience, duty/pressure/fear/force, social status, revenge, feeling/showing value/power/nurturance, altruism, and/or spiritual connection (Meston & Buss, 2007, 2009; Hill & Preston, 1996). From a socio-cultural standpoint, cultural discourse contributes to the construction of sexual values by providing guidelines for what is acceptable and unacceptable. Culture affects sexuality, sexual health, sexual behaviour, relationships, and age of consent, as well as determines the context in which sexual activities may and may not occur (Foucault, 1978, 1980; Heinemann, Atallah, & Rosenbaum, 2016; Holroyd, Twinn & Adab, 2004).

The influence of cultural discourse may be seen in Buss’ (1989) cross-cultural study of sexual attitudes involving 37 countries. In this study Buss (1989) found Eastern countries such as China, Iran, and India placed chastity as significantly important to mate selection, whereas Western countries such as France, Sweden, and the Netherlands placed little value on a potential mate’s prior sexual experiences. Studies in collectivist countries (e.g. South Asia) have also found adolescents in these countries generally conform to societal norms as well as hold more conservative sexual values than adolescents living in (e.g. US and Western Europe) individualist countries (Cialdini, & Trost, 1998; Goodwin, 2013; Mortenson, 2002; Rodríguez-Arauz, Mealy, Smith, & DiPlacido, 2013; Sieving, Eisenberg, Pettingbell, & Skay, 2006; Tang, Bensman, & Hatfield, 2012). For example, in a meta-analysis of 58 published and unpublished adolescent sexuality studies (cumulative subject pool = 69,638 adolescents from 15 countries), Van de
Bongardt, Reitz, Sandfort, and Deković, (2014) found the relationship between peers’ sexual attitudes and adolescent sexual activity was significantly stronger in individualist countries whereas the relationship between cultural norms, sexual attitudes, and adolescent sexual activity was stronger in collectivist countries.

Socio-cultural discourse coupled with religious beliefs have also been shown to limit access to sexual knowledge, restrict sexual activities and sexual behaviour, and contribute to sexual dysfunction, sexual guilt, anxiety, and/or shame (Kellogg et al., 2014; Heinemann et al., 2016; Rosenbaum, 2009; Aneja et al., 2015). For example, in a study of 380 Orthodox Jewish women (most of whom were virgins on their wedding night), Friedman, Labinsky, Rosenbaum, Schmeidler, and Yehuda (2009) found that while all women studied with kallahs (pre-marital teachers for brides), 50% felt insufficiently prepared for married sexual life. Participants attributed this to kallahs primarily focusing on ensuring women did not commit halakhic errors (i.e. religious rules governing women’s lives, including when they are allowed to have sex with their husbands). Similarly, in a study of 100 Arab couples with unconsummated marriage (UCM) due to Vaginal Penetration Phobia (VPP), Muammar et al., (2015), found insufficient knowledge of sexual intercourse and cultural taboos related to pain and bleeding associated with first coital experience to be a major contributing factor to the development of VPP in the sample population. As reported in these studies, cultural discourses of sexuality may influence sexual intimacy. It is therefore reasonable to assume that the degree to which a person subscribes to specific cultural values may also influence his/her conceptualization, experience, and expression of sexual desire.
Female Sexuality and Patriarchal Cultural Discourse

Deeply rooted in all societies, dominant discursive constructs inform and entwine with culture to shape the conscious and unconscious cognitive and emotional lives of the very people they seek to govern (Weedon, 1987). Often viewed as a form of power that interminably penetrates and circulates culture, discursive constructs attach to strategies of domination and resistance (Diamond & Quinby, 1988). It is in this way that patriarchal discourse infuses with culture and influences the construction of sexuality and sexual desire. Characterized by the imposition of dualism and opposition in which males are privileged and females are marginalized, patriarchal gender ideologies evoke male dominance over women as well as determine the limits of sexual permissiveness allowed to each gender (Foucault, 1978; Lerner, 1986).

Patriarchal cultural patterns suppress female sexuality and sexual desire as well as expect women to refrain from sexual behaviours more so than men (Baumeister & Twenge, 2002; Lerner, 1986; McIntosh, 1978; Rudman & Fetterolf, 2015). As McIntosh (1978) argues, patriarchal suppression of female sexuality prevents women “from realising their full potential” (p. 64), and gives men greater sexual latitude, which is in itself “an aspect of male privilege” (McIntosh, 1978, p. 62). McIntosh’s (1978) link between patriarchal gender inequality, socio-political power, and suppression of female sexuality is further supported by Reiss’ (1986a, 1986b) study which found a positive correlation between greater male socio-political power and suppression of female sexuality across 186 cultures.

This does not however imply that discouraging sexual exploration and enjoyment constitutes suppression. Rather, suppression involves the message that sexual desire or engaging in sexual activities is bad (Reiss, 1960; Milhausen & Herold, 1999). For example, societies
influenced by patriarchy assume men are more sexual than women and therefore have, or have the right to, more sexual urges than women (Reiss, 1960; Milhausen & Herold, 1999). Based on this assumption, cultures influenced by patriarchal discourse adopt a sexual double standard which permits men to freely engage in sexual activities and restricts, or at best, limits women to premarital sexual activities within the confines of a committed love relationship (Reiss, 1960; Milhausen & Herold, 1999).

Perpetuated by discursive constructs woven into culture, patriarchal discourse deprives masculinity and femininity of their dignity, forcing women “to struggle with their oppressive cultural systems” (Van der Veer, 1995, p. 14). Often casting women as objects for heteronormative male sexual pleasure and release, sexual activities are viewed as a wife’s marital duty and a husband’s right (Chakravarti, 1993). Viewing female sexual behaviour as duty rather than desire-based also bestows husbands in patriarchal societies with sexual power and control over their wives (Chakravarti, 1993). This form of male privilege is also evidenced by the way in which female prostitutes are stigmatized by society while their predominantly male customers are not. This form of gender-based stigmatization reflects male-dominated culture’s devaluation of women (Bruckert & Hannem, 2013; Overall, 1992; Schur, 1984; Steinem, 2016). however, if cultures influenced by patriarchy acknowledged women as equal and accepted female sexuality and sexual desire, patriarchal systems would have less power over women’s sexuality and female sexual activities could no longer be limited to a wifely-duty. If this shift were to take place, the motive for marriage as a requirement for sexual activities would also change from an arrangement made between patriarchal heads of families to preserve family lineage, to a private union between people.
Sexual Double Standard

Female sexuality has historically been oppressed by patriarchal systems by means of oppressive patriarchal discourse, socio-cultural conditioning, and gender role socialization (Foucault, 1978; Lerner, 1986). Evident in the sexual schema and scripts of women and men across cultures, the value of gender conveyed through gender role socialization significantly influences sexual relationships, values, and attitudes towards sexuality and sexual variation (Connell, 2014; Kimmel, 2007; Manago, Greenfield, Kim, & Ward, 2014; Reiss, 1986a, 1986b). As evidenced in the anthropological research of Mead (1949) a woman’s ability to experience sexual desire and/or achieve orgasm is not a universal trait, and there are in fact societies in which female orgasm, sexual pleasure, and masturbation are unknown (Mead, 1949). Moreover, there are many societies around the world that view sex as a means for procreation for which female sexual desire and/or pleasure is neither required nor necessary (Mead, 1949). Mead’s (1949) observations of the importance of culture are also similar to Davis’ (1997) analysis of sexual motivation across cultures. Davis’ (1997) findings suggest that in order to understand sexuality it is important to understand the cultural context in which it occurs. Davis’ findings also support feminist critiques of medicalized definitions of “normal” sexual behaviour that do not account for the impact of gender inequality and the sexual double standard on female sexuality (Davis, 1997).

While sexual attitudes have arguably become more liberal over time, as Bordini and Sperb (2013) found in their analysis of 26 studies published between 2001–2010, the sexual double standard continues to exist. From a feminist perspective, the oppression of female sexuality continues to be reinforced by sexual double standards that cast women as sexual objects and men as the subjects of sexual desire (McKay, 2015; Welles, 2005). Viewing men’s
active and desiring sexuality as normal and slut-shaming women for the very same qualities, the sexual double standard may be heard in the derogatory language used to denigrate and regulate female sexuality (Baumeister & Twenge, 2002; Jackson & Cram, 2003; Tolman, 2002).

For example, in their study of college students gendered attitudinal patterns of casual sex, Allison and Risman (2013) found men were more likely to hold a sexual double standard whereas women were more likely to have egalitarian conservative attitudes. Given the role of culture in the development and expression of sexuality, cross-cultural research regarding sexual desire is essential. In their study of heterosexual women’s negotiation of the sexual double standard and casual sex, Farvid, Braun, and Rowney (2016) found that although participants challenged the relevance and appropriateness of the sexual double standard, their discussion of other women and the threat of gaining a negative sexual reputation were also connected to the silencing of their own casual sex experiences. Farvid et al. (2016) concluded that although current liberal societal discourse deems women’s casual sex as acceptable the sexual double standard continues to judge, silence, and shame women.

In North America sexual education programs are often the first time students receive factual information regarding sex (Byers, Sears, Voyer, Thurlow, & Cohen, 2003a, 2003b; Chen, Thompson, & Morrson-Beedy, 2010; Connell, 2005; Eisenberg, Madsen, Oliphant, & Resnick, 2012; Rogow & Haberland, 2005). While these programs are clinical in nature, consistent with mainstream values, and serve to educate students, the topic of sexual desire and pleasure in reference to female sexuality and pleasure is virtually nonexistent (Allen & Carmody, 2012; Fine 1988, 1992, 2005, 2006; Pelletier, 2004). When it is mentioned, it is typically accompanied with “reminders of ‘consequences’ – emotional, physical, moral, reproductive, and/or financial” (Freudenberg, 1987, as cited in Fine, 1992, p. 35, and Fine, 1989, p. 33). As illustrated in
Connell’s (2005) review of Ontario’s sexual education curriculum, case studies used in these programs tend to reflect gender-specific intimate relationship roles and expectations which reinforced the cultural message that “boys are active agents and studs with an insatiable appetite for sex, while girls are passive, uninterested in sex and only submit to it under pressure” (p. 260). As argued by Connell (2005), this form of heterosexual cultural messaging fuels discursive constructs which portray men as initiators of sexual activities and women as sexually submissive. Taught to resist sexual advances, curb and/or ignore their sexual desire, and refrain from sexual behaviour, women may as a result internalize socio-cultural standards of morality and desirability which require them to be both sexually constrained and sexually desirable (Baumeister & Twenge, 2002).

Woven into the value system of society, these constructs may also contribute to rigid gender role expectations and influence the expression and experience of sexual desire (Drew, 2003; Richgels, 1992). For example, in their survey of 349 sexually active male and female college students, Sanchez, Crocker, and Boike (2005) found those who conformed to gender norms were more inclined to base their self-worth on the approval of others. This in turn contributed to greater pressure to conform to gender norms, restricted sexual autonomy, and negatively affected sexual pleasure and satisfaction in intimate relationships. Conversely, in their study of heterosexual adjustment among women and men with non-traditional gender identities, Katz and Farrow (2000) found those who identified with non-traditional gender roles reported lower sexual desire than their traditional gender role counterparts. The authors attributed these findings to the possibility that those who subscribe to non-traditional gender roles may experience psychological discomfort from sexual interactions guided by traditional
gender roles and sexual scripts. Given the role of culture in the development and expression of sexuality, cross-cultural research regarding sexual desire is essential.

South Asian Culture, Female Sexuality, and Patriarchal Discourse

South Asia has contributed greatly to the understandings of sexuality through art and literature as evidenced in the carvings of the Khajuraho Group Monuments and the Kama Sutra, a text composed by 4th century scholar Vatsyayana. Understood as one of the four purusharthas (i.e. goal in life), The Kama Sutra teaches that Kama (i.e. desires and pleasures with or without enjoyment of sexual, sensual, and/or erotic connotations) is to be enjoyed in a manner that remains in harmony with the other three purusharthas (i.e. artha or material prosperity; dharma or duty and harmony; and moksha or liberation) and does not harm society (Dhiman, 2011; Kakar, 1989; Punja, 2010; Rajasakran, Sinnappan, & Raja, 2014; Vātsyāyana, 1963). While both the Khajuraho Group Monuments and the Kama Sutra depict sexual desire and pleasure as natural to men and women, in South Asian culture the ideal South Asian woman is portrayed as an asexual creature who submits to sexual activities because it is her wifely duty and because it is a prerequisite for motherhood (Ramanathan & Weerakoon, 2012). This false assumption may be attributed to the patriarchal discourse present in South Asian culture.

In keeping with this patriarchal paradigm, discussions related to sex and female sexuality are considered taboo within South Asian culture (Chakraborty, 2013). Taboos work on the principle of prohibiting an individual/group from behaviour(s) considered unacceptable. Viewing women as subordinate possessions rather than partners, South Asia’s patriarchal value system directly and indirectly promotes sexual possessiveness and control of female sexuality through strict unwritten social codes and gender role socialization (Patel, 2007). Women are socialized to refrain from expressing themselves as sexual beings, allowing themselves to
experience sexual acts as pleasurable, and acting on their sexual desires. In addition to pairing female sexual behaviour to the desire for motherhood, South Asian cultural values and societal discourse also teach women that female pre-marital virginity is expected, chastity is required, and that sex is a wifely duty (Banerji, 2008; Devji, 1999; Kakar, 1989; Patel, 2007). Consequently, when South Asian women do speak of matters related to sex it is often with a sense of embarrassment, guilt, fear of being vilified, and concern that they are transgressing social boundaries (Gupta, 1999; Sharma & Sharma, 1998).

In current times, although South Asian women have gained varying degrees of independence in South Asia and abroad, South Asian patriarchal socio-cultural practices continue to condone sexual double standards and influence gender roles expectations (Hapke, 2013; Hussain, 2017; Kakar, 1989; Koenig & Foo, 1992; Roy & Niranjan, 2004; Tenhunen & Saavala, 2012). Bound and controlled by unwritten codes of patriarchal propriety, South Asian women serve as repositories for South Asian male honour and have yet to experience a cultural sexual revolution which will honour their rights and choices over their body and sexuality (Banerji, 2008).

**South Asian Women and Sexual Health**

Availability and access to healthcare and contraception plays an important role in sexual health and behaviour (Chakraborty, 2010). When women and their partners have access to a wide range of safe, effective contraception they are better able to plan and space their births (Ahmed, Li, Liu, & Tsui, 2012; Cleland, Conde-Agudelo, Peterson, Ross, & Tsui, 2012). This in turn leads to positive health, social, and economic outcomes for women, children, families, and society (Ahmed et al., 2012; Cleland et al., 2012; Schults & Joshi, 2013). In contrast, when
contraception is inaccessible or stigmatized, studies show higher fertility-risk births and maternal and child deaths (Rutstein, & Winter, 2015; Sedgh, & Hussain, 2014).

Developed within a bio-medical model, definitions of sexual health have historically focused on biological aspects of sex such as reproduction and disease prevention/intervention (Amaro, Raj, & Reed, 2001; Barrett, 1991; Edwards & Coleman, 2004; Giami, 2002). Given the influence of socio-cultural determinants on human development, culture, in conjunction with other identified variables (e.g. individual traits and experiences, religion, politics, language, age, gender, ethnicity, education, and socioeconomic status) plays a significant role in the formation, perception, and expression of sexuality and sexual health both at an individual and group level (Lewis, 2004; Davidson et al., 2002). It would therefore seem logical to explore cultural factors to better understand the context in which sexual interactions, values, and beliefs develop and occur (Serrant-Green, 2005). This understanding would in turn allow for culturally sensitive sexual health education, interventions, and treatment (Serrant-Green, 2005).

Seeing the need for change, in 1975 the World Health Organization (2006) introduced an integrated definition of sexual health that recognized sexual health as more than procreation and the simple absence of disease and dysfunction. In their efforts to develop an integrated definition of sexual health, the World Health Organization (2006) incorporated physical, socio-emotional, cognitive, and cultural aspects of sexuality that enrich one’s life as well as acknowledged the right to safe, consensual, pleasurable sexual experiences free of coercion, discrimination, and violence. This bio-psycho-socio-cultural approach to sexual health and its overall impact on wellbeing also brought to light the importance of the social aspects of sexuality, such as sexual responsibility, equitable sexual relationships, sexual fulfillment, and the impact of socio-political
and historical events in the conceptualization of sexuality, sexual behaviour, and sexual health (Edwards & Coleman, 2004).

Yet despite the World Health Organization’s (2006) acknowledgement of socio-cultural factors, research specific to cultural conceptualizations of female sexuality and sexual health is scant (Davidson, Fenton, & Mahtani, 2002; Lewis, 2004). Of the limited research pertaining to women of colour, most studies report statistical data related to disease, reproduction, at-risk sexual behaviours, and disparities in sexual health (Cavazos-Rehg et al., 2009; Davidson et al., 2002; Lewis, 2004; Sasaki & Kameoka, 2009; Sutton et al., 2007; Wise et al., 2001). Findings also consistently report women of colour as experiencing overall poorer sexual health in comparison to white men and women, and men of colour (Amaro et al., 2001; Davidson, Fenton, Mahtani, 2002; Wise, Carmichael, Belar, Jordan, & Berlant, 2001). Such is the case with South Asian women and sexual health. Research specific to this population has predominately centred around reproduction, disease (e.g. breast and cervical cancers, STDs, HIV/AIDS) prevalence, prevention, and treatment (Basu et al., 2006; Bhattacharya, 2004; Broto, Chou, Singh, & Woo, 2008; Bottorff et al., 1998; Chaudhary, Fink, Gelberg, & Brook, 2003; McCaffrey et al., 2003; Murthy, Chaudhry, & Saxena, 2005; Sankaranarayanan et al., 2003; Talabani & Hasanali, 2000; Vallikad, 2006).

Although discussion of sexuality and sexual health serves to educate women there are stark differences between what Canadian norms suggest and what South Asian norms dictate (Talabani & Hasanali, 2000; Wakil et al., 1981). In South Asian culture female virginity is a culturally upheld virtue and inquiries related to matters such as sexual behaviour, sexual health, and sexuality are considered inappropriate (Amin, 2011; Aneja et al., 2015; Bhattacharya, 2004; Bhopal, 1997; Bradby & Williams, 1999; Fisher et al., 2002; Ghuman, 2000; Griffiths, 2015;
Palak, 2005; Okazaki, 2002; Talabani & Hasanali, 2000; Weston, 2003). For example, in their efforts to translate the Female Sexual Functioning Index (FSFI) into the Tamil language, Singh, Tharyan, Kekre, Singh, and Gopalakrishnan (2009) discovered that the majority of South Asian languages do not have a word or precise translation for female orgasm.

Moreover, the patriarchal structure and parameters of sexual morality in South Asian culture prevent South Asian women from discussing sexuality, sexual health, and engaging in sexual health practices (e.g. STD screening) for fear of being labelled unchaste, unfaithful, and bringing shame and dishonour to the family (Bhattacharya, 2004; Griffiths, 2015; Palak, 2005). As South Asian women mature, they are also expected to maintain the cultural silence surrounding female sexuality and sexual health (Singh et al., 2009). It is in this way that cultural values, complex gender roles, and sexual taboos surrounding sexuality place South Asian women in South Asia and abroad at risk for poor sexual health as well as contributes to lower rates of sexual health screening (Bhattacharya, 2004; Bottoroff et al., 1998; Griffiths, 2015; Jobanputra & Furnham, 2005; Palak, 2005).

With regards to sexual functioning, the impact of culture was observed in Kar and Koola’s (2007) mail survey of sexual functioning and sexual preferences of English-speaking adults ($n = 61$; male = 33, mean age 28.6; female = 28, mean age = 24.3 years), most of whom were unmarried and from the upper middle-class in a South Indian town. Data analysis revealed the most common sexual difficulties included decreased interest in sex (16.4%), arousal difficulties (21.3%), and orgasmic difficulties reported by 28.6% of female participants. Additionally, 18% of respondents viewed masturbation as wrong, with nearly 40% of women and 6% of men reporting to have never masturbated. Similarly, in a study using the Female Sexual Functioning Index (FSFI) to investigate the prevalence and possible risk factors of sexual
dysfunction in Indian women, Aggarwal et al., (2012) found 278 (55.6%) of a total of 500 participants experienced sexual dysfunction, the most common of which was orgasmic (91.7%), followed by lubrication (89.2%). The study also noted greater female sexual dysfunction was most prominent in women ≥38 years and illiterate women.

