ACCULTURATION, SEXUALITY AND SEXUAL HEALTH OF INDIAN MIGRANT MEN LIVING IN AUSTRALIA

Doctoral Candidate

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This original research is submitted in fulfillment of the requirements for the degree Doctorate in Philosophy with the Faculty of Health Sciences, the University of Sydney, Australia.

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Dedication

I would like to dedicate this thesis to my father Mr Ramanathan Vinaitheetan who currently lives in India. He was born to an Indian couple in Malaysia where he grew up and had a good life and education. At the age of 19, he was forced to migrate to a village in India after being adopted. Since then, my dad struggled a lot in almost all walks of life primarily due to cultural conflicts and forced migration. My learning and understanding of acculturation, as part of this thesis, has made me deeply realise the struggles that my dad must have gone through and has in fact strengthened my relationship much more than ever before.

I would also like to dedicate this thesis to my mother Mrs Shanthi Ramanathan who now lives in India. Higher education was denied to her post-marriage, which she continues to regret to date. This thirst greatly influenced her decision to migrate from a small village to a larger town and then to a metropolitan city in search of the best education for her kids. It is my mum’s passion for education that encouraged me to pursue my doctoral and two other post-graduate degrees in Australia. This motivation was much needed for me to complete the doctoral degree as a part-time candidate whilst working full-time in Australia and in addition to my responsibilities as a husband and father.
Declaration

I, Dr Vijayasarathi Ramanathan, hereby declare that this research is my own original work and contains no material previously published or written by any other person, without appropriate references.

No material content has been accepted for award of any other post graduate qualification at the University of Sydney or any other educational institutions.

Any contribution made by others with whom I have worked in the making of this thesis has been duly acknowledged.

Dr Vijayasarathi Ramanathan
Publication statement from co-author

Statement from co-authors confirming the authorship contribution of the PhD candidate:


I confirm that Dr Vijayasarathi Ramanathan has made the following contributions:
(i) Collection of data and literature review
(ii) Development of case studies and in consultation with me and developing an evidence based management plan
(iii) Writing and editing of the paper
(iv) Revisions of the chapter as required by the editors

Signed……………………………………………………… Date:……………

Name: Dr PATRICIA WEERAKOON

9th August 2012
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I respectfully acknowledge the traditional custodians and Indigenous elders, both past and present, and their land on which this study was conducted (the Eora Nation).

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Abstract

Background
Ethnicity and culture have an impact on sexual attitudes and behaviours of individuals and communities. Immigrants from different ethnic groups differ in sexual values, and culturally prescribed attitudes and behaviours have been found to contribute to sexual health inequalities among immigrant populations. Research has also confirmed the importance of examining the relationship between sexuality and the culture change process (acculturation).

Indians belong to the world’s second most populous country and constitute one of the largest immigrant communities in Australia, the USA, UK and Canada. In 2011-12, India was Australia’s largest source country of migrants. Yet there is a paucity of scientific information about the effects of acculturation on sexuality and sexual health among Indian immigrants and most of what we know is based on research that has a number of serious conceptual and methodological shortcomings.

The present study addressed this knowledge gap by exploring the psychosocial and cultural dimensions of sexuality and sexual health among a community-based sample of Indian men living in Australia. Unlike much of the previous research, which conceptualised and measured acculturation as a unilinear (assimilation) and unidimensional (behavioural) phenomenon, it adopted a bilinear, multidimensional model of acculturation.

Aims
The present study had three broad aims:

- To explore sexual perceptions, attitudes and behaviours of Indian immigrant men living in Australia.
- To explore the help-seeking attitudes of Indian immigrant men for sexual health
- To examine the effects of acculturation on sexuality of Indian immigrant men living in a multicultural society (Australia).
Method
The project used a sequential, mixed method design. In Stage 1, qualitative data were collected from 21 participants in five focus groups. Findings from this stage were analysed both in their own right and in order to identify topics for further investigation. The group discussions were tape-recorded and transcribed and a thematic content analysis was performed. In Stage 2, 278 Indian men completed an online survey that used a 100-item questionnaire. It included a number of validated tools for measuring multidimensionality of acculturation, sexual attitudes and safe sex behaviour. The scales were assessed for their psychometric properties using the present study sample and were found to be comparable with previous findings. The survey data were analysed using non-parametric tests, where necessary, and the findings were presented in the form of descriptive and analytical statistics.

Results
The present study sample can be considered representative of Indian men in the general Australian population. A differential pattern of acculturation was found in the present study, with more men holding on to Indian values even though they tend to be bicultural in their behaviour and self-identity.

A moderate (not too liberal or too conservative) pattern of permissive sexual attitudes was observed. Indian men’s belief in cultural values, relationship status and whether they masturbate or not were found to be significant predictors of permissive sexual attitudes. A view that sex is not only an important part of a person’s life but is also a unifying phenomenon between partners emerged from both focus group and survey data.

A large proportion of Indian men expressed favourable/liberal attitudes towards masturbation and reported that they have masturbated at some point in their life. Using hands and tummy-down were the most common methods and erotic visual materials and self-thoughts (fantasising imagination) were the common stimulants for masturbation. The most frequently reported reasons for masturbating were to gain pleasure and to relax and relieve stress. About two-thirds of men who continue to masturbate reported one of three positive feelings (satisfying, healthy or attractive).
Permissive sexual attitudes were the strongest predictor of positive feelings about masturbation.

Indian men, irrespective of their relationship status, tended to engage in safe sex practice primarily by avoiding risky behaviours. While many were aware of HIV/AIDS, their knowledge of other common sexually transmissible infections (STIs) was limited. Data from both stages of the present study demonstrated that medical doctors (both general practitioners and specialists) were the main source of information and help for Indian men in regard to their sexual health.

**Conclusion**
The present investigation, which is first of its kind to be conducted among Indians, has established a baseline of scientific evidence to guide future research. The fluid nature of both sexuality and culture poses a considerable challenge to the scientific study of cultural effects on sexuality among any population. Even greater complexity exists in relation to Indians, who have experienced long periods of conflicting cultural influences on sexuality and whose social structure comprises a highly differentiated class and caste system. In an era of rapid economic and technological growth and modernisation, another challenge to socio-psychological studies on sexuality is the need to separate the effects of globalisation from those of acculturation.

The findings also have a number of important implications for policy and for clinical practice in relation to the sexual health of immigrants in Australia. There could be considerable benefit, for instance, in developing a rapid values-assessment tool that would allow busy health professionals to look beyond a patient/client’s external behaviour or self-identity in order to facilitate holistic treatment of sexual problems. Limited knowledge about common sexually transmissible infections in Australia among Indian men has significant implications for policy changes around immigrants’ sexual health in Australia.
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This thesis presents findings from a first exploratory study of the psychosocial and cultural dimensions of sexuality and sexual health among Indian men living in Australia. This investigation aims to establish a baseline of scientific evidence to generate hypotheses to guide future research.

It has long been recognised that improvements in sexual health cannot be made unless due attention is paid to the determinants of human sexuality (Kelly & Kalichman, 1995). There is scientific evidence to demonstrate the impact of culture on sexuality and sexual health. For the immigrant populations, the process of culture change or acculturation adds another dimension to this relationship.

Failure to understand the cultural mores surrounding sexuality can lead to inequity in access to health care (Fisher, Bowman, & Thomas, 2003). In particular, lack of culture-specific information on sexuality seriously limits ability to assess the sexual health needs of different immigrant communities in a culturally pluralistic society like Australia. Such knowledge is vital for policy makers, researchers and clinicians in order to develop effective and culturally appropriate models of sexual health care.

‘Culture’ refers to the history, values, beliefs, language, practices, dress and customs that are shared by a group of people and which influences the behaviour of the members (Germov & Poole, 2007). In other words, culture is a social construct, which is characterised by the behaviour and attitudes of a social group (McKenzie & Crowcroft, 1996). Culture can also be defined as unique behaviour, lifestyle and attitudes which are formed as a result of customs, habits, beliefs and values that are common to a group and shape their emotions, behaviours and life patterns; it serves as a core behaviour that regulates life (Ahmed & Bhugra, 2004). Despite the commonalities that define a culture, it cannot be assumed that all members of one culture necessarily share identical worldviews on any or all issues (Dahlgren & Whitehead, 1991). The formation of an individual’s cultural traits can be mediated by the ethnic, religious, social (including family), political, economic, educational, and technological factors. Culture exerts a strong influence on people’s attitudes to love,
marriage, and sex. People from a more traditional society have more consensus about the gender roles of men and women; adhere more to traditional morality and values; and are less “open” about sexual freedom (Higgins, Zheng, Liu, & Sun, 2002). Cultural and sub-cultural groups differ in the expression of sexuality, in what is expected and what is prohibited in sex, and in attitudes, beliefs and rituals related to sexual behaviour and sexual relationships (Silva, 1999). Sexual behaviour is particularly open to cultural and social influences (Bhugra & Silva, 1993) and sexual behaviour is perhaps the most culturally determined of all human behaviours (Zenilman, Shahmanesh, & Winter, 2001). Most studies on ethnic differences in the sexual behaviour of youth population have focused on Whites, Blacks and Hispanics and have rarely included Asian Americans (McLaughlin, Chen, Greenberger, & Biermeier, 1997). On the other hand, cultural beliefs, norms and values regarding sexuality forge people’s sexual behaviour and understanding of sexual health risk (Dawson & Gifford, 2004).

Sexuality is defined as
‘a central aspect of being human throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviours, practices, roles and relationships. While sexuality can include all of these dimensions, not all of them are always experienced or expressed. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical, religious and spiritual factors’ (WHO, 2006).

1.1 Background

1.1.1 India and Sexuality

On the topic of sexuality, India is immediately recognized by the Western world as the land of Kama Sutra and tantric sex. The popular texts like the Kama Sutra and
famous sculptures of Kajuraho depict sexual pleasure as a non-taboo topic and portray liberal sexual attitudes of ancient India. But, whether these laissez-faire attitudes were applicable to only the royal and rich classes or to all social classes is a debatable topic. The beliefs, values, and practices in day-to-day life, including sexuality, of many Indians can be traced back to one of the four Vedas that are still considered to be a revelation from all-mighty God. According to Hinduism, the predominant religion of India, sexual matters are not legislated and are left to the judgment of those involved, subject to community laws and customs (Cornog, 2003). According to Hinduism, a prescribed rule (smritis) exists for all human behaviors from birth to death (Gupta, 1994). The sexual behaviours of individuals and couples are generally governed by the prescribed practices of the society. The mainstream Indian society still holds a conservative view towards sexuality, places high value on sexual purity, and disapproves of the erotic aspects of sexual life even within marriage. One possible explanation for the shift from the laissez-faire to conservative attitudes toward sexuality could be the influences from the long years of British settlements in India (1612-1947). The book Empire and Sexuality (Hyam, 1990) comprehensively discussed the shifts in values and attitudes among the British and its impact on India. The two significant events within the time period of British India were the launch of an anti-masturbation campaign (1707-1717) and later the Purity campaign (since 1880) (Hyam, 1990). Also, the native and holistic medical practice of Ayurveda was slowly replaced by the Unani and Western medicine brought in by the Mughals (1526-1858, during which the Indo-Persian culture was established) and Europeans, respectively. India is made of multiethnic societies with numerous cultural identities, multiple classes, complex caste system, varied religious practices and diverse social customs. For this reason, it is difficult to generalise the beliefs, values and attitudes toward sexuality to the whole of India.

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1 Kajuraho was the capital of Chandellas, a Rajput dynasty and the sculptures (Devangana-mithuna) of Kajuraho were built between 950-1050 AD
2 Vedas are large body of texts from ancient India, form the oldest layer of Sanskrit literature, and the oldest sacred texts of Hinduism.
3 Ayurveda – an Indian traditional medicine in which life is considered as the union of body, senses, mind and soul.
4 Unani – a Greco-Arabic traditional system of medicine that is still widely practiced in the Indian subcontinent
1.1.2 Immigration in Australia

Since the British invasion in 1788, Australia continues to receive high numbers of European immigrants. The shift from a ‘White Australia Policy’ to a ‘Skilled Immigration Policy’ has transformed the socio-cultural map of Australia by making it one of the most ethnically diverse communities in the world (Patel & Sitharthan, 2010). According to the recent World Migration Report, Australia remains the most popular nation for immigrants from not only Europe and the UK but also from Asia (Appave & Laczko, 2011). Australia is popularly referred to as a nation of immigrants, with about one quarter (5.87 million people) of its population born overseas (Census Australia, 2011). Australia is also the third largest international education exporter (after the USA and the UK), attracting 7.5 per cent of the global international student population (Appave & Cholewinski, 2008). At the same time, Australia’s indigenous population of Aboriginal and Torres Strait Islanders has one of the oldest living cultures in the world. Clearly, Australian society is racially, culturally and linguistically diverse.

1.1.3 Indians as immigrants

India is one of the top five emigration countries in the world (Appave & Laczko, 2011). Indian immigrants constitute a significant ethnic minority population in the USA, UK and Canada. For instance, in 2001/02 ethnic minority groups in the UK numbered 4.5 million or 7.6 per cent of the total population. Indians were the single largest ethnic group (21.7 per cent), comprising 1.7 per cent of the total UK population (White, 2002). The Asian Indian population in the United States is about 0.9 per cent of the total U.S. population with a growth rate of 69.37 per cent, making Indians one of the fastest growing ethnic groups in the United States (as per 2010 U.S. census data) (Hoeffel, Rastogi, Kim & Shahid, 2012). India is the second largest source of immigration to Canada; in 2006, Indians (443,690) were a significant group among the six million Canadian immigrants (Census Canada, 2006).

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5 The term Asian Indian is used in the USA to differentiate Indian immigrants from Native Americans.
1.1.4 Indian immigrants in Australia

Indian immigrants (295,363) constitute 1.37 percent of the total Australian population of about 21.5 million (Census Australia, 2011). The Indian population comprises 164,207 men and 131,156 women, representing 1.54 and 1.21 per cent respectively of the total male and female population in Australia.

Indians migrate to Australia under different visa programs so the population is diverse. The Australian skilled immigration program tends to receive young Indians of higher socio-economic status (especially higher education). On the other hand, the family stream has seen an influx of parents of skilled immigrants, who differ in age, education and health status. The Student Visa program has provided opportunity for large numbers of young Indian graduates to pursue higher education in Australia. Indian students are an important part of Australia’s international student sector, accounting for 15 per cent in 2010-11. According to the Department of Immigration and Citizenship (DIAC) statistics, in 2009, Australia was the third most popular international destination for Indian students, attracting 15 percent of Indian students (DIAC, 2011).

Recent changes to immigration policies around permanent residency, together with some well-publicised crimes against Indian students, have reduced the flow of students to Australia, especially since 2009-10. Despite negative commentary in the Indian media, Indian immigration to Australia through other visa programs remains high. According to the 2012 Australian Migration Report, India was Australia’s largest source country of migrants accounting for 29,018 places or 15.7 per cent of the total migration program, up from 21,768 in 2010-11 (DIAC, 2012).
1.2 Theoretical framework

Over the past three decades, research interest in the social and cultural dimensions of sexuality has increased significantly (Parker, 2009). Sexual behaviours are claimed to be the most culturally determined of all human behaviours (Zenilman, Shahmanesh, & Winter, 2001). Cultural factors have been found to exert a strong influence on people’s attitudes to love, marriage and sexuality (Higgins, Zheng, Liu, & Sun, 2002).

Cultural and sub-cultural groups differ in the expression and moral perceptions of sexuality and in sexual attitudes, beliefs and behaviours, as well as sexual relationships (de Silva, 1999). Culture plays a crucial role in the way sex is perceived and it is associated with (sexual) health problems, often referred to as ‘culture-bound syndromes’ (Ahmadi & Bhugra, 2007).

Within the context of migration, culture is highly relevant and important (Dawson & Gifford, 2004). Immigrants of different ethnic groups differ in sexual values, which reflects the disparate cultural, political, historical and socioeconomic factors that influence sexuality (Ahrold & Meston, 2010). Culturally prescribed attitudes and behaviours, along with other socio-economic factors, have been found to contribute to sexual health inequalities among immigrant populations (Fenton, 2001).

Migrants experience a dynamic process of culture change, which is widely referred to as ‘acculturation’ (Hunt, Schneider, & Comer, 2004). Acculturation has been shown to be strongly related to migrants’ sexual attitudes, experiences and responses (Brotto, Woo, & Ryder, 2007). The present study adopts a bilinear and multidimensional model of acculturation (see Chapter 2).

A detailed review of literature on use of theory in sex research concluded that the majority of them had no explicit theoretical base (Weis, 1998). The present study primarily focuses on two fundamental human concepts (i.e. culture and sexuality) and examines whether change in cultural environment (acculturation) influences sexuality and if so, how. The theoretical aspects of acculturation, with greater emphasis on Berry model of acculturation and measurement scale (26-item SL-ASIA scale) used in
the present study will be discussed in the thesis (Chapter -2, section 2.2). The discrepancies and similarities between sexual attitudes and behaviour, observed in the present and past studies, will be discussed within the framework of two popular and well-researched theories - the *Sexual Scripting Theory* (Simon & Gagnon, 1984) and the *Theory of Planned Behaviour* (Ajzen, 1991).
1.3 Operationalisation of key concepts

Acculturation, a culture-change process, is one of the main focuses of the present study. An important initial consideration was to operationalise ‘culture’ in relation to this process.

In any discussion of acculturation, the ‘mainstream’ culture is used as a key reference point. Given the rich racial, ethnic and cultural diversity of a country like Australia, it is difficult to define the mainstream culture. Australia is a ‘melting pot’ that encompasses the cultural heritage of its indigenous people and those of immigrants from over 200 countries. This blending of cultures has been referred to as ‘transculturalism’, which is defined as the synthesis of two phases occurring simultaneously, one being decentralisation of the past culture with reinvention of a new common culture based on the intermingling of different peoples and cultures (Ortiz, 1965 as cited in Cuccioletta, 2002). This blended mainstream Australian culture is, moreover, increasingly exposed to the influence of other popular western cultures (e.g. American) in terms of dress, lifestyle, food, entertainment and celebrations. For the purposes of this study, Australian culture is conceptualised as a western culture that is assumed to have liberal sexual attitudes based on the findings of the large scale Australian study on sexuality (The Australian Study on Health and Relationship - ASHR) (Smith, Rissel, Richters, Grulich, & de Visser, 2003).

India itself is also highly diverse in terms of race, ethnicity, culture and religion. This complexity is compounded by the class and caste system, which is still in existence in modern day India. As mentioned earlier, India has been subject to long periods of external cultural influence and continues to be heavily influenced by the forces of globalisation today. Hence it is difficult to provide a single definition of ‘Indian culture’. For the purposes of this study, however, Indian culture is conceptualised as one that holds conservative sexual attitudes based on findings of past studies conducted among Indians in and outside of India (Griffiths et al., 2011; Manjula, Prasadarao, Kumaraiah, Mishra, & Raguram, 2003).
1.4 Aims and significance of the study

The study has two broad aims:

- To explore sexual perceptions, attitudes and behaviours of Indian immigrant men living in Australia.
- To examine the effects of acculturation on sexuality of Indian immigrant men living in a multicultural society (Australia).

Sexual and reproductive ill health disproportionately affects some groups in Australia. People from culturally and linguistically diverse backgrounds are one of ten identified priority groups for policy attention in this regard (O’Rourke, 2008). Australia has in place a number of strategies to address sexual health needs within these communities, but these strategies focus primarily on STIs and do not include broader sexual health issues, including social determinants (O’Rourke, 2008).