Likewise, in a study examining the sexual behaviour of married women \( n = 100 \), age range = 20–40 years) in Northern India, Avasthi et al. (2008) found 17% of participants reported difficulties related to sexual activities. These difficulties included headaches after sexual activity (10%), difficulty reaching orgasm (9%), painful intercourse (7%), lack of vaginal lubrication (5%), vaginal tightness (5%), bleeding after intercourse (3%) and vaginal infection (2%). Participants attributed these difficulties to personal health issues (14%), lack of privacy (8%), spouse's health problems (4%), and conflict with spouse (4%). The study also reported that none of the participants felt their sexual difficulty was significant enough to warrant clinical assessment.

In their study of the prevalence and risk factors for female sexual dysfunction (FSD) in rural South Indian women, Singh et al. (2009) administered a Tamil version of the Female Sexual Functioning Index FSFI to 149 married female participants in a medical out-patients clinic in rural South India. FSFI scores indicated the presence of FSD in two-thirds of the participant pool (73.2%), none of whom had sought professional help. Difficulties in individual domains of sexual functioning were also found to be prevalent in the areas of Desire (77.2%), Arousal (91.3%), Lubrication (96.6%), Orgasmic (86.6%), Satisfaction (81.2%), and Pain (64.4%). Moreover, the study found the prevalence of FSD and difficulties with individual domains of sexual functioning assessed by the FSFI increased from 60% in participants below the age of 40 to 90% in participants above 40 years of age. Higher rates of FSD were also found
to be associated with fewer years of education. Data analysis found participants attributed FSD to medical illness in themselves or their partner, relationship problems, and cultural taboos (e.g. female sexual activity after age forty is considered taboo). Analysis of qualitative responses also alluded to a lack of privacy, foreplay, sexual openness/freedom physical/emotional affection, poor communication; and sex as a duty or experience to be submitted to so as not to be beaten (Singh et al., 2009).

Aware of the cultural barriers and lower rates of sexual health and cervical cancer screening among South Asian women, Brotto, Chou, Singh, and Woo (2008) set-out to investigate the impact of acculturation on reproductive health knowledge and practices, among Indian \( (n = 145) \), Indo-Canadian \( (n = 29) \), East Asian-Canadian \( (n = 267) \), and Euro-Canadian women \( (n = 222) \). Results indicated Euro-Canadian women were most likely to have performed breast self-exams (BSE) and had a Papanicolaou (Pap) test. The study also found no significant differences in Pap tests among Indian and Indo-Canadian women as well as found East-Asian-Canadian and Indo-Canadian women were more likely to have completed a BSE than Indian women. All three Canadian groups were also shown to consistently demonstrate greater accuracy with respect to reproductive health than Indian women. Higher mainstream acculturation among East Asian-Canadian and Indo-Canadian women was also associated with more accurate knowledge of reproductive health whereas higher heritage enculturation was associated with less accurate reproductive health knowledge. With regards to cancer, in 2014 the cervical cancer screening rate for South Asian women living in British Columbia was 66% and the breast cancer screening rate was 60%, both of which were lower than the participation target rate (BC Cancer Agency, 2015; van Niekerk, 2014). Similarly, after adjusting for age, educational level, income, and time in Canada, the South Asian Health Report found that the
odds of South Asian females aged 21–69 receiving a Pap test was 30% lower (Odds ratio = 0.7, 95% confidence interval = 0.6, 0.9) than their non-South Asian female counterparts (Fraser Health Authority, 2015). Given the cultural differences evidenced in these studies, Western models of sexuality, norms for sexual health, and treatment may not completely reflect non-western experiences of female sexual functioning.

**Sexual Desire**

Despite the growing number of studies pertaining to human sexuality, there continues to be a great deal of variability “regarding the conceptualization, definition, operationalization, and application” of female sexual desire as it pertains to research and clinical practice (Wood, Koch, & Mansfield, 2006, p. 236). This variability may be attributed to the many theoretical paradigms from which it is studied (Wood et al., 2006). In its broadest sense, sexual desire may be understood as the sum of forces that move us towards or away from sexual behaviour. Described by Levine (1987, p. 36) as “psychobiologic energy that precedes and accompanies arousal”, sexual desire may be conceptualized as the mind’s capacity to integrate drive (i.e. neuro- biologically based sexual impulses) wish (i.e. cognitive processes informed by culture), and motive (i.e. individual/relational factors which influence one’s willingness to behave sexually). Although the scale of sexual desire's intensity may range between “aversion, disinclination, indifference, interest, need, and passion”, factors such as age, gender, health, social situation, and culture affect sexual desire in such nuanced ways that “many remain blind to their presence” (Levine, 2003, p. 279).

Cultural norms and gender role expectations inform explanatory models of sexuality, behaviour, and variation, as well as determines the threshold by which sexual functioning, dysfunction, and deviance is measured (Bhavsar & Bhugra, 2013; Foucault, 1978). Subject to
socio-cultural norms and societal discourse, sexual desire refers to the unique way in which a person conceptualizes, expresses, and enacts sexual feelings based on a complex interplay of internal (e.g. physiological, neuro-biological, cognitive, psychological, emotional) and external (e.g. relational, socio-cultural, contextual) factors (Brotto & Smith, 2014; Goldhammer & McCabe, 2011; Murray, Sutherland, & Milhausen, 2012; Levine, 2002, 2003, 2006; Tolman & Diamond, 2001; WHO, 2006). Defined by Segen (2011) as “the subjective awareness of desire for sexual satisfaction irrespective of sexual activity”, sexual desire has also “been equated with the desire for sexual activity, sexual intimacy, and feelings of wanting associated with thinking about an attractive partner” (Brotto & Smith, 2014, p. 205).

Subject to change in accordance with one’s development, life experiences, and socio-cultural context, sexual desire is unique to the individual and may be experienced and conceptualized in many different ways (Brotto & Smith, 2014; Goldhammer & McCabe, 2011; Levine, 1984, 1987; Murray, Sutherland, and Milhausen, 2012; Tolman & Diamond, 2001; Wood et al., 2006). For example, in their study of personal definitions of sexual desire, Goldhammer and McCabe (2011) found sexual desire to be either or both physical and emotional, with physical sensations accompanied by a need for intimacy, desire, and arousal occurring simultaneously. In a similar study Murray et al. (2012) found women referred to a range of physical, emotional, cognitive, and/or psychological term when speaking of sexual desire. The aforementioned studies endorse the complexity of sexual desire as well as support the idea that women’s sexual desire is influenced by various contextual, relational, psychological, emotional, physiological, and neuro-biological factors. Keeping in mind the bulk of female sexual desire studies involve white heterosexual female participants living in western
cultures, it would be important to explore the conceptualization and experience of sexual desire across cultures.

**Female Sexual Desire, Culture, and Patriarchal Discourse**

Although sexuality is considered a central aspect of being human, the prevailing codes of sexuality and sexual conduct appear to be *man*-made. Various studies concerning female sexuality speak to the manner in which patriarchal discourse fuses with culture to create values, norms, and beliefs that influence female sexuality and the conceptualization and expression of sexual desire. For example, in Hispanic culture the construct of marianismo defines women as passive, self-sacrificing caretakers responsible for upholding sexual purity and morality (Hussain, Leija, Lewis, & Sanchez, 2015; Stevens, 1973). In contrast, the construct for masculinity known as machismo in Hispanic culture views sexual conquests and impregnation as proof of manhood (Hussain et al., 2015; Stevens, 1973). Consequently, these gender role expectations within Hispanic culture allow men greater sexual freedom than women. Costa, Nogueira, and López (2009) also observed a similar view of female sexuality in their study of discourses and discursive constructs of female sexuality available to young Portuguese. Costa et al. (2009) found discursive constructions related to female sexuality were generally negative, judgemental, restraining, and disempowering to women. Likewise, in an investigation of sexual fantasy and desire in older Mexican-American women (aged 59–89 years), Laganà and Maciel (2010) reported that in addition to age, health, and availability of a suitable partner, stigma related to cultural and religion significantly impacted the experiencing of sexual fantasy and sexual desire.

In an exploration of Muslim religious rights and sexuality, (Imam, 2000) made distinctions between Muslim discourses of sexuality. In the religion of Islam, sexuality is
observed as “an elemental and natural force … men’s and women’s sexuality are … naturally active, … foreplay is … a religious duty on men as women also have a desire for and right to sexual pleasure and satisfaction” within the context of a heterosexual marriage (Imam, 2000, p. 124). As illustrated in the quotes below, this position is also religiously supported in Hadith1 Al-Mughni 8:136 and Hadith Fayd al-Qadeer, 1:325, both of which discuss the rights of men and women with regards to experiencing sexual pleasure within the context of a heterosexual marriage (Al-Mughni 8:136; Fayd al-Qadeer, 1:325).

It is mustahabb (recommended) to engage in foreplay with one’s wife before having intercourse and to arouse her desire, so that she will get the same enjoyment from intercourse as he does...If he reaches climax before her, it is makrooh (disliked) for him to stop until she has also reached climax...because that is harmful to her and prevents him from fulfilling her desire. (Imam Ibn Qudaamah, Al-Mughni, 8/136)

When one of you has intercourse with his wife, let him do it wholeheartedly, meaning that he should do it in a loving way, and do it properly. If he reaches climax first, when she is aroused, he should not make her rush to reach climax; rather he should give her time until she reaches climax as he did. So he should not leave her until he is certain that she reached her climax. That is part of kind treatment, keeping her chaste and good manners...if the man is quick to reach climax and cannot wait until his wife reaches climax, then it is recommended for him to seek treatment that will help him to delay reaching climax. (Imam Al-Manaawi, Fayd al-Qadeer, 1/325)

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1 Second only to the Holy Quran in developing Islamic jurisprudence, the Hadith narrates the words, actions, and habits of the Prophet of Islam, Mohammed (SAW), and is considered essential to understanding the Holy Quran and Tafsir (commentaries concerning the Holy Quran).
Yet despite these Hadiths, patriarchal Islamic societies practice honour-shame traditions which link male honour with male control over all aspects of a woman’s life, including her body and “sexual practices” (Imam, 2000, p. 124). While this is not the case for all Islamic societies, Imam (2000) suggests “Muslim patriarchs conspire with the salacious ‘other’ gaze of the West to present a single monolithic discourse of sexuality” (p. 124). Investment in a monolithic discourse of this nature may in part be related to ensuring patriarchal practices are maintained under the guise of religion.

In another study exploring 51 Rafsanjan (a city in the province of Kreman, Iran) women’s conceptualization of their sexual behaviours, Merghati-Khoei, Ghorashi, Yousefi, and Smith (2014) found marriage to be the primary institution in which motivation for sexual relationships existed, and sexual desire to be the most important concept used when referring to sexual capacity (Merghati-Khoei et al., 2014). Narrative analysis also found female sexual self-understanding and behaviour to be strongly determined by androcentricity to the extent that female sexual performance and desirability was tied to male sexual initiation. Given the region and country’s patriarchal info-structure, the practice of placing males and the masculine perspective at the centre of one’s worldview, culture, and history was also present in participants’ narratives related to sexual education and reproductive health. In a similar study exploring the perceptions and experiences of Iranian women’s sexual rights in their sexual relationships, Janghorban, Latifnejad Roudsari, Taghipour, Abbasi, and Lottes (2015) reported cultural taboos, internalized sexual impassiveness, shame, fear of rejection, and a husband’s reactions significantly influenced Iranian women’s decision to express their sexual needs, desires, and concerns related to their sexual relationships.
Findings of shame were also present in a qualitative study completed by Rashidian, Hussain, and Minichiello (2013). In their study, Rashidian et al. (2013) investigated 24 first-generation Iranian-American women’s perception of their sexual selves and gender roles. Narrative analysis revealed that while participants felt attached to their heritage-culture they also wished to differentiate themselves from it. The study also noted that due to the many differences between Iranian and American culture, the process of acculturation brings forth many challenges as women simultaneously addressed the consequences of new cultural experiences and the shame and guilt of shedding old cultural norms. The authors concluded acculturation provided participants with a better understanding of their gender role and sexual-selves. As may be inferred from these studies, the cultural context of one’s life significantly influences gender role and sexual-self-concept.

In another study focusing on female sexual functioning, Lo and Ko (2014) surveyed 2146 sexually active Chinese women (21–40 years) living in China. In addition to a significant correlation between low sexual desire, arousal, and orgasmic difficulties and low foreplay enjoyment, the study also found that low female sexual desire was not considered abnormal in this traditionally patriarchal culture because women were viewed as neither having nor being entitled to experience sexual desire. Similarly, in a discussion of sex therapy challenges in Korea, Youn (2013) also found the culture’s patriarchal interpretation of Confucianism as playing a significant role in the construction of sexual discourse within this culture. For example, while the discussion of sex is considered inappropriate in Korean culture, sexual intercourse is viewed as the symbolic union of *yin* and *yang* (Youn, 2013). Within this context female sexuality or *yin*, is viewed as weak and female sexual desire is assumed to exist only as a reaction to male sexual desire or *yang* (Youn, 2013). Based on this belief, women are not
included in the construction and interpretation of sexual discourse within this society because they are not seen as having sexual desires independent of men (Youn, 2013). Youn (2013) also states that in accordance with patriarchal traditions, sex is neither an act of pleasure nor a means for intimacy in Korean culture (Youn, 2013). Instead, sexual intercourse is viewed as a way for men to release their physiological tension (Choi, Yi, Ryu, Rha, & Lee, 2004; Youn, 2013). This view of intercourse in turn reinforces the belief that men are the initiators and closers of sexual activities whereas women are expected to be sexually passive, and sex is considered a wifely duty (Youn, 2001, 2009, 2013).

Youn (2013) also noted female sexual pleasure and desires as being disregarded by male partners who subscribed to traditional patriarchal gender roles. Although women are not a part of the sexual discourse in Korea, female virginity and fidelity is valued because it ensures purity and integrity of family lineage (Youn, 2013). Given the patriarchal values of Korean society, women who engage in premarital or extramarital sexual activities are judged more negatively than men (Youn, 2013). Youn’s (2013) observations were also supported by an earlier study of sexuality and sexual behaviour in unmarried working adults in Korea conducted by Kim et al., (1998). In this study when asked, “How do you resolve sexual urges?” 61% of young employed women reported having no sexual urges (Kim et al., 1998; Youn, 2013). Results from this study were attributed to the value and expectation of female chastity, female sexual passivity, inequity of women, and patriarchal values of traditional Korean culture (Kim et al., 1998).

As reflected in the aforementioned studies, female sexual desire may be influenced by culture. While the extent to which a person incorporates cultural values into his/her sexual life is unique to him/her, research suggests that in addition to examining the effect of culture on sexual functioning, exploration of the influence of acculturation may also contribute to better
understanding the conceptualization and experience of sexual desire within cultural minority
groups and immigrant populations (Ahrold & Meston, 2010; Ahrold, Farmer, Trapnell, &
Meston, 2011; Brotto, Chik, Ryder, Gorzalka, & Seal, 2005; Brotto et al., 2008; Brotto, Woo, &
Ryder, 2007; Heinemann et al., 2016; Woo, 2013; Woo & Brotto, 2008; Woo, Brotto,
Gorzalka, 2012).

**Female Sexual Desire and Acculturation**

According to the Gallup (2011) World Poll for Migration, interviews conducted with
401,490 adults (15 years +) living in 146 countries (average sample sizes 500–1000; 4000 in
larger countries such as India and China) who represent over 93% of the world’s adult
population, approximately 630 million of the world’s adults indicated a wish to permanently
move to another country. In addition to these numbers, in 2015 the United Nations Population
Fund stated approximately 3.3% (244 million people) of the world’s population was comprised
of migrants living outside their homeland (United Nations Population Fund, 2015,
http://www.unfpa.org/migration). Nearly half of this population consisted of women, many of
whom were of reproductive age (United Nations Population Fund, 2015). Given the large sum
of migrants and those who wish to migrate, investigating the impact of acculturation on female
sexual functioning, and more specifically the experience of female sexual desire within ethno-
cultural minorities and immigrant populations is warranted (Besharov & Lopez, 2015;

A multidimensional process by which immigrants and members of ethnic minority sub-
cultures integrate receiving-cultural values into their enculturated self-identity, acculturation may
be defined as the “culture change that is initiated by the conjunction of two or more autonomous
cultural systems” (Berry, 1990, p. 233; Ryder et al., 2000). With regards to female sexual desire, the process of acculturation may bring about conflict between heritage and host-cultural values. For example, in cultures with predominantly patriarchal value systems, restriction related to female sexuality may be supported by gender role expectations that require women to be chaste, submissive, and obedient (Espín, 2013; Espiritu, 2001). While the policing of women’s bodies and behaviours may be viewed as a way to protect women and preserve cultural traditions, exposure to new laws, values, and language during acculturation may present acculturating women with the choice to explore taboo topics and express their sexuality or adhere to the gender role expectations of their heritage culture (Espín, 2013; Espiritu, 2001). In either case the cognitive dissonance of balancing two contradictory ways of being may be both liberating and subjugating for women (Espín, 2013).

Research related to sexual functioning and acculturation also suggests greater acculturation to Western culture is associated with greater sexual health knowledge and screening; younger age of sexual debut; greater likelihood of having pre-marital sexual relationships; greater diversity, openness, experience, sexual desire, arousal, and satisfaction with regards to sexual activities; and less sexual guilt and anxiety related to anticipated sexual activities and encounters (Ahrold & Meston, 2010; Brotto et al., 2005; Brotto et al., 2008; Meston & Ahrold, 2010; Woo & Brotto, 2008; Woo et al., 2009, 2011, 2012; Woo et al., Woo, 2013). As may be inferred from these studies, heritage cultural values and degree of acculturation significantly influences a person’s sexual attitudes, beliefs, behaviours, functioning, and health.

While there is limited research examining the impact of North American acculturation on South Asian female sexual behaviour and sexual desire, research regarding acculturation and
East-Asian female sexual behaviour is well documented (Meston et al., 1996). In light of the similarities between conservative South Asian cultural values related to female sexual behaviour and traditional East-Asian culture’s observance of strict sexual conservatism and propriety (Ng & Lau, 1990), review of research examining mainstream Canadian acculturation and East Asian female sexual behaviour may be helpful.

In a study exploring ethnic and gender differences in sexuality and length of North American residency, Meston et al. (1996) surveyed Asian \(n = 356\) and Non-Asian \(n = 346\) university students with regards to sexual behaviour. The study found Asian students were significantly more conservative on all measures of interpersonal sexual behaviour (e.g. kissing, heavy petting, oral sex, intercourse) and sociosexual restrictiveness (e.g. lifetime number of sexual partners, number of one-night stands, number of partners in the past year) than their non-Asian peers. The researchers also reported significant differences on the majority of intrapersonal measures of sexual behaviour (e.g. masturbation and sexual fantasies). The study also attributed ethnic differences in sexual behaviour to differences in cultural norms as well as found length of residency in Canada (which served as a proxy for acculturation) was unrelated to interpersonal, intrapersonal sexual behaviour, or sociosexual restrictiveness among Asian participants. Meston et al. (1996) attributed the absence of length of residency effects on sexual behaviour to limiting their definition of “Asian” to first-generation participants; language barriers; and, upon analysis the sexual experiences of Asian students in Hong Kong, the possibility that Asians who immigrate to North America may already be more sexually liberal than Asian students who do not immigrate.

Similarly, in another study related to ethnic, gender, and length of residency influences on sexual knowledge and attitudes of Asian \(n = 356\) and European Ancestry \(n = 346\)
university students, Meston et al. (1998) found Asian participants demonstrated more conservative sexual attitudes and demonstrated significantly less sexual knowledge than participants of European ancestry. The study also reported recent Asian immigrants were significantly more likely than Canadian-born or long-term Canadian residents to hold more conservative sexual attitudes with regards to homosexuality and traditional gender roles in sexual relationships than Asian participants who had lived in Canada for a longer time period and were assumed to be more acculturated to western culture.

In their investigation of ethnic, gender, and acculturation influences on sexual attitudes towards homosexuality, gender role traditionality, casual sex, and extramarital sex, Ahrold and Meston’s (2010) study of 1,415 college students (67% Euro-American, 16% Hispanic, 17% Asian; 32% men, 68% women) found Asian participants reported more conservative sexual attitudes than Hispanic and Euro-American participants. The study also found that although acculturation did not mediate the relationship between religiosity and sexual attitudes, greater acculturation amongst Asian and Hispanic participants was predictive of sexual attitudes similar to those of Euro-American participants. The study also reported a significantly stronger relationship between conservatism of sexual attitudes and higher levels of intrinsic religiosity and spirituality for Asian, Hispanic, and Euro-American women.

In another study using measures of acculturation and questionnaires related to sexual experience and casual sexual behaviour, Meston and Ahrold (2010) studied the normative sexual practices of Euro-American, Hispanic, and Asian men and women. Based on a data sample of 1,419 college students (67% Euro-American, 17% Hispanic, 16% Asian; 33% men, 67% women), Meston and Ahrold (2010) found Hispanic participants reported sexual experiences similar to those of Euro-Americans. They also found Asian participants reported more
conservative levels of sexual experience and frequency of sexual behaviour, older ages of sexual debut, and fewer life partners than both Hispanic and Euro-American participants.

With regards to women, the study found women in all ethnic groups presented equally liberal or more liberal sexual behaviours than men. The study also found acculturation impacted women more than men as well as noted that while women with higher heritage acculturation levels did not display increasing casual sexual behaviours with acculturation, Asian female participants with lower levels of heritage acculturation reported more casual sexual behaviour with increasing mainstream acculturation. Based on these findings the researchers suggested the relationship between acculturation and casual sexual behaviour amongst Asian women may be best described as an assimilation model of acculturation.

In their study exploring acculturation, permissiveness, and sexual functioning with a specific focus on arousal among East Asian \( (n = 176) \) and Euro-Canadian \( (n = 173) \) female university students, Brotto et al. (2005) found no significant differences in relationship satisfaction or problems with sexual functioning. The study did however find Asian-Canadian women had higher anxiety related to anticipated sexual activity, less sexual knowledge and experience, less liberal attitudes, and lower rates of desire, arousal, sexual receptivity, and sexual pleasure when compared to Euro-Canadian women (Brotto et al., 2005). Data analysis also found greater mainstream acculturation amongst Asian-Canadian women was associated with higher sexual desire and arousal (Brotto et al., 2005).

In another study exploring age of first sexual intercourse and the effects on adult sexual responding Woo and Brotto (2008) found older age of first intercourse was associated with more sexual problems, including more sexual infrequency, sexual avoidance, and non-sensuality. With regards to women, later age of first intercourse was also associated with greater
Vaginismus scores. The study also found lower levels of acculturation amongst Asian-Canadian was predictive of more sexual complaints, including sexual avoidance, dissatisfaction, non-sensuality, and sexual non-communication. Additionally, while there were no ethnic differences on male-specific sexual complaint measures, Asian female participants reported higher Vaginismus and Anorgasmia scores than their Euro-Canadian counter-parts.

Similar findings were also reported in a study that surveyed Euro-Canadian and Chinese female university students with regards to sexual knowledge, sexual function, acculturation, and Papanicolaou (Pap) testing frequency (Woo et al., 2009). In this study Euro-Canadian female participants were found to have significantly more accurate sexual knowledge, higher levels of sexual functioning, a wider range of sexual activities, and higher Pap testing rates than Chinese female participants (Woo et al., 2009). The study also found Chinese female participants reported embarrassment as a barrier to Pap testing. Woo et al. (2009) concluded that while mainstream acculturation was associated with more accurate sexual knowledge, greater sexual desire, and satisfaction, lower rates of Pap testing amongst Chinese women may be associated with greater affiliation to heritage culture. The impact of acculturation was also observed in a study investigating the differences between Euro-Canadian and East-Asian women’s willingness to participate in sexual psychophysiological research. In this study Woo et al. (2010) found East-Asian women with a strong affiliation to their heritage culture and those with lower levels of assimilation to western culture were less likely to participate in sexual psychophysiological research.

In a study investigating the relationship between sex guilt, culture, and female sexual desire, analysis of questionnaires completed by East-Asian ($n = 137$) and Caucasian ($n = 105$) female university students revealed sexual conservatism and sex guilt each separately mediated
the relationship between ethnicity and sexual desire. The study also found participants who
reported greater sexual conservatism and those who experienced greater sex guilt reported lower
levels of sexual desire (Woo et al., 2011). Data analysis also revealed that while East-Asian
women reported significantly lower levels of sexual desire, significantly higher levels of sexual
conservatism, and significantly greater sex guilt than Caucasian women, greater acculturation
among East-Asian women was associated with lower sex guilt, which was in turn associated with
greater sexual desire. Based on these findings the researchers concluded sex guilt may
contribute to ethnic groups differences in sexual desire (Woo et al., 2011).

Likewise, in a study exploring the relationship between sex guilt and sexual desire in a
community sample of Chinese \( n = 87; \) mean age = 42.8 years) and Euro-Canadian women \( n =
78; \) mean age = 42.1 years), Woo et al., (2012) found sex guilt mediated the relationship between
mainstream acculturation and sexual desire. The study also reported that while Chinese women
reported greater sex guilt, which was associated with lower sexual desire than Euro-Canadian
participants, greater mainstream acculturation among Chinese women was associated with lower
sex guilt, which was in turn associated with greater sexual desire (Woo et al., 2012). Keeping in
mind the construct of sexual conservatism in Asian culture, the researchers noted that their
finding supported the notion that sex guilt may be one way in which ethnicity affects sexual
desire. Additionally, in a study concerning sexual guilt and desire in East-Asian and Euro-
Canadian men, Brotto, Woo, and Gorzalka (2012) found East-Asian Canadian men reported
lower sexual desire and higher sex guilt in comparison to Euro-Canadian men.

In a multi-ethnic study examining the effect of ethnicity, acculturation, religion, and
gender on the sexual attitudes of Canadian and American medical students Leiblum, Wiegel, and
Brickle (2003) surveyed 235 second year medical students, nursing students, and physician
assistant students ($n = 144$ medical school in North Eastern USA; $n = 92$ medical school in British Columbia) with a mean age of 25 years. Slightly over half (51.7%) of the participants identified as Caucasian: American, Western European, Canadian, South African decent; 4.2% Caucasian: Eastern European, Russian; 16.5% as Asian; 12.3% South Asian; 4.2% as African American, 3.9% as Hispanic, 3% as African and 3% as Middle Eastern. Three-fifths (60.2%) of the participant pool identified as female and 39.8% identified as male. In terms of relationship status, 62% of women and 78% of men reported being single, 8.1% were married, and 11.9% were cohabitating. The study found acculturation to western culture and length of residency was associated with greater sexual liberalism. Review of CCAS scores indicate Caucasians, which was comprised of American, Canadian, Western European, and South African participants ($\text{Total CCAS score} = 93.3$; CCAS Total Sexual comfort score $= 30.7$) to be the most sexually liberal whereas Middle Eastern ($\text{Total CCAS score} = 113.9$; CCAS Total Sexual comfort score $= 39.9$), South Asian ($\text{Total CCAS score} = 114.38$; CCAS Total Sexual comfort score $= 38.9$), and Asian ($\text{Total CCAS score} = 113.3$; CCAS Total Sexual comfort score $= 39.9$) participants were the most sexually conservative (Leiblum et al., 2003). The researcher also reported that when acculturation was controlled for, the explanatory power of ethnicity increased such that the variance in CCAS total scores increased from 22% to 26%, with nearly all of this shift being attributable to South Asian participants. These finding suggest that South Asian participants in this study were the least susceptible to changing their conservative sexual beliefs towards greater liberalism as a result of acculturation (Leiblum et al., 2003). As may be inferred from these studies, acculturation to western sexual values and practices verses strong ties to the sexual values and practice of one’s heritage culture significantly influences a person’s sexual attitudes, beliefs, and behaviours irrespective of length of residency in western cultures such as Canada.
South Asian Female Sexual Desire

Recognized as a largely patriarchal society that offers few opportunities for the discussion of female sexuality, South Asian culture plays a significant role in shaping South Asian women’s sexuality, sexual health beliefs, values, and practices (Bhattacharya, 2004; Chaudhry et al., 2003; Hilton et al., 2001; Palak, 2005). South Asian women raised or living in the West are faced with the challenge of navigating two unique cultures with two different ways of conceptualizing sexuality, sexual desire, and sexual health differently than those who subscribe exclusively to either value system. Given the differences between the two cultures, it may be assumed that the pressure to conform to each culture’s expectations may be a source of cultural conflict and stress in the lives of South Asian women raised in the West (Abouguendia & Noels, 2001; Bhattacharya, 2004; Chaudhry et al., 2003; Palak, 2005; Okazaki, 2002; Talabani & Hasanali, 2000; Tang, Solomon, Yeh, & Worden, 1999; Varghese & Rae Jenkins, 2009).

With respect to sexual health, research has consistently found South Asian women typically have lower rates of HPV and cervical cancer screening; higher rates of cervical and breast cancer; limited utilization of sexual health services; less contact with the sexual health care system; and limited knowledge with regards to reproductive health (Brotto et al., 2008; Crawford, Ahmad, Beato, & Bierman, 2016; Gupta, Kumar, & Stewart, 2002; Menon, Szalacha, & Prabhughate, 2012; Islam, Kwon, Senie, & Kathuria, 2006; Hulme et al., 2016; McCaffery et al., 2003).

In a study comparing sexual attitudes and behaviours, Schnack (2008) investigated the predictive effect of ethnicity, religion, and acculturation, on sexual excitation (SE) and sexual inhibition (SI) scores and its relationship to sexual functioning. Participants in this study (South Asian Women: n = 90; White women: n = 243) complete online the Vancouver Index of
Acculturation, Abbreviated Sexual Function Questionnaire (ASFQ), and Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W). Data analysis found ethnic and religious group differences on the SESII-W Arousability subscale and on all domains of the ASFQ, with the South Asian group scoring lower on both measures. Schnack (2008) also noted that while acculturation scores had no predictive effect on sexual functioning, with regards to the South Asian group, heritage acculturation was predictive of higher SI scores on the Relationship Importance subscale of the SESII-W. These findings may be attributed to South Asian cultural values related to female sexuality, chastity, promiscuity and fidelity, prioritization of the male gender in South Asian society (McCaffery et al., 2003; Schnack 2008). Although many South Asian women both in South Asia and abroad have achieved various degrees of independence, female sexual autonomy is much more difficult to achieve in this traditionally patriarchal culture.

Subject to sociocultural values, beliefs, and norms, sexual desire may be viewed as the manner in which a person conceptualizes, expresses, and enacts sexual feelings based on complex internal (e.g. biological) and external (e.g. familial, relational, socio-cultural) experiences (Davidson et al., 2002). Although sexual desire is an aspect of sexuality and sexual health, literature review conducted using popular search engines suggests sexual research related to South Asian populations is limited, with the majority of studies focused on male sexual health. Sexual research related to South Asian women is scant, and research specifically focused on sexual desire as experienced by South Asian women is non-existent. This may in part be attributed to the deeply embedded patriarchal cultural beliefs and values regarding female sexuality. It may also reflect the under-representation of ethnic minorities in higher education in the field of psychology and the under-representation of ethnic minority participants in psychological research (Arnett, 2008; Brown, Marshall, Bower, Woodham, & Waheed, 2014;
Henrich, Heine, and Norenzayan (2010) argue knowledge in psychology is based on the behaviours of Western, Educated, Industrialized, Rich, and Democratic (WEIRD) samples which have been found to be atypical of human beings around the world. Thus, the implicit assumption that findings based on WEIRD samples are universally generalizable is unsound and may lead to a biased representation of humanity (Arnett, 2008; Henrich et al., 2010). Based on this logic, to assume South Asian women experience sexual desire in the same manner as Euro-Canadian women would be an inaccurate generalization. Therefore, empirical research utilizing parametric measures may be useful in understanding female sexual desire as experienced by South Asian women.
CHAPTER III: METHODOLOGY

Method Rationale

Quantitative research allows for the statistical analysis of specific variables as well as contributes to the empirical knowledge and understanding of the subject under investigation. At the time of this study research related to sexual desire and South Asian women was not present in the literature. Therefore, to establish background support for this study, research related to acculturation and sexual desire was explored. Findings from these studies suggest greater acculturation to mainstream Western culture to be positively associated with higher scores of sexual desire and sexual functioning (Brotto et al., 2005; Leiblum et al., 2003; Meston & Ahrold, 2010; Woo et al., 2009).

Research related to South Asian women and sexual health was also reviewed. In addition to literature regarding South Asian cultural beliefs related to sexuality and female sexual restrictions, studies have found South Asian women are less likely to contact and/or utilize sexual health services; have lower sexual health screening rates; and have lower levels of sexual health knowledge (Brotto et al., 2008; Crawford, 2016; Gupta et al., 2002; Menon et al., 2012; Islam et al., 2006; Hulme et al., 2016; McCaffery et al., 2003). Based on these findings and the absence of literature specifically related to South Asian women’s experience of sexual desire, this study used quantitative measures to examine the relationship between acculturation and sexual desire, and enculturation and sexual desire in South Asian women living in BC.

Study Design

According to Berry’s (1974, 1980, 2002) bidimensional model a person may fall into one of the following four acculturation-enculturation groups: a) High Acculturation, Low Enculturation (e.g. assimilation); b) High Enculturation, Low Acculturation (e.g. separation); c)
High Acculturation, High Enculturation (e.g. integration); and d) Low Acculturation, Low Enculturation (e.g. marginalization). While this study acknowledges these categories, the specific purpose of this within groups design quantitative study was to investigate the statistical relationship between mainstream (Canadian) acculturation and sexual desire; and the relationship between enculturation to heritage (South Asian) culture and sexual desire. Keeping in mind acculturation and enculturation are pre-existing characteristics that cannot be randomly assigned, data was statistically examined after collection. This was done by analyzing the relationship between SDI-2 and VIA scores. Statistical data related to demographic factors and sexual desire was also reported.

Research Questions and Null Hypotheses

The research questions for this study were as follows:

1. Is there a relationship between acculturation to mainstream (Canadian) culture and level of sexual desire in South Asian females living in BC?
2. Is there a relationship between enculturation to heritage (South Asian) culture and level of sexual desire in South Asian females living in BC?

The null hypotheses for this study were as follows:

Ho #1: There will be no statistically significant correlation between VIA acculturation scores and SDI-2 scores for the participants in this study.

Ho #2. There will be no statistically significant correlation between VIA enculturation scores and SDI-2 scores for the participants in this study.

Data Collection

According to section 30.1 of the BC Freedom of Information and Protection of Privacy Act (FIPPA) “A public body must ensure that personal information in its custody or under its
control is stored only in Canada and accessed only in Canada” (Revised Statutes of British Columbia, 1996). In accordance with this act, the platform selected for this study was SurveyGizmo. SurveyGizmo is HIPPA and PIPEDA compliant as well as is specifically designed for building and managing secure online professional and academic surveys and databases (Butler & Rollnick, 2003; Millikin, 2019).

Recruitment

Upon receiving approval from the Antioch University Institutional Review Board for Human Participants Research (Appendix E) the recruitment phase of this study was initiated. Mindful of taboos surrounding sexuality in South Asian cultures, the study was advertised as the S.A.R.I. Study: South Asian Relationship and Intimacy Study. In addition to social media, written requests to advertise this study for the purposes of participant recruitment were sent to various community, multicultural, and ESL centres, religious institutions, post-secondary institutions, hospitals, clinics, and South Asian newspapers and magazines. Upon receiving site approval, participant recruitment posters were posted in the designated posting areas of the site. To protect the anonymity and confidentiality of participants the recruitment site list was not included in this dissertation.

Participants

Individuals interested in this study were invited to visit the study website (www.saristudy.ca) listed on the study poster. The study website included a link to the informed consent page for the study as well as a general resource page that site visitors could access (Appendix A). Individuals who electronically consented to participate in the study were automatically directed to the study questionnaire. Individuals who did not electronically consent to participate in the study were not given access to the questionnaire. To ensure participant
confidentiality and anonymity, computer IP addresses, and cookies were not collected for the website and survey link.

The study questionnaire, which was comprised of a demographics questionnaire, the Vancouver Index of Acculturation (VIA), and the Sexual Desire Inventory-2 (SDI-2) was presented as a single page scrolling design format (Appendix A). Research suggests the scrolling design “leads to significantly faster completion times, lower (though not significantly lower) breakoff rates, fewer technical problems, and higher subjective ratings of the questionnaire” (Maveltova & Couper, 2014, p. 498). Upon completion of the questionnaire participants were directed to a separate “thank you” page which provided them with a link to electronically consent to entering their e-mail address into a computer-generated raffle for a chance to win 1 of 4, $100 pre-paid visa cash cards. Participants were informed that their e-mail address would be kept confidential, would not be linked to their questionnaire, and that all responses were anonymous and could not be traced back to any participants.

**Inclusion Criteria**

Individuals who self-identified as South Asian females age 19 years and above, who were able to read and understand English, and were currently living in BC, were eligible to participate in this study.

**Sample Size**

South Asians are one of the most diverse ethno-cultural populations in Canada (Appendices B and C), representing 5.6% of Canada’s total population and 25% of Canada’s total visible minority population (Statistics Canada, 2017a). In British Columbia, South Asians comprise 26.4% (Total: 365,705) of the total visible minority population, 25.1% (182,055) of female visible minority population, and 27.8% (183,650) of male visible minority population.
(Statistics Canada, 2017a). Based on these data, random sampling was used to draw a small representative sample of this population so as to increase the generalizability of finding from this study.

Vanhoorhis and Morgan (2007) suggest a sample of “no less than 50 participants is required for a correlation or regression” (p. 48). The sample size for this study was based on the goal of achieving statistical significance. A 95% confidence level was used to determine the sample size for this study. Confidence level refers to the expression of confidence that the data obtained from the sample population reflects how frequently that percentage of the target population would provide a response that lies within the confidence interval. The sample-sizing guidelines presented in Smith (2013) was used. In order to achieve a 95% confidence level, 0.5 standard deviation, and a confidence interval ± 0.05 (also referred to as the margin of error), the formula $\text{Sample Size} = (Z\text{-score } 1.96)^2 \times \text{StdDev}^2 \times (1 - \text{StdDev}) \div (\text{margin of error})^2$ was used and it was determined that a sample size of 384 participants would be required for this study.

**Measures**

**Demographics Questionnaire**

A demographics questionnaire (Appendix A) was used to collect data related to age, heritage culture, relationship status, parental status, gender identity, sexual orientation, spiritual/religious belief system, and female sexuality, to further characterize the groups and investigate the relationship between these factors, acculturation, enculturation, and sexual desire.

**Vancouver Index of Acculturation (VIA)**

The Vancouver Index of Acculturation (VIA) is a quantitative self-report measure (Appendix A) that assesses bidimensional acculturation using mainstream (i.e. dominant culture)
and heritage (i.e. birth culture) culture as separate orthogonal dimensions (Ryder, Alden, & Paulhus, 2000). Created as an “alternative to the 'strategy' approach of categorizing people into integration, assimilation, separation, and marginalization groups” which may sometimes result in the loss of information “both conceptually and statistically” (A. G. Ryder, July 12, 2017, personal communication), the VIA consists of two items per each of the 10 domains, for a total of 20 items. The 10 domains include: cultural traditions, marriage partner, social activities, comfort in professional relationships, entertainment, behavior, maintenance or development of cultural practices, values, humour, and social relationships. Items may be answered on a Likert scale ranging between 1 (Disagree) up to 9 (Agree). Scores on each domain range from 1 to 9, with higher scores on the mainstream dimension reflecting greater westernization and higher scores on the heritage dimension reflecting greater maintenance to one’s culture of origin.

With regards to scoring, the VIA does not include statistical cut-off scores to “preserve the dimensionality of acculturation” (A. G. Ryder, July 12, 2017, personal communication). Heritage sub-score is calculated by summing the odd-numbered items and then determining the mean for these items, whereas the mainstream sub-score is calculated by summing the even-numbered items and then determining the mean for these items. The measure has, however sometimes been interpreted “according to the meaning of the response scale—1–3, low; 4–6, moderate; 7–9, high” (A. G. Ryder, July 12, 2017, personal communication). It is important to note that these ‘cut-scores’ are “by no means formally validated” (A. G. Ryder, July 12, 2017, personal communication). Rather, it is sometimes interpreted in this way “to make it easier to talk about, not to reify categories” (A. G. Ryder, July 12, 2017, personal communication).