There have been several Australian studies of sexuality and sexual health, either as stand-alone investigations or as part of an international project (Laumann et al., 2006; Smith et al., 2003). Yet relatively few of these have examined the vital link between culture and sexuality, especially in the context of immigrant acculturation (Rawson & Liamputtong, 2009). Thus, in a country in which over one-quarter of the population was born overseas, there is a paucity of research on socio-cultural determinants of sexuality and sexual health among immigrants. To-date, there is no published research on this topic.

In fact, there is limited research worldwide on the sexuality of Indians, despite their belonging to the world’s second most populous country and constituting one of the largest immigrant communities in the USA, UK and Canada, as well as Australia. The UK National Survey of Attitudes and Lifestyle (with an ethnic booster sample) (NATSAL-2) (Griffiths et al., 2011) is probably the largest source of information about sexuality and sexual health of Indians but its sample included only 393 of them (171 men). The ASHR (Smith et al., 2003), the Australian equivalent of NATSAL-2, included only 120 Indians (67 men). A decade has passed since these two studies were conducted, during which time not only has the Indian immigrant population
increased significantly in both countries, but India itself has experienced enormous socio-cultural changes associated with globalisation and modernisation. In addition, sexuality research to date involving Indian immigrants has serious methodological limitations (see Chapter 2).

1.5 Research questions

The project was designed in two stages, each using different methods of data collection. The research question for Stage 1 was:

- What are the personal, social and cultural meanings of sexuality among Indian men living in Australia?

The research questions for Stage 2 was:

- What is the range of sexual attitudes and practices among Indian men living in Australia?
- Does acculturation influences sexual attitudes and behaviours of Indian immigrant men living in Australia? If so, how?
- What are the help-seeking attitudes of Indian immigrant men for sexual health?

1.6 Organisation of the thesis

The following chapter contextualises the present study through a critical review of relevant literature. It summarises findings from previous research on sexuality and sexual health among Asian immigrants and critically reviews 15 studies, conducted over two decades, which included Indian participants. Studies that focused exclusively on a particular Asian ethnic group (such as Chinese or Vietnamese) were excluded, as were epidemiological studies on sexually transmissible infections. Various models of acculturation are examined and the theoretical framework of the present study – a bilinear and multidimensional model – is explained and justified.
Chapter 3 explains the study design, including the rationale for employing a multi-stage, mixed methods approach to data collection. In Stage 1, five focus group discussions among Indian men generated qualitative data to address Research Question 1 and to help guide the development of a survey for Stage 2. In Stage 2, an online and paper-based questionnaire was administered to address Research Question 2. This chapter also provides detailed information on the techniques of data collection and analysis employed in each Stage, along with a discussion of the study’s ethical considerations.

Chapter 4 describes the processes of data preparation and the demographic characteristics of participants in both stages of the study, as well as the psychometric properties of the three scales used in the survey. Results of the survey are presented in the form of descriptive and analytical statistics. Where appropriate, qualitative data are displayed to illustrate key themes and to enrich the overall findings.

In Chapter 5, the study findings are summarised and interpreted in relation to the research questions and objectives. Key findings are discussed in relation to other studies and the theoretical framework. The study’s limitations are assessed. The chapter concludes with recommendations for future research.
Chapter 2  Literature review

This chapter provides the theoretical and conceptual framework of the present study. It reviews and summarises findings of previous research on sexuality and the sexual health of Asian immigrants. Certain topics were excluded\(^6\) from the review of literature.

2.1 Ethnic differences in sexuality

This section reviews literature on ethnic differences in sexuality and sexual health among Asian immigrants. It provides an overview of sexuality research conducted among Asian and South Asian (born in India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and Maldives) immigrants and compares findings in relation to Indians, non-Asians and other Asian sub-populations.

2.1.1 Overview of sexuality research on Asian immigrants

There is a paucity of research data on ethnicity and sexuality of Asians. A systematic review of over 1000 sexuality research articles, published between 1971 and 1995, found that only 57 studies included an Asian sample (Wiederman, Maynard, & Fretz, 1996). Since 1995, the number of relevant studies has increased (Laumann et al., 2006; McKelvey, Webb, Baldassar, Robinson, & Riley, 1999; Meston, Trapnell, & Gorzalka, 1996; Schuster, Bell, Nakajima, & Kanouse, 1998; Yu, 2007). While much of this work used ‘Asian’ ethnicity as a proxy for culture and presented data on ethnic differences, only a few studies (e.g. (Meston, Trapnell, & Gorzalka, 1998) used ethno-culture variables as a predictor of sexuality related outcomes (Okazaki, 2002; Wiederman et al., 1996).

The target population in this field has changed in recent years. Before 2000, the focus was on East and Southeast Asians (Cochran, Mays, & Leung, 1991; Meston et al., 1996; Schuster et al., 1998) but subsequent studies have focused more on South Asian immigrants (Bradby & Williams, 1999; French et al., 2005; Griffiths, Prost, & Hart, 2007).

\(^6\) 1) Articles that were specific to clinical management (e.g. erectile dysfunction) or infections/epidemiology (e.g. HIV/AIDS) with less emphasis on behavioural aspects of sexual health.
2) Studies specific to a well-defined Asian sub-population (e.g. Vietnamese or Chinese).
2008; Groetzinger, 2004) and Indian immigrants (L. Coleman & Testa, 2007; Gagnon, Merry, Bocking, Rosenberg, & Oxman-Martinez, 2010; Griffiths et al., 2011). There has been a corresponding increase since 2000 in the number of studies focusing on the sexual health of South Asians (Griffiths, Prost, et al., 2008). This growing interest in sexual health among South Asian immigrants may reflect the sheer numbers of this population worldwide and the need to better understand their sexuality, given that rates of sexually transmissible infections continue to be high in South Asian countries.

Sexuality studies involving South Asian immigrants have a number of common features. First, they have used young, collegiate samples (mean age 13-20 years) (Bradby & Williams, 1999; L. Coleman & Testa, 2007; French et al., 2005; Meston et al., 1996). Secondly, the main focus is on sexual health (i.e. risky/safe sex behaviour, onset of sexual intercourse and sexual knowledge) (L. Coleman & Testa, 2007; Fenton et al., 2005; Gagnon et al., 2010; Griffiths, Prost, et al., 2008; Groetzinger, 2004; Schuster et al., 1998; Shedlin et al., 2006) Thirdly, much of the research data have been obtained through quantitative methodologies (Bradby & Williams, 1999; L. Coleman & Testa, 2007; Fenton et al., 2005; Gagnon et al., 2010; Griffiths et al., 2011; Meston et al., 1996).

There have been some exceptions. Few studies have addressed general sexual attitudes, values, beliefs and behaviours of South Asians and Indian immigrants (Griffiths et al., 2011; Meston et al., 1996) and a few qualitative studies have included participants from a wider age range and recruited from the community (French et al., 2005; Groetzinger, 2004; Shedlin et al., 2006). Overall, however, most research data on the sexuality of South Asian immigrants is limited to a small number of topics and has been sourced from selected (young, college) samples.

Some studies lack clear definition of their study population. Some define their study sample as ‘Asian’ immigrants and fail to provide further ethno-cultural details such as country of birth (Hahm et al., 2008; Lowry, Eaton, Brener, & Kann, 2011; McKelvey et al., 1999; Schuster et al., 1998; Seibt et al., 1995; Song, Richters, Crawford, & Kippax, 2005). One study provided country of origin details but did not compare findings between South-Asians (e.g. Indians vs. Pakistanis), instead generalising its
findings to all South Asians (Bradby & Williams, 1999). In reality, the findings cannot be generalised to all Asians or South Asians, who comprise a highly diverse group. Lack of a clear definition of the study population poses a serious limitation.

Few researches focused only on men who have sex with men of Asian origin, the so-called ‘double minority’ group (Han, 2008). All of these studies had a common focus on sexual health and addressed risky or safe sexual behavior (George et al., 2007; Han, 2008; Lloyd, Faust, Roque, & Loue, 1999; Poon & Ho, 2002; Seibt et al., 1995). East Asians and Southeast Asians are most often the target population in these studies of the sexual health of Asian homosexual men (George et al., 2007; Han, 2008; Poon & Ho, 2002). Only a small number of studies have focused on South Asians (Bhugra, 1997; Gopinath, 1998; Ratti, Bakeman, & Peterson, 2000). With one exception (Groetzinger, 2004), no studies that involved general samples of South Asian immigrants reported on the sexual orientation of participants. In other words, there is a lack of research data on the possibility of interactional effects between ethnicity and sexual orientation/identity on the sexuality of Asian/South Asian immigrants.

Large-scale sexuality studies have failed to include South Asian countries in their sample population. For example, the Global Study of Sexual Attitudes and Behaviours collected data from participants in nine Asian countries (Japan, Taiwan, China, Thailand, Indonesia, Korea, Malaysia, Singapore and Philippines) but omitted countries in the Indian sub-continental regions (Laumann et al., 2006; Moreira et al., 2005). Similarly, a multinational study recruited a sample of about 12,000 Asian men from five different regions within Asia (China, Japan, Korea, Malaysia and Taiwan) and omitted the Indian subcontinent (Tan et al., 2007). The authors of both studies offered no explanation for this exclusion, although the latter study included 290 men of Indian ethnic origin. Although not specifically reported, it is very likely that these men of Indian origin were recruited from Malaysia, which has a large Indian ethnic population. In 2006, the Durex Sexual Wellbeing Global study was conducted to gain consumers’ insight into sexual wellbeing. This online market research survey involved 26,032 men and women from 26 countries (each country had a sample of about 1000) and did include six Asian countries including India (Durex(R), 2007).
2.1.2 Sexuality and sexual health of Asian immigrants

Findings from previous research are integrated and discussed here under the following sub-headings: permissive sexual attitudes and behaviour; sexual experience; masturbatory attitudes and behaviour; religiosity and sexuality; sexual knowledge and safe-sex behaviour; and help-seeking attitudes and behaviour.

2.1.2.1 Permissive sexual attitudes and behaviour

Sexual attitudes have been reported to vary by gender and ethnicity. A large body of evidence exists to demonstrate that men and boys, across ethnicities, hold more liberal/permissive sexual attitudes than women and girls (Ahrold & Meston, 2010; Fugère, Escoto, Cousins, Riggs, & Haerich, 2008; Lau, Markham, Lin, Flores, & Chacko, 2009). A similar gender difference was found in a study that involved over 600 young Indians aged 15-18 years (L. Coleman & Testa, 2007). Overall, Asians tend to have less permissive/more conservative sexual attitudes compared to non-Asians (Ahrold & Meston, 2010; Lau et al., 2009). Ethnicity is not reported in many of the studies that have examined gender differences in permissive sexual attitudes (Fugère et al., 2008), although one study reported that White British men held significantly more liberal sexual attitudes than Asian men (L. Coleman & Testa, 2007). Ethnic and gender differences in attitudes towards premarital and casual sex, the two commonly reported permissive sexual attitude measures, are addressed below.

A comprehensive review of Asian sexuality research concluded that most Asian Americans are likely to endorse the abstinence standard, while those Asian Americans with more permissive sexual attitudes generally approve sexual behaviour only when the partners are ‘in love’ or ‘engaged’ (Fugère et al., 2008). Mixed views about premarital sex have also been reported. In a study that compared young Indians and Bangladeshis, some young Indian men viewed premarital sex as acceptable while others reported that they had chosen not to have sex before they were married. Indian men are more likely than women to have parental permission to explore sex (French et al., 2005). In another study of South Asians, fewer than half the men subscribed to the value of abstinence before marriage or claimed that it was a strong South-Asian value (Groetzinger, 2004).
Adult Indian men in the United States view casual sex as an appropriate release for unmarried men, with monogamous, emotionally invested sex being reserved for the special person one marries (Shedlin et al., 2006). Young Indians, on the other hand, disagree with casual sex, a position they attribute to the risk of sexually transmissible infections, loss of self-respect and the view that sex should occur within a loving and safe relationship (French et al., 2005). Almost all Indian men expressed strong opposition to sex after marriage with anyone other than one’s marital partner (Groetzinger, 2004).

Discrepancy between sexual attitudes and behaviours has been observed in several studies. A large proportion (47%) of Indian men (n=171) reported premarital sexual activity to be wrong, with many citing religious reasons. However, two-thirds of them also reported being in a non-marital relationship at first sexual intercourse (Griffiths et al., 2011). A similar pattern has been reported in other studies conducted among South Asians (Griffiths, French, Patel–Kanwal, & Rait, 2008; Groetzinger, 2004; Sinha, Curtis, Jayakody, Viner, & Roberts, 2007) but no studies offer any theoretical explanation for this attitude-behaviour discrepancy.

2.1.2.2 Sexual experience

As previously noted, much of the information we have about the sexual experiences of South Asian immigrants has been sourced from adolescent or young adult study samples. In general, Asian men and women have been found to be less sexually experienced and to have a later sexual debut than their non-Asian counterparts (Bradby & Williams, 1999; Schuster et al., 1998; Spence & Brewster, 2010). Young South Asians in the United Kingdom are less likely than their peers to report being sexually experienced (Griffiths, Prost, et al., 2008). Significant ethnic differences have been noted on all measures of interpersonal and intrapersonal sexual behaviours, including masturbation incidence and frequency, between Asian and non-Asian students (Meston et al., 1996).

Gender differences in sexual experience have also been reported. Unlike sexual attitudes, sexual experience varies between men and women depending on the nature of the sexual behaviour. Among South Asian youth, men were found to be more
likely than women to have experienced sexual intercourse (Bradby & Williams, 1999; Griffiths, Prost, et al., 2008).

A Canadian study, however, found no significant gender differences on measures of interpersonal sexual experience among all (Asian and non-Asian) students (Meston et al., 1996). In contrast, gender differences were found on virtually all measures of intrapersonal sexual behavior. Males (both Asian and non-Asian) were more likely than females to endorse a wide range of sexual fantasies, to report a higher frequency of fantasising, to have engaged in masturbation, and to masturbate more frequently (Meston et al., 1996). It is important to note that, in this study, South Asians (n=11) were classified as non-Asians due to their smaller representation in the whole study sample.

The median age at first intercourse for both Indian and Pakistani men was 20 years, which is significantly later than in other non-South Asian samples (Bradby & Williams, 1999; Griffiths et al., 2011). The majority of Indian men reported that they did not regret the timing of first sexual intercourse and this was similar to men of non-Asian background (Griffiths et al., 2011). Asian American adolescents tend to report later age of sexual debut and lower rates of sexual behaviours but, when they become sexually active, they are likely to exhibit sexual behaviour patterns similar to those of other racial/ethnic groups (Cochran et al., 1991; Lowry et al., 2011; Poon & Ho, 2002).

2.1.2.3 Masturbatory attitudes and behaviour
Investigating the beliefs and attitudes toward masturbation in a particular society is crucial to understanding general attitudes towards sexuality within that society (Bullough, 2003). High values placed on semen and concerns related to loss of semen through masturbation (e.g. poor eyesight, growth of hair in the palm, acne, weakness of muscles and dark complexion) are of high importance and clinical relevance to South Asian men (Manjula et al., 2003; Schensul, Mekki-Berrada, Nastasi, Saggurti, & Verma, 2006). This strong belief about semen loss motivates some Indian men to

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7 Interpersonal sexual behaviour includes light petting, heavy petting, oral sex, intercourse, lifetime number of sexual partners, or number of sexual partners in the past year.
prefer to engage in high-risk sexual behavior, at least partly to avoid the perceived dangers of masturbation (Lakhani, Gandhi, & Collumbien, 2001).

Given that masturbation is highly influenced by socio-cultural factors, a fruitful line of research would be to track changes in attitudes due to acculturation (E. Coleman, 2003). Despite masturbation being an important sexuality topic, there is a paucity of research on this topic for South Asians. Very few investigations have reported ethnic and gender differences in masturbation and frequency of masturbatory behaviour among Asian immigrants (McKelvey et al., 1999; Meston et al., 1996; Schuster et al., 1998).

Gender is the most commonly studied socio-cultural determinant of masturbation (E. Coleman, 2003). Men of all ethnic backgrounds are more likely than females to endorse a wide range of sexual fantasies, to report a higher frequency of fantasising, to have engaged in masturbation and to masturbate more frequently (Meston et al., 1996). In contrast, adolescents of Asian and Pacific Islander origin are less likely than their peers of other ethnic backgrounds to have engaged in masturbation (Schuster et al., 1998).

2.1.2.4 Religiosity and sexuality

There is little research on the influence of religiosity and spirituality on subjective elements of sexuality, such as sexual attitudes and sexual fantasy (Ahrold, Farmer, Trapnell, & Meston, 2011). An Australian study compared sexual attitudes of Asian and non-Asian health professional students. The study found those who attended religious services three or more times a month had fewer sexual partners, had not experienced sexual intercourse and had lower scores on the sex knowledge test (McKelvey et al., 1999). Among various reasons cited for never having sexual intercourse, religious reasons predominated for those of South Asian origin (Bradby & Williams, 1999). Among Indian youth in specific, parental and community views and cultural values were found to be more influential of their sexual attitudes and behaviours than religion per se (French et al., 2005). In comparison, religious factors were found to be more influential for sexuality of Bangladeshi youth.
2.1.2.5 Sexual knowledge and safe sex behaviour

A large-scale UK study of men and women aged 16-44 years with an ethnic booster sample reported older age at first sexual intercourse, lower number of sexual partners, and low numbers of concurrent partners among Indian men and women (Fenton et al., 2005). A review article comparing the risk-taking profile of Asian American adolescents to that of other racial groups found that Asian American adolescents had a low sexual risk-taking profile, which could be perceived by peers from other ethnic groups as ‘less sexual’ (Tosh & Simmons, 2007). The authors question whether the perception of ‘less sexual’ could force the younger generation of Asian Americans to engage in risky sexual behaviours in order to conform to peer identity.

A qualitative study found Indian men to exhibit denial of personal risk of infection, which could be due to lack of knowledge about STIs (Shedlin et al., 2006) This was supported by a detailed review that concluded that sexual health knowledge is poor among young South Asians in the UK (Griffiths, Prost, et al., 2008).

An Australian study of newly arrived university students compared sexual risky behaviour among Asians and non-Asians. Asian born students had consistently lower levels of STI/HIV knowledge than Australian-born students. Asian born students, however, were less likely to have had sex (34%) and had fewer sexual partners than Australian-born students (57.8%) (Song et al., 2005).

Many Indian men believe that condoms are restrictive and reduce pleasure and that condoms should accordingly be reserved for use with commercial sex workers rather than wives (Fisher et al., 2003). Attitudes towards use of condoms expressed by Indian men in the US are generally negative or ambivalent (Groetzinger, 2004). A British study found that South Asian men were less likely than non-Asian men to report using condoms (Bradby & Williams, 1999). A much more recent study reported on sexual risk behaviours of over 50,000 adolescents in the US, including more than 1500 Asian-Americans. Overall, Asian American adolescents had lower prevalence of risk behaviours related to sexual experience but posed higher risk with lower use of condoms (Lowry et al., 2011). A similar risk pattern for adolescent Asian
immigrants has been reported by another recent large-scale American study (Spence & Brewster, 2010).

Some sexually active Indian men combine consumption of alcoholic beverages with sexual activity (Groetzinger, 2004). A much more disturbing finding is that some Indian men described using alcohol in conjunction with visits to commercial sex workers, which they see as a way to relieve boredom and depression (Shedlin et al., 2006).