With respect to psychometric properties, the VIA was normed through a series of studies involving male and female undergraduate participants of Chinese, East Asian (e.g. Japanese,
Korean, Vietnamese), and non-East Asian, non-English-speaking (e.g. East Indian, Italian, or Arabic) descent (Ryder et al. 2000). Reliability of the VIA was assessed by means of Cronbach alpha coefficients and mean inter-item correlations. Both heritage and mainstream dimension was highly internally consistent as well as had high mean inter-item correlations in the Chinese (Heritage: Cronbach’s α = .91, rs = .52; Mainstream: Cronbach’s α = .89, rs = .45); East Asian (Heritage: Cronbach’s α = .92, rs = .53; Mainstream: Cronbach’s α = .85; rs = .38), and non-East Asian, non-English-speaking participants (Heritage: Cronbach’s α = .91, rs = .51; Mainstream: Cronbach’s α = .87; rs = .44). Ryder et al. (2000) also found mainstream and heritage acculturation could be measured reliably such that analysis demonstrated that the two dimensions of acculturation were orthogonal in the overall sample (r = .09, ns) as well as in both first (rs = .09, ns) and second-generation groups (rs = .15, ns). Concurrent and factorial validity were also found to yield significant correlations on both dimensions for all three groups.

**Sexual Desire Inventory-2 (SDI-2)**

Prior to the development of the Sexual Desire Inventory-2 (Appendix A) the construct of sexual desire was measured either indirectly by examining the “frequency of sexual behaviour, or by broad self-report of cognitions, such as ‘rate your level of sexual desire’” (Spector, Carey, & Steinberg, 1996, as cited in Fisher, Davis, Yarber, and Davis, 2013, p. 193). However, given there is no empirical evidence suggesting sexual desire and behaviour are perfectly correlated to measure it in behavioural terms would be an inaccurate assessment of this multidimensional construct (Spector et al., 1996, as cited in Fisher et al., p. 193, 2013).

Sexual desire may be defined as an “interest in sexual activity” which can “be measured through the amount and strength of thought directed toward approaching or being responsive to sexual stimuli” (Spector et al., 1996, p. 178). Developed by Spector et al. (1996) the Sexual
Desire Inventory-2 (SDI-2) is a self-administered questionnaire created for the purposes of measuring solitary and dyadic sexual desire in cognitive (e.g. thoughts) rather than behavioural (e.g. frequency of sexual behaviours) terms. Dyadic sexual desire is defined as “interest in or a wish to engage in sexual activity with another person” which may “involve a desire for intimacy and sharing with another” whereas “solitary desire refers to an interest in engaging in sexual behaviour by oneself, and may involve a wish to refrain from intimacy and sharing with others” (Spector et al., 1996, p. 186).

The development of the Sexual Desire Inventory took place over three phases. During the test construction phase items based on existing theoretical models of desire, DSM-III-R diagnostic criteria for Hyposexual Desire Disorder (HSDD), and clinical experience in assessing and treating sexual desire disorders were created (Spector et al., 1996). Items represented the following domains: interest in dyadic sexual behavior (e.g. desired frequency of intercourse), interest in individual sexual behavior (e.g. desired frequency of masturbation), cognitions (e.g. fantasies), and importance of sexual needs. The Sexual Desire Inventory-Pilot (SDI-P) was then pilot-tested by 24 (17 female and 7 male; mean age = 20.8 years, SD = ± .9 years, range = 19–23 years) undergraduate students. Subject feedback regarding item clarity and relevance served as the basis for the deletion, addition, and modification of items.

In the next phase of development, Study One, the SDI-1 was developed. The purpose of Study One was to examine the factor structure of the revised SDI (SDI-1). The Sexual Desire Inventory-One (SDI-1) consisted of 20 items based on the suggested revisions of the pilot sample. The SDI-1 was administered to 197 female and 117 male (mean age = 23.0 years, SD = ± 5.5 years, range = 18–51 years) undergraduate and graduate recruits. A factor analytic study was completed using the inventories of 300 participants who did not omit any items. Based on
this analysis it was hypothesized that sexual desire may consist of two dimensions, dyadic sexual desire, and solitary sexual desire. SDI-1 items were then revised (SDI-2) to measure dyadic and solitary sexual the factor structure of SDI-2 was then assessed for reliability in Study Two. The SDI-2 was administered to 249 female and 131 male (mean age = 20.8 years, SD = ± 2.7 years, range = 18–40 years) undergraduate students. Factor analysis supported the presence of dyadic and solitary desire with internal consistency estimates using Cronbach's alpha coefficients being .86 for dyadic sexual desire and .96 for solitary sexual desire, thereby indicating strong evidence for the reliability of the SDI.

The SDI-2 consists of 14-items intended to measure solitary (items 10–13) and dyadic (items 1–9) sexual desire, and the length of time the subject feel comfortable without having sexual activity of any kind (Item 14). Items concerning frequency are scored on an 8-item response scale from ‘0’ (not at all) to ‘7’ (more than once a day). Remaining items are answered on a 9-point Likert scale ranging from ‘0’ (no desire) to ‘8’ (strong desire). With regards to scoring, while there is no technical manual or cut-off scores for the SDI-2 (M. P. Carey, July 8, 2017, personal communication; I.P. Spector, July 7, 2017, personal communication), the dyadic sexual desire scores may be calculated by summing items 1–8, and the solitary scores may be calculated by summing items 1012 (Spector et al., 1996; I.P. Spector, November 10, 2017, personal communication). Scores may range from 0 to 112, with higher scores reflecting higher scores for sexual desire on the SDI-2 (Spector et al., 1996).

**Data Analysis**

The purpose of this study was to analyze whether there is a relationship between (a) acculturation to mainstream (Canadian) culture and level of sexual desire, and (b) enculturation to heritage (South Asian) culture and level of sexual desire in South Asian females living in BC.
Before any analyses were conducted, data was screened, coded, and compiled in the Statistical
Package for the Social Sciences (SPSS) software. After the data was coded, each scale and sub-
scale, that is, the VIA and the VIA-Heritage and VIA-Mainstream scales; and the SDI-2 and
SDI-2 Dyadic and SDI-2 Solitary scales, were assessed for outliers. A cut-off of ±3 standard
deviations from the mean was used to identify outliers. While there are a number of different
methods that can be used to operationalize outliers, ±3 standard deviations is typically
considered the default threshold (Spatz, 2011). This method is based on the assumption that
when data is normally distributed, 99% of the data will fall within ±3 standard deviations of the
mean. Therefore, an outlier would be any data point that is in the 1% region that is more than 3
standard deviations away from the mean.

The next step was to determine whether parametric or non-parametric testing would be
appropriate for data analysis. Parametric testing is based on the underlying assumption that the
source population from which the data-set has been drawn is normally distributed and
information regarding population parameters such as the population mean (which is also
considered the measure of central tendency in parametric testing), standard deviation, and
variance can be made based on statistical analysis of the sample data-set (Campbell &
Shantikumar, 2016; Swinscow & Campbell, 2002). Additionally, variables of interest in
parametric testing are typically measured on an interval or ratio scale since these scales are
continuous, predictable, equal-interval scales (Surbhi, 2016). In contrast, non-parametric testing
assumes the source population from which the data has been collected is not normally distributed
and information regarding population parameters are unknown (Campbell & Shantikumar, 2016;
Swinscow & Campbell, 2002). Variables of interest in non-parametric testing are also non-
metric (i.e. measured on a nominal or ordinal scale) and the median is considered the measure of central tendency (Surbhi, 2016).

Both parametric and non-parametric methodologies offer hypothesis testing to assess the correlation between two variables. A correlation is a bivariate analysis that involves measuring the strength and direction of a relationship between two variables (Grande, 2014, 2016; Pierce, 2018; Wilson, 2009). With regards to strength, a correlation coefficient may fall between +1 and -1, with a value of ±1 indicating a perfect degree of association between two variables and values closer to 0 indicate a weaker relationship (Grande, 2014, 2016; Pierce, 2018; Wilson, 2009). In terms of direction, the relationship between two variables is denoted by the sign of the coefficient, with a positive (+) sign signifying a positive relationship and a negative (−) sign indicating a negative relationship (Grande, 2014, 2016; Pierce, 2018; Wilson, 2009). With respect to the present study, the first step was to determine whether parametric or non-parametric analyses would be most suitable for the present data-set. Specifically, it was examined whether Pearson’s $r$ correlation coefficient or Spearman’s Rank order correlation coefficient ($r_s$) would be suitable for data analysis.

A common parametric method used to examine the linear relationship between two quantitative variables in a sample data-set is the Pearson’s $r$ correlation coefficient. The Pearson’s $r$ correlation coefficient requires the data-set to come from a normal distribution with a fixed set of parameters or assumptions, demonstrate homoscedasticity (i.e. equal distribution of data on the regression line), and be linearly related (Grande, 2014, 2016, 2017; Steyn, 2013; Tyler, 2017). Based on the assumption of linearity and normal distribution, variables must also be on interval and/or ratio scales.
In contrast, Spearman’s Rank order correlation ($r_s$) is a non-parametric statistic that measures the strength and direction of association between two variables without making any assumptions with regards to the distribution or linearity (i.e. data may be linear/non-linear; normally/non-normally distributed) of the data (Field, 2013a; Grande, 2015; Lund & Lund, 2018a; Ogee, Ellis, Scibilia, Pammer, Steele, 2015; Spatz, 2011). As such, variables may be ordinal, interval, or ratio in nature (Spatz, 2011). Additionally, Spearman’s Rank order correlation ($r_s$) also assesses the monotonic relationship between two variables (i.e. variables may increase/decrease in the same/opposite direction at either a steady or varying rate) which may be ordinal, interval, or ratio in nature (Field, 2013a; Grande, 2015; Lund & Lund, 2018a; Ogee et al., 2015; Spatz, 2011).

Based on the aforementioned information, statistical assumptions of the parametric correlation Pearson’s $r$ was assessed. First, the data were examined for statistical outliers and all outliers were removed. Next, data for each scale was assessed to determine whether they were approximately normally distributed. Given the criterion for Pearson’s $r$ correlation coefficient, if the assumption of normality was violated, then the non-parametric Spearman’s Rank order correlation ($r_s$) would be considered more appropriate for the purposes of data analysis.

Data for each scale was then tested for normality using the Shapiro-Wilk test of normality. The Shapiro-Wilk test of normality is a statistical test that examines whether the random sample data-set has come from a population that is normally distributed by assessing whether the distribution of scores from the data-set are significantly different from a normal distribution (Field, 2013a; Lund & Lund, 2018b; Statistics How-to, 2019). The null hypothesis associated with the Shapiro-Wilk test of normality proposes that the data comes from a normal distribution whereas the alternative hypothesis posits that the data are not normally distributed
(Field, 2013a; Lund & Lund, 2018b; Statistics How-to, 2019). As such, a significant $p$-value would indicate that the data are significantly different from normally distributed data, thus rejecting the null hypothesis (Field, 2013a; Lund & Lund, 2018b; Statistics How-to, 2019).

In the present study a significant $p$-value (i.e. < .05) was set as the cut-off value of significance which would indicate that the shape of the distribution is significantly different than the normal distribution and therefore the data are not approximately normally distributed. Results of the series of Shapiro-Wilk tests of normality (Table 4) found distribution of data for five of the six scales and/or subscales were significantly different than that of a normal distribution. As reported in Table 4, a significant $p$-value indicated that the distribution of data for that particular scale was significantly different from a normal distribution and therefore the data do not approximate a normal distribution. In other words, data for that scale were not normally distributed. Based on these findings the Spearman's Rank Order correlation ($r_s$) was determined to be more appropriate than the Pearson's $r$ correlation coefficient.

The next step in the data analysis phase was to assess internal reliability of the VIA scale, VIA-Heritage, and VIA-Mainstream sub-scales as well as the SDI-2 scale, SDI-2 Dyadic, and SDI-2 Solitary sub-scales. Internal reliability was assessed using Cronbach’s Alpha. Cronbach’s alpha measures the consistency with which participants respond to similar items (i.e. items within a particular scale or sub-scale). For example, an individual participant’s responses to all of the items measuring the VIA-Mainstream sub-scale questions should be similar. A Cronbach alpha score of 0.00 would indicate zero consistency across items, while a score of 1.00 would indicate complete consistency across items. Typically, a value of .70 or greater is considered acceptable for internal reliability (Nunnally & Bernstein, 1994). The present study examined the
internal reliability for the VIA and SDI-2 scales as well as each of the sub-scales associated with
the VIA and SDI-2 (Table 3).

Following assessment of internal reliability, descriptive statistics for the VIA and SDI-2 scales and subscales, including measures of central tendency (mean, median, and mode) and measures of variability (standard deviation and range), were then calculated and reported. Additionally, descriptive statistics for questions pertaining to key demographic and participant characteristics were also reported. These included: participants’ ages, culture, relationship status, parental status, gender identity, sexual orientation, spiritual/religious belief system, and female sexuality.

After reporting demographic characteristics and descriptive statistics of the sample, the research questions for this study were addressed systematically. The first step of this process was to determine whether the Pearson’s Correlation coefficient or the Spearman’s Rank Order correlation coefficient would be the most appropriate statistical analyses. This determination between use of the Pearson’s Correlation coefficient or Spearman’s Rank Order correlation coefficient was based on the statistical properties of each variable (e.g. conducting the frequency distributions to approximate normally distributed data). After this was completed, correlations among the VIA scale and subscales, and the SDI-2 scale and sub-scales were calculated and reported.

Finally, an analysis of the relationship between participants’ demographic information and their VIA and SDI-2 scores was conducted as exploratory analyses. Depending on whether the data approximated normal distributions or not, the most appropriate parametric or non-parametric test was used.
CHAPTER IV: RESULTS

Participant Demographics

Of the 579 individuals who consented to participate in this study, 173 did not respond to any items on the study questionnaire; 21 did not meet the inclusion criteria of self-identifying as South Asian; and 8 did not meet the inclusion criteria of self-identifying as female. Based on these findings, a total of 202 participants were excluded from analyses. Thus, analyses was based on data from the remaining 377 participants of this study. Based on a population size 182,055, to achieve a 95% confidence level with a 0.5 standard deviation for a sample size of 377, the margin of error would be ± 5.0421% and the confidence interval would be equal to ± 0.050421 (Raosoft, n.d.; Smith, 2013).

Gender Identity

All 377 participants identified their gender as female.

Age

The age of participants ranged from 19 to 65 years (Mean = 27.08, Median = 23.00; SD = 9.58). Most participants (n = 230; 61.0%) were between the ages of 20-29. There were 43 (11.4%) participants under the age of 20; 64 (17 %) participants between the ages of 30–39; 22 (5.8%) participants between 40–49 years; 13 participants (3.4%) between the ages of 50–59; and 5 (1.3%) 5 participants 60 years of age or older.

Cultural Identity

All participants identified as South Asian. The most common South Asian Cultural Identity was Punjabi (n = 165; 43.8%), followed by Northern Indian (n = 40; 10.6%), Pakistani (n = 37; 9.8%), Eastern Indian (n = 25; 6.6%), and Indo-Fijian (n = 24; 6.4%). The remaining
participants came from 22 other identified South Asian cultural identities, none of which accounted for more than 3.71% of the study sample.

**Religious/Spiritual Belief System**

Participants were comprised of 17 different religious/spiritual belief system. The most common religion was Sikhism ($n = 136; 36.1\%$), followed by Hinduism ($n = 59; 15.6\%$), and Islam ($n = 55; 14.6\%$). A total of 11.4\% ($n = 43$) participants reported being Spiritual, but not Religious, 6.4\% ($n = 24$) identified as Agnostic, and 3.7\% ($n = 14$) identified as Atheist. None of the other religions accounted for more than 2.7% of the sample.

**Relationship Status**

While relationship status responses varied, participants could be grouped into three main categories: (a) In a relationship ($n = 123; 32.6\%$); (b) Married/Common-Law ($n = 91; 24.1\%$); and (c) Single (Total $n = 163; 43.2\%$), which was comprised of Single ($n = 101; 26.8\%$), Never been in a relationship ($n = 55; 14.6\%$), Separated/Divorced ($n = 6; 1.59\%$), and Widowed ($n = 1; 0.26\%$).

**Parental Status**

Most participants ($n = 307; 81.4\%$) reported they did not have children (No children ($n = 303; 80.4\%$), Trying to get Pregnant ($n = 4; 1.06\%$)). The remaining 18.6\% (Total $n = 70$) participants reported having at least one child (I have children ($n = 68; 18.04\%$), Pregnant ($n = 1; 0.26\%$), and Pregnant and have children ($n = 1; 0.26\%$)).

**Sexual Orientation**

A total of 329 (87.3\%) participants identified as Heterosexual; 23 (6.1\%) identified as Bisexual; 7 (1.9\%) participants identified as Gay/Lesbian; 7 (1.9\%) identified as Pansexual; 3 (0.8\%) participants identified as asexual; 2 (0.5\%) as questioning; and 6 (1.6\%) participants
indicated prefer not to answer as their response. A complete description of participants’
demographic characteristics can be found in Table 1.

Table 1
Demographic Characteristics

<table>
<thead>
<tr>
<th>Demographic Information</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
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<td>100</td>
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<td><strong>Age</strong></td>
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<td>Less than 20 years old</td>
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<td>Prefer not to answer</td>
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Table 1 cont’d.

Demographic Characteristics

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<th>Percentage (%)</th>
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<td>1.9</td>
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<td>1.3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual</td>
<td>329</td>
<td>87.3%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>23</td>
<td>6.1%</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
<td>7</td>
<td>1.9%</td>
</tr>
<tr>
<td>Pansexual</td>
<td>7</td>
<td>1.9%</td>
</tr>
<tr>
<td>Asexual</td>
<td>3</td>
<td>0.8%</td>
</tr>
<tr>
<td>Questioning</td>
<td>2</td>
<td>0.5%</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>6</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

**Notes:**
\(^1\)Single included: Single (n = 101; 26.8%); Never been in a relationship (n = 55; 14.6%); Separated/Divorced (n = 6; 1.59%); Widowed (n = 1; 0.26%).
\(^2\)No to children included: No children (n = 303; 80.4%); Trying to get Pregnant (n = 4; 1.06%).
\(^3\)Yes to children included: Yes, I have children (n = 68; 18.04%); Pregnant (n = 1; 0.26%); Pregnant and have children (n = 1; 0.26%).
Female Sexuality Questions

When asked whether female sexuality is considered a taboo topic in their heritage culture, most participants \((n = 217; 57.6\%)\) strongly agreed or agreed \((n = 112; 29.7\%)\). Only 8 participants \((2.1\%)\) strongly disagreed, and 9 disagreed \((2.4\%)\). The remaining participants were either neutral \((n = 28; 7.4\%)\) or preferred not to answer \((n = 3; 0.8\%)\). When asked whether their heritage culture negatively judged women for expressing their sexuality, most participants strongly agreed \((n = 255; 67.6\%)\) or agreed \((n = 95; 25.5\%)\). Only 7 participants disagreed \((1.9\%)\). 13 participants \((3.5\%)\) were neutral, 2 preferred not to answer \((0.53\%)\) and 5 participants \((1.3\%)\) did not respond to this item. A description of questions pertaining to female sexuality can be found in Table 2.

Table 2
Female Sexuality Questions

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female sexuality is considered a taboo topic in my heritage culture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td>Disagree</td>
<td>9</td>
<td>2.4</td>
</tr>
<tr>
<td>Neutral</td>
<td>28</td>
<td>7.4</td>
</tr>
<tr>
<td>Agree</td>
<td>112</td>
<td>29.7</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>217</td>
<td>57.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women in my heritage culture are negatively judged for expressing their sexuality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>2</td>
<td>0.53</td>
</tr>
<tr>
<td>Did not answer</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>7</td>
<td>1.9</td>
</tr>
<tr>
<td>Neutral</td>
<td>13</td>
<td>3.4</td>
</tr>
<tr>
<td>Agree</td>
<td>95</td>
<td>25.2</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>255</td>
<td>67.6</td>
</tr>
</tbody>
</table>
**Vancouver Index of Acculturation (VIA)**

Participants completed the 20 item VIA as a measure of acculturation. Embedded within the VIA are two sub-scales, the VIA-Heritage (Enculturation) sub-scale, and the VIA-Mainstream (Acculturation) sub-scale. Each sub-scale contains 10 items. Internal reliability of the VIA and its sub-scales was assessed using Cronbach’s Alpha. Scale scores were calculated by computing the mean from the items pertaining to that specific scale or sub-scale. The VIA and each sub-scale had acceptable internal reliability (i.e. Cronbach’s Alpha > .70). Descriptive statistics for the VIA and the VIA sub-scales are reported in Table 3. According to other studies as a point of reference (A. Ryder, July 12, 2017, personal communication), these scores are in the moderate-to-high range.