2.1.2.6 Help-seeking for sexual health
There is a paucity of research exploring sexual health service utilisation specifically among South Asians (Dhar et al., 2010; Griffiths et al., 2011). Non-UK-born South Asians are more likely than their UK-born counterparts and non-South Asians to be referred to sexual health services by other health care providers. Lack of self-referral to genitourinary medicine (GUM) services (term used in the UK for sexual health clinics) by South-Asians could reflect the cultural and socioeconomic barriers to sexual health services (Dhar et al., 2010; Tariq et al., 2007).

General Practitioners (GPs) are reported as the most common source of information for sexual health among South Asians (Beck, Majumdar, Estcourt, & Petrak, 2005; Bhui, Herriot, Sein, & Watson, 1994; Dhar et al., 2010; Griffiths et al., 2011; Griffiths, Prost, et al., 2008). On the other hand, young South Asian immigrants in the UK prefer mainstream sexual health services (i.e. government funded genitourinary medicine clinics) (French et al., 2005). Several barriers to accessing general practitioners for sexual health care are commonly reported. These include concerns about the confidentiality of GP services, which are prevalent among South Asians, especially Indians (Beck et al., 2005; Dhar et al., 2010; French et al., 2005; Griffiths et al., 2008; French, et al., 2008; Griffiths et al., 2011; Kanukollu & Mahalingam, 2011; Rawson & Liamputpong, 2009; Wynaden et al., 2005). Gender matching is also important, more so for females of South Asian origin than for men. Finding a service provider of the same cultural or religious background has also been found to be problematic (Griffiths, Prost, et al., 2008; Groetzinger, 2004).
Barriers specific to South Asians in relation to the under-utilisation of mental health services have recently been highlighted (Kanukollu & Mahalingam, 2011). These include fear and shame about self-disclosure of personal conflicts; feelings of distrust towards therapists due to prior experience of prejudice and racism; concerns about confidentiality, especially with health professionals of the same ethnic origin who could be of help in many other ways; and mismatch between the individualistic basis of Western therapies and the collectivist values of South Asian ethnicity. Although the barriers were specific to mental health services, they may also apply to sexual health services due to the sensitive and stigmatised nature of both issues among South Asians.

2.1.2.7 Asian men who have sex with other men

Racism within the gay community against Asian gay men and the power imbalance in gay Asian-White relationships place this group at risk for sexually transmissible infections (Han, 2008). Lack of sex education at home, homophobia in Asian families and an unresponsive health system has been identified as other social determinants of sexual health for this group (Poon & Ho, 2002). A UK study of homosexual men of South Asian origin aged 16-61 years found that they did not ‘fit’ well with the ‘majority’ gay community and that families and religion played an important role in the process of coming out (Bhugra, 1997).

A Canadian study compared HIV risk-taking behaviour among foreign-born and Canadian-born men who have sex with men (MSM). The Asian migrants (n=50, mostly Chinese) were least likely to have had sex in return for goods or services and to have had body piercing, least likely to be tattooed, least likely to be sexually experienced with women (68% had never had sex with women) and had fewer sexual partners (George et al., 2007). In contrast, no association was found between the immigration statuses of MSM of Asian and Pacific Islander (API) origin and their level of HIV knowledge, level of HIV risk behaviour or level of HIV risk reduction efforts (Lloyd et al., 1999). Higher condom use in anal sex was found to be associated with higher acculturation to the gay subculture in a study of homosexual men of Asian origin in the US (Seibt et al., 1995).
2.1.3 Summary of review presented in section 2.1

- Men, across ethnicities, hold more permissive sexual attitudes than women.
- Among Asians and, in particular, among Indian men, mixed views about premarital and casual sex have been reported.
- Multiple studies have consistently found discrepancy between sexual attitudes and actual behaviour among Indian men (i.e. having conservative attitudes but being sexually experimental). No theoretical explanation has been provided.
- Asian immigrants in general have been found to be sexually less experienced than non-Asians.
- Men, both Asians and non-Asians, are more likely than women to endorse a wide range of intrapersonal (sexual fantasy) but not interpersonal (oral sex) sexual behaviours. No theoretical explanation has been provided.
- Men, across ethnicities, are more likely to have engaged in masturbation and to masturbate more frequently than women.
- Median age of first sexual intercourse for Indian men is significantly later than for non-Asian men.
- Religious factors tend to influence sexual behaviours but not sexual attitudes.
- Asian immigrants and Indian immigrants specifically have a lower sexual risk behavioural profile, which is often considered to be protective.
- The lower sexual behavioural risk profile of Asian immigrants is challenged by poor sexual health knowledge and negative/ambivalent attitudes towards condom use and the use of alcohol in conjunction with sex.
- Much of the data on South Asians’ help seeking for sexual health has originated from the UK. General Practitioners are the most common source of information and help for sexual health concerns.
- Matched gender between patient and health care provider is a more problematic access issue for women than for men.
- Service providers of the same ethnic origin have been found to be both enablers (cultural understanding) and barriers (confidentiality and fear of judgment) for South Asians.
2.2 Theory, models and measures of acculturation

Acculturation is the key predictor variable and also the prime focus of the present investigation. A number of aspects of acculturation are discussed below. These are: definitions of acculturation; major concepts and constructs of acculturation used in the empirical literature; gaps in current knowledge of acculturation; the theoretical model of acculturation and the measurement tools used in the past studies involving Indian sample.

Acculturation studies are plagued by varying and inconsistent terminologies (Miller, 2007). In this thesis, the following terms are used consistently. ‘Heritage culture’ refers to the culture in which an individual was born and raised (otherwise referred to as ‘host’ or ‘native’ culture). ‘Mainstream culture’ refers to the culture into which an individual moves (also referred to as ‘receiving’, ‘second’, ‘dominant’ or ‘majority’ culture). ‘Acculturation’ is used to refer to the broad psychological experience of living in a cultural context that is different to an individual’s own culture.

2.2.1 Definitions of acculturation

Definitions of acculturation found in the literature are presented below in reverse chronological order:

• ‘culture change that begins with contact between two individuals, groups, two different societies or among diverse cultural systems’ (Lopez-Class, Castro, & Ramirez, 2011)
• ‘changes that take place as a result of contact with culturally dissimilar people, groups, and social influences’ (Gibson, 2001 as cited in (Schwartz et al., 2011)
• ‘the extent to which individuals have maintained their culture of origin or adapted to their larger society’ (Phinney, 1996 as cited in (Kanukollu & Mahalingam, 2011)
• ‘a culture change that results from continuous, first-hand contact between distinct cultural groups’ (Berry, 1997)
For the purposes of the current investigation, the bilinear and multidimensional definition proposed by Berry, will be used:

• ‘a process that entails contact between two cultural groups, which results in numerous cultural changes in both parties’ (Berry, 2001)

Most of the definitions address acculturation as a culture change process that impacts on individuals or groups in both heritage and mainstream cultures. Cortes’s definition (Rissel, 1997), however, specifies that culture change apply only to the newcomers (migrants). The definitions also vary in conceptualising acculturation as an end-product/result of culture change (Berry, 2001) or as a dynamic process (Suinn et al., 1995). Miller (2007) provides an extensive review and discussion of these terminologies and definitions.
2.2.2 Conceptualising acculturation

Acculturation is one of the most important individual difference constructs in ethnic minority research (Miller, 2007). The large flow of migrants around the world has prompted increased scholarly interest in acculturation (Schwartz et al., 2011). There has been a major shift in the conceptualisation of acculturation across different fields of research. Initially, acculturation was conceptualised as a simple, group-level process of culture change. Over the last four decades, it has come to be seen as a more individual-level, complex, dynamic and multifaceted process (Lopez-Class et al., 2011). Recent research has challenged some of the popularly held views about acculturation in an attempt to address the variations in acculturation-related outcome measures (Lopez-Class et al., 2011; Miller, 2007; Schwartz et al., 2011).

Linearity and dimensions are two key elements in the conceptualisation of acculturation. Linearity refers to the ability of an individual to orient to one or two cultures, while dimensions refer to the levels at which acculturation can take place (such as beliefs, behaviours and/or values) (Miller, 2007). Unilinear (assimilatory) and bilinear (bicultural) are two models of acculturation that have been postulated on the basis of linearity. Dimensions are sometimes referred to as domains. Many authors have conceptualised acculturation as a culture change process occurring on several different dimensions (Miller, 2007). In addition to beliefs, values and attitudes, several authors have proposed a number of other dimensions such as language, knowledge, cultural identity, ethnic interaction, ethnic pride and cultural heritage. A particular model of acculturation could be uni-, bi- or multi-dimensional, depending on the number of dimensions it addresses. Different combinations of linearity and dimensions produce a number of possible acculturation models, as shown in Table 2.1 below.

<table>
<thead>
<tr>
<th></th>
<th>Unidimensional (UD)</th>
<th>Bidimensional (BD)</th>
<th>Multidimensional (MD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilinear (UL)</td>
<td>UL-UD</td>
<td>UL-BD</td>
<td>UL-MD</td>
</tr>
<tr>
<td>Bilinear (BL)</td>
<td>BL-UD</td>
<td>BL-BD</td>
<td>BL-MD</td>
</tr>
</tbody>
</table>

Table 2.1 Possible models of acculturation
2.2.2.1 Unilinear model of acculturation

Acculturation was initially conceptualised as a change in cultural identification that happens in a linear fashion (assimilation) from one culture to the other. According to Gordon’s assimilatory model of acculturation, immigrants will lose ties with their heritage culture and will internalise the mainstream culture over a period of time (Miller, 2007). In other words, the only outcome for an individual in this model of acculturation is either to assimilate to the mainstream culture or not. Terms like westernisation and modernisation reflect the unilinear assimilation model and are used to describe the migrant experience in western countries (Salant & Lauderdale, 2003).

Although the unilinear model of acculturation remained popular, a shift has occurred in relation to the dimensions it incorporates. In the very early days, single dimension measures such as language or nativity were used (Olmedo, 1978). Later, factors such as ethnic pride and ethnic food preferences were incorporated as multi-dimensional measures into the unilinear model in acknowledgment of the complex nature of the culture change process (Lopez-Class et al., 2011). Use of single acculturation measures (e.g. language) can introduce significant limitations, notably neglect of acculturative change occurring on various other dimensions (Thomson & Hoffman-Goetz, 2009).

A number of assumptions behind the unilinear model of acculturation have been heavily criticised. The first and most fundamental assumption is that individuals cannot retain their heritage culture as they incorporate the norms of the mainstream culture (Cuellar, Arnold, & Maldonado, 1995). Secondly, change in cultural identity is assumed to occur on a single continuum and over a period of time (Ryder, Alden, & Paulhus, 2000). Thirdly, cultural indicators (values, beliefs and behaviours) are assumed to vary with assimilation in a linear gradient relationship (Abe-Kim et al., 2001) and so dimension distinction is not important. Evidence challenging these assumptions led to the development of the bilinear model of acculturation (see below).

The unilinear model of assimilation ignores the possibility of bicultural identity and regards acculturation as a distinctive outcome rather than a complex multidirectional
process. At the core of the unilinear model of acculturation is the assumption that acculturation can be approximated by the amount of exposure that individuals have to the mainstream culture. For this reason, proxy measures such as years lived in the new country, age at migration and generational status are used in related empirical studies. Yet such proxy measures have been shown to have the potential to misclassify study participants’ acculturation status (Lopez-Class et al., 2011).

A substantial amount of our knowledge of the acculturation process among Asian Americans is based on the unilinear concept of acculturation (Ryder et al., 2000). This is also true of our understanding of sexuality and sexual health among Asian immigrants generally, as ‘length of residence’ is the most commonly used measure of acculturation in studies that have examined the impact of acculturation (Brotto et al., 2007; Kennedy & Gorzalka, 2002; Meston, Trapnell, & Gorzalka, 1998).

2.2.2.2 Bilinear model of acculturation
In the bilinear model, acculturation is conceptualised as a culture change process in which an individual’s cultural orientation can be towards both the heritage and mainstream cultures. Since 1979, this model has received widespread support in both the scholarly literature (Berry, Kim, Power, Young, & Bujaki, 1989; Berry, 1979) and in empirical research (Abe-Kim et al., 2001; Miller, 2007).

It is suggested that dimensions of cultural identification are independent of each other (i.e. orthogonal) and that increasing identification with one culture does not require decreasing identification with another (Oetting & Beauvais, 1991). Berry’s (1979) acculturation model (see below) identifies four possible outcomes – assimilation, integration, separation and marginalisation (Berry, 1979). This model remains the most widely used in acculturation studies and is accordingly employed to analyse my findings in this research. The bilinear model is not, however, without criticisms, notably that it is more descriptive than explanatory and predictive of migrants’ health-related behaviours and outcomes (Landrine & Klonoff, 2004).

2.2.2.3 Unilinear vs. bilinear models of acculturation
There is growing evidence to support the use of bilinear over unilinear models of acculturation. A comparative study concluded that bilinear and multidimensional
models of acculturation are the most appropriate (Miller, 2007). As well, biculturalism (i.e. mutual engagement in heritage and mainstream culture) has been reported to be the most adaptive strategy (Berry, Phinney, Sam, & Vedder, 2006). In the present study, both unilinear (length of residence) and multidimensional bilinear (revised 26-item SL-ASIA scale) measures are used.

2.2.2.4 Contextual factors in acculturation
A number of factors have been collectively identified as ‘contextual factors’ that play a vital role in acculturative change (Alegria, 2009). These include an individual’s place of residence, social networks, membership in various socio-cultural groups from the dominant culture, relational behaviours (such as making friends or out-marriage with members of the dominant culture), the school system and other factors as racial or ethnic discrimination (Lopez-Class et al., 2011). These contextual factors have been found to affect the manner in which the process of acculturation proceeds and thus account for the occurrence of differing ‘acculturation trajectories’ (Castro, Barrera, & Steiker, 2010). According to Lopez-Class and associates (2011), there is a cyclical acculturation process among transient individuals who periodically travel to and from their native country. Castro and associates (2010) suggest that the complex interplay of individual and contextual factors on acculturation could be captured by employing qualitative and/or mixed methodological approaches in research.

2.2.3 Berry’s model of acculturation

In Berry’s model, contact-participation and heritage-cultural maintenance are conceptualised as independent dimensions. Contact-participation is the extent to which an individual values and seeks out contact with those outside her/his own group and wishes to participate in the daily life of the larger society. Cultural maintenance is the extent to which an individual values and wishes to maintain her/his cultural identity.

The two principles underpinning these two dimensions are: decisions about whether or not one's own cultural identity and customs should be preserved; and decisions as to whether relations with other groups in the larger society should be sought. In Berry’s model, these two dimensions intersect to create four acculturation categories:
assimilation (the individual adopts the receiving culture and discards the heritage culture); separation (s/he rejects the receiving culture and retains the heritage culture); integration (s/he adopts the receiving culture and retains the heritage culture); and marginalization (s/he rejects both the heritage and receiving cultures). This is shown in Table 2.2 below.

Table 2.2 Berry’s model of acculturation

<table>
<thead>
<tr>
<th>Cultural maintenance = YES</th>
<th>Cultural maintenance = NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact-Participation = YES</td>
<td>Integration</td>
</tr>
<tr>
<td>Contact-Participation = NO</td>
<td>Separation</td>
</tr>
</tbody>
</table>

Berry’s model was primarily developed to study acculturation-related stress. The strategies that have been found to produce the least acculturative stress are integration and assimilation (Reece & Palmgreen, 2000). Some critics, however, have argued that not all of the four categories may exist in a given sample or population and that the category ‘marginalisation’ is likely to be non-existent (Schwartz et al., 2011).

2.2.4 Gaps in our knowledge of acculturation

A number of conceptual and contextual aspects of acculturation remain unexplored. These are considered below.

1. The cultures (heritage and mainstream) involved in the acculturative process have been assumed to be static phenomena even though acculturation itself is considered to be a dynamic process. The implications and differential effects of globalisation on the cultures under investigation have not been given due consideration, although the implications of acculturation in relation to globalisation have been acknowledged (Arnett, 2002). Without a good understanding of the individual cultures under investigation, it may not be possible to fully understand the outcomes of acculturation. This is especially important in studies that examine acculturation in
multicultural settings. For example, the mainstream culture in Australia tends to be a melting pot of many cultures so that a definition of ‘Australian culture’ is problematic.

2. Immigrants from different (e.g. city vs. rural or metropolitan city vs. large town) regions could have had different degrees of exposure to western culture. Given the large size of countries like India, the economic and cultural shifts are not uniform across the whole nation. Such differential effects of modernisation within a particular country could impact on the degree to which an individual adheres to his or her culture of origin not only post migration but also prior to migration. This issue has not been addressed well in previous studies on acculturation.

3. The ethno-cultural composition of employees within a workplace could be a vital contextual factor influencing or mediating the acculturative process. This is a reasonable assumption as the workplace is where an individual spends most of his/her active time and where s/he is under constant exposure to others’ views. It may be worth exploring this aspect, as it is quite common for many skilled migrants (such as Indian men in Australia) to work in organisations that have multicultural staff.

4. The cultural contact between partners in a steady relationship may be a vital contextual factor not only for partners of different ethnic origin but also for those who are of the same ethnicity but at different levels and patterns of acculturation. Among Indian migrants to Australia, it is common for the male partner to arrive earlier than the female. This may result in differential degrees and patterns of acculturation and it is possible that a female partner’s acculturation could be influenced by the male partner or vice versa. Gender roles and related power imbalances might have mediating effects on acculturation.

5. Pre-migration socio-demographic factors may mediate the acculturative change among migrants. This may certainly be worth examining for migrants who arrive from countries like India where class and caste systems continue to exist and may affect the way they socialise with other members of their own ethnic group. This is a very sensitive issue to explore in research and requires the collection and analysis of complex information.
6. The cumulative years of residence in all countries other than an individual’s country of origin have never been addressed. Many studies that used proxy measures of acculturation such as length of residence tend to use the number of years lived in the country in which the study was conducted. A limitation of this approach is that it fails to take into account factors in other countries where the individual may have lived. One out of every four individuals residing in the United States has lived in another country before moving to the United States and has presumably internalised more than one culture (Benet-Martínez & Haritatos, 2005). This could have implications for the acculturative change of that individual as he/she may have been exposed to multiple cultures in other countries. It is not uncommon for migrants to study, work or live in different countries (Western or Asian) before they settle as a migrant in a totally different country.

7. Research on acculturation and sexuality (values, attitudes and behaviours) remains atheoretical. According to Landrine and Klonoff (2004), current understanding of acculturation and its impact on health behaviours will be advanced through research that is theoretically grounded.

8. There are several emerging issues that need to be considered in future studies of acculturation. First, the importance of a multidimensional approach to the measurement of acculturation has been emphasised by Schwartz (2011), who suggests that cultural practice, cultural values and cultural identification are the three integral components of acculturation. The vast majority of studies in the acculturation literature, however, have focused on behavioural acculturation when in fact they provide only a fair proxy for cultural adaptation. Second, biculturalism and orthogonal cultural identification have been identified as emerging concepts in acculturation (Salant & Lauderdale, 2003). Benet-Martinez and Haritatos (2005) have conducted extensive work on biculturalism and bicultural identity. Finally, the need, relevance and importance of considering contextual or ‘real world’ factors in the conceptualisation of acculturation has been highlighted (Lopez-Class et al., 2011).
2.2.5 Acculturation studies among South-Asian/Indian immigrants

A number of research studies, conducted over the last two decades, have examined acculturation among South-Asian/Indian migrants. Acculturation studies that focused on sexuality and sexual health are reviewed in detail in the following section (2.3). Here, findings in relation to acculturation style, irrespective of outcome measures, are summarised.

Biculturalism and integration of the heritage and mainstream cultures is the most frequently reported acculturation style among Indian migrants throughout the world (Alam, 2007; Baek Choi & Thomas, 2009; Dasgupta, 1998; Farver, Bhadha, & Narang, 2002a; Farver, Narang, & Bhadha, 2002b; Gallegos & Nasim, 2011; Ghuman, 1997; Ghuman, 2000; Kumar & Nevid, 2010; Robinson, 2009). The majority of Indian participants tend to have acculturation scores around the mid-values of a scale (meaning a bicultural pattern) and only a very small fraction have very high scores (meaning total assimilation), irrespective of the scale being used (Gallegos & Nasim, 2011).

A number of factors distinguish Indians from other Asians in regards to acculturative changes and patterns. First, Asian Indians have the greatest percentage of individuals who speak English “very well” when compared to other Asian groups in the United States (Kumar & Nevid, 2010). Indians have also been reported to have the highest educational attainment and the highest percentage of employment in management, professional and related occupations compared to other Asian samples (Farver et al., 2002a; Kumar & Nevid, 2010; Robinson, 2009).

Secondly, Indians differ from other Asians in regard to all three dimensions of acculturation (i.e. values, practices and identity). Indians, compared to other Asians, selectively acquire and maintain values and practices of both heritage and mainstream cultures (Patel, Power, & Bhavnagri, 1996).

Thirdly, Indian migrants differ in their sense of cultural identity. Indians retain a strong ethnic identity, resulting in a unique combination of individualistic and collectivist traits (Kumar & Nevid, 2010). Moreover, Asian Indians do not typically
identify with the current Western term ‘Asian’ (Durvasula & Mylvaganam, 1994). Robinson (2009) found that identification with the larger society was more important for Indian adolescents than for Pakistani adolescents.

A likely reason for the bicultural pattern of acculturation among Indian migrants is discussed in more detail below. It has been argued that the ability of Indian immigrants to operate effectively in both cultures may be due to their exposure to Western values, beliefs and customs during their history of colonisation by the British for over three centuries (Ibrahim, Ohnishi, & Sandhu, 1997). On the other hand, Dasgupta (1998) suggests that Indians’ interaction with the British could have influenced their English proficiency and exposure to Western values but failed to alter their basic customs, traditions and cultural identity. Farver et.al (2002a) support this idea, arguing that Indian immigrants appear to retain a sense of culture that is more traditionally “Indian” in many respects than the culture that currently exists in India.

2.2.5.1 Acculturation scales used in research among Indians
A number of different scales has been used to measure acculturation among Indians. These are described below.

Ghuman’s Acculturation Scale. This 29-item questionnaire was originally developed in 1975 to assess the acculturation of South-Asian people into British culture. The questionnaire includes items across the following domains: food and clothes, the role of women, religion, and entertainment and community life. Two factors are indexed via this questionnaire: traditional attitudes (i.e. retaining heritage attitudes) and Western attitudes (i.e. adapting to British cultural norms) (Atzaba-Poria & Pike, 2007; Ghuman, 2000). The scale’s reliability (Cronbach alpha =0.82) and validity were established on a large sample of South Asian young people (Ghuman, 1991). This scale has also been used in an adult sample of gay men of South-Asian origin in Canada (Ratti et al., 2000).

Acculturation Attitude Scale (Chen et al.,1999). This (unpublished) scale was used in a study of Korean, Indian and Filipino migrants in the United States (Baek Choi & Thomas, 2009). It consists of 24 items and has been tested on a Chinese population
residing in Australia. Items in the scale consist of attitudes, beliefs and values that Asian immigrants may experience in the process of acculturation.

**Bicultural Involvement Questionnaire.** Developed in 1978 (Szapocznik et al, 1978), this scale was found to be reliable with Latino immigrant groups in the US. It was intended to assess the degree to which individuals feel comfortable in their culture of origin and in the dominant society, independent of the other. This scale was adapted and modified for use in a study of Asian Indian adolescents and parents (Farver et al., 2002a). Two sub scales were developed to measure ‘Americanism’ (the sum of the items reflecting involvement in American culture) and ‘Indianism’ (the sum of the items reflecting involvement in Indian culture). On the basis of median splits, participants were classified into ‘low’ and ‘high’ levels of ‘American’ and ‘Indian’ involvement and then classified into one of four groups as per Berry’s bilinear model.

**Acculturation Rating Scale for Mexican Americans-II** (Cuellar et al., 1995). This scale was modified for use with Asian Indian adolescents and parents in the United States (Farver et al., 2002b). The 30-item scale has two subscales: cultural orientation to Asian Indian (17 items) and Anglo culture (13 items). The items were rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely often), with higher scores representing an orientation toward the Asian Indian or Anglo culture.

The 12-item generic acculturation scale (Rissel, 1997) was originally developed in Australia for Arabic speaking adults and is based on a unilinear model of acculturation. Ten out of the 12 items related to language. Scores could range from five to 24. A score of five indicates no acculturation (no adoption of mainstream culture) while 24 indicates a high level of acculturation to the mainstream (Australian) culture (little retention of culture of origin). Gallegos (2011) used a modified version of this scale (8-items) with a sample of Indian and Pakistani women in Australia to examine the relationship between acculturation and dietary patterns.

The Suinn–Lew Asian Self-Identity Acculturation Scale (SL–ASIA) (Suinn, Rickard-Figueroa, Lew & Vigil, 1987) was originally developed to measure behavioural acculturation. The scale was derived for use with Asian populations from the original version of the Acculturation Rating Scale for Mexican Americans-II developed in
Kumar and Nevid (2010) modified the original SL-ASIA scale by rewording items so that the designation ‘Oriental’ was replaced with the word ‘Indian’. The 21-item SL-ASIA (Suinn, Ahuna, & Khoo, 1992a) has been widely used in acculturation studies of Asian immigrants (Abe-Kim et al., 2001; Ryder et al., 2000). A copy of the 26-items scale is provided as it was used in the present study. The measurement and analysis aspects of the scale are discussed in Chapter 3.

2.2.6 Summary of review presented in section 2.2

- Acculturation, at a fundamental level, involves alterations in the individual’s sense of self (identity). For this reason, it is one of the most important individual difference constructs in ethnic minority research.
- Acculturation is a complex, dynamic and multifaceted process. Linearity and dimensions are the two key aspects of acculturation.
- A large body of evidence facilitated a major shift in the conceptualisation of acculturation from a unilinear (assimilatory) to an orthogonal (bilinear), multidimensional process.
- A more recent focus is on the contextual factors of acculturation.
- A number of gaps in current knowledge of acculturation, especially around the contextual factors, have been identified. These include lack of understanding about the relationship between acculturation and globalisation, pre-migration factors, ethno-cultural composition of co-workers, and difference in culture or acculturation between partners.
- Biculturalism (integration of both heritage and mainstream cultures) has been reported as the most common acculturation style among Indian immigrants.
- The ability to speak English well and higher educational status have been found to influence the acculturation style of Indians.
- Indians have been reported to hold strong ethnic identity and appear to be a quite different minority group compared to other Asian immigrants.
- Several different acculturation scales have been used with Indian samples but none has been empirically developed for adult Indians.
- The model (Berry’s Model) and the scale (26-item Suinn-Lew Asian Self-Identity Acculturation Scale) used in the present study are based on the concept that acculturation is a bilinear and multidimensional process.
2.3 Acculturation and Asian immigrants’ sexuality and sexual health

In this section, studies that have examined acculturation and sexuality among Asian immigrants are reviewed. The aim is to provide an overview of past research on acculturation and sexuality involving Asian samples. This chapter will also summarise previous findings on the impact of acculturation on sexuality and sexual health of Asians/South Asians/Indians.

2.3.1 Overview of research on acculturation and sexuality of Asian immigrants

There has been a noticeable shift in the identification of Asian samples in these studies. Early research tended to group all those who were born in Asian countries under one ethnic group called ‘Asians’, which was then compared with non-Asian group(s) (McLaughlin, Chen, Greenberger, & Biermeier, 1997; Meston et al., 1998; Meston et al., 1996; Mori, Bernat, Glenn, Selle, & Zarate, 1995). Subsequent studies focused on a particular sub-group within the larger Asian population (i.e. East Asians, Southeast Asians or South Asians) (Ahrold & Meston, 2010; Brotto et al., 2007). A more recent trend is to focus on a specific ethnic population (e.g. Indians) within a particular Asian sub-group (Schwartz et al., 2011). This shift in focus, from general to specific, demonstrates the heterogeneous nature of the ‘Asian’ ethnic group (Okazaki, 2002).

There is a paucity of research on acculturation and sexuality among Indian immigrants. Studies conducted prior to 2000 included only small numbers of Indians in their overall sample. As a result, Indians were included in the category ‘Other Asians’ (McLaughlin et al., 1997) or even ‘non-Asians’ (Meston et al., 1998). Later studies included Indians along with Pakistanis and/or Bangladeshis as a single cohort (South Asians) within a multi-ethnic sample (Leiblum, Wiegel, & Brickle, 2003). One recent study has paid much closer attention to ethnic differences among Indian immigrants but did not examine acculturation (Griffiths et al., 2011).

The available research literature on Asian immigrants in general has several common elements. First, and most importantly, the study samples comprise young tertiary students. Secondly, a unilinear model of acculturation is most often used. Thirdly, no
A theoretical explanation for some of the unique findings is provided. Each of these issues is discussed in detail below.

2.3.1.1 Young collegiate sample
Almost all past investigations on acculturation and sexuality of Asians has been conducted on a young (mean age 18-20 years) sample of university students (Ahrold & Meston, 2010; Benuto & Meana, 2008; Brotto et al., 2007; Chung, 2001; Kennedy & Gorzalka, 2002; Leiblum et al., 2003; McLaughlin et al., 1997; Meston et al., 1998; Mori et al., 1995; Schwartz et al., 2011; So, Wong, & DeLeon, 2005; Woo & Brotto, 2008). Many of these studies have identified this as a major limitation and suggest that replication with older, community samples is desirable (Ahrold & Meston, 2010; Brotto et al., 2007; Woo & Brotto, 2008). The number of South Asian students in all of these studies was low. None provided any demographic details of student enrolments for the study year so it is difficult to explain why fewer South Asian students were included in the sample. In other words, current content knowledge on the impact of acculturation on sexuality of Asian immigrants is primarily based on a biased, convenience sample of young tertiary students.

2.3.1.2 Models and measures of acculturation
Different models, measures and tools have been employed in previous research. With the exception of a few recent studies, most used a unilinear model of acculturation and measures such as length of residence to determine level of acculturation (Benuto & Meana, 2008; Kennedy & Gorzalka, 2002; Leiblum et al., 2003; Meston et al., 1998). Some studies employed only a bilinear model (Ahrold & Meston, 2010; Schwartz et al., 2011; Woo & Brotto, 2008) while a few employed both unilinear and bilinear models (Brotto et al., 2007). Length of residence was used by many studies to measure of length of exposure to the new culture (unilinear model) (Brotto et al., 2007; Kennedy & Gorzalka, 2002; Meston et al., 1998). ‘Language used at home’ was commonly used as a proxy measure for unilinear acculturation (Hahm, Lahiff, & Barreto, 2006; McLaughlin et al., 1997; Schuster et al., 1998; So et al., 2005).

A number of acculturation scales have been used. The most commonly referenced scales are the Suinn-Lew Asian Self-Identity Acculturation Scale (Chung, 2001; Mori et al., 1995) and the Vancouver Index of Acculturation (Ahrold & Meston, 2010;
Brotto et al., 2007; Woo & Brotto, 2008). Thus current understanding of the impact of acculturation on sexuality of Asian immigrants is primarily based on the unilinear model of acculturation.

2.3.1.3 Lack of theoretical explanation

Some studies reported differential effects of acculturation on sexuality between ethnicities, genders or among different sexuality measures (e.g. attitudes, behaviours) (Ahrold & Meston, 2010; Brotto et al., 2007; Kennedy & Gorzalka, 2002) but few authors suggested possible reasons for their findings or offered any theoretical explanation. Relevant findings are discussed below.

Mainstream acculturation was found to be a significant predictor of conservatism of sexual attitudes, but not experience, in Asian men (Brotto et al., 2007; Meston & Ahrold, 2010). Meston and Ahrold (2010) suggest that exposure to a new cultural environment may change thoughts and feelings about sexuality but not necessarily sexual behaviours. These authors also propose that heritage acculturation is an overriding factor for Asian men and that heritage culture acts as a lens through which the mainstream culture is experienced.

Two studies that examined influence of length of residence in Canada on sexual attitudes and behaviour reported different outcomes (Meston et al., 1998; Meston et al., 1996). Length of residence did influence sexual attitudes but not behaviours. The authors concluded that cultural influence on sexual behaviour (which happens at an interpersonal level) may be slower than influences on sexual attitudes, at least for East Asian and Southeast Asians who were predominantly represented among Asians in their sample.

Brotto et al. (2007) compared sexual attitude and sexual responses of East Asian (e.g. Chinese, Taiwanese, Japanese) students with that of Euro-Canadian and examined the role of acculturation among East Asian men’s sexuality. East Asian men were less likely to have engaged in sexual intercourse and had significantly lower scores on sexual information, sexual experiences, sexual drive, and liberal attitudes. However, the groups did not differ with respect to their sexual fantasies. While many sexual behaviours and experience, except for sexual fantasy, are significantly different
between the Euro-Canadians and East Asian men, could be due to the differential effect of acculturation on interpersonal (sexual behaviours) and intra-psychic sexual script (fantasy) of a person. Likewise, a proxy measure for unilinear acculturation (length of residence in Canada) had no effect on any of the sexual attitude items among Asians except for fantasy associated with masturbation (Kennedy & Gorzalka, 2002). Another study supported the above by demonstrating that promiscuity fantasies and intercourse fantasies of Asians were the only outcome measures influenced by length of residence in North America (Meston et al., 1996). The authors of all studies failed to provide any explanation for these findings about acculturation and sexual fantasy, which is considered in Sexual Scripting Theory to belong to the private (intrapsychic) world of wishes (Simon & Gagnon, 1984).

One investigation highlighted the inconsistency between sexual attitudes and behaviour among Asian Americans, especially for males. Although Caucasian and Asian American men endorse casual sex to a similar degree, the two groups differed significantly in the number of sexual partners that they had in the preceding year or in their lifetime. The average sexual partners of Caucasian and Asian men were about four and one respectively (McLaughlin et al., 1997). The author offered no explanation for this significant finding.

A differential effect of acculturation was found between coercive (rape and sexual harassment) and non-coercive (sexual intercourse with mutual consent) behaviours among Asian migrants in Canada but the findings were not theoretically explained (Kennedy & Gorzalka, 2002).
2.3.2 Acculturation and sexuality (attitudes and behaviour)

2.3.2.1 Sexual attitudes
Mixed findings have been reported from studies examining acculturation and sexual permissiveness among Asians. Most investigators found no significant association between assimilation (length of residence) and permissive sexual attitudes (Brotto et al., 2007; Brotto, Chik, Ryder, Gorzalka, & Seal, 2005; Kennedy & Gorzalka, 2002) but a few did find a positive association (Benuto & Meana, 2008; Meston et al., 1998).

These findings vary according to the model and measure of acculturation used. A study (Brotto et al., 2007) using both unilinear (length of residence in Canada) and bilinear (Vancouver Index of Acculturation Scale) measures of acculturation found conflicting results. While length of residence was not significantly associated with sexual permissiveness, there was a significant effect of the mainstream dimension of the VIA on overall sexual permissiveness. The heritage acculturation dimension, however, did not predict any of the sexuality-related outcomes, including permissiveness.

Acculturation has been found to have differential effects when different outcome measures are used. Ahrold and Meston (2010) found mainstream acculturation to be predictive of liberal attitudes towards casual sex among Asians. On the other hand, heritage acculturation was found to be a significant predictor of conservatism in attitudes towards homosexuality.

Ahrold and Meston (2010) also found differential effects of acculturation on sexual attitudes between ethnic groups in the same mainstream society. For Hispanics, greater identification with the mainstream culture predicted liberal sexual attitudes whereas less identification with the heritage culture predicted liberalism for Asian migrants. The authors argue that acculturation tends to account for more of the variability in sexual attitudes in Asians than Hispanics.

Another study reported varying effects of acculturation on attitudes towards different sexual behaviours. Length of residence in Canada did moderate attitudes towards
coercive sexual behavior but not towards non-coercive behavior (Kennedy & Gorzalka, 2002). By way of explanation, the authors suggest that coercive sexual behavior is guided more by social cues whereas non-coercive sexual behavior is guided more by individual cues. The social cues around coercive sexual behaviour may change more quickly and dramatically when someone moves to a new culture. In contrast, individual cues may be slower to change as new immigrants retain the more personal values adopted from their parents and other family members.

Among different Asian sub-groups, acculturation has varying effects on attitudes. While significant in both groups, mainstream acculturation was a stronger predictor of attitudes towards homosexuality and casual sex for East Asians than South Asians (Ahrold & Meston, 2010). A possible reason put forward by the authors is that South Asian countries tend to be more westernised than East Asian countries. Another study reported that South Asians were the least susceptible to changing their sexual attitudes in the direction of greater liberality as a result of acculturation (Leiblum et al., 2003).

Many of these studies used a validated psychometric tool to measure sexual attitudes while others used individual items. The most commonly used tool was the 30-item Sexual Attitude Subscale of the Derogatis Sexual Functioning Inventory (Ahrold & Meston, 2010; Kennedy & Gorzalka, 2002; Meston et al., 1998).

2.3.2.2 Masturbation: attitudes and behaviour

Only a limited number of studies examined the relationship between acculturation and attitudes to masturbation (Kennedy & Gorzalka, 2002; Leiblum et al., 2003; Meston & Ahrold, 2010; Meston et al., 1998). Most of the research report mixed findings.

Two Canadian studies found a significant effect for length of residence on masturbatory attitudes (Kennedy & Gorzalka, 2002; Meston et al., 1998). On the other hand, a Canadian study using an acculturation tool reported that, among medical students from South Asian backgrounds, masturbation was generally viewed negatively and acculturation did not appear to increase their level of sexual comfort towards masturbation (Leiblum et al., 2003).
Attitudes towards masturbation were assessed differently in these three studies. The 30-item Sexual Attitude Subscale of the Derogatis Sexual Function Inventory with two items on masturbation was used in two of them (Kennedy & Gorzalka, 2002; Meston et al., 1998) but the significant effect for length of residence was found on different items between the two studies. Leiblum and associates (2003) used a 17-item sexual comfort subscale within the Cross-Cultural Attitude Scale, which included two statements on masturbation, one relating to health and the other to morality.

There is evidence of a significant positive correlation between liberality of sexual attitudes and variety of sexual experience (Benuto & Meana, 2008). The three Canadian studies (Kennedy & Gorzalka, 2002; Leiblum et al., 2003; Meston et al., 1998) that examined masturbatory attitudes failed to collect or report data about the actual masturbatory behaviour of participants. This omission means that it is not possible to understand the discrepancy between masturbatory attitudes and behaviour among Asians, if any such discrepancy exists.

In a study examining the impact of acculturation on sexual experience, heritage acculturation significantly predicted lack of experience in masturbation among Asian women but not men (Meston & Ahrold, 2010). Masturbatory experience in this study was assessed using the Experience Scale of the Derogatis Sexual Functioning Inventory, which includes four domains of sexual experience including one item on masturbation.