Table 3

*Descriptive statistics of the Vancouver Index of Acculturation (VIA) and sub-scales*

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of Items</th>
<th>Mean (SD)</th>
<th>Median</th>
<th>Mode</th>
<th>Range</th>
<th>Reliability (Cronbach’s Alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIA Scale Score</td>
<td>20</td>
<td>6.44 (0.84)</td>
<td>6.44</td>
<td>6.44</td>
<td>2.50-8.89</td>
<td>.842</td>
</tr>
<tr>
<td>VIA-Heritage</td>
<td>10</td>
<td>6.33 (1.21)</td>
<td>6.40</td>
<td>6.80</td>
<td>2.50-9.00</td>
<td>.856</td>
</tr>
<tr>
<td>VIA-Mainstream</td>
<td>10</td>
<td>6.65 (1.02)</td>
<td>6.70</td>
<td>6.60</td>
<td>2.40-8.80</td>
<td>.843</td>
</tr>
<tr>
<td>SDI-2 Scale Score</td>
<td>14</td>
<td>4.05 (1.61)</td>
<td>4.27</td>
<td>4.09</td>
<td>0.00 – 7.64</td>
<td>.924</td>
</tr>
<tr>
<td>SDI-2 Dyadic</td>
<td>8</td>
<td>4.32 (1.67)</td>
<td>4.63</td>
<td>5.50</td>
<td>0.00 – 7.75</td>
<td>.895</td>
</tr>
<tr>
<td>SDI-2 Solitary</td>
<td>3</td>
<td>3.34 (1.84)</td>
<td>3.33</td>
<td>2.00</td>
<td>0.00 – 7.67</td>
<td>.743</td>
</tr>
</tbody>
</table>

The VIA and its sub-scales were assessed for outliers using a cut-off of ± 3 standard deviations from the mean. One outlier was removed from the VIA scale, the VIA-Heritage sub-scale, and the VIA-Mainstream subscale (scores: VIA = 2.50; VIA-Heritage = 2.50; VIA-Mainstream = 2.40). Another outlier was removed from the VIA-Mainstream sub-scale only (score = 2.70).
Assumption of normality was assessed using the Shapiro-Wilk test of Normality. A significant $p$ value (i.e. $< .05$) indicates that the shape of the distribution is significantly different than the normal distribution. The distribution of VIA scores did not significantly differ from the shape of a normal distribution. However, the VIA-Heritage and VIA-Mainstream sub-scales each did significantly differ from a normal distribution (Table 4). Given that the research questions focused specifically on enculturation and acculturation (i.e. the sub-scales), the non-parametric Spearman’s Rank Correlation Coefficient was used (instead of Pearson’s correlation coefficient) in subsequent analyses.

Table 4

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Statistic</th>
<th>df (degree of freedom)</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIA</td>
<td>.994</td>
<td>375</td>
<td>.183</td>
</tr>
<tr>
<td>Heritage</td>
<td>.982</td>
<td>375</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Mainstream</td>
<td>.981</td>
<td>375</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>SDI-2</td>
<td>.956</td>
<td>377</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Dyadic</td>
<td>.979</td>
<td>377</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Solitary</td>
<td>.971</td>
<td>377</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Sexual Desire Inventory-2 (SDI-2)

Participants completed 14 items on the Sexual Desire Inventory-2 survey. Embedded within the SDI-2 are two sub-scales, SDI-2 Dyadic sub-scale and the SDI-2 Solitary sub-scale. The SDI-2 Dyadic sub-scale consists of eight items, and the SDI-2 Solitary sub-scale consists of three items. Dyadic sexual desire is defined as “interest in or a wish to engage in sexual activity with another person” which may “involve a desire for intimacy and sharing with another” whereas “solitary desire refers to an interest in engaging in sexual behaviour by oneself, and may
involve a wish to refrain from intimacy and sharing with others” (Spector et al., 1996, p. 186). The SDI-2 and each of its sub-scales had acceptable internal reliability (i.e. Cronbach’s Alpha > .70). Descriptive statistics for the SDI-2 and the SDI-2 sub-scales are reported in Table 3.

The assumption of normality was assessed using the Shapiro-Wilk test of Normality. A significant p value (i.e. < .05) indicates that the shape of the distribution was significantly different than the normal distribution. The distribution of SDI-2 scores and scores on its sub-scales did significantly differ from that of a normal distribution (Table 4). The non-parametric Spearman’s Rank Correlation Coefficient was used (instead of Pearson’s correlation coefficient) in subsequent analyses on the relationship of VIA and SDI-2.

**Research Question One**

The first research question asked “Is there a relationship between acculturation to mainstream (Canadian culture) and level of sexual desire in South Asian females living in BC?” The research hypothesis associated with this question posited a relationship between acculturation (towards mainstream Canadian culture) and level of sexual desire (overall, dyadic, and solitary) in South Asian females living in BC. As such, significant correlations between VIA-Mainstream sub-scale scores and (a) SDI-2 Scale scores, (b) SDI-2 Dyadic sub-scale scores, and (c) SDI-2 Solitary sub-scale scores were predicted. The null hypothesis posited that there is no relationship between acculturation and sexual desire in South Asian females living in BC, and no significant correlation between VIA acculturation and SDI-2 scores would be found.

Given that neither the VIA-Mainstream sub-scale nor the SDI-2 and its sub-scales were normally distributed, Spearman’s Rank order correlation coefficient was determined to be the most appropriate correlation analysis. There was a significant, positive correlation between VIA Scale scores and SDI-2 Dyadic Sexual Desire, \( r_s(375) = .124, p = .017 \). Also, as VIA-
Mainstream sub-scale scores increase, so do SDI-2 Dyadic sexual desire scores. However, the magnitude of this relationship was weak (Cohen, 1988).

Specifically relevant for research question 1, there were significant correlations between: the VIA-Mainstream sub-scale and (a) SDI-2 Scale scores, $r_s (374) = .256, p < .001$; (b) VIA-Mainstream scores and SDI-2 Dyadic sub-scale scores, $r_s (374) = .279, p < .001$; and (c) VIA-Mainstream sub-scale scores and SDI-2 Solitary sub-scale scores, $r_s (374) = .165, p < .001$.

These were all positive correlations. That is, as scores on the VIA-Mainstream sub-scale increased, so did scores on the SDI-2 Scale, SDI-2 Dyadic, and SDI-2 Solitary sub-scales (Table 5; Figures 1, 2, & 3). Therefore, the null hypothesis was rejected because there was indeed a significant relationship between acculturation to mainstream (Canadian) culture and level of sexual desire in South Asian females living in BC. As levels of acculturation to mainstream (Canadian) culture increase, so does level of sexual desire, be it dyadic and/or solitary.

Table 5
Correlations and significance levels for the relationship between acculturation to mainstream culture and sexual desire

<table>
<thead>
<tr>
<th>VIA Scale</th>
<th>VIA-Mainstream (Acculturation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r_s$</td>
</tr>
<tr>
<td>SDI-2 Scale</td>
<td>.096</td>
</tr>
<tr>
<td>SDI-2 Dyadic</td>
<td>.124</td>
</tr>
<tr>
<td>SDI-2 Solitary</td>
<td>.028</td>
</tr>
</tbody>
</table>
Figure 1. Scatterplot and correlation between VIA-Mainstream scores and SDI-2 scale scores.

Figure 2. Scatterplot and correlation between VIA-Mainstream scores and SDI-2 Dyadic sub-scale scores.
Research Question Two

Research question 2 asked “Is there a relationship between enculturation to heritage (South Asian) culture and level of sexual desire in South Asian females living in BC?” The research hypothesis associated with this research question posited a relationship between enculturation (towards the heritage South Asian culture) and level of sexual desire (overall, dyadic and solitary) in South Asian females living in BC. As such, significant correlations between VIA-Heritage sub-scale scores and (a) SDI-2 Scale scores, (b) SDI-2 Dyadic sub-scale scores, and (c) SDI-2 Solitary sub-scale scores were predicted. The null hypothesis posited that there is no relationship between enculturation and sexual desire in South Asian females living in BC, and no significant correlation between VIA-Heritage and SDI-2 scores would be found.

Given that neither the VIA-Heritage sub-scale nor the SDI-2 and its sub-scales were normally distributed, Spearman’s Rank order correlation coefficient was determined to be the most appropriate correlation analysis. While there was a negative correlation between VIA Scale scores and SDI-2 Scale scores, there were no significant correlations between the VIA-Heritage Sub-scale and the SDI-2 scale, and its subscales (Dyadic and Solitary). Therefore, the null
The hypothesis was retained. Based on the sample data, there is no relationship between enculturation to heritage (South Asian) culture and level of sexual desire in South Asian females living in BC. Additionally, the relationship between SDI-2 Solitary and SDI-2 Dyadic scores was also examined. Analysis revealed a strong, positive correlation ($r_s (375) = .686, p < .001$) between participants’ SDI-2 Solitary and SDI-2 Dyadic scale scores.

Table 6
Correlations and significance levels for the relationship between enculturation to heritage culture and sexual desire

<table>
<thead>
<tr>
<th>VIA Scale</th>
<th>VIA-Heritage (Enculturation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r_s$</td>
</tr>
<tr>
<td>SDI-2 Scale</td>
<td>.096</td>
</tr>
<tr>
<td>SDI-2 Dyadic</td>
<td>.124</td>
</tr>
<tr>
<td>SDI-2 Solitary</td>
<td>.028</td>
</tr>
</tbody>
</table>

*Figure 4.* Scatterplot and correlation between VIA-Heritage scores and SDI-2 scale scores.
Figure 5. Scatterplot and correlation between VIA-Heritage scores and SDI-2 Dyadic sub-scale scores.

Figure 6. Scatterplot and correlation between VIA-Heritage scores and SDI-2 Solitary sub-scale scores.
Demographic Characteristics, the VIA, and the SDI-2

To determine whether any key demographic characteristics of participants were related to participants’ VIA and SDI-2 scale and sub-scale scores, several non-parametric tests were utilized. The relationship between participants’ self-reported age, gender identity, sexual orientation, cultural identity, relationship status, parental status, and female sexuality, and their levels of acculturation and enculturation, and sexual desire were explored.

Participants’ Age and the VIA and SDI-2

Spearman’s Rank Order Correlation Coefficients were calculated in order to measure the relationships between participants’ ages and the VIA scale, and the VIA-Heritage and VIA-Mainstream sub-scales, as well as the SDI-2 scale and the SDI-2 Dyadic and SDI-2 Solitary sub-scales (Table 7). There were no significant correlations between participants’ age SDI-2 Scale ($r_s (376) = .001, p = .997$); SDI-2 Dyadic scores ($r_s (376) = -.003, p = .960$); and SDI-2 Solitary scores ($r_s (376) = .013, p = .797$). The only significant relationship was between participants’ age and the VIA-Mainstream sub-scale. As participants increased in age, their scores on the VIA-Mainstream sub-scale decreased ($r_s (375) = -.169, p < .001$). The relationship between age and VIA-Mainstream sub-scale scores was small (in magnitude).

Table 7

<table>
<thead>
<tr>
<th>Participants’ age</th>
<th>$r_s$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIA Scale Score</td>
<td>-.086</td>
<td>.098</td>
</tr>
<tr>
<td>VIA-Heritage sub-scale score</td>
<td>.001</td>
<td>.992</td>
</tr>
<tr>
<td>VIA-Mainstream sub-scale score</td>
<td>-.169*</td>
<td>.001</td>
</tr>
<tr>
<td>SDI-2 Scale Score</td>
<td>-.003</td>
<td>.960</td>
</tr>
<tr>
<td>SDI-2 Dyadic Sub-Scale Score</td>
<td>.013</td>
<td>.797</td>
</tr>
<tr>
<td>SDI-2 Solitary Sub-Scale Score</td>
<td>.001</td>
<td>.997</td>
</tr>
</tbody>
</table>

Note: *Significant correlations in bold
Gender Identity and the VIA and SDI-2

All participants self-reported their gender identity to be female. Therefore, the impact of gender identity on VIA and SDI-2 scores was not able to be assessed.

Cultural Identity and the VIA and SDI-2

Nearly half of the participants reported their cultural identity as Punjabi (43.8%). Based on this finding, a comparison between Punjabi and other cultures was made on both VIA and SDI-2 scores. Given that the data was not normally distributed, the non-parametric Mann-Whitney U-Test was conducted to compare differences between Punjabi and other cultural identities. Similar to the two-sample t-test, the Mann-Whitney U-Test may be used to compare differences between two independent groups when the dependent variable is either ordinal or continuous, but not normally distributed (Field, 2017b; Lund & Lund, 2018c; O'Loughlin, 2016). There were significant differences between Punjabi and other cultural identity groups on the VIA scale and its’ subscales, but not on the SDI-2 scale and its’ sub-scales. The Punjabi group median was significantly higher on the VIA (U = 14923, p = .017), and the VIA-Mainstream (U = 15852, p = .025), but not the VIA-Heritage sub-scale.

Furthermore, a Kruskal-Wallis test was conducted to compare median scores on the VIA and SDI-2 scales and subscales, treating the top five most common cultural identity groups (Indo-Fijian, Eastern Indian, Northern Indian, Pakistani, and Punjabi) as independent variables. There was no significant difference across cultural identities on the VIA scale (p = .617) or the VIA-Heritage scale (p = .341). There was a significant difference across cultural identities on the VIA-Mainstream scale (p =.025), such that Indo-Fijian (median = 6.95) and Eastern Indian (median = 6.90) had the highest average scores, followed by Punjabi (median = 6.80), Northern Indian (median = 6.70), and Pakistani (median = 6.25). There were also no significant
differences across groups on the SDI-2 Scale \((p = .507)\), the SDI-2 Solitary Sexual Desire sub-scale \((p = .535)\), nor the SDI-2 Dyadic sub-scale \((p = .535)\). Median scores on each of the scales and sub-scales for the top five most common cultural identities may be found in Table 8.

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Median Scale and Sub-scale scores for the five most common cultural identities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indo-Fijian</td>
</tr>
<tr>
<td>(N)</td>
<td>24</td>
</tr>
<tr>
<td>(df)</td>
<td></td>
</tr>
<tr>
<td>VIA Scale</td>
<td>6.53</td>
</tr>
<tr>
<td>VIA-Mainstream</td>
<td>6.95</td>
</tr>
<tr>
<td>VIA-Heritage</td>
<td>6.15</td>
</tr>
<tr>
<td>SDI-2 Scale</td>
<td>4.18</td>
</tr>
<tr>
<td>SDI-2 Dyadic</td>
<td>4.38</td>
</tr>
<tr>
<td>SDI-2 Solitary</td>
<td>3.17</td>
</tr>
</tbody>
</table>

**Spiritual/Religious Belief System and the VIA and SDI-2**

To assess the impact of participants’ spiritual/religious belief systems on the VIA and SDI-2, a series of Kruskal-Wallis H-test were conducted (one for each scale). A non-parametric alternative to the one-way ANOVA, the Kruskal-Wallis H test is a rank-based non-parametric measure that can be used to determine if there are statistically significant differences with regards to the medians between two or more groups when assumptions (e.g. normal distribution) for the ANOVA are not met (Field, 2017c; Lund & Lund, 2018d). For both the VIA and SDI-2 scales and sub-scales, the null hypothesis posits that there is no difference in the VIA and SDI-2 scores based on participants’ spiritual/belief systems. On the other hand, the alternative hypothesis posits that VIA and SDI-2 scores will vary as a function of participants’ spiritual/religious belief systems. Since responses varied widely, the top six categories for spiritual/religious belief systems (i.e. Agnostic, Atheist, Sikhism, Hinduism, Islam, and Spiritual,
not religious) that accounted for nearly 90% of all responses were analyzed. The remaining responses were categorized as “Other”.

The Kruskal-Wallis H test conducted on participants’ VIA scores demonstrated a statistically significant difference in VIA Scale scores ($\chi^2 (6) = 39.517, p < .001$), VIA-Heritage Sub-scale ($\chi^2 (6) = 69.935, p < .001$), and VIA-Mainstream sub-scale score ($\chi^2 (6) = 14.768, p = .022$), based on participants’ spiritual/religious belief systems. Participants with Sikhism, Hinduism, and Islam belief systems had slightly higher VIA Scale scores, and slightly higher VIA Heritage scores than other participants. While the difference was small, participants with Islamic belief systems had the lowest (average) scores on the VIA-Mainstream sub-scale (Table 9).

### Table 9

**Median scale and sub-scale scores on the VIA**

<table>
<thead>
<tr>
<th>Spiritual/Religious Belief Systems</th>
<th>Agnostic</th>
<th>Atheist</th>
<th>Sikhism</th>
<th>Hinduism</th>
<th>Islam</th>
<th>Spiritual, not religious</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIA Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>6</td>
<td>6.03</td>
<td>6.28</td>
<td>6.69</td>
<td>6.50</td>
<td>6.08</td>
<td>6.33</td>
</tr>
<tr>
<td>VIA Heritage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>6</td>
<td>5.40</td>
<td>5.85</td>
<td>6.80</td>
<td>6.80</td>
<td>5.85</td>
<td>5.80</td>
</tr>
<tr>
<td>VIA Mainstream</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>6</td>
<td>6.80</td>
<td>6.80</td>
<td>6.90</td>
<td>6.50</td>
<td>6.35</td>
<td>6.80</td>
</tr>
</tbody>
</table>

Regarding participants scores on the SDI-2, the Kruskal-Wallis H test found that there was not a statistically significant difference in SDI-2 Scale scores ($\chi^2 (6) = 8.605, p = .197$), nor was there a statistically significant difference in SDI-2 Dyadic Sexual Desire scores ($\chi^2 (6) = 5.351, p = .500$). There was, however, a statistically significant difference in SDI-2 Solitary Sexual Desire scores ($\chi^2 (6) = 12.638, p = .049$). Participants’ with Hinduism (Median = 2.67)
and Islam (Median = 2.33) spiritual or religious belief systems had lower average SDI-2 Solitary Sexual Desire scores than Agnostic, Atheist, Sikhism, Spiritual, Not Religious, and Other participants (Figure 7).

![SDI-2 Solitary Sexual Desire scores by participants’ Spiritual or religious belief systems.](image)

**Figure 7.** SDI-2 Solitary Sexual Desire scores by participants’ Spiritual or religious belief systems.

### Relationship Status and the VIA and SDI-2

In order to assess whether any differences across relationship status groups existed on either the VIA or the SDI-2 scales and sub-scales, a series of non-parametric, Kruskal-Wallis H tests were conducted, treating relationship status (three levels: (a) in a relationship, (b) married/common-law, and (c) single) as the independent variable, and the VIA and SDI-2 scale and sub-scale scores as the dependent variables. As previously mentioned, the Kruskal-Wallis H test is the non-parametric equivalent of the one-way Analysis of Variance (ANOVA) that may be used to determine whether or not there are statistically significant differences between two or more levels of an independent variable on a continuous or ordinal scale (Field, 2017c; Lund & Lund, 2018d).
The Kruskal-Wallis H tests showed a statistically significant difference in VIA-Mainstream sub-scale scores between the different relationship status groups, $\chi^2(2) = 12.642, p = .002$, with a mean rank of 198.73 for participants in a relationship; 152.62 for married participants; and 199.51 for participants in the single category group. The median VIA-Mainstream score for married participants (median = 6.40) was lower than for single (median = 6.8) and ‘in a relationship’ participants (median = 6.8).

There was also a statistically significant difference in SDI-2 Scale scores between the different relationship status groups, $\chi^2(2) = 11.775, p = .003$, with a mean rank of 215.98 for participants in a relationship, 168.98 for married participants, and 179.81 for participants in the single category group. The median SDI-2 score was higher for participants in a relationship (median = 4.64) than for the married (median = 4.0) or single (median = 4.10) category participants.

There was also a statistically significant difference in SDI-2 Dyadic sub-scale scores between the different relationship status groups, $\chi^2(2) = 12.743, p = .002$, with a mean rank of 217.63 for participants in a relationship, 171.78 for married participants, and 177.01 for participants in the single category group. The median SDI-2 Dyadic sub-scale score was higher for participants in a relationship (median = 4.79) than for married (median = 4.38) or single category (median = 4.50) participants.