2.3.2.3 Sexual behaviour and experience
As with sexual attitudes, acculturation has varying effects on the sexual behaviour of Asian immigrants. Benuto and Meana (2008) found a positive correlation between assimilation to the mainstream culture and more sexual experience measured using the Sexual Experience Subscale of Derogatis Sexual Functioning Inventory (e.g. oro-genital activity). In Asian men, heritage acculturation significantly predicted older age at first sexual activity and age of first sexual intercourse. There were no other

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8 (1) Fantasies while masturbating are healthy forms of sexual release and (2) Masturbation is a perfectly normal sexual behaviour
9 (1) Masturbation is generally healthy and (2) masturbation is a sin against yourself
significant interactions between acculturation and sexual experience or acculturation and age of sexual debut (Meston & Ahrold, 2010).

Meston and associates (1996) found no significant difference between Canadian-born Asians and Asian immigrants (both recent and long-term residents) on any of the interpersonal sexual behaviour measures except for the composite scores of promiscuity fantasies and intercourse fantasies. The authors concluded that length of exposure to North American values did not seem to influence the conservative expression of sexuality noted among Asian individuals.

Analysis of a subsample of Asian Americans revealed no difference in virginity versus non-virginity as a function of generational status, years of residence in the US or nation of origin. Among females, individuals from the least acculturated families were more likely to be virgins than were individuals from moderately or highly acculturated families (McLaughlin et al., 1997).

Schwartz et. al (2011) found that both first- and second-generation immigrant students engaged in health risk behaviours at similar rates. The authors concluded that heritage practices and collectivist values are generally protective against health risk behaviours, with collectivist values most strongly and consistently protective across ethnicities.

Woo and Brotto (2008) found an association between lower affiliation with the mainstream (i.e. Western culture) and a host of sexual complaints; and between a higher level of affiliation with the heritage culture and increased sexual avoidance. The authors infer that affiliation with Western culture and losing one's heritage cultural traditions is linked with improved sexual function. These findings could not, however, be generalised to all Asians as the study sample was primarily (80%) composed of Chinese participants.

Hahm and associates (2006) found that women who spoke English at home had significantly higher odds of having had sexual intercourse than those who did not speak English at home. On the other hand, there was no evidence of association between acculturation and sexual experience in men. According to Hahm et. al.,
young women acculturate, they may perceive sex as an assertion of independence and gender equality. In another study, those who spoke only English at home were found to be more likely to have had unprotected sex in the previous 30 days (So et al., 2005). Asian-American adolescents who speak English at home are more likely to be non-virgins (Schuster et al., 1998). All of these findings need to be treated with caution as a single item (i.e. language used at home) was used as a proxy measure for acculturation.

So and associates (2005) used a convenience sample of Asian American college students ($n=248$) and a typical participant, as explained by the authors, was of East Asian descent and well acculturated to the American way of living. Acculturation was measured by asking participants’ preference for language, food and entertainment. The study reported students who were more acculturated (to American culture) had more sexual risk behaviours and at the same time had more knowledge about HIV. In other words, the overall risk of these well acculturated Asian students could be in an equilibrium with engaging in risky sexual behaviours on one side but at the same time taking due precautions to protect themselves from sexually transmissible infections.

Okazaki (2002) concluded from an extensive literature review that erosion of cultural norms and diminishing influence of family values could potentially result in higher risk for sexual conduct among Asian-Americans. In contrast, a more recent review of literature found limited evidence to demonstrate that high acculturation to one’s own ethnic culture can have a protective effect among homosexual men who are of Asian and Pacific Islander origin (Wei et al., 2011).

Another study - the first of its kind - examined acculturation and HIV-related sexual behaviours of gay and bisexual Canadian men of South Asian origin. Acculturation to the majority culture was measured using 30-item scale (Ghuman, 1994). Ninety-eight men participated in this study (South-Asian, $n=46$ and European Canadian, $n=52$) and had a mean age of 34 years and the overall sample was well educated. South Asian Canadians scored significantly higher for internalised homophobia than their European counterparts. South Asians who scored significantly higher on acculturation score (i.e. more assimilated) had not engaged in high-risk anal intercourse or oral sex.
In other words, a positive association between acculturation and safe sex behaviour was observed among gay men of South Asian origin. The authors have explained that less acculturated South-Asian men were more likely to be closeted and married, and, consequently, both less likely to have social networks supportive of safe sex practices and more likely to engage in casual sex in more public spaces (Ratti et al., 2000).

The authors of two different studies have highlighted a possible link between the psychological distress related to adjustment in a new society (acculturative stress) and sexual risk behaviours among Asian/Indian immigrants (Shedlin et al., 2006; Song et al., 2005).

2.3.2.4 Help-seeking attitudes and behaviour

The literature search found no previous studies on acculturation and help seeking for sexual health among Asians. The only related sources pertained to help-seeking for mental health issues.

An extensive literature supports the view that acculturation has a highly significant relationship to help-seeking for mental health among Asian Americans (Atkinson & Gim, 1989). Less acculturated Asian Americans tend to have more negative views towards seeking professional mental health services than do their more acculturated counterparts (Kanukollu & Mahalingam, 2011).

A study of young Asian (East and Southeast) university students found that acculturation was related to willingness to see a counselor. Asians were most willing to see a counselor for academic/career or financial reasons but not for other areas of concern (including relationship issues). Less acculturated students were more willing to see a counselor, which contradicts findings from a previous study (Atkinson & Gim, 1989) which found that acculturated individuals were more likely to recognise a personal need for professional psychological help (Gim, Atkinson, & Whiteley, 1990).
2.3.3 Summary of review presented in section 2.3

- The few acculturation studies on sexuality and sexual health of Indian immigrants are primarily based on unilinear (assimilation) and unidimensional (behavioural) model of acculturation when in fact the bilinear and multidimensionality model has the strong empirical evidence.
- Much of the available evidence has been derived from young college samples and has been based on unilinear measures of acculturation. This limits the generalisability of past research findings to the wider community.
- Differential effects of acculturation among different sexual behaviours and between sexual attitudes and behaviours have been reported by some studies but theoretical explanation is lacking.
- Mixed findings have been reported on the influence of acculturation on permissive sexual attitudes. The use of different measures of acculturation is one likely reason.
- Masturbation (self) is an intrapersonal sexual behaviour that is associated with sexual fantasy and is heavily influenced by ethno-cultural factors. However, many studies that did examine culture or change in culture did not focus on masturbation. Studies that did address this topic used no more than two questions to assess masturbatory attitudes.
- Overall, very few studies have addressed the influence of acculturation on masturbation among Asian immigrants and their findings vary. None of the studies reported on actual masturbatory behaviour.
- Mixed findings on the association between acculturation and (risky) sexual behaviours and sexual experience have been reported. Again, the varying results may be largely attributable to the different acculturation measures used.
- An extensive review highlighted the association between diminishing cultural values and increasing sexual risk-taking behaviours among Asian immigrants.
- Collectivist values have been found to be consistently protective against health risk behaviours.
2.4 Critical evaluation of sexuality research on Indian immigrants

In total, there were 15 studies involving Indian immigrants between 1994 and 2011. Most were based on selective samples of mainly young people, included relatively few Indians, used primarily quantitative methodology and were conducted in the UK. The main limitations of these studies are discussed below.

Sample size: The sample of Indian immigrants in previous studies ranged from seven to 612. Apart from the two UK studies, which were based on national data, the largest \((n=612)\) was a school-based study.

Failure to report numbers of Indians: Many studies that examined Indians as part of a larger group (South Asians or Asians) failed to report the number of Indians and to perform within group analysis. One study categorised Indians (along with others) as ‘non-Asians’ due to low sample size (Meston, 1996). Yet the few studies that have compared Indians with other South Asians (e.g. Pakistanis) found significant differences.

Selective sampling: The majority of studies focused on a younger age group (13-26 years), a small number on the middle-aged group (up to 44 years) and three included people aged up to 60 years. Two of the latter were retrospective, clinic-based studies. Six studies recruited community-based samples and the others institutional (school, university or clinic) samples.

Location: Out of the 15 studies, eight were from the UK, four from Canada and three from the US. None was from Australia.

Investigative focus: Most studies had an exclusive focus on sexual health (i.e. sexual risk profiling, sexual knowledge, age at first intercourse and sexual problems). A small number addressed general sexual attitude but these were limited to sexual permissiveness in the context of sexual health.

Culture-specific issues: No previous study involving Indian men addressed masturbatory attitudes and behaviour in any detail. One study (Leiblum, 2003)
investigated this topic for South-Asians in general but focused only on attitudes to the exclusion of actual behaviour or feelings. Yet, in Indian culture, semen is highly valued as the essence of life and problems related to semen loss (through masturbation) are common presentations in sex clinics.

Neglect of help-seeking: Two investigations of help-seeking for sexual health problems involved Indians but both were based on retrospective analyses of clinical case notes. No previous study has investigated help-seeking for sexual health among a community sample of Indians.

Acculturation: While some studies have addressed the association between acculturation and sexuality among Indian immigrants, these have involved only young students or have used only a unilinear measure of acculturation or have included Indians along with other South Asians.

Methodological details, research objectives and key outcome measures for each of the 15 studies conducted involving Indians are provided in Appendix 1.

2.5 Conclusion
The review of literature has provided strong empirical evidence that ethnicity and culture are important predictors of sexuality, which in turn has implications for improving sexual health outcomes. The findings suggest a complex relationship between ethno-cultural variables (e.g. country of birth, gender, cultural values, ethnic identity, religiosity) and sexuality, in terms of both degree and direction. The review has also confirmed the importance of examining the relationship between the culture change process (acculturation) and sexuality.

A detailed review of the concepts of acculturation has raised serious questions about the generalisability of findings from past investigations that were based on unilinear acculturation. This is because a large body of evidence supports orthogonal and multidimensional models of acculturation. The review has shown that much of the available research data on sexuality of Asian immigrants has been derived from a narrow segment of the population (young college students).
2.6 Present investigation

Acculturation, sexuality and sexual health of
Indian Immigrant men living in Australia

Sexual and reproductive ill health disproportionately affects some groups in Australia. People from culturally and linguistically diverse backgrounds are one of ten identified priority groups for policy attention in this regard (O’Rourke, 2008). Australia has in place a number of strategies to address sexual health needs within these communities, but these strategies focus primarily on STIs and do not include broader sexual health issues, including social determinants (O’Rourke, 2008).

In the last two decades, Indians have experienced enormous socio-cultural changes associated with globalisation and modernization and the immigrant population from this country (India) has increased significantly in the Western countries. Yet, there is paucity of scientific information on sexual attitudes, values and behaviours, and the effects of acculturation on sexuality and sexual health of the large but under-researched population of Indian immigrants, not only in Australia but also in other parts of the globe.

Thus, the present study evolved from the recommendation to address broader social determinants of sexual health (O’Rourke, 2008) and from concluding findings of the review of literature and in specific the critical evaluation of past studies that were conducted involving Indians. Also, a need to examine sexuality and sexual health of Indians involving a community representative sample and not merely a convenient student sample was underpinned by the review of literature.

2.6.1 Research objectives

The review of literature generated two sets of specific objectives, each of which required the collection of data using different methodology. The first set of objectives, which dealt with complex issues of sexuality interwoven with cultural values and religious beliefs did not lend itself readily to quantification. These
objectives were addressed through qualitative methodology in Stage 1 of the project, which also served as a guide to the formulation of items for inclusion in the questionnaire used in the quantitative methodology (Stage 2). They were to:

- elicit the range of meanings associated with sexuality and sexual behaviour among immigrant Indian men, particularly in relation to cultural values and beliefs
- capture their perspectives on the role of culture in sexuality, with particular focus on comparisons between India and Australia
- describe their attitudes and behaviours in relation to specific aspects of sexuality and sexual behavior, with particular focus on masturbation
- document their knowledge and awareness of sexual health issues.

Specific objectives of the Stage 2 survey were grouped under three key categories: sexual attitudes, masturbation, sexual health (safe sex behavior and attitudes towards help-seeking).

**Sexual Attitudes**

- What attitudes do Indian immigrant men hold towards sexuality (permissiveness, birth control, communion and instrumentality)?
- Do sexual attitudes vary by demographic variables?
- Do sexual attitudes vary by acculturation?
- Do sexual attitudes differ by masturbatory status?
- What predicts permissive sexual attitudes in Indian men?

**Masturbation**

- What are the masturbatory behavioural patterns of Indian men?
- Does masturbatory status differs by demographic variables?
- Does masturbatory status differs by acculturation?
- How do Indian men feel about masturbation?
- Is there a difference in how Indian men feel about masturbation based on the masturbatory behaviour status?
- What predicts Indian men’s feelings about masturbation?
**Sexual health**

- What are the safe sex behavioural patterns of Indian men?
- Does safe sex behavioural patterns differ between men in a committed relationship and those who are not?
- What are the safe sex behavioural patterns of Indian men who are not in a committed relationship?
- Does safe sex behavioural patterns of Indian men, who are not in a committed relationship, vary with age or unilinear acculturation?
- Do Indian men seek medical help for sexual health? If yes, what are their preferences? If not, why?
- What other actions do Indian men take if they have a sexual problem?
Chapter 3 Methodology

This chapter provides a description of the overall study design, including the rationale for employing a mixed-methods (qualitative and quantitative) approach.

3.1 Research design

The study employed a mixed methodology, sequential exploratory design involving qualitative (focus group discussions) and quantitative (survey) methods. These were implemented in two stages, as explained below.

Qualitative research is particularly effective as a means of ‘theory building’ or ‘theory generation’, it is often used in the initial phase of a research project to explore the problem at hand and to formulate questions to be addressed in a later (often quantitative) stage. Qualitative research is descriptive and inductive, focusing on uncovering meaning from the perspective of participants. Focus groups were selected to address the study aims because they offer a time-efficient means of exploring a topic about which little is known (Kitzinger, 1999; Quine, 1999). Focus groups were preferred over one-to-one interviews for some additional reasons especially given that this study is first of its kind involving Indian immigrants and qualitative technique. First, in a focus group discussion, one participant’s response may provoke responses from others, resulting in a synergistic effect, which is not achieved in usual interviews (Hoppe et al., 1995). Second, the ‘safety in numbers’ of a group setting could encourage participants to answer questions in more detail than they would divulge in an one-to-one interview (Hoppe et al., 1995). Third, the purpose of stage 1 data collection was hypothesis generation only, and not testing, for which focus groups have been scientifically recommended as a proven methodology and have been used in past research on sensitive topics (Hoppe et al., 1995; Morgan, 1996).
The themes identified in Stage 1 partly guided the formulation of issues that needed to be addressed in Stage 2. The main focus of the present study is based on the quantitative data. Where relevant, qualitative data are used to support/enrich the quantitative findings.

3.2 Stage 1: Focus group discussions

3.2.1 Sampling and recruitment
Eligibility criteria for inclusion in the focus group discussions were: male, aged 18 years and over, born in one of the four South Asian countries (India, Pakistan, Sri Lanka or Bangladesh) and able to speak and read English. Only men were considered for inclusion in focus groups as the overall study focuses on men. Adult men (18 years and above) were included due to the highly sensitive nature of topics to be discussed (e.g. masturbation). While there are seven South Asian countries (including Nepal, Bhutan and Maldives), only participants from India, Pakistan, Sri Lanka and Bangladesh were included since they represent the vast majority of South Asian migrants in Australia.

Indirect means of recruitment were employed. The study was advertised in ethn-specific media such as newspapers and websites and flyers were placed at some of the popular restaurants and shops visited by South Asians. Copies of recruitment tools are provided in Appendix 3. Some participants in the first focus group discussion referred others who participated in later groups.

3.2.2 Focus group procedure
A total of five focus group discussions were held. These were scheduled for Saturday mornings and Wednesday evenings to accommodate full-time employees and students (many of whom work at weekends). The venue was a private room in a restaurant that was close to a train station and had adequate car parking; the groups met during non-business hours, to ensure privacy and confidentiality. Each session ran for approximately one hour.
The number of groups required was not determined in advance. Rather, data collection continued until saturation was reached (i.e. the point at which no new themes were emerging) (Quine, 1999). Composition of the groups was determined solely on the basis of order of recruitment.

All focus groups were moderated by a male - three by a facilitator who was not of South-Asian ethnic origin and the remainder by the doctoral candidate, who belongs to the same ethnicity as that of the study population. Focus groups 1, 2 and 3 were moderated by 2 different facilitators who were both male, middle-aged and of Anglo-Saxon cultural background. The facilitator who did run the first group was an American, a highly experienced qualitative researcher in the field of sexual health and disability. He had a passion for and highly skilled in running focus group discussions. The second facilitator, who moderated the next two groups, was an Australian-born sexual health counselor with many years of clinical experience in interviewing clients and running support groups. The doctoral candidate was an observer at the first three focus groups and did run the last two groups by himself. Well before the focus groups, the doctoral candidate received formal training in group facilitation skills and has been using those skills regularly as part of his full-time job.

The rationale for using moderators of non South Asian cultural background to facilitate few groups was to identify any differences in the dynamic and outcomes of focus groups due to the cultural effect of the moderator. The plan was to use one Anglo-Saxon moderator (i.e. Co-supervisor) for the first three groups but unfortunately he was not available in the country. For the same reason, a second moderator of equivalent caliber was used. There were subtle differences in the focus groups but that was mainly due to the composition of the group participants and not due to the moderators. For example, the focus group 4 had all five participants in the age group of 20-30 and the dynamics of discussion was different to that of all other 4 groups, which had men of different age groups.

Potential participants were contacted by telephone or email to arrange the most suitable time. On arrival, each participant was given a copy of the Participant Information Sheet (Appendix 3) and Consent Form (Appendix 3), which included
consent for audio-recording. Sufficient time was allowed for the documents to be read and signed. Basic demographic details were collected. Each participant was allocated a letter of the alphabet and was instructed not to mention his name at any time during the discussion. In order to protect the privacy of all, participants were urged to refer to others, if necessary, by this letter, which was prominently displayed on a ‘name’ badge. Participants’ travel costs were reimbursed to a maximum value of $50 AUD.

3.2.3 Data collection and recording
A list of topics and questions (Appendix 3) was developed as a guide but the discussion was not limited to these questions. This included open ended questions about beliefs, values and attitudes around human sexuality and participants’ perceptions of the differences between Western culture and their own in regard to various aspects of sexuality. (e.g. *What sex means to you? In what moral terms do you view masturbation?*) Some closed ended questions were included to elicit participants’ knowledge about sexual health and ill-health and sources of sexual health information and care. (e.g. *At what age do men get erection and ejaculation? Where do men generally go for treatment of sex related problems?*) All sessions were tape-recorded and transcribed in full.

3.2.4 Data analysis
Data analysis was conducted at the end of all five groups. Different techniques were used to analyse different focus group discussion topics based on the research questions.

1. **Sexual meanings and cross-cultural perceptions:** The questions used to explore the above two topics were much broader and open (e.g. *What sex means to you?*). For the above reasons, it is very likely that focus group discussions would generate rich data with a number of different and deeper concepts. Thematic analysis, a conventional qualitative technique, was used to analyse data on sexual meanings. A theme is a cluster of linked categories conveying similar meanings and usually emerges through the inductive analytic process. An inductive approach, rather than searching for pre-defined themes, allows the themes to naturally emerge from the data. An advantage of
this technique is that the analyst does not have to be a content expert in the research topic. In contrary, analyst lacking knowledge in the content adds power to the analysis, as they would not be guided by any preconceptions.

2. **Attitudes toward masturbation and sex-related materials:** The research questions, of the above two topics, were designed to assess the attitude of focus group participants and find whether they have liberal, conservative or mixed views. Mixed views are those that are not certain/vague or have liberal views sometimes and conservative views at other times depending on the context and situation. For this purpose, a content analysis was used to identify the existence and frequency of three different concepts – liberal, conservative and mixed. Although not specifically asked for, the focus group participants justified their moral stand on the above topics by providing justifications, which generated wealth of data. A thematic analysis (as stated above) was used to analyse the justifications provided by the participants.

3. **Sexual knowledge and awareness, help-seeking:** These topics had many close-ended questions. The intention for having these simple and less sensitive questions was to balance the highly sensitive topics such as masturbation, which would enable the researchers to maintain smooth flowing of the discussion. A content analysis was used to measure the frequency of responses.

**As per the recommendations (Joffe & Yardley, 2004), the below steps were followed for thematic analysis:**

1. Professionally transcribed focus group data were set in a MS-Word document allowing adequate margin space on both sides.
2. At the first reading, by the candidate, the major issues were identified.
3. At the second line-by-line reading, open coding was done all along the reading and any emerging thoughts were annotated in the margin.
4. The annotations were reviewed and items relating to similar statements or ideas that participants raised were organised into categories.
5. The clusters of categories were then organised to form proto-themes.
6. The entire text was re-examined to ensure how information was assigned to each proto-theme and a provisional name was given for the themes.
7. Each proto-theme was separately re-examined with the original data for
information relating to that theme in order to form the final themes.
8. A second researcher (non-South Asian) then reviewed the analysis, either confirming categories, their linkages and themes or suggesting alternatives.
9. Name for each of the themes was finalised between the two accounts.

As per the recommendations (Carol et al, 1994), the below steps were followed for content analysis –

1. The transcript (text) was reduced to categories consisting of a word, set of words or phrases using a selective reduction process.
2. The number of concepts was decided based on the topic (e.g. three concepts for masturbatory attitudes – liberal, conservative and mixed).
3. Coding was done to determine not only existence of a particular concept within the text but also the frequency in order to determine the level of importance.
4. More repetition of a concept was regarded to be of higher importance.
5. The researchers (candidate and supervisor) then decided that concepts are to be coded exactly as they appear.
6. Analysis was finalised by examining the existence and frequency of different concepts.
3.3 Stage 2: Survey

The survey was conducted between December 2010 and August 2011.

3.3.1 Sampling and recruitment

Men of Indian origin, aged 18 years and above and who currently live in Australia were eligible to take part in the survey.

Participants were recruited through both paid advertisements (Facebook, Google and Indian Local websites) and free media sources (Appendix 2). A media release from the University of Sydney was published by a number of media that target the Indian community, migrants in general or students. About 150 Indian community based organisations were identified from existing databases or from community specific websites and each were sent a formal letter inviting them to publicise the project.

3.3.2 Research instrument

The themes derived from Stage 1 of the study were used to guide development of a questionnaire. The 100-item questionnaire was divided into six sections: demographics (10 items), masturbation (9 items), help seeking (8 items), Suinn-Lew Asian Self-Identity Acculturation (SL-ASIA) scale (26 items), Brief Sexual Attitude Scale (BSAS) (23 items) and Safe Sex Behaviour Questionnaire (SSBQ) (24 items) (Appendix 3). Permission to use the latter three scales was obtained from the respective principal authors.

3.3.2.1 Masturbation and help-seeking attitudes

Some of the questions and its responses on reasons for wanting and not wanting to masturbate and feelings about masturbation were sourced from a scale, Attitudes Towards Masturbation, with due permission of the authors (Dr Young and Dr Muehlenhard). The actual scale was not used in the present study, as it was too lengthy (had 179 items and 28 subscales) to be used in an online survey.

Few questions and its responses (multiple choices) on sexual health help-seeking section were aligned to match the Global Study of Sexual Attitudes and Behaviour
The intention to use some of the same questions is to compare the findings of Indian men with that of the large, multinational sample of the GSSAB, which did not involve any South-Asians or Indians.

Sexologist was provided as an alternate term on the survey form in order to specifically refer to medical doctors specialised in sexual health. This was because Indian immigrant men, in the focus group discussions, referred to medical doctors specialised in sexual health as ‘sexologist’.

3.3.2.2 The Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA)

The complete 26-items SL–ASIA scale has two components – unilinear and bilinear.

A) The unilinear and multi-dimensional component (items 1-21):
This was the original scale that assesses the level of adherence to common Asian and Western (Australian) cultural practices. It includes items relating to language, self-identity, behaviour, attitudes and friendship preferences. A mean score for acculturation is computed from the 21 items for each participant. Individual scores can range from 1.00 (low acculturation or Asian-identified) to 5.00 (high acculturation or Western-identified). A score of 3 indicates an individual who is bicultural in ethnic identity. The reliability score of the overall unilinear measure of the SL-ASIA scale (i.e. item 1-21) was .91 (Suinn et al., 1992a). The reliability scores reported by other studies, which used SL-ASIA (1-21 items), ranged between .72 and .91 (Abe-Kim et al., 2001).

B) The bilinear and multidimensional component (items 22-26):
With new evidence and a shift in the conceptualisation of acculturation, the original scale was revised to a 26-item scale in accordance with a bilinear, multidimensional model of acculturation (Ryder et al., 2000). Four experimental items across two domains (cultural values and behavioural competency) and one self-identification item were added to provide a multidimensional perspective. The author of the scale has made a comment that it is possible for ‘Values’ and ‘Self-identity’ scores to represent more stable predictions across diverse settings, while ‘Behavioural Competency’ to be more situationally based. No validity/reliability information on
these added items has been obtained and provided by the author of the scale. Author communication is provided as Appendix 5.

3.3.2.3 Brief Sexual Attitude Scale (BSAS)
The BSAS is a modified version of the original scale – the Sexual Attitude Scale, which was originally developed, using university student sample, to broaden the assessment of sexual attitudes beyond the sexual permissiveness. The completion time for BSAS ranges from 5-10 minutes. The scale has been psychometrically assessed and well validated. The reliability scores for the four subscales are as follows – Permissiveness (.95), Birth Control (.88), Communion (.73) and Instrumentality (.77) (Hendrick, Hendrick, & Reich, 2006). There is no published psychometric information of the BSAS involving Indian or Asian sample.

3.3.2.4 Safe Sex Behaviour Questionnaire (SSBQ)
The questionnaire was designed to measure frequency of use of recommended practices that reduces one’s risk of exposure to, and transmission of sexually transmissible infections (including HIV). The SSBQ was developed and psychometrically assessed using college student samples in the US and the reliability was found to be .82 (Diiorio, Parsons, Lehr, Adame, & Carlone, 1992).

3.3.3 Survey procedure
The survey could be completed in two ways: online or in paper format.

The online survey was launched through a popular service provider called ‘Zoomerang’. Potential participants were able to read the Participant Information Sheet (Appendix 3) before completing the survey. Participation was taken as implied consent.

The questionnaire comprised 100 items, none of which was mandatory. Nor were participants required to complete any one section before moving to the next. They did, however, need to navigate through all sections (without necessarily completing them) in order to get to the ‘lucky draw’ section at the end. Those willing to enter the draw were asked to provide their email id. The ‘lucky draw’ was an addition to the initial version of the online survey (which ran from 05 Nov 2010 to 19 Jan 2011).
Because the initial response was slow, HREC approval was obtained on 19 Jan 2011 to include a ‘lucky draw’ component. The new version of the online survey was launched on 20/01/2011. A new URL (uniform resource locator) link for the survey was used and the old URL link was redirected to the new one.

Approval was also obtained at that time for a paper version, which was distributed (along with Participant Information Sheets and reply paid envelopes) at community events, meetings, shops, and restaurants in the Inner West Sydney area.

### 3.3.4 Data analysis

The data was coded, entered and analysed using *Statistical Package for the Social Sciences (SPSS)* software version 19. Descriptive statistics (proportions or percentages) by means of tables, pie diagrams and bar charts, were used to display patterns/trends in the responses. Chi-squared (2-sided) and Fisher’s Exact (1-sided) statistics were used to test the significance of the difference observed in the findings for categorical data. The significance level was set at 0.05. Binary logistic regression was used to determine the predictors of positive (or non-positive) feelings experienced by men who continue to masturbate. Linear multiple regression was used to determine the predictors of permissive/conservative sexual attitudes of Indian migrant men.

For comparisons of quantitative dependent variable data between two or more levels of a categorical independent variable, the data were examined for normal distributions. Mann-Whitney and Kruskal-Wallis tests (non-parametric equivalents of independent-sample t-tests or analyses of variance) were used when non-normal distributions were found. Similarly, Spearman’s rho (non-parametric equivalent of Pearson’s correlation) was used to analyse correlations between quantitative variables when non-normal distributions were found.

Effect size provides an objective measure of the magnitude of an observed effect (Field, 2009). For non-parametric tests used to be used in the present study, effect sizes were calculated using Cohen’s formulae and cut-off values (Cohen, 1988). Power calculations were performed on non-significant findings in order to make sure whether the statistical non-significance was due to inadequate sample size or it is
truly non-significant (meaning the test had a minimum power of 80%). All power calculations and reference tables used in the present study will be based on the standard recommendations (Portney & Watkins, 2007). Information about data preparation will be provided in Chapter 4 – Results.

3.4 Ethical considerations

The Human Research Ethics Committee (HREC) of the University of Sydney approved both stages of the study (Appendix 5). Peak community based organisations endorsed the importance of the study for the South Asian community (Appendix 2). Stage 1 of the project (qualitative data collection) was partly funded by the Asia Pacific Society for Sexual Medicine.

As previously noted, the HREC approved the inclusion of a ‘lucky draw’ in Version 2 of the online survey. The procedure here was as follows. At the conclusion of the survey, the email addresses of those who provided them were listed in order of receipt (information directly downloaded from the Zoomerang) to create a serial number. Using an online random number selector, a random number was selected. The corresponding participant was contacted to arrange collection of the prize – a new iPad2 worth $500 AUD – either in person or by mail to an Australian address. After six weeks, and despite several follow-up emails, the winner had not responded.
Chapter 4 Results

This chapter presents the results of analyses of the qualitative and quantitative data. The chapter begins with an account of how the data was prepared for analysis. This section includes an examination of the psychometric properties of the three scales used in the survey by using present study sample. This is followed by an overview of the demographic characteristics of participants in both the focus groups and survey. The acculturation pattern of the Indian men who were surveyed for this study is briefly discussed in a separate section. The following sections present the statistical test results. An inference of findings is provided at the end of each section addressing specific research questions.

In this chapter, results of qualitative and quantitative data are presented separately and in the order they were collected. However, in the following chapter (Ch 5 - Discussion), findings of both qualitative and quantitative data will be discussed together.
4.1 Stage 1: Qualitative Data

Focus Group Discussions
4.1.1 Data preparation
To ensure data quality, the audio-recordings were professionally transcribed.

4.1.2 Characteristics of focus group participants
Fifty men expressed interest in participating in the focus groups and 25 participated. Unexpectedly, five women expressed interest in participating but did not meet the inclusion/eligibility criteria. Five focus groups were held between October and November 2008. There were five men in each group \((n=25)\) and saturation was achieved by the fifth group. The vast majority \((n=21, 84\%)\) of participants identified themselves as persons of Indian origin while the rest identified as Sri Lankans \((n=2)\), Bangladeshis (1) and mixed (1). Because of the high representation of Indians, only their responses were included in the qualitative analysis. Demographic information of Indian men who took part in the focus group discussions is provided as Appendix 4.

4.1.3 Findings

Research question -

*What are the personal, social and cultural meanings of sexuality among Indian men living in Australia?*

4.1.3.1 Sexual meanings

*What sex means to Indian men? How important is sex in their lives?*

Responses to the above questions were analysed together. Five themes were generated from over thirty categories. The themes along with quotes are provided below –

A) Sex is a mutual phenomenon

Consideration of sex as a shared or mutual phenomenon was the key theme that emerged out of all five focus groups. For example:

F1D: Sex increases the bonding between partners. Complementing with each other in our normal way of life (compared to trigonometry). What she does not have, I have, we share.
F2F: Man must satisfy the woman and the woman must satisfy the man. Both should be satisfied. It is not only appearance but also feelings and emotions they share is important.

F4B: Sex is satisfaction. If the other person is not satisfied with the partner then there is no meaning to sex and they are just playing with each other.

F5A: The other person should feel the same pleasure like you.

B) Sex as a bodily (physical) act, need or response

The bodily aspects of sex were referred to in a number of ways. Sex was considered primarily a physical activity and a means of releasing physical urges. For example:

F1C: Everybody has to discharge, do it or not do it intentionally.

F3A: Pure physical intimate contact with another person not necessarily for reproduction, relationship and with or without emotional attachment.

F5C: Actual act of intercourse or some bodily engagement with someone else.

F1F: One of the purposes of human body is to take material in and out and it is an excellent drainage system. As long as you keep the drainage system flowing, it is good for the body. Sex is part of that drainage system. Especially for men as we take something out.

C) Psychological aspects

As well as the physical aspects of sexuality, a number of participants highlighted its psychological dimensions. For example:

F3B: Everything. Both physical and psychological is incorporated in sex.
F3D: Good sex is in the mind [scenario: when I came from India it was not good sex because the mind was not open. Here you have a good blow job but in India it
is not acceptable because a girl or a person is ingrained in the mind that it (oral sex) is bad and evil so they are closed minded].

D) Feelings related to sex
Participants expressed a range of positive feelings associated with sex. For example:

F1C: Basically a thirst one has to quench. Natural thirst. When (sex is) done with your partner, in a good environment, satisfy each other, in a committed marriage concept, you achieve completeness. Very important.

F3A: Sex by itself without emotional attachment is not good.

F4A: Enjoyment. When we do sex, we enjoy a lot. We don't think of any other matter and we just do sex.

F5B: (Sex is) pleasure and that is what I regard mainly

E) Sex and procreation
Sex was considered part of the human cycle and, as such, reproduction was seen as one of its most important functions. (i.e. necessary for reproduction). Two participants expressed the view that sex, in the context of reproduction, is a sacred act. Only one man, however, saw reproduction as the main focus of ‘good sex’:

F5E: Life-giving sex is, I would say, sex. So it won't involve your own body pleasures. So it is the pinnacle, end point of your love. When you love someone deeply the end point of that love is sex which involves you give everything… yourself to the other person which the product is life. So I would say life giving sex is good sex.

The fluid and inter-related nature of sexuality made it difficult to group certain categories strictly under one theme. For example, categories related to sexual satisfaction, pleasure or bonding (quotes: F1D, F4B and F5A respectively) could be grouped under the theme (no.4) ‘Feelings related to sex’ and at the same time under theme ‘Sex is a mutual phenomenon’ (no.1). However, to maintain consistency in the
analytical process, it was decided between the analysts (candidate and Supervisor) that categories on sexual feelings that were mentioned in the context of more than one person (i.e. self) will be grouped under the theme ‘Sex is a mutual phenomenon’ and categories that discusses sexual feelings about ‘self’ or in general terms will be grouped under the theme 4 ‘Feelings related to sex’.
4.1.3.2 Attitudes toward masturbation

How do Indian men view masturbation in moral terms?

Among Indian immigrant men who participated \(n=16\) in the discussion, most \(n=13\) expressed liberal views toward masturbation while the rest had either conservative \(n=1\) or mixed \(n=2\) views. A number of reasons were offered to justify their views. The reasons can be categorised as ‘male sexuality’, ‘sexual partners’, ‘absence of harm’ and ‘health benefits’. An additional comment on the effect of migration to Australia on masturbatory attitudes is included.

**Liberal view:**

A) Male sexuality
Masturbation was perceived as an important male sexual need and a means of achieving self-satisfaction through relief of sexual urges. For example:

   F3D: It is absolutely natural that you have to relieve yourself. Unless people are able to do this thing (masturbation) they would end up getting frustrated.

B) Sexual partners
The reasons offered in this category included lack of a sexual partner, unavailability of a sexual partner, desire discrepancy between partners and lack of satisfaction in sex with partner. For example:

   F2D: A couple staying together may have sexual needs at different times. It is not necessary that when one person needs it the other person should be available.

C) Absence of harm
Masturbation was justified as a harmless activity in comparison to rape or extramarital sexual affairs, which the participants considered to be morally wrong. For example:

   F1D: You are not imposing on your partner or you are not looking for some other partners outside the normal forms.
D) Health aspects and frequency
Some participants supported their liberal moral view towards masturbation by highlighting the healthy aspects of masturbation. For example:

F4C: Morally okay because there is no effect on health-wise of men.

**Conservative view:**

F5E: When you are not matured, teenage, don’t know what you are doing, you do it (masturbation). When you are matured enough, when you realise the truth that doing masturbation is for your own purpose… it is a selfish thing and you just want to satisfy your body desires. Once you realize that then there is no point...you consider it wrong.

**Mixed view:**

F5C: I have moving targets with this. Sometimes I think it is all right and sometimes I think not. Probably religious morale…I think when you are actually having sex with someone and that mutual masturbation is taking place…somehow that seems OK to me. I can’t explain why but it just seems to be morally OK because you are doing it to the other person.

E) Acculturation and masturbatory attitudes

One participant commented on the influence of migration (to Australia) on attitudes to masturbation:

F1D: Back in where we brought up the word is used Hastadosh, [hasta means hand and dosh means something that is not good], that is called masturbation in English. Likewise, swapnadosh [swapna means dream] meaning quenching the thirst in dream. So, right from childhood we were brought up like that hastadosh, swapnadosh or any dosh we should keep away from that. Now, what is…after coming here, learning some things, studying something, observing some things we come to different mental status and we started accepting it. But maybe initially when we were in the school, college and university days, this was a taboo. We were totally brahmacharyam...nothing to do with sex at all…in any form.
4.1.3.3 Cross-cultural perceptions of sexuality

How do Indian men compare Indian and Australian cultures in terms of sexual issues?

Of all Indian men who took part in the 5 focus groups ($n=21$), 19 of them shared their views on this topic. Eight men highlighted the positive aspects of Australian and five men did so about the Indian way of life in regards to sexuality. Of the rest, 3 men highlighted the positive aspects of both the cultures and 3 others expressed their Australian experience without qualifying whether it was positive or not. The participants compared the two cultures on a number of dimensions. The most common themes here were: moral issues around premarital sex; the dynamics of sexual relationships; and open discussion of sex. Two other minor themes were: expression of sexual feelings and women’s dress. For example:

F5F: Australia has less taboo compared to our culture. Premarital sex is more acceptable for them (westerners) than us. If you look at the literature, say 1000 years back, the same things were happening in India. Premarital sex was acceptable those days. Maybe we are going in a cycle.

Seven men commented on cultural differences related to sexual partners and relationship dynamics. The main issues discussed here were marriage break-up, change of partners, multiple sexual partners, stability of relationships and pleasure vs. commitment in a relationship. For example:

F1C: Pleasure is given more importance (In Australia). Commitment is very stronger than pleasure (in India).

F5C: In the Australian context, commitment is not the focus whatsoever. Commitment principle is more of our continental background and focus on keeping things monogamous, keeping the children within family. Our (culture) is more commitment based.

Nine participants considered Australia, in comparison with India, to be a more open and non-stigmatising society when it comes to discussing sex-related matters. Other
positive aspects of Australian culture were availability and access to information and help for sexual pleasure and problems. For example:

F4A: I can’t speak like this (discuss sex) with my family or friend (father, mother, brother) because of religion. In India, we can’t explain our views in front of relatives or family but it is important as it (sex) is a growing thing.
4.1.3.4 Perceptions of sex-related materials

What do Indian men think of sex-related materials?