A statistically significant difference was also found in SDI-2 Solitary sub-scale scores between the different relationship status groups, $\chi^2(2) = 7.190, p = .027$, with a mean rank of 208.62 for participants in a relationship, 169.25 for married participants, and 185.22 for participants in the single category group. The median SDI-2 Solitary sub-scale score was higher
for participants in a relationship (median = 3.67) than for married (median = 2.67) or single category (median = 3.33) participants.

**Parental Status and the VIA and SDI-2**

Given that parental status could be dichotomized (those participants who currently have children and/or those who are pregnant; and those who do not), a comparison between parents (and pregnant women) and non-parents was made on both the VIA and SDI-2 scores. Since data was not normally distributed, the non-parametric Mann-Whitney U-Test was conducted to compare differences between parents and non-parents. There were significant differences between parents and non-parents on the VIA-Heritage sub-scale (U = 8916, \( p = .04 \)) and the VIA-Mainstream sub-scale (U = 7456, \( p < .001 \)). The median VIA-Heritage score was higher for parents and pregnant women (median = 6.6) than non-parents (median = 6.4). The median VIA-Mainstream score was higher for non-parent participants (median = 6.8) than parents and pregnant women (median = 6.3). Additionally, there were significant differences between parents (and pregnant women) and non-parents on the SDI-2 Scale (U = 8645, \( p = .011 \)), SDI-2 Dyadic sub-scale (U = 8666, \( p = .011 \)) and SDI-2 Solitary Sexual Desire sub-scale (U = 9124, \( p = .049 \)). On the SDI-2 Scale and each of the sub-scales, the median score was higher for non-parent participants than participants who were currently parents or pregnant.

**Sexual Orientation and the VIA and SDI-2**

Since most responses (87.3%) to sexual orientation was reported to be heterosexual/straight, a statistical analysis comparing the impact of participants’ sexual orientation on their VIA and SDI-2 scores was not possible. However, a summary of descriptive statistics and average responses by sexual orientation (Table 10) has been included.
Female Sexuality and the VIA and SDI-2

Spearman’s Rank Order Correlation Coefficients were calculated to measure the relationships between the VIA Scale, VIA-Heritage, and VIA-Mainstream sub-scales, and responses to two questions pertaining to female sexuality and heritage culture (Table 11). There were two significant findings. First, there was a small, positive correlation between participants’ VIA-Mainstream scores, and whether their heritage culture considers female sexuality taboo ($r_s (374) = .140, p = .006$). There was also a small, positive correlation between participants’ VIA-Mainstream scores and whether women in their culture are negatively judged for expressing their sexuality ($r_s (369) = .104, p = .046$).

Spearman’s Rank Order Correlation Coefficients were also calculated to measure the relationships between the SDI-2, SDI-2 Dyadic, and SDI-2 Solitary sub-scales, and the two questions regarding participants’ sexuality in their heritage culture. There were several significant findings. There was a small, positive correlations between participants’ SDI-2 scale scores and whether their heritage culture considers female sexuality taboo ($r_s (376) = .114, p = .027$). There was also a small, positive correlations between participants’ SDI-2 Dyadic sub-scale scores and whether their heritage culture considers female sexuality taboo ($r_s (376) = .110, p = .032$). Finally, there were significant correlations between the female sexuality question, whether women in their culture are negatively judged for expressing their sexuality, and SDI-2 scale scores ($r_s (371)= .203, p = .001$), SDI-2 Dyadic sub-scale scores ($r_s (371) = .196, p = .001$), and SDI-2 Solitary sub-scale scores ($r_s (371) = .171, p = .001$).
Table 10
Descriptive statistics for the VIA and SDI-2 scales and sub-scales based on participants’ sexual orientation

<table>
<thead>
<tr>
<th>Sexual Orientation</th>
<th>n</th>
<th>%</th>
<th>M (SD)</th>
<th>Median</th>
<th>M (SD)</th>
<th>Median</th>
<th>M (SD)</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Scale</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SDI-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dyadic Sub-scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Solitary Sub-scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asexual</td>
<td>3</td>
<td>0.8</td>
<td>2.18 (2.99)</td>
<td>2.29 (2.95)</td>
<td>1.89 (2.99)</td>
<td>1.25 (2.95)</td>
<td>0.33 (2.99)</td>
<td></td>
</tr>
<tr>
<td>Bisexual</td>
<td>23</td>
<td>6.1</td>
<td>4.77 (1.37)</td>
<td>5.09 (1.45)</td>
<td>4.91 (1.45)</td>
<td>4.88 (1.45)</td>
<td>4.39 (1.73)</td>
<td>4.67 (1.73)</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
<td>7</td>
<td>1.9</td>
<td>3.92 (0.92)</td>
<td>4.34 (1.17)</td>
<td>2.81 (1.73)</td>
<td>4.63 (1.73)</td>
<td>2.33 (1.73)</td>
<td></td>
</tr>
<tr>
<td>Heterosexual or Straight</td>
<td>329</td>
<td>87.3</td>
<td>4 (1.59)</td>
<td>4.18 (1.65)</td>
<td>4.28 (1.65)</td>
<td>4.5 (1.65)</td>
<td>3.25 (1.79)</td>
<td>3 (1.79)</td>
</tr>
<tr>
<td>Pansexual</td>
<td>7</td>
<td>1.9</td>
<td>5.42 (2.01)</td>
<td>5.82 (2.05)</td>
<td>5.38 (2.05)</td>
<td>5.5 (2.05)</td>
<td>5.52 (2.00)</td>
<td>6 (2.00)</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>6</td>
<td>1.6</td>
<td>3.2 (1.95)</td>
<td>3.55 (2.25)</td>
<td>3.54 (2.25)</td>
<td>3.69 (2.25)</td>
<td>2.28 (1.63)</td>
<td>2.33 (1.63)</td>
</tr>
<tr>
<td>Questioning</td>
<td>2</td>
<td>0.5</td>
<td>5.18 (0.90)</td>
<td>5.18 (0.97)</td>
<td>4.94 (0.97)</td>
<td>4.94 (0.97)</td>
<td>5.83 (0.71)</td>
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<table>
<thead>
<tr>
<th>VIA</th>
<th></th>
<th></th>
<th>Scale</th>
<th>Heritage Sub-scale</th>
<th>Mainstream Sub-scale</th>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Scale</td>
<td>Heritage Sub-scale</td>
<td>Mainstream Sub-scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asexual</td>
<td>3</td>
<td>0.8</td>
<td>5.56 (0.36)</td>
<td>5.5 (0.80)</td>
<td>5.33 (0.80)</td>
</tr>
<tr>
<td>Bisexual</td>
<td>23</td>
<td>6.1</td>
<td>6.22 (0.62)</td>
<td>6.28 (1.00)</td>
<td>5.92 (1.00)</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
<td>7</td>
<td>1.9</td>
<td>6.24 (0.89)</td>
<td>6.61 (1.18)</td>
<td>6.29 (1.18)</td>
</tr>
<tr>
<td>Heterosexual or Straight</td>
<td>329</td>
<td>87.3</td>
<td>6.48 (0.83)</td>
<td>6.56 (1.19)</td>
<td>6.39 (1.19)</td>
</tr>
<tr>
<td>Pansexual</td>
<td>7</td>
<td>1.9</td>
<td>6.52 (0.69)</td>
<td>6.61 (1.38)</td>
<td>6.09 (1.38)</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>6</td>
<td>1.6</td>
<td>6.18 (1.02)</td>
<td>5.78 (1.96)</td>
<td>6.35 (1.96)</td>
</tr>
<tr>
<td>Questioning</td>
<td>2</td>
<td>0.5</td>
<td>6.06 (0.31)</td>
<td>6.06 (0.42)</td>
<td>5.6 (0.42)</td>
</tr>
</tbody>
</table>
Table 11
Relationship between VIA and SDI-2 scales and female sexuality in the heritage culture

<table>
<thead>
<tr>
<th>Score Type</th>
<th>rs</th>
<th>df</th>
<th>p</th>
<th>rs</th>
<th>df</th>
<th>p</th>
</tr>
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<tbody>
<tr>
<td>VIA Scale Score</td>
<td>.035</td>
<td>375</td>
<td>.504</td>
<td>-.019</td>
<td>370</td>
<td>.709</td>
</tr>
<tr>
<td>VIA-Heritage sub-scale score</td>
<td>-.073</td>
<td>375</td>
<td>.157</td>
<td>-.096</td>
<td>370</td>
<td>.065</td>
</tr>
<tr>
<td>VIA-Mainstream sub-scale score</td>
<td>.140</td>
<td>374</td>
<td>.006</td>
<td>.104</td>
<td>369</td>
<td>.046</td>
</tr>
<tr>
<td>SDI-2 Scale Score</td>
<td>.114</td>
<td>376</td>
<td>.027</td>
<td>.203</td>
<td>371</td>
<td>.001</td>
</tr>
<tr>
<td>SDI-2 Dyadic Sub-Scale Score</td>
<td>.110</td>
<td>376</td>
<td>.032</td>
<td>.196</td>
<td>371</td>
<td>.001</td>
</tr>
<tr>
<td>SDI-2 Solitary Sub-Scale Score</td>
<td>.090</td>
<td>376</td>
<td>.081</td>
<td>.171</td>
<td>371</td>
<td>.001</td>
</tr>
</tbody>
</table>

Note: *Significant correlations in bold.

Summary of Findings

The goal of the present study was to determine whether there is a relationship between (a) acculturation to mainstream (Canadian) culture and level of sexual desire, and (b) enculturation to heritage (South Asian) culture and level of sexual desire in South Asian females living in BC. Acculturation was operationally defined as the VIA-Mainstream sub-scale scores and Enculturation was operationally defined as VIA-Heritage scores. Level of sexual desire was measured by the SDI-2 Scale, SDI-2 Dyadic, and SDI-2 Solitary sub-scales scores.

The results of the present study demonstrate a positive relationship between acculturation to mainstream culture and sexual desire. There were significant correlations between participants’ VIA-Mainstream scale score and SDI-2 Scale, SDI-2 Dyadic, and SDI-2 Solitary sub-scale scores. Cohen’s Effect size was used to determine the strength of the relationship.
between the two variables (Cohen, 1988). Correlation coefficients between .10 and .29 represent a small association, coefficients between .30 and .49 represent a medium association, and coefficients of .50 and above represent a large association or relationship. The strongest correlation \( r_s (374) = .279, p < .001 \) was between the VIA-Mainstream and SDI-2 Dyadic sub-scale scores. However, even this relationship was small-to-medium in terms of effect size (Cohen, 1988). Additionally, there was no evidence of a significant relationship between enculturation to heritage culture (VIA-Heritage scores) and females’ sexual desire. The relationship between SDI-2 Solitary and SDI-2 Dyadic scores was also statistically analyzed and a strong, positive correlation between participants’ SDI-2 Solitary and SDI-2 Dyadic scale scores \( r_s (375) = .686, p < .001 \) was found.

Additional exploratory analyses were conducted to determine whether key demographic characteristics were related to levels of acculturation and enculturation, as well as sexual desire. There was a small, but significant \( r_s (375) = -.169, p < .001 \) relationship between participants’ age and scores on the VIA-Mainstream sub-scale in that as age increased acculturation scores decreased. Additionally, parents (and pregnant women) had higher VIA-Heritage scores, but lower VIA-Mainstream scores than non-parents; and, non-parents scored higher on the SDI-2 and each of the SDI-2 sub-scales than parents (and pregnant women). Married participants also had lower levels of acculturation to mainstream culture than other participants. Participants in a relationship (but not married), had the highest levels of sexual desire and dyadic sexual desire as indicated by the SDI-2 Scale and SDI-2 Dyadic Sub-scale scores. As mentioned previously, no statistical analyses could be conducted on participants’ sexual orientation, however a description of the results based on sexual orientation can be found in Table 10.
Additionally, it was found that participants who identified themselves as Punjabi had higher levels of acculturation to mainstream culture than others. However, no differences in sexual desire were found based on cultural identity. Furthermore, differences in VIA and Sexual Desire were demonstrated across different spiritual/religious belief systems. Participants with Sikhism, Hinduism, and Islam belief systems had slightly higher VIA Scale scores, and slightly higher VIA-Heritage scores than other participants. While the difference was small, participants with Islamic belief systems had the lowest (average) scores on the VIA-Mainstream. For the SDI-2 scale and subscale scores, Hinduism and Islam had lower average SDI-2 Solitary subscale scores than the rest of the participants.

Finally, there were several small positive correlations regarding those who agreed with the statements: “Female sexuality is considered a taboo topic in my heritage culture” and “Women in my heritage culture are negatively judged for expressing their sexuality”, and their VIA and SDI-2 scores (Table 8). With regards to the magnitude of the correlation, small refers to the size/magnitude of the relationship between the two variables, not how significant that relationship is. There were small positive correlations between participants’ responses to whether female sexuality is considered taboo in their heritage culture and their VIA-Mainstream scores ($r_s (374) = .140, p = .006$), SDI-2 Scale scores ($r_s (376) = .114, p = .027$), and SDI-2 Dyadic scores ($r_s (376) = .110, p = .032$). There were also small, but significant correlations between participants’ responses to whether women are judged negatively (in the heritage culture) for expressing their sexuality, and their VIA-Mainstream scores ($r_s (369) = .104, p = .046$), SDI-2 Scale scores ($r_s (371) = .203, p = .001$), SDI-2 Dyadic sub-scale scores ($r_s = .196, p = .001$), and their SDI-2 Solitary sub-scale scores ($r_s (371) = .171, p = .001$).
Research with regards to sexuality and sexual health as it pertains to ethnic minority populations, and in particular, ethnic minority women, is limited (Brotto et al., 2005; Cavazos-Rehg et al., 2009; Davidson et al., 2002; Davis, 1997; Kameya, 2001; Lewis, 2004; Sasaki & Kameoka, 2009; Sutton et al., 2007; Wise et al., 2001). Previous studies specific to the sexual health of South Asian women have primarily focused on reproduction and the prevalence, prevention, and treatment of diseases such as breast and cervical cancers, STDs, and HIV/AIDS (Basu et al., 2006; Bhattacharya, 2004; Brotto et al., 2008; Bottoroff et al., 1998; Chaudhary, Fink, Gelberg, & Brook, 2003; McCaffery et al., 2003; Murthy et al., 2005; Sankaranarayanan et al., 2003; Talabani & Hasanali, 2000; Vallikad, 2006). Based on my review of research pertaining South Asian women’s sexual health, to the best of my knowledge, the present study was the first to explore sexual desire as experienced by South Asian women. As reflected in the literature, socio-cultural factors play a significant role in the formation, perception, and expression of sexuality and sexual health both at an individual and group level (Lewis, 2004; Davidson et al., 2002; Serrant-Green, 2005). In the present study participants’ enculturation to their heritage (South Asian) culture, and their acculturation to mainstream (Canadian) culture were assessed in relation to sexual desire.

The first key finding of this study was that there was a significant, positive relationship between acculturation to mainstream (Canadian) culture and sexual desire. For South Asian females living in BC, increased acculturation to mainstream (Canadian) culture was associated with higher scores of overall, dyadic, and solitary sexual desire. This finding is consistent with previous research demonstrating a positive relationship between greater mainstream acculturation and higher levels sexual desire and arousal in East Asian-Canadian women (Brotto
et al., 2005). Past research has also found higher mainstream acculturation to be positively associated with more accurate knowledge of reproductive health, specifically for East Asian Canadians and Indo-Canadians (Brotto et al., 2008). The study also found a strong, positive correlation between participants’ SDI-2 Solitary and SDI-2 Dyadic scale scores ($r_s (375) = .686$, $p < .001$). Both findings are consistent with the theory that acculturation to mainstream western culture provides women with more opportunity to better understand their sexual selves.

Regarding enculturation to heritage (South Asian) culture and its relationship to female sexuality, there was no evidence of a significant relationship. Based on previous research, it would be reasonable to assume that the degree of enculturation to heritage South Asian culture in South Asian females would be negatively related to sexual desire given that studies have found heritage cultural values significantly influence an individual’s sexual attitudes, beliefs, behaviours, functioning, and health (Ahrold & Meston, 2010; Brotto et al., 2005; Brotto et al., 2008; Meston & Ahrold, 2010; Woo & Brotto, 2008; Woo et al., 2009, 2011, 2012; Woo et al., 2010; Woo, 2013). Specifically, a negative relationship between enculturation to the heritage culture and female casual sexual desire has been observed. For example, studies have found that Asian females with lower levels of enculturation to their heritage culture reported more casual sexual behaviour (Meston & Ahrold, 2010). Moreover, as reflected in the literature, within South Asian culture, patriarchal values, beliefs, and practices govern the definition, experience, expression, and discussion of South Asian female sexuality is considered taboo (Amin, 2011; Aneja et al., 2015; Bhattacharya, 2004; Bhopal, 1997; Bradby & Williams, 1999; Fisher et al., 2002; Ghuman, 2000; Griffiths, 2015; Jobanputra & Furnham, 2005; Palak, 2005; Patel, 2007; Okazaki, 2002; Singh et al., 2009; Talabani & Hasanali, 2000; Wakil et al., 1981; Weston, 2003).
There were also several other factors that were found to influence acculturation, enculturation, and/or sexual desire in the present sample. The following factors were significantly associated with participants’ acculturation to the mainstream culture and/or enculturation to the heritage culture: (a) the age of the participant, (b) the pregnancy status of the participant, (c) Parental status of the participant, (d) marital status of the participant, (e) cultural identity, (f) spiritual/religious belief system, (g) whether female sexual desire is considered taboo in the heritage culture, and (h) whether participants’ heritage culture judges women’s sexuality negatively. The first significant relationship indicated that as participants’ ages increased, their acculturation to the mainstream culture decreased. Furthermore, parents and pregnant women each had higher levels of enculturation to heritage culture (and less acculturation to mainstream culture) than non-parents and non-pregnant participants. Similarly, married participants had lower acculturation to the mainstream culture than non-married participants.

Regarding cultural identity, participants who identified as Punjabi had higher levels of acculturation to the mainstream culture than other cultural identities. In terms of participants’ spiritual/religious belief systems, Sikhism, Hinduism, and Islam had higher cultural enculturation to the heritage culture than other religions. Finally, there were positive relationships between female sexual desire being considered as taboo in the heritage culture and acculturation to the mainstream culture, and the heritage culture judging women’s sexuality negatively and acculturation to the mainstream culture.

South Asian culture includes many different ethnicities and religions (Rangaswamy, 2005). Previous research has demonstrated an inclination for sexual conservatism in South Asian cultures (Amin, 2011; Inman, 2005; Palak, 2005; Schnack, 2008). As mentioned previously, South Asian culture is inherently diverse, with inter-cultural variations due to factors
such as immigration status, religion, ethnicity. However, the present study does provide preliminary evidence that, even within a general South Asian culture, women’s ethnicity and religious/spiritual beliefs influence differently the ways in which they express sexual desire.

There were also several other factors that were found to be associated with South Asian females’ sexual desire. First, it was found that participants in a relationship, but not married, had higher sexual desire scale scores as well as the highest dyadic sexual desire, compared with single and married participants. This is the opposite of what would be predicted by South Asian cultural values, which, as reported in the literature, expect female pre-marital virginity and chastity, as well as view sex as a wifely duty (Banerji, 2008; Devji, 1999; Kakar, 1989; Patel, 2007). Moreover, as suggested in the literature, for South Asian woman discussion related to sex is often associated with embarrassment, guilt, fear of being vilified, and concerns related to transgressing social boundaries (Gupta, 1999; Sharma & Sharma, 1998). With regards to the findings of this study, it is possible that participants’ acculturation to the mainstream (Canadian) culture may be the driving force behind this effect. Unlike South Asian culture, it is not uncommon for women in relationships in Western (e.g. Canadian) cultures to express their sexual desire, particularly with their partner (i.e. dyadic sexual desire) especially given that Canadian culture accepts a greater variety of sexual lifestyle choices and freedoms, including consensual sexual relationships in adolescence, and prior to marriage (Barrett et al., 2004). It may therefore be reasonable to assume that Canadians with South-Asian cultural heritage, and/or South-Asians who have immigrated to Canada may feel more freedom in their sexual desire than in their heritage culture, particularly those who have a higher degree of acculturation to the mainstream (Canadian) culture.
Another factor related to South Asian females’ sexual desire is their spiritual/religious belief system. Sikhism, Hinduism, and Islam had lower solitary sexual desire than the other religions, but no difference in dyadic sexual desire. With regards to the literature, belief systems influenced by patriarchy may also practice honour-shame traditions which link male honour with male control over all aspects of a woman’s life, including her body and “sexual practices” (Imam, 2000, p. 124). This may cause women a sense of shame, and therefore lower solitary sexual desire.

Furthermore, the study found that there was a positive relationship between female sexual desire being taboo in the heritage culture and scale and dyadic sexual desire scores as well as found that there was a relationship between the heritage culture judging women’s sexuality negatively and their overall, dyadic, and solitary sexual desire. This may be related to South Asian cultural values viewing discussions related to sex and female sexuality as taboo (Chakraborty, 2013).

**Implications**

The purpose of the current study was to understand the cultural influences on female sexual desire, specifically for South Asian females living in British Columbia. Finding from this study may also shed light on the experience of other South Asian females living in western cultures. One major implication may be that findings from this study could be used to further assess for cultural factors in the diagnosis and treatment of female sexual interest/arousal disorder(s) in South Asian female clients.

In this study acculturation to mainstream (Canadian) culture was found to be related to increased sexual desire. While culture can influence behaviour, it does not necessarily determine behaviour (Hofstede, 1991, 1994, 2001; Matsumoto, 1996; Spencer-Oatey, 2008). Previous
research had suggested that South Asian countries share common cultural values, norms, and social codes, related to aspects such as: family, respect for elders, authority, and the appropriation of sex only within the context of marriage (Anwar, 1998; Okazaki, 2002).

Individualistic cultures, such as Canada, base the pursuit of romantic relationships on love, personal pleasure, and/or self-fulfillment, whereas collectivistic cultures place a greater emphasis on the fulfillment of one’s social duties (Dion & Dion, 1993; Triandis, 1995).

In collectivist cultures, marital relationships are often pragmatic arrangements made by elders rather than love or desire. Research suggests that based on these differences between individualistic and collectivistic cultures, the experience of mutual sexual pleasure may be more important in individualist societies. Therefore, as participants become more engrained in the mainstream culture, their sexual desire may also become more reflective of the mainstream, rather than their heritage, culture. The relationship between acculturation to the mainstream society (an individualistic society) and sexual desire may be a by-product of participants’ acculturation to all and/or other aspects of the mainstream society. The implication from this finding is that the degree to which South Asian females are acculturated to the mainstream culture in which they are living (i.e. Canadian culture), may impact their feelings towards sex and sexual desire. For example, a South Asian female who has been living in British Columbia for years might have attitudes towards sex and female sexuality that are more similar to mainstream Canadians attitudes in comparison to the attitudes of South Asian females living in their home countries.

Another implication from the present study was that participants’ relationship/marital status was related to their sexual desire. South Asian females in relationships, but who were not married, had the highest degree of sexual desire. This finding was somewhat unexpected given
the limited access to sexual knowledge, restricted sexual activity and sexual behaviour, as well as sexual guilt, anxiety and shame associated with South Asian cultures (Kellogg et al., 2014; Heinemann et al., 2016; Rosenbaum, 2009; Aneja et al., 2015). This may be a reflection of the acculturation to mainstream (Canadian) culture. In western, individualistic cultures (i.e. Canadian culture), little value is placed on prior sexual experiences compared to collectivistic (i.e. South Asian culture) cultures which place chastity as an important factor in mate selection (Buss, 1989). This is consistent with previous research that has demonstrated that adolescents in collectivist culture countries (e.g. South Asia) hold more conservative sexual values than adolescents living in western, individualistic (e.g. Canada) cultures (Cialdini, & Trost, 1998; Goodwin, 2013; Mortenson, 2002; Rodríguez-Arauz et al., 2013; Sieving et al., 2006; Tang et al., 2012). The implication of this finding is that the South Asian female population in the present study adhere more towards the mainstream (Canadian) cultural norms than the heritage (South Asian) cultural norms.

Another major finding was that Sikhism, Hinduism, and Islam had lower solitary sexual desire than the other religions. Previous research has demonstrated that strong religious beliefs limit access to sexual knowledge, restrict sexual activities and behaviors, and contribute to sexual dysfunction, guilt and anxiety or shame (Kellog et al., 2014; Heinemann et al., 2016; Rosenbaum, 2009; Aneja et al., 2015). Insufficient knowledge of sexual intercourse and cultural taboos (i.e. pre-marital chastity) may lead to sexual problems (Muammar et al., 2015). South Asians that subscribe to these three major religions (Sikhism, Hinduism, and Islam), may be impacted in terms of their expression of sexual desire. Therefore, it is important to consider participants religious beliefs in practice.
Conclusions and Recommendations

The present study primarily focused on the relationships between acculturation and enculturation, and sexual desire (overall, solitary, and dyadic) in South Asian females living in a different mainstream culture (i.e. Canadian) than their heritage (South Asian) culture. Two major conclusions could be drawn from the results of the present study: a) Acculturation to the mainstream culture is positively related to increased sexual desire in South Asian females living in British Columbia, Canada, and b) A variety of individual differences also impact participants’ levels of acculturation and sexual desire (including participants’ age, pregnancy status, parental status, marital status, cultural identity, religious belief system, and whether female sexual desire is considered taboo and/or judged negatively in the heritage culture).

First, acculturation to mainstream (Canadian) culture, and not enculturation to heritage (South Asian) culture, was significantly related to participants’ sexual desire (overall, solitary, and dyadic). This is the first study to demonstrate a relationship between acculturation to mainstream Canadian culture and the expression of sexual desire in South Asian females living in a western (i.e. British Columbia, Canada) society. Prior to this research, there were no studies which demonstrated a link between degree of acculturation to mainstream Canadian culture and sexual desire in this population. Although correlations do not imply causality, the present finding demonstrates that South Asian females living in Western cultures may adhere more towards the cultural norms of the mainstream Western culture they are living in, than their heritage (South Asian) culture, at least in terms of expression of sexual desire. In other words, with respect to this study, participants’ sexual behaviour mirrored the cultural values of the mainstream culture more so than their heritage South Asian culture. With regards to clinical practice, it will be important to consider the degree to which South Asian females have become
engaged in and adopted mainstream (Canadian) cultural values related to sex prior to the diagnosis and treatment of female sexual interest/arousal disorder(s).

The second main conclusion that may be drawn from the present study is that in addition to general group differences, individual differences amongst participants’ (within the same groups), impacted participants degree of acculturation and enculturation, in addition to their sexual desire. Participants’ ages, pregnancy status, parental status, marital status, cultural identity, religious belief system, and whether female sexual desire is considered taboo and/or judged negatively in the heritage culture all impacted their degree of acculturation and/or sexual desire. As such, it is important for practitioners to keep in mind individual differences above and beyond cultural norms for a certain group of people (e.g. South Asian females).

Another practical implication of the present study can be applied to the South Asian Health Institute (SAHI), run by the Fraser Health Authority of British Columbia. The findings from the present study may be used to inform culturally sensitive programs and resources for sexual health programs tailored toward South Asian females. South Asian culture consist of, among other things, many different nationalities, ethnicities, and religions (Rangaswamy, 2005), and the present findings demonstrated that each of those factors can potentially influence the ways in which South Asian women express their sexual desire.

**Reservations and Limitations**

South Asian females living in British Columbia were recruited via recruitment posters for this study sent to community, multicultural, and ESL centers, religious institutions, post-secondary institutions, hospitals, clinics, and South Asian newspapers and magazines. A total of 579 South Asian females consented to participate in the study online by clicking the survey link included in the advertisements(s). However, 173 did not respond to any of the items, and 29
were excluded for not meeting the inclusion criteria. A total of 377 participants completed the study.

One limitation of the present study is the generalizability of the findings. First, both the recruitment poster and the study questionnaire were written in English and participation in this study required participants to be able to read and understand English. While the decision to conduct the study in English was due to the measures being used for this study were written in English, the language barrier excluded South Asian women who could not read or understand English.

Second, there may be key differences in the group of participants that completed the informed consent and responded to all items in the survey, compared to those who completed the informed consent and did not complete the survey. It may be the case that those who completed the survey were more open to discussing their sexuality than those who did not complete the survey. If that were the case, the results would be biased towards higher levels of sexual desire not because of acculturation to the mainstream (Canadian) culture, but rather because of an inherent openness in participants’ ability to discuss expression of sexual desire.

Demographic variables may also have influenced the finding of this study. For example, although the age range of participants in this study fell between 19–65 years, most participants (n = 230; 61%) were between the ages of 20–29 years. The study also reported that although there was no significant correlation between age and sexual desire, the study did find that as age increased, acculturation to mainstream (Canadian) culture decreased. Keeping in mind that South Asian cultural mores expect women (especially older women, those who are married, mothers, and/or widowed) to maintain the cultural silence surrounding female sexuality (Gupta, 1999; Inman, 2006; Inman et al., 1999; Inman et al., 2007; Sharma & Sharma, 1998; Singh et al.,
it is possible that findings from this study may be biased towards higher scores for sexual desire not because of acculturation, but instead may be related to heritage (South Asian) cultural values and expectations associated with a woman’s age and familial status.

Another limitation in the present study was the demographic heterogeneity of the sample population. South Asian women, particularly those who are born or have immigrated to another country, represent a diverse group of women with a wide range of attitudes, beliefs, and experiences. Furthermore, there was limited information available in terms of the length of exposure to the mainstream (Canadian) culture (e.g. years, immigration status, etc.). Perhaps those participants who have lived in mainstream (Canadian) culture for more time were more likely to score higher in acculturation than those who have lived in the mainstream (Canadian) culture for less time. Or, perhaps there lies inherent differences between Canadian born South Asians (i.e. South Asians who were born in Canada) compared to those who immigrated in terms of their adherence towards the heritage (South Asian) culture, or acceptance of the mainstream (Canadian) culture. Therefore, it might be the case that the relationship between acculturation and sexual desire is moderated by the length of time spent in the mainstream (Canadian) culture.

Participants’ cultural identity also varied widely. While Punjabi was the most prevalent heritage culture (approximately 44% of the sample), there were over 25 different, distinct heritage cultural identities represented in the present sample (Table 1). The present findings did not distinguish amongst these different cultural identities, but rather grouped them all as South Asian cultures. Perhaps there exist differences among the different South Asian cultural identities and women’s attitudes towards sexual desire may differ depending on their heritage cultural identity. Likewise, participants’ religious/spiritual belief system also varied, representing a total of 17 different religious/spiritual belief systems (Table 1). Sikhism (36.1%)
was the most common religious/spiritual belief system, followed by Hinduism (15.6%), and Islam (14.6%). A total of 11.4% of participants reported being Spiritual, but not Religious, 6.4% as Agnostic, and 3.7% (n = 14) as Atheist. The remaining 11 religious/spiritual belief systems, each of which accounted for no more than 2.7% of the sample, were grouped together as “Other” (Table 9). In doing so, the study did not explore the possibility of differences between each of these religious/spiritual belief systems and acculturation, enculturation, and sexual desire.

**Future Research**

As mentioned previously, distinguishing between each South Asian culture represented in the present sample is beyond the scope of this research, but would be an interesting topic to further explore. Future research could focus on various ethno-cultural sub-populations within the broader South Asian culture. For example, a similar study design could be conducted on participants who have lived in the mainstream culture for a short-, medium-, or long-period of time (e.g. less than a year, 2 years, 5 years, etc.). This would allow for researchers to determine whether time moderates the relationship between attitudes towards the mainstream (Canadian) culture and sexual desire. Alternatively, if time does not impact the relationship between acculturation and sexual desire, this may indicate that South Asians that chose to immigrate to Canada may be inherently more open towards new Canadian (i.e. Western) cultures more than those who remained in their own home country’s culture. Likewise, exploration of each of the various religious/spiritual belief systems identified by study participants was also outside study limits. Future research with regards to the relationship between religious/spiritual beliefs identified in this study and sexual desire may also be an area of further investigation. Finally, further investigation with regards to acculturation, enculturation, and sexual desire in relation to demographic factors such as relationship status, parental status, reproductive parity, socio-
economic status, education, sexual orientation, gender identity, sexual experience, immigration status, and the possibility of differences among South Asians’ countries of origin may all be topics of future research that could further contribute to the field.
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APPENDIX A

Forms, Questionnaires, and Resources
Informed Consent Form

**Title of Study:** S.A.R.I. Study: South Asian Relationship and Intimacy Study.

**Principal Investigator:** Seema Buksh, MA, Doctor of Clinical Psychology Student
School of Applied Psychology, Counseling and Family Therapy
Antioch University, Seattle, Washington
Email: sbuksh

**Introduction:**
Your participation in this study is totally voluntary. It is up to you to decide whether or not to take part in this study. Before you decide, it is important for you to understand what the research involves. This consent form will tell you the purpose of the study, what it involves, and the possible benefits, risks, and discomforts of participating in this study. If you wish to participate, you will be invited to give electronic consent. If you do decide to take part in this study, you are still free to withdraw at any time and without giving any reasons for your decision by exiting the site.

**Purpose:**
The purpose of this study is to investigate the relationship between acculturation to mainstream North American culture and female sexual desire; and the relationship between enculturation to South Asian heritage culture and female sexual desire as experienced by women age 19+ who identify as South Asian and are living in British Columbia. The study will also be used to meet the requirements of a dissertation.

**Study Procedure:**
Participation in this study involves completing an anonymous online questionnaire which includes basic demographic questions, questions related to mainstream culture, heritage culture, and sexual desire. The entire process will take approximately 10-15 minutes. After completing the questionnaire participants will have the option of entering a computer-generated raffle for a chance to win 1 of 4 $100 pre-paid visa cash cards draw. Please be assured that your contact information is not linked to your questionnaire. All responses are completely anonymous and cannot be traced back to any participants.

**Risks and Discomforts:**
There are no risks or discomforts that are anticipated from your participation in the study. Potential risks or discomforts may include possible feelings of embarrassment when answering some questions.

**Benefits:**
The anticipated benefit of participation in this study is the opportunity to think about your experiences of mainstream culture, your heritage culture, and sexual desire.

**Confidentiality:**
Your responses will be confidential and identifying information such as your name or IP address will not be collected. All data will be stored in Canada on a secured server and will be encrypted.
and password protected. The results of this study will be used for scholarly purposes only and may be shared with the research committee of this study.

**Contact:**
If you have any questions or would like further information with respect to this study please contact the primary investigator of this study by email at sbuksh@antioch.edu.

**Participants’ Right:**
If you have any concerns or complaints about your rights or experience as a research participant in this study you may contact the Antioch University’s Institution Review Board Chair, Dr. Mark Russell, PhD at mrussell@antioch.edu. You may also contact the Chair of this dissertation, Dr. Dana Waters, PsyD, ABPP by email at dwaters@antioch.edu.

**Electronic Consent:**
If you wish to participate in this study please select the I Agree to participate in this study button below. Please print a copy of this consent form for your records. Clicking on the “Agree” button indicates that:

- a) You are 19 years of age or older.
- b) You identify as a female of South Asian Ancestry.
- c) You are currently living in British Columbia, Canada.
- d) You are giving electronic consent to participate in this study.
- e) You have read and understood the above information.
- f) You understand that your participation in this study is voluntary and that you may withdraw from this study at any time without consequences by exiting the site.
- g) You understand that you may print a copy of this consent form for your records.
- h) You understand that there is a list of resources available to you at www.saristudy.ca.

- I Agree to participate in this study. I understand that by clicking “Agree” I am electronically consenting to participate in this study. I understand that my participation in this study is completely voluntary and that I may withdraw from this study at any time. I understand that I may print a copy of this consent form for my records.
Demographics Questionnaire

1. What is your age?
   - □ 19 (there will be a drop down menu beginning with 18, followed by a list choices up to 100+, and will also include the option prefer not to answer)
   - □ prefer not to answer

2. Which South Asian culture do you identify with most?
   - □ Eastern Indian
   - □ Northern Indian
   - □ Southern Indian
   - □ Western Indian
   - □ Bangladeshi
   - □ Bengali
   - □ Bhutanese
   - □ Bamar/Myanmars
   - □ Goan
   - □ Gujarati
   - □ Kashmiri
   - □ Nepali
   - □ Pakistani
   - □ Punjabi
   - □ Sri Lankan
   - □ Sinhalese
   - □ Tamil
   - □ Indo-African
   - □ Indo-Fijian
   - □ Indo- Guyanese
   - □ Indo-Malaya
   - □ Indo-Mauritius
   - □ Indo-Seychellois
   - □ Indo-Suriname
   - □ Indo- Caribbean/Caribbean Rim Countries
   - □ Other (please specify)__________________
   - □ prefer not to answer

3. Which belief system do you identify with most?
   - □ Agnostic
   - □ Atheist
   - □ Christian
   - □ Catholic
   - □ Jainism
   - □ Buddhist
   - □ Hinduism
   - □ Sikhism
   - □ Islam
   - □ Ismaili
   - □ Zoroastrianism
   - □ Ba’hai
   - □ Not Spiritual, Not Religious
   - □ Spiritual, but Not Religious
   - □ Other (please specify)__________________
   - □ prefer not to answer
4. Martial/Relationship status?
☐ Never been in a relationship  ☐ Single  ☐ In a Relationship
☐ Married/Common-law  ☐ Separated/Divorced  ☐ Widowed
☐ prefer not to answer

5. Do you have children?
☐ No children  ☐ Yes I have children  ☐ Trying to get pregnant  ☐ Pregnant and have children
☐ Pregnant  ☐ prefer not to answer

6. How would you describe your gender identity? (Choose one that best fits you)
☐ Female  ☐ Trans Female/Trans Woman  ☐ Agender/Gender-neutral
☐ Genderfluid  ☐ Questioning  ☐ Non-Binary
☐ Bi-gender  ☐ Other (please specify) ______________  ☐ prefer not to answer

7. How would you describe your sexual orientation? (Choose one that best fits you)
☐ Heterosexual or Straight  ☐ Gay/Lesbian  ☐ Asexual
☐ Bisexual  ☐ Pansexual  ☐ Questioning
☐ Other (please specify) ______________  ☐ prefer not to answer

8. Female sexuality is considered a taboo topic in my heritage culture.
☐ Strongly Disagree  ☐ Disagree  ☐ Neutral  ☐ Agree  ☐ Strongly Agree  ☐ Prefer not to answer

9. Women in my heritage culture are negatively judged for expressing their sexuality.
☐ Strongly Disagree  ☐ Disagree  ☐ Neutral  ☐ Agree  ☐ Strongly Agree  ☐ Prefer not to answer
Vancouver Index of Acculturation

Please answer each question as carefully as possible by circling one of the numbers under each question to indicate your degree of agreement or disagreement.

Many of these questions will refer to your heritage culture, meaning the culture that has influenced you the most (other than North American culture). It may be the culture of your birth, the culture in which you have been raised, or another culture that forms a part of your background. If there are several such cultures, pick the one that has influenced you most (e.g. Chinese, Irish, Mexican, Black). If you do not feel that you have been influenced by any other culture, please try to identify a culture that may have had an impact on previous generations of your family.

Please write your heritage culture in the space provided.

_________________________________________________________

Use the following key to help guide your answers:

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<th>Strongly Disagree</th>
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1. I often participate in my heritage cultural traditions.

2. I often participate in mainstream North American cultural traditions.

3. I would be willing to marry a person from my heritage culture.
4. I would be willing to marry a North American person.

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5. I enjoy social activities with people from the same heritage culture as myself.

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6. I enjoy social activities with typical North American people.

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7. I am comfortable working with people of the same heritage culture as myself.

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8. I am comfortable working with typical North American people.

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9. I enjoy entertainment (e.g., movies, music) from my heritage culture.

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11. I often behave in ways that are typical of my heritage culture.

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12. I often behave in ways that are ‘typically North American’.

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13. It is important for me to maintain or develop the practices of my heritage culture.

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14. It is important for me to maintain or develop North American cultural practices.

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15. I believe in the ways of my heritage culture.

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17. I enjoy the jokes and humor of my heritage culture.

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18. I enjoy typical North American jokes and humor.

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19. I am interested in having friends from my heritage culture.