Overall, 21 participants expressed their views on the availability of sex-related materials. A majority \( n=16 \) highlighted the positive aspects of sex-related materials being available, three men held strongly negative views and the others held a neutral view. Some believed that the use of such materials was morally acceptable under certain conditions.

Among the positive views:

- F1C: Variation in sex is always good and helps stimulation.

- F4C: Some people don’t know how to do and it can be helpful.

Examples of negative and neutral views included:

- F4A: Mental disease if he uses it. Morally not right.

- F5D: It is all rubbish. I won't agree with anything...porn or whatever. They are creating wrong image and taking it away from the actual picture of purpose of life and sex. I really don’t recommend anyone to watch.

Sex-related materials were considered an important source of information and access to sexual knowledge. The main concern expressed in this context by men in all five groups was the potential risk to children and teenagers. For example:

- F2F: Many people, because of the family, they won't have correct knowledge about sex. Through some videos we can gain knowledge of what the sex means.

- F2A: Teenagers will start (sex) at 8 or 10 years by looking/watching (porn).

- F3A: Over 18, they can do whatever they want. Under 18 – it is morally and ethically wrong.
4.1.3.5 Sexual health awareness

What do Indian men know of sexual anatomy, functioning and sex-related problems? From where and whom do they seek help if a problem occurs?

A range of topics around awareness and knowledge about sexuality was discussed in the focus groups. These are briefly summarised below.

A) Size of penis

A few men suggested that there is a specific measurement for a normal sized penis for Indians (6-7 inches). Others commented on variations in penis size, the factors that influence it and the unimportance of size in sexual performance.

B) Sexual functioning and problems

The opinion was expressed that erection and ejaculation begin around the age of 14 years and diminish around 80 years, although different groups proposed different age ranges for sexual functioning in men. Financial ability, mental stress, healthy body and mind were identified as the determining factors of a man’s erection.

The main sexual problems that a man could experience in his lifetime were identified as erectile dysfunction, premature ejaculation, mental problems, physical weakness due to too much or too little sex and infections. Cancer (due to carelessness and over-activity), body image, loss of partner’s willingness to have sex, lack of desire for sex and infertility were also mentioned by a few men.

C) Sexually transmissible infections (STIs)

Many participants were aware of sexually transmissible infections but they used various terms for them. Some \((n=7)\) referred to ‘VD’ (venereal disease, a commonly used term in India) or sexually transmitted disease. The other common terms were ‘syphilis’ and ‘HIV/AIDS’. Only two men were aware that ‘gonorrhea’ is a STI.

Homosexual practice and sex with someone other than the steady partner were identified as possible sources of STIs. Poor hygiene \((n=6)\) and contact with bodily
fluids (n=4), unprotected sex, sex with multiple partners, sex during menstruation and skin infections were also reported as causes of STIs.

D) Sources of information and help for problems related to sex

Medical doctors were the most preferred source of information and help for nearly all men. Among medical doctors, General Practitioners and specialists were equally preferred. Internet was identified as the second main source for searching information but not necessarily for seeking help (i.e. online consultation). One or two men also mentioned health clinics, sex counselor, sex therapist and books across the five focus groups.
4.2 Stage 2: Quantitative data

Survey
4.2.1 Data Preparation

A) Completeness of data

The online survey was open between 05 Nov 2010 and 03 Oct 2011. During that period, a total of 438 people attempted the survey and 268 of them provided valid responses (209 complete and 59 partial). In addition, 10 men took part in the paper-based survey making the total sample size of the present study as 278.

All respondents completed section 1 (demographic details). The number of respondents who completed up to section 2 (masturbatory questions) and section 3 (help-seeking questions) were 230 and 222 respectively. Two hundred and six men completed the survey up to section 4 (the Suinn-Lew Asian Self-Identity Acculturation – SL-ASIA scale) while 200 and 189 completed up to section 5 (Brief Sexual Attitude Scale - BSAS) and section 6 (Safe Sex Behaviour Questionnaire - SSBQ) respectively. Power calculations were conducted, as per the standard recommendations (Portney & Watkins, 2007), to assess the necessary sample size for a given statistical test and reported where necessary. A summary of the data collection and completeness of data is presented in appendix (4.2).

B) Recoding

Data of few variables were recoded where it deemed necessary. Relationship status was re-coded as ‘not in a relationship’ and ‘in a relationship’ for the purpose of binary categorical analyses. Based on commitment, the relationship status was also recoded into those ‘in a committed’ (married or live together/defacto) or ‘not in a committed’ (single, dating, divorced, separated) relationship, specifically for the purpose of analysing safe sex behaviour. Those who reported ‘other’ relationship status were excluded.

Age (in years) and length of residence (in years) were grouped in to fewer categories for meaningful comparisons with other studies and performing certain statistical tests. Masturbatory status was re-coded as 0 (currently not masturbating) and 1 (currently masturbating).
C) Data quality

The quantitative data collected through the online survey tool (Zoomerang) were extracted and directly imported into the statistical tool (SPSS v19). The small number of responses from the written survey was directly entered into an SPSS dataset. To ensure accuracy, the dataset on the Excel spreadsheet (extracted from Zoomerang) was cross-checked with the SPSS dataset.

D) Scoring of scales

Suinn-Lew Asian Self-identity Acculturation (SL-ASIA) scale (Suinn, Ahuna, & Khoo, 1992b):

Unilinear measure: scores were derived by adding the individual responses to all 21 items and by dividing it by 21 (i.e. the number of items on the scale). The possible range of scores for this format is 1 -5. A score of 1 represents a low degree of acculturation (i.e. the person is Indian-identified). On the other hand, a score of 5 represents a high degree of acculturation to western culture (i.e. the person is western (Australian)-identified). A score of 3 represents identification with both cultures (i.e. the person is bicultural).

Bilinear measure: Use of bilinear measure items involved categorising and is not on a continuum. Using the grid provided by the author, responses given to the items 22 and 23 on the scale were cross-tabulated to derive the ‘Value’ score. Likewise, items 24 and 25 were used to derive the ‘Behaviour competency’ score, which refers to how well the person fits with other members of a given community. Classifying respondents’ ethnic self-identity based on item 26 was straightforward with 1 as Indian, 2 as Western/Australian and the rest (3,4,5) as bicultural.

Brief Sexual Attitude Scale:
A mean score was derived by adding the scores of each item in a given subscale and dividing it by the total number of items in that particular subscale. As per the instructions of the scale’s authors, no overall scale score was obtained. The lower the score, the greater the endorsement of a subscale.
Safe Sex Behaviour Questionnaire:

Of the 24 items, 9 were negatively worded and so reverse scored prior to summing the items. Summing responses to all 24 items derived a total score, which could range from 24 to 96. Lower scores indicate lower frequency of use of safe-sex practice.

E) Tests for assumption of normality

It is highly essential to check the assumptions before deciding which statistical (parametric or non-parametric) tests are appropriate (Field, 2009). One such assumption, and probably the most important, is the assumption of normality (i.e. to check whether the distribution of data is normal or skewed). Parametric tests are used when the distribution is normal and non-parametric tests if the distribution is not normal (i.e. skewed). Uses of parametric tests when the data are not parametric could produce inaccurate results (Field, 2009).

In the present investigation, there are two demographic variables (age and length of residence) and the scores of three psychometric scales that are continuous data. So, these data were examined (Skewness and Kurtosis) and also tested (Kolmogrov-Smirnov) for normal distribution. The results for assumption of normality are provided in appendix (4.3). **Inference:** All continuous variables in the sample data are not normally distributed. For this reason, only non-parametric tests are used in this study.
4.2.2 Psychometric properties of measurement scales

A principal component analysis (PCA) is robust with data that is not normally distributed. So, a PCA and reliability tests were conducted, interpreted and reported according to the statistical standards (Field, 2009). The purposes of conducting the above tests were to identify the different components for each of the three scales and examine their reliability in the present sample. The test statistics are also compared with that of the original scale and other studies that have used the same scales in different study population.

A) Suinn-Lew Asian Self-Identity Acculturation (SL-ASIA) scale

A PCA was conducted on the 26 item SL-ASIA Scale with orthogonal rotation (varimax). The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis, KMO = .81 (great)(Field, 2009) and all KMO values for individual items were >.55 which is well above the acceptable limit of .5. Bartlett’s test of sphericity \(\chi^2 (325) = 2271.56, p <.001\), indicated that correlations between items were sufficiently large for PCA. An initial analysis was run to obtain eigenvalues for each component in the data. Seven components had eigenvalues over Kaiser’s criterion of 1 and in combination explained 65.26% of the variance. Given the sample size, and the convergence of the scree plot and Kaiser’s criterion on seven components, this is the number of components that were retained in the final analysis.

The items that cluster on the same components suggest that component 1 represents Indian cultural affiliation, 2) Indian cultural contact, 3) language, 4) Australian cultural affiliation, 5) entertainment preference, 6) ethnic identity of self and 7) ethnic identity of parents.

Three of the components had high reliabilities (Cronbach’s \(\alpha\) scores - Indian cultural affiliation (.81), Indian cultural contact (.83) and language (.80) while one component had a moderate score - Australian cultural affiliation (.73). Other components, however, had relatively low reliability scores - entertainment preference (.55), ethnic identity of self (.66) and ethnic identity of parents (.44). Appendix (4.4) shows the factor loadings after rotation, percent of variance and eigenvalues for each one of the seven components.
B) Brief Sexual Attitudes Scale (BSAS)

A PCA was conducted on the 23 items of the BSAS with orthogonal rotation (varimax). The KMO measure verified the sampling adequacy for the analysis, KMO = .85 (‘great’) (Field, 2009) and all KMO values for individual items were >.66 which is well above the acceptable limit of .5. Bartlett’s test of sphericity $\chi^2 (253) = 2128.85$, $p < .001$, indicated that correlations between items were sufficiently large for PCA. An initial analysis was run to obtain eigenvalues for each component in the data. Five components had eigenvalues over Kaiser’s criterion of 1 and in combination explained 64.48% of the variance. Given the sample size, and the convergence of the scree plot and Kaiser’s criterion on five components, this is the number of components that were retained in the final analysis.

The items that cluster on the same components suggest that component 1 represents sexual permissiveness, 2) birth control, 3) sexual communion, 4) sexual instrumentality and 5) non-problematic sex. However, for all analytical statistics involving the BSAS, the original four subscales were used and not the five components identified from the PCA.

The first four components matched exactly with the four subscales of the BSAS. Three of the five components had high reliability (Cronbach’s $\alpha$) scores – sexual permissiveness (.90), birth control (.81) and communion (.79). The other two other components had moderate reliability scores – instrumentality (.70) and non-problematic sex (.70). Appendix (4.5) shows the factor loadings after rotation, percent of variance and eigenvalues for each one of the five components.

C) Safe Sex Behaviour Questionnaire (SSBQ)

An initial PCA was conducted on the original (24 items) SSBQ based on the responses of men ‘not in a committed’ relationship. Three items (item 13, 20 and 24) had the KMO value of less than .5. As per the recommendation of Field (2009), these items were removed and the PCA was re-conducted.
The second PCA was conducted on the 21 items of the SSB Scale with orthogonal rotation (varimax). The KMO measure verified the sampling adequacy for the analysis, KMO = .72 (‘good’) (Field, 2009) and all KMO values for individual items were >.56 which is well above the minimal acceptable limit of .5. Bartlett’s test of sphericity \( \chi^2 (210) = 681.48, p < .001 \), indicated that correlations between items were sufficiently large for PCA. An initial analysis was run to obtain eigenvalues for each component in the data. Six components had eigenvalues over Kaiser’s criterion of 1 and in combination explained 65.52% of the variance. Given the sample size, and the convergence of the scree plot and Kaiser’s criterion on six components, this is the number of components that was retained in the final analysis.

The items that cluster on the same components suggest the following components: 1) Mental preparedness to practice safe-sex, 2) Avoidance of risky sexual behaviours, 3) Assertiveness in practicing safe sex 4) Interpersonal skills 5) Assessment of sexual partner and 6) delay or avoid sexual intercourse.

The first component had high reliability (Cronbach’s \( \alpha \)) scores – Mental preparedness to practice safe-sex (.81). The second and third components had a moderate reliability score – avoidance of risky sexual behaviours (.75) and assertiveness in practicing safe sex (.72). All other components had relatively lower reliability scores – interpersonal skills (.66), assessment of sexual partner (.63) and delay or avoid sexual intercourse (.49). Appendix (4.6) shows the factor loadings after rotation, percent of variance and eigenvalues for each one of the five components.

**Summary**

The psychometric properties of the three scales were compared between the present study and that of original study by which the scale was developed and with other studies that used the scales.

The reliability score of the overall unilinear measure of the SL-ASIA scale (i.e. item 1-21) in the present sample was .86 and this was much comparable to that of the original scale (.91) (Suinn et al., 1992a). A study with Asian Americans reported a
comparable reliability score (.88) and reliability scores reported by other studies, which used SL-ASIA (1-21 items), ranged between .72 and .91 (Abe-Kim et al., 2001). The reliability score for the complete scale (1-26 items) was found to be high (.87) and the present study is the first to report on this measure.

The original scale had only four components and the reliability scores for sexual permissiveness (.95), birth control (.88), communion (.73) and instrumentality (.77) were comparable to that of the present study sample (Hendrick et al., 2006).

The reliability score for the overall 24-items SSBQ in the present study sample, for respondents not in a committed relationship, was .81 and this was comparable to that the reliability score (.82) of the original scale (Diiorio et al., 1992).
4.2.3 Characteristics of survey participants

Standard demographic information such as age, education, employment, current relationship status and religion was collected. Additional details specific to the present investigation (e.g. ‘length of stay in Australia’, ‘religiosity’ and ‘place where born and brought up in India’) were also collected. Frequency and mean scores of all demographic variables are presented below.

The mean age of the survey sample was 31 years (SD=9.72), range 18-64 years.

The majority of the Indian men had a university degree (81%), were employed (78%) and identified themselves as Hindus (71%). Less than one-fifth of respondents (17%) were students. Nearly one in every two men (49%) was married. Of the total, about two-thirds (64%) of participants were in a relationship (married, living together or in a relationship). An even proportion (~24%) of men reported moderate, high and very high degrees of religious affiliation.

The demographic characteristics of survey participants are presented in Table 4.1.
Table 4.1 Demographic characteristics of survey participants

<table>
<thead>
<tr>
<th>Age range (years) n=273</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>85 (31.1)</td>
</tr>
<tr>
<td>25-34</td>
<td>106 (38.8)</td>
</tr>
<tr>
<td>35-44</td>
<td>58 (21.2)</td>
</tr>
<tr>
<td>45+</td>
<td>24 (8.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest education obtained n=274</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>29 (10.6)</td>
</tr>
<tr>
<td>Polytechnic (e.g. TAFE)</td>
<td>23 (8.4)</td>
</tr>
<tr>
<td>Bachelors degree</td>
<td>97 (35.4)</td>
</tr>
<tr>
<td>Masters degree</td>
<td>120 (43.8)</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>5 (1.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment status n=274</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed-casual</td>
<td>45 (16.4)</td>
</tr>
<tr>
<td>Employed –permanent</td>
<td>152 (55.5)</td>
</tr>
<tr>
<td>Self-employed/business</td>
<td>17 (6.2)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>11 (4)</td>
</tr>
<tr>
<td>Retired</td>
<td>2 (0.7)</td>
</tr>
<tr>
<td>Student</td>
<td>47 (17.2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Religion n=273</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>195 (71.4)</td>
</tr>
<tr>
<td>Christian</td>
<td>20 (7.3)</td>
</tr>
<tr>
<td>Muslim</td>
<td>10 (3.7)</td>
</tr>
<tr>
<td>Sikh</td>
<td>23 (8.4)</td>
</tr>
<tr>
<td>Others</td>
<td>10 (3.7)</td>
</tr>
<tr>
<td>None</td>
<td>15 (5.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree of religious affiliation n=274</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (None)</td>
<td>30 (10.9)</td>
</tr>
<tr>
<td>2 (Weak)</td>
<td>45 (16.4)</td>
</tr>
<tr>
<td>3 (Moderate)</td>
<td>68 (24.8)</td>
</tr>
<tr>
<td>4 (Strong)</td>
<td>66 (24.1)</td>
</tr>
<tr>
<td>5 (High)</td>
<td>65 (23.7)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship status n=275</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single, never married^</td>
<td>94 (34.2)</td>
</tr>
<tr>
<td>In a relationship/dating*</td>
<td>35 (12.7)</td>
</tr>
<tr>
<td>Live together/de-facto*</td>
<td>6 (2.2)</td>
</tr>
<tr>
<td>Married*</td>
<td>135 (49.1)</td>
</tr>
<tr>
<td>Separated^</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Divorced^</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Others</td>
<td>3 (1.1)</td>
</tr>
</tbody>
</table>
Place of living in India:

Information was collected about the place in India where participants had spent most of their lives. This information was used as a proxy measure to gauge the level of western cultural exposure prior to migration (to Australia). The participants were asked to provide the actual ‘name’ of the location and to identify its ‘type’ (rural village, town, city or metropolitan city). The names of cities and metro-cities were used to validate the self-identified type of location. Of all who responded ($n=212$), the majority had lived either in a city (47.6%) or metro-city (33.5%) while the rest in a town (16.5%) or village (2.4%). Nearly one-third of the immigrant sample was from one of the four metro-cities in India (Delhi, Mumbai, Calcutta and Chennai).

Length of stay in Australia:

The mean length of stay in Australia (excluding those who were born in Australia) was about 7 years (SD=5.67), ranging from 6 months to 25 years. The number of years lived in Australia was also computed by deducting the ‘year first arrived in Australia’ from the study year (2011). From this figure (number of years lived) I derived two categories (recent and past) using a cut-off value of five years (as used by the Australian Department of Immigration and Citizenship). The proportion of recent migrants ($n=125$, 46%) was slightly less than that of those who had lived here longer ($n=136$, 50%). About 4 per cent ($n=12$) of the whole sample was born in Australia (second generation immigrants).

Summary

The present study composed of Indian men across a wide range of age, in different relationship status, varying range of religiosity and length of residence in Australia. In the next chapter, the present study sample’s representativeness will be assessed by comparing it with that of the general Indian population in Australia and with key large-scale studies conducted not only in Australia but also the UK.
4.2.4 Survey findings addressing the three broad research questions

- What is the range of sexual attitudes and behaviours among Indian men living in Australia?
- Whether acculturation influences sexual attitudes and behaviours of Indian immigrant men living in Australia? If so, how?
- What are the help-seeking attitudes of Indian immigrant men for sexual health?

4.2.4.1 Acculturation: Unilinear and bilinear measures

What is the acculturation pattern of Indian immigrant men in the present study sample?

Two hundred and three participants completed the whole SL-ASIA scale. Frequency distribution of responses to each of the 26 items is provided in the appendix (4.7).

4.2.4.1.A - Unilinear (1-21 items), unidimensional (behavioural) measures

The mean unilinear SL-ASIA score was 2.28 with a standard deviation of 0.46 and 95% Confidence interval of 2.22-2.35. The minimum score was 1.24 and the maximum was 4.14.

4.2.4.1.B - Bilinear (22-26 items), multidimensional (value, behaviour and self-identity) measures

The bilinear, multidimensional measures of acculturation were categorised based on the Berry’s Model into four categories: separation (Indian), integration (bicultural), assimilation (Western/Australian) and marginalisation (neither). Participants who did not fit into any of the above four categories (refer to information on scoring) were excluded from further data analysis involving bilinear acculturation measures.