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<td>9</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral/Depends</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
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<td>8</td>
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<tr>
<td></td>
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<td>9</td>
</tr>
</tbody>
</table>

Reference:
Sexual Desire Inventory

This questionnaire asks about your level of sexual desire. By desire, we mean **INTEREST IN** or **WISH FOR SEXUAL ACTIVITY**.

For each item, please circle the number that best shows your thoughts and feelings.

**Your answers will be private and anonymous.**

1. During the last month, **how often** would you **have liked** to engage in sexual activity with a partner (for example, touching each other's genitals, giving or receiving oral stimulation, intercourse, etc.)?

   0) Not at all                  4) Twice a week
   1) Once a month               5) 3 to 4 times a week
   2) Once every two weeks       6) Once a day
   3) Once a week                7) More than once a day

2. During the last month, **how often** have you had sexual thoughts involving a partner?

   0) Not at all                  4) 3 to 4 times a week
   1) Once or twice a month      5) Once a day
   2) Once a week                6) A couple of times a day
   3) Twice a week               7) Many times a day

3. When you have sexual thoughts, **how strong** is your desire to engage in sexual behavior with a partner?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Desire</td>
<td>Strong Desire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4. When you first see an attractive person, **how strong** is your sexual desire?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Desire</td>
<td>Strong Desire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. When you spend time with an attractive person (for example, at work or school), how strong is your sexual desire?

   0 1 2 3 4 5 6 7 8
   No Desire Strong Desire

6. When you are in a romantic situation (such as a candle-lit dinner, a walk on the beach, etc.), how strong is your sexual desire?

   0 1 2 3 4 5 6 7 8
   No Desire Strong Desire

7. How strong is your desire to engage in sexual activity with a partner?

   0 1 2 3 4 5 6 7 8
   No Desire Strong Desire

8. How important is it for you to fulfill your sexual desire through activity with a partner?

   0 1 2 3 4 5 6 7 8
   Not At All Extremely Important Important

9. Compared to other people of your age and sex, how would you rate your desire to behave sexually with a partner?

   0 1 2 3 4 5 6 7 8
   Much less desire Much more desire

10. During the last month, how often would you have liked to behave sexually by yourself (for example, masturbating, touching your genitals, etc.)?

    0) Not at all 4) Twice a week
    1) Once a month 5) 3 to 4 times a week
    2) Once every two weeks 6) Once a day
    3) Once a week 7) More than once a day
11. How strong is your desire to engage in sexual behaviour by yourself?

0  1  2  3  4  5  6  7  8
No Desire                  Strong Desire

12. How important is it for you to fulfill your desires to behave sexually by yourself?

0  1  2  3  4  5  6  7  8
Not At All Important       Extremely Important

13. Compared to other people of your age and sex, how would you rate your desire to behave sexually by yourself?

0  1  2  3  4  5  6  7  8
Much Less Desire           Much More Desire

14. How long could you go comfortably without having sexual activity of some kind?

0) Forever                   5) A week
1) A year or two             6) A few days
2) Several months           7) One day
3) A month                   8) Less than one day
4) A few weeks

Reference:
Resources for Participants

British Columbia

Options for Sexual Health
3550 East Hastings St. Vancouver, BC V5K 2A7
Telephone: 604•731•4252   Fax: 604•731•4698   Email: reception@optbc.org
Website: https://www.optionsforsexualhealth.org/

Description: Options for Sexual Health is a BC based organization that offers sexual and reproductive health care, information, and education from a feminist, pro-choice, sex positive perspective.

Sex Sense Line
Phone: 604-731-7803 (lower mainland)   Toll Free: 1•800•739•7367
Website: https://www.optionsforsexualhealth.org/sex-sense
Email: sexsense@optbc.org

Description: A help and information line for questions about sex, sexuality, and other sexual health related questions.

Smart Sex Resources
Website: https://smartsexresource.com/get-tested/clinic-finder

Description: A sexual health resource website that provides information regarding sexual health and testing services for British Columbians of all ages. The site also has experienced public health nurses you may interact with through private chat or by sending in a question.

BC Centre for Sexual Medicine
UBC Hospital, Purdy Pavilion
Main floor, Room M41-2221 Wesbrook Mall, Vancouver, BC, V6T 1Z9
Phone: 604-822-3690   Fax: 604-822-3148
Website: http://psychiatry.vch.ca/bccsm.htm

Description: A specialty clinic within the UBC Department of Psychiatry at Vancouver General Hospital that provides assessment and tertiary care for Human Sexual Disorders. Services require a physician’s referral.

BC College of Psychologists
Website: http://collegeofpsychologists.bc.ca/

Description: The College of Psychologists of British Columbia, the regulatory body for the profession of psychology in B.C. To locate a Registered Psychologist with a particular area of expertise please visit this website.
Websites

Endometriosisinfo.ca
Website: Endometriosisinfo.ca
Description: Provides evidence-based information, prepared by physicians, for women who may be suffering from chronic pelvic pain and infertility due to endometriosis.

HPVinfo.ca
Website: www.hpvinfo.ca
Description: Provides information on the Human papilloma virus (HPV).

Menopauseandu.ca
Website: www.menopauseandu.ca/
Description: Provides evidence-based information about menopause.

Pregnancy.sogc.org
Website: http://www.pregnancyinfo.ca/
Description: Provides evidence-based information on pregnancy, factors affecting fertility, and considerations after delivery.

Sex Information and Education Council of Canada (SIECCAN)
Website: http://sieccan.org/wp/
Description: A national registered charitable organization that works with health professionals, educators, and community organizations to ensure all Canadians have access to high quality sexual health information, education and related health and social services.

Sexuality and U.
Website: http://www.sexandu.ca/
Description: A website devoted to providing up-to-date, factual information on sexual and reproductive health and education.

The Society of Obstetricians and Gynaecologists of Canada
Website: http://www.sogc.org/ Email: info@sogc.com
Description: Canadian network of ob/gyn clinicians.
APPENDIX B

2016 Canada and British Columbia Census Ethnic Origin Profile
### 2016 Canada and British Columbia Census Ethnic Origin Profile

<table>
<thead>
<tr>
<th>Ethnic origin population</th>
<th>Canada</th>
<th></th>
<th></th>
<th>British Columbia</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>South Asian origins</td>
<td>1,963,330</td>
<td>993,595</td>
<td>969,735</td>
<td>363,885</td>
<td>182,650</td>
<td>181,235</td>
</tr>
<tr>
<td>Bangladeshi</td>
<td>45,940</td>
<td>23,645</td>
<td>22,300</td>
<td>1,840</td>
<td>925</td>
<td>920</td>
</tr>
<tr>
<td>Bengali</td>
<td>22,900</td>
<td>11,730</td>
<td>11,180</td>
<td>850</td>
<td>405</td>
<td>445</td>
</tr>
<tr>
<td>Bhutanese</td>
<td>3,600</td>
<td>1,765</td>
<td>1,835</td>
<td>120</td>
<td>65</td>
<td>55</td>
</tr>
<tr>
<td>East Indian</td>
<td>1,374,710</td>
<td>694,990</td>
<td>679,720</td>
<td>309,315</td>
<td>154,795</td>
<td>154,520</td>
</tr>
<tr>
<td>Goan</td>
<td>6,070</td>
<td>2,915</td>
<td>3,155</td>
<td>485</td>
<td>245</td>
<td>240</td>
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<tr>
<td>Gujarati</td>
<td>8,350</td>
<td>4,305</td>
<td>4,050</td>
<td>700</td>
<td>335</td>
<td>365</td>
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<tr>
<td>Kashmiri</td>
<td>3,115</td>
<td>1,605</td>
<td>1,510</td>
<td>185</td>
<td>100</td>
<td>85</td>
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<tr>
<td>Nepali</td>
<td>17,140</td>
<td>8,715</td>
<td>8,420</td>
<td>1,495</td>
<td>690</td>
<td>805</td>
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<tr>
<td>Pakistani</td>
<td>215,555</td>
<td>110,420</td>
<td>105,140</td>
<td>12,585</td>
<td>6,565</td>
<td>6,015</td>
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<tr>
<td>Punjabi</td>
<td>118,400</td>
<td>61,155</td>
<td>57,240</td>
<td>38,725</td>
<td>19,700</td>
<td>19,025</td>
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<tr>
<td>Sinhalese</td>
<td>7,285</td>
<td>3,605</td>
<td>3,685</td>
<td>620</td>
<td>325</td>
<td>300</td>
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<tr>
<td>Sri Lankan</td>
<td>152,595</td>
<td>75,010</td>
<td>77,585</td>
<td>5,710</td>
<td>2,970</td>
<td>2,740</td>
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<tr>
<td>Tamil</td>
<td>48,670</td>
<td>24,845</td>
<td>23,825</td>
<td>1,235</td>
<td>670</td>
<td>560</td>
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<tr>
<td>South Asian origins, **</td>
<td>76,400</td>
<td>38,815</td>
<td>37,585</td>
<td>8,245</td>
<td>4,070</td>
<td>4,170</td>
</tr>
</tbody>
</table>

**Note:** **Includes general responses indicating South Asian origins (e.g., 'South Asian') as well as more specific responses indicating South Asian origins that have not been included elsewhere (e.g., 'Telugu').

APPENDIX C

2016 Canada and British Columbia Census Visible Minority Profile
<table>
<thead>
<tr>
<th>Visible minority population</th>
<th>Canada</th>
<th>Male</th>
<th>Female</th>
<th>British Columbia</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total - Visible minority for the population in private households - 25% sample data(^1)</td>
<td>34,460,065</td>
<td>16,971,575</td>
<td>17,488,485</td>
<td>4,560,240</td>
<td>2,237,490</td>
<td>2,322,750</td>
</tr>
<tr>
<td>Total visible minority population(^2)</td>
<td>7,674,580</td>
<td>3,725,090</td>
<td>3,949,495</td>
<td>1,381,235</td>
<td>658,260</td>
<td>722,975</td>
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<tr>
<td>South Asian(^3)</td>
<td>1,924,635</td>
<td>977,690</td>
<td>946,945</td>
<td>365,705</td>
<td>183,650</td>
<td>182,055</td>
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<tr>
<td>Chinese</td>
<td>1,577,060</td>
<td>746,400</td>
<td>830,665</td>
<td>508,480</td>
<td>237,805</td>
<td>270,670</td>
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<tr>
<td>Black</td>
<td>1,198,540</td>
<td>580,070</td>
<td>618,475</td>
<td>43,500</td>
<td>22,455</td>
<td>21,045</td>
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<tr>
<td>Filipino</td>
<td>780,125</td>
<td>341,800</td>
<td>438,330</td>
<td>145,025</td>
<td>62,505</td>
<td>82,520</td>
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<tr>
<td>Latin American</td>
<td>447,325</td>
<td>215,460</td>
<td>231,860</td>
<td>44,115</td>
<td>20,600</td>
<td>23,515</td>
</tr>
<tr>
<td>Arab</td>
<td>523,235</td>
<td>276,425</td>
<td>246,810</td>
<td>19,840</td>
<td>10,865</td>
<td>8,980</td>
</tr>
<tr>
<td>Southeast Asian(^4)</td>
<td>313,260</td>
<td>148,880</td>
<td>164,385</td>
<td>54,920</td>
<td>25,975</td>
<td>28,950</td>
</tr>
<tr>
<td>West Asian(^5)</td>
<td>264,305</td>
<td>133,475</td>
<td>130,825</td>
<td>48,695</td>
<td>24,880</td>
<td>23,810</td>
</tr>
<tr>
<td>Korean</td>
<td>188,710</td>
<td>89,110</td>
<td>99,600</td>
<td>60,495</td>
<td>27,915</td>
<td>32,580</td>
</tr>
<tr>
<td>Japanese</td>
<td>92,920</td>
<td>40,105</td>
<td>52,815</td>
<td>41,230</td>
<td>17,435</td>
<td>23,800</td>
</tr>
<tr>
<td>Visible minority, n.i.e.(^6)</td>
<td>132,090</td>
<td>62,540</td>
<td>69,550</td>
<td>8,760</td>
<td>4,280</td>
<td>4,485</td>
</tr>
<tr>
<td>Multiple visible minorities(^7)</td>
<td>232,375</td>
<td>113,140</td>
<td>119,230</td>
<td>40,465</td>
<td>19,900</td>
<td>20,565</td>
</tr>
<tr>
<td>Not a visible minority(^8)</td>
<td>26,785,480</td>
<td>13,246,485</td>
<td>13,539,000</td>
<td>3,179,005</td>
<td>1,579,230</td>
<td>1,599,775</td>
</tr>
</tbody>
</table>

Note(s):
\(^1\) Visible minority refers to whether a person belongs to a visible minority group as defined by the Employment Equity Act and, if so, the visible minority group to which the person belongs. The Employment Equity Act defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour." The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean and Japanese.

\(^2\) For more information on the Visible minority variable, including information on its classification, the questions from which it is derived, data quality and its comparability with other sources of data, please refer to the Visible Minority and Population Group Reference Guide, Census of Population, 2016.

\(^3\) The Employment Equity Act defines visible minorities as 'persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour.'

\(^4\) For example, 'Vietnamese,' 'Cambodian,' 'Laotian,' 'Thai,' etc.

\(^5\) For example, 'Afghan,' 'Iranian,' etc.

\(^6\) The abbreviation 'n.i.e.' means 'not included elsewhere.' Includes persons with a write-in response such as 'Guyanese,' 'West Indian,' 'Tibetan,' 'Polynesian,' 'Pacific Islander,' etc.

\(^7\) Includes persons who gave more than one visible minority group by checking two or more mark-in responses, e.g., 'Black' and 'South Asian.'

\(^8\) Includes persons who reported 'Yes' to the Aboriginal group question (Question 18), as well as persons who were not considered to be members of a visible minority group.

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APPENDIX D

Hofstede’s Cultural Dimensions
Hofstede’s Cultural Dimensions

Note: Hofstede’s Cultural Dimensions program may be found on Hofstede’s Country Comparison Sight https://www.hofstede-insights.com/country-comparison.
APPENDIX E

Permissions
The Institutional Review Board (IRB) for Antioch University granted permission for the following study to occur and data to be collected between 11/27/2017 and 11/26/2018.

From: <mrussell@antioch.edu>
Date: 27 November 2017 at 11:42
Subject: Online IRB Application Approved: SEXUAL DESIRE AS EXPERIENCED BY SOUTH ASIAN WOMEN LIVING IN BRITISH COLUMBIA November 27, 2017, 2:42 pm
To: sbuksh@antioch.edu, mrussell@antioch.edu, bsammons@antioch.edu

Dear Seema Buksh,

As Chair of the Institutional Review Board (IRB) for Antioch University Seattle, I am letting you know that the committee has reviewed your Ethics Application. Based on the information presented in your Ethics Application, your study has been approved.

Your data collection is approved from 11/27/2017 to 11/26/2018. If your data collection should extend beyond this time period, you are required to submit a Request for Extension Application to the IRB. Any changes in the protocol(s) for this study must be formally requested by submitting a request for amendment from the IRB committee. Any adverse event, should one occur during this study, must be reported immediately to the IRB committee. Please review the IRB forms available for these exceptional circumstances.

Sincerely,

Mark Russell
Dr. Andrew G. Ryder hereby granted permission at no charge for the following materials to be reused in the present dissertation manuscript. Appendix A. Vancouver Index of Acculturation (VIA).

From: Andrew G. Ryder
Sent: November 26, 2019 11:48 AM
To: s.buksh
Subject: Re: S. Buksh Doctoral Dissertation: VIA Scale

Dear Ms Buksh,

Thank you for your message. I am writing to confirm that I have no objections to you including the full item pool of the VIA in your finalized dissertation and that I understand that this dissertation will be publicly available on ProQuest, OhioLINK, and AURA.

Sincerely,
Andrew Ryder

---

Andrew G. Ryder, Ph.D.
Clinical Psychologist / Psychologue clinicien
Associate Professor / Professeur agrégé
Co-Director of the Centre for Clinical Research in Health / Co-directeur du Centre de recherche clinique en santé
Culture, Health & Personality Lab / Laboratoire de la culture, santé et personnalité
Centre for Clinical Research in Health / Centre de recherche clinique en santé
Department of Psychology / Département de psychologie
Concordia University / Université Concordia

Adjunct Professor / Professeur associé
Culture and Mental Health Research Unit / Unité de recherche en culture et santé mentale
Division of Social & Transcultural Psychiatry / Division de psychiatrie sociale et transculturelle
Department of Psychiatry / Département de psychiatrie
Jewish General Hospital and McGill University / L'Hôpital général juif et l'Université McGill

---

From: s.buksh
Sent: November 26, 2019 8:14 AM
To: Andrew Ryder
Cc: 'Seema Buksh'
Subject: RE: S. Buksh Doctoral Dissertation: VIA Scale

Hello Dr. Ryder,

Thank you again for your permission to use VIA in my dissertation. I have successfully defended my dissertation and am now in the process of finalizing dissertation publication. I am writing to you to request permission to include the instrument in my dissertation, which will be published electronically in the following places:

- ProQuest Dissertations and Theses Database, a print on demand publisher, http://www.proquest.com/products-services/pqdt.html
- OhioLINK Electronic Theses and Dissertations center, an open access archive, https://etd.ohiolink.edu
- AURA: Antioch University Repository and Archive, an open access archive, http://aura.antioch.edu

Thank you for considering my request.

Respectfully,
S. Buksh

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On corresponding by e-mail: This email address is password protected, but my e-mails are not encrypted, and should not be considered secured. I cannot guarantee confidentiality of e-mail communication. If you choose to communicate using e-mail, it implies that you have made an informed decision and accept the risk that e-mails could be seen by persons other than the intended recipient. I consider e-mail communication initiated or requested by you as giving your consent for my office to correspond with you using electronic means. You can withdraw this consent by e-mail or phone.
Dr. Ilana Spector hereby granted permission at no charge for the following materials to be reused in the present dissertation manuscript. Appendix A. Sexual Desire Inventory (SDI-2).

From: Ilana Spector, Dr. [redacted]
Sent: November 27, 2019 8:23 AM
To: sbuksh [redacted]
Subject: Re: S. Buksh Dissertation Permission

Dear S. Buksh,

I am writing to confirm that I give you permission to include the Sexual Desire Inventory in your finalized dissertation and that I understand that this dissertation will be publicly available on ProQuest, OhioLINK, and AURA. Regards, Ilana Spector Ph.D.

Sent from my iPhone

From: sbuksh [redacted]
Sent: November 22, 2019 2:18 PM
To: 'Ilana Spector, Dr.' [redacted]
Subject: S. Buksh Dissertation Permission

Hello Dr. Spector,

Thank you again for your permission to use SDI-2 in my dissertation. I have successfully defended my dissertation and am now in the process of finalizing dissertation publication. I am writing to you to request permission to include the instrument in my dissertation, which will be published electronically in the following places:

- ProQuest Dissertations and Theses Database, a print on demand publisher, [http://www.proquest.com/products-services/pqdt.html](http://www.proquest.com/products-services/pqdt.html)
- OhioLINK Electronic Theses and Dissertations center, an open access archive, [https://etd.ohiolink.edu](https://etd.ohiolink.edu)
- AURA: Antioch University Repository and Archive, an open access archive, [http://aura.antioch.edu](http://aura.antioch.edu)

Thank you for considering my request.

Respectfully,

S. Buksh

Confidentiality Notice:
This transmission is sent in trust, for the sole purpose of delivery to the intended recipient. The contents of this email and any attachments hereto contains information that is private, confidential, privileged, and/or otherwise exempt from disclosure under applicable law. Email transmissions cannot realistically be guaranteed to be secure or error free because information may be corrupted or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message which arise as a result of email transmission. If verification is required please request a hard copy. If you are not the intended recipient, you are hereby notified that any review, copying, distribution, disclosure or use of this email and any attachments in any form is strictly prohibited. If you have received this transmission in error, please notify Seema Buksh immediately at [redacted] or by reply email and permanently delete this transmission and any attachments hereto from your computer system without making, forwarding, or retaining any copy or record of it.

On corresponding by e-mail: This email address is password protected, but my e-mails are not encrypted, and should not be considered secured. I cannot guarantee confidentiality of e-mail communication. If you choose to communicate using e-mail, it implies that you have made an informed decision and accept the risk that e-mails could be seen by persons other than the intended recipient. I consider e-mail communication initiated or requested by you as giving your consent for my office to correspond with you using electronic means. You can withdraw this consent by e-mail or phone.