Values dimension:
Based on the cross-tabulated scoring of items 22 and 23 of the SL-ASIA scale, more Indian men were identified to have ‘Indian’ values (Table 4.2).
Table 4.2 Cultural values dimension of Indian immigrant men (n=206)

<table>
<thead>
<tr>
<th>Item 22 vs. 23 on SL-ASIA scale (values dimension)</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>93 (45.15)</td>
</tr>
<tr>
<td>Bicultural</td>
<td>44 (21.36)</td>
</tr>
<tr>
<td>Western</td>
<td>23 (11.16)</td>
</tr>
<tr>
<td>Neither (alienated)</td>
<td>11 (5.34)</td>
</tr>
<tr>
<td>Inconclusive*</td>
<td>35 (16.98)</td>
</tr>
</tbody>
</table>

*(? Indian -8) (? Bicultural -21) and (? Western-6).

Behavioural and Self-Identity dimensions:

On examination of the ‘behavioural competency’ items (24 and 25) (Table 4.3) of the SL-ASIA scale, more Indian men in the present sample tend to be ‘bicultural’.

Majority (n=119, 57.77%) of Indian men did identify themselves as ‘Bicultural’ whereas the rest as Indian (n=81, 39.32%) and Western/Australian (n=6, 2.91%).

Table 4.3 Behavioural competency dimension of Indian immigrant men (n=206)

<table>
<thead>
<tr>
<th>Item 24 vs. 25 on SL-ASIA scale (behavioural dimension)</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>55 (32.16)</td>
</tr>
<tr>
<td>Bicultural</td>
<td>75 (43.86)</td>
</tr>
<tr>
<td>Western</td>
<td>25 (14.62)</td>
</tr>
<tr>
<td>Neither (alienated)</td>
<td>7 (4.09)</td>
</tr>
<tr>
<td>Inconclusive*</td>
<td>44 (21.36)</td>
</tr>
</tbody>
</table>

*(? Indian -14) (? Bicultural -24) and (? Western-6).

Dummy (binary) variable:

A binary (Indian vs. non-Indian) variable was generated for each of the three bilinear measures of the SL-ASIA scale as per the standard guidelines for generating a dummy variable (Field, 2009). This dummy variable was used in analytical statistics that involved bilinear measures of the SL-ASIA scale. The descriptive statistics are presented in Table 4.4.
Table 4.4 Dummy variable based on values and behaviour competency dimensions of SL-ASIA scale \( (n=171) \)

<table>
<thead>
<tr>
<th></th>
<th>Values dimension n (%)</th>
<th>Behavioural competency dimension n (%)</th>
<th>Self-identity dimension n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>93 (54.39)</td>
<td>55 (33.95)</td>
<td>125 (60.68)</td>
</tr>
<tr>
<td>Non-Indian (bicultural and western)</td>
<td>78 (45.61)</td>
<td>107(66.05)</td>
<td>81 (39.32)</td>
</tr>
<tr>
<td>Total</td>
<td>171</td>
<td>162</td>
<td>206</td>
</tr>
</tbody>
</table>

Summary

- The statistics on unilinear acculturation (21-items) demonstrates a ‘bicultural’ pattern of acculturation among Indian immigrant men in the present study sample.
- Likewise, the bilinear and multidimensional measures of SL-ASIA scale also demonstrate a ‘bicultural’ pattern among Indian men based on behavioural and ethnic self-identity dimensions.
- The value dimensional measure shows a ‘separation’ (i.e. retention of Indian values) pattern among Indian men in the present study sample.

The possible reasons for difference in pattern are discussed in the Chapter 5 - Discussion.
4.2.4.2 Sexual Attitudes

4.2.4.2.A - What are the sexual attitudes of Indian immigrant men?

The frequency distribution of all 23 items on the BSAS is presented in appendix (4.8). The descriptive statistics of the individual subscales of the Brief Sexual Attitude Scale are shown in Table 4.5 and graphically represented in Fig 4.1. The number of responses for each subscale varied slightly. Adding the scores of individual items and then dividing it by the number of items on that subscale derived the mean score for a subscale.

Table 4.5 Brief Sexual Attitude Scale scores of Indian immigrant men

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Mean score (s.d)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual permissiveness (n=201)</td>
<td>3.07 (1.11)</td>
<td>2.92-3.23</td>
</tr>
<tr>
<td>Birth control (n=197)</td>
<td>1.88 (0.96)</td>
<td>1.75-2.02</td>
</tr>
<tr>
<td>Sexual communion (n=196)</td>
<td>1.91 (0.79)</td>
<td>1.81-2.03</td>
</tr>
<tr>
<td>Instrumentality (n=199)</td>
<td>2.86 (0.99)</td>
<td>2.72-3.00</td>
</tr>
</tbody>
</table>

Fig 4.1 Grid scores of BSAS and present study’s mean score

The lower the score, the greater the endorsement of a subscale:

Permissiveness: A mean score of 1 reflects a highly permissive sexual attitude and a mean score of 5 reflects a very low permissive sexual attitude (i.e. highly conservative).
Birth Control: A mean score of 1 reflects the attitude that controlling (unwanted) birth is a shared sexual responsibility between men and women. On the other hand, a mean score of 5 reflects the attitude that procreation is a natural outcome of sexuality and that it should not be controlled.

Communion: A mean score of 1 demonstrates the attitude that sex is not only an important part of a person’s life but also a unifying phenomenon between partners that involves love and intimacy. At the other extreme, a mean score of 5 reflects the attitude that sex between two people is simply a physical exchange that does not necessarily involve any emotions.

Instrumentality: A mean score of 1 reflects the attitude that sex is a self-focused, pleasurable and primarily physical activity. On the other hand, a mean score of 5 reflects the attitude that sex is a mutually pleasurable and satisfying activity between two people.

4.2.4.2.B - Do sexual attitudes of Indian men vary by demographic variables?

Age & religiosity:
Spearman’s rho (r_s) indicated the presence of a medium (effect size), negative correlation between ranked age and birth control attitude score, \( r_s = -0.26, p < 0.01 \), two-tailed, \( n = 194 \). (Table 4.6).

Spearman’s rho (r_s) indicated the presence of a weak, positive correlation between ranked degree of religious affiliation (religiosity) and permissive sexual attitude score, \( r_s = 0.20, p < 0.01 \), two-tailed, \( n = 198 \) (Table 4.6). (Higher the permissive score, less permissive the person is).

| Table 4.6 Analytical statistics of BSAS subscales and demographic variables |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                | Permissiveness | Birth control   | Communion       | Instrumentality |
| Age (in years)                 |                |                 |                 |                 |
| \( r_s = 0.11 \)               | \( r_s = -0.26^{**} \) | \( r_s = 0.08 \) | \( r_s = 0.00 \) |
| Religiosity                    | \( r_s = 0.20^{**} \) | \( r_s = 0.04 \) | \( r_s = 0.00 \) | \( r_s = 0.14 \) |

* p<0.05    ** p<.01
Relationship status:

A Mann-Whitney U test (Table 4.7) indicated that the sexual permissiveness attitude score of men who are currently in a relationship \( (mean\ rank = 108.82, n=128) \) was significantly higher than that of men who are not currently in a relationship \( (mean\ rank = 77.34, n=67) \), \( U = 2903.50, z = -3.701 \) \( (corrected\ for\ ties) \), \( p < .005 \), two-tailed. The relationship status had a medium effect \( (r = .26) \) on the sexual permissiveness score.

Men who are not in a relationship tend to hold the attitude that controlling unwanted birth is part of being responsible and it (responsibility) is shared between men and women. The difference between the two groups of men, based on their relationship status, was significant but the effect \( (r = .17) \) was relatively smaller.

Table 4.7 Analytical statistics of BSAS scores and relationship status of Indian men

<table>
<thead>
<tr>
<th></th>
<th>Permissiveness</th>
<th>Birth control</th>
<th>Communion</th>
<th>Instrumentality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not in a relationship ( (n=67) )</td>
<td>77.34</td>
<td>83.16</td>
<td>93.37</td>
<td>90.37</td>
</tr>
<tr>
<td>In a relationship ( (n=128) )</td>
<td>108.82</td>
<td>102.94</td>
<td>96.66</td>
<td>100.52</td>
</tr>
<tr>
<td>Mann-Whitney U test ( (n=124) )</td>
<td>( U = 2903.5^{**} )</td>
<td>( U = 3293.5^{*} )</td>
<td>( U = 3978  )</td>
<td>( U =3777 )</td>
</tr>
<tr>
<td>( z = -3.70 )</td>
<td>( z = -2.44 )</td>
<td>( z = -0.39 )</td>
<td>( z = -1.20 )</td>
<td></td>
</tr>
</tbody>
</table>

\* \( p<0.05 \) \hspace{1cm} \( ** p<.01 \)

Inference

- As Indian men become older, they adopt a more responsible attitude towards birth control and see the responsibility for birth control as equally shared between men and women.
- As Indian men’s affiliate more to their religion (religiosity), they tend to have less permissive sexual attitudes (i.e. more conservative).
- Men who are in a relationship tend to have less permissive sexual attitudes.
4.2.4.2.C - Do sexual attitudes of Indian men vary by measures of acculturation?

Unilinear measures
A significant Spearman’s rho ($r_s$) test indicated the presence of a weak, negative correlation between ranked unilinear SL-ASIA score (i.e. assimilation) and sexual permissiveness attitude scores (Table 4.8). Likewise, a significant Spearman’s rho indicated a weak, negative correlation between length of residence in Australia and instrumentality attitude score.

Table 4.8 Analytical statistics of BSAS subscales and unilinear acculturation variables

<table>
<thead>
<tr>
<th></th>
<th>Permissiveness</th>
<th>Birth control</th>
<th>Communion</th>
<th>Instrumentality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>21-item SL-ASIA</strong></td>
<td>$r_s = - .24^{**}$</td>
<td>$r_s = - .05$</td>
<td>$r_s = .117$</td>
<td>$r_s = - .03$</td>
</tr>
<tr>
<td><strong>score</strong></td>
<td>(n=198)</td>
<td>(n=194)</td>
<td>(n=193)</td>
<td>(n=196)</td>
</tr>
<tr>
<td><strong>Length of residence in Australia</strong></td>
<td>$r_s = .04$</td>
<td>$r_s = .09$</td>
<td>$r_s = - .01$</td>
<td>$r_s = - .16^*$</td>
</tr>
<tr>
<td></td>
<td>(n=189)</td>
<td>(n=185)</td>
<td>(n=184)</td>
<td>(n=187)</td>
</tr>
</tbody>
</table>

* $p<0.05$     ** $p<.01$

Inference

- As Indian men assimilate into the western (Australian) culture, they tend to adopt more permissive sexual attitudes.
- As Indian men live for a longer period in Australia, they tend to view sex more as a self-focused and pleasurable physical activity.

Bilinear acculturation

A) Values dimension
A Mann-Whitney U test (Table 4.9) indicated that the sexual permissiveness attitude score of men who believe in Indian values ($mean\ rank = 98.31, n=89$) was significantly higher than that of men who believe in non-Indian values ($mean\ rank = 66.38, n=77$), $U = 2108, z = -4.27$ (corrected for ties), $p = .000$, two-tailed. The belief in cultural values had a medium effect ($r = .33$) on the sexual permissiveness score. A similar pattern was observed between belief in cultural values and attitudes towards birth control.
Table 4.9 Analytical statistics of BSAS subscales and bilinear acculturation variables

<table>
<thead>
<tr>
<th></th>
<th>Permissiveness</th>
<th>Birth control</th>
<th>Communion</th>
<th>Instrumentality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief in non-Indian values</td>
<td>66.38 (n=77)</td>
<td>72.19 (n=77)</td>
<td>82.44 (n=78)</td>
<td>78.09 (n=77)</td>
</tr>
<tr>
<td>Belief in Indian values</td>
<td>98.31 (n=89)</td>
<td>90.78 (n=86)</td>
<td>80.63 (n=84)</td>
<td>87.30 (n=88)</td>
</tr>
<tr>
<td>Mann-Whitney U test</td>
<td>U = 2108**</td>
<td>U = 2556*</td>
<td>U = 3203</td>
<td>U = 3010</td>
</tr>
<tr>
<td></td>
<td>z = − 4.27</td>
<td>z = − 2.60</td>
<td>z = − .25</td>
<td>z = − 1.24</td>
</tr>
</tbody>
</table>

* p<0.05     ** p<.01

B) Behavioural dimension

A Mann-Whitney U test (Table 4.10) indicated that the sexual permissiveness attitude score of men who reported that they fit with other Indians in Australia (mean rank = 90.56, n=53) was significantly higher than those who fit with non-Indians (mean rank = 73.92, n=105), U = 2196.5, z = −2.16 (corrected for ties), p = .03, two-tailed. The fitness with others had a small effect (r = .17) on sexual permissiveness scores.

Table 4.10 Analytical statistics of BSAS subscales and bilinear acculturation variables

<table>
<thead>
<tr>
<th></th>
<th>Permissiveness</th>
<th>Birth control</th>
<th>Communion</th>
<th>Instrumentality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fit with non-Indians</td>
<td>73.92 (n=105)</td>
<td>76.51 (n=104)</td>
<td>83.26 (n=105)</td>
<td>80.51 (n=105)</td>
</tr>
<tr>
<td>Fit with Indians</td>
<td>90.56 (n=53)</td>
<td>81.04 (n=51)</td>
<td>66.96 (n=50)</td>
<td>75.94 (n=52)</td>
</tr>
<tr>
<td>Mann-Whitney U test</td>
<td>U = 2196.5*</td>
<td>U = 2497</td>
<td>U = 2073</td>
<td>U = 2571</td>
</tr>
<tr>
<td></td>
<td>z = − 2.16</td>
<td>z = − .62</td>
<td>z = − 2.13</td>
<td>z = − .59</td>
</tr>
</tbody>
</table>

* p<0.05     ** p<.01

C) Self-Identity dimension

A non-significant Mann-Whitney U test indicated that there were no differences between Indian or non-Indian self-identity and any one of the four BSAS subscale scores (see Appendix 4.9).
Inference

- Men who believe in Indian values tend to have less permissive (i.e. more conservative) sexual attitudes.
- Men who believe in non-Indian values tend to hold the attitude that controlling unwanted birth is part of being responsible and it (responsibility) is shared between men and women.
- Men who reported that they fit well with other Indians in Australia tend to have less permissive (i.e. more conservative) sexual attitudes.
- There was no significant difference in attitudes based on self-identity.

4.2.4.2.D - Do sexual attitudes of Indian men vary if they continue to masturbate or not?

Scores of relevant subscales (Permissiveness, communion and instrumentality) of the BSAS were examined for difference based on current masturbatory status.

A Mann-Whitney U test (Table 4.11) indicated that the sexual permissiveness attitude score of men who reported that they do not masturbate (mean rank = 130.86, n=43) was significantly higher than who continue to masturbate (mean rank = 90.80, n=155), U = 1984, z = −4.06 (corrected for ties), p = .000, two-tailed. Masturbatory status had a medium effect (r =.28) on the sexual permissiveness score.

| Table 4.11 Analytical statistics of BSAS subscales and current masturbatory status |
|-----------------------------------|-----------------|-----------------|-----------------|
|                                  | Permissiveness  | Communion       | Instrumentality |
| Current masturbation, NO         | 130.86 (n=43)   | 88.25 (n=42)    | 110.08 (n=42)   |
| Current masturbation, YES        | 90.80 (n=155)   | 99.43 (n=151)   | 95.34 (n=154)   |
| Mann-Whitney U test              | U =1984**       | U = 2803.5      | U = 2747.5      |
|                                  | z = − 4.06      | z = − 1.15      | z = − 1.50      |

* p<0.05     ** p<.01    r = Cohen’s effect size [r=.1 (small), .3 (medium), .5 (large)]

Inference

Men who reported that they do masturbate tend to have more permissive sexual attitudes.
4.2.4.2.E - What factors predict Indian men’s permissive sexual attitude?

Variables with highly significant test statistics ($p < .01$) were used to estimate the proportion of variance in permissive sexual attitudes among Indian migrant men that could be predicted from those variables. A standard multiple regression analysis (MRA) was performed using religiosity, relationship status, masturbatory status, 21-item SL-ASIA score and belief in Indian values.

Prior to interpreting the results of the MRA, several assumptions were evaluated. First, inspection of the normal probability plot of standardised residuals as well as the scatter plot of standardised residuals against standardised predicted values indicated that the assumption of normality, linearity and homoscedasticity of residuals was met. Secondly, the Cook’s distance did not exceed the value of 1 (maximum Cook’s distance was 0.06) meaning there was not influence of a single case on the overall model. Also, no case in the data exceeded the critical Mahalanobis distance ($\chi^2$ for $df = 5$ (at $\alpha = .001$) of 20.51), indicating that multivariate outliers were not of concern. Thirdly, relatively high tolerances for both predictors in the regression model indicated that multicolinearity would not interfere with the ability to interpret the outcome of the MRA.

In combination, religiosity, current relationship status, current masturbatory status, 21-item SL-ASIA score and belief in Indian values accounted for a significant 21% of the variability in the permissive sexual attitudes score, $R^2 = .21$, adjusted $R^2 = .19$, $F (5, 151) = 8.12, p < .01$. Unstandardised (B) and standardised ($\beta$) regression coefficients, and squared part correlations ($sr^2$) for each predictor in the regression model are reported in Table 4.12.
Table 4.12 Statistics for predictor in the BLR model predicting permissive sexual attitudes

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>$\beta$</th>
<th>sr$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religiosity</td>
<td>.11</td>
<td>.12</td>
<td>.02</td>
</tr>
<tr>
<td>Current relationship status</td>
<td>.53**</td>
<td>.22</td>
<td>.06</td>
</tr>
<tr>
<td>Current masturbatory status</td>
<td>−.41*</td>
<td>−.17</td>
<td>.03</td>
</tr>
<tr>
<td>21-item acculturation score</td>
<td>−.33</td>
<td>−.12</td>
<td>.02</td>
</tr>
<tr>
<td>Belief in Indian values</td>
<td>.42*</td>
<td>.21</td>
<td>.03</td>
</tr>
</tbody>
</table>

* p<.05    **p<.01

Inference from multiple regression analysis:

- If the relationship status of a person increases from 0 (not in a relationship) to 1 (in a relationship), his permissive sexual attitude score increases by .53 (i.e. he is likely to have less permissive or more conservative sexual attitudes).
- If the belief in cultural values of a person increases from 0 (non-Indian values) to 1 (Indian values), his permissive sexual attitudes score increases by .42 (i.e. he is likely to have less permissive or more conservative sexual attitudes).
- If the masturbatory status of a person increases from 0 (not masturbating) to 1 (masturbating), his permissive sexual attitude score decreases by .41 (i.e. he is likely to have more permissive or less conservative sexual attitudes).
- The unilinear 21-item SL-ASIA score and religiosity was significantly correlated with permissive sexual attitudes when examined individually. However, it was not a significant predictor of permissive sexual attitudes in the presence of other factors such as relationship status, masturbatory status and belief in cultural values.
4.2.4.3 Masturbatory behaviour and feelings

4.2.4.3.A - What is the masturbatory behavioural pattern of Indian men?

Two hundred and thirty two men responded to the question about their current masturbatory status. Among them, a large proportion \((n=179, 77\%)\) reported that they continue to masturbate. Very few \((n=9, 4\%)\) reported that they have never masturbated and the rest \((n=44, 19\%)\) did masturbate in the past but not at the time of completing the survey.

Based on the above responses, participants were divided into two groups - those who currently masturbate \((n=179, 77\%)\) and those who do not \((n=53, 23\%)\). This categorisation was used in all analytical statistics involving masturbatory status.

Age of onset:

For men who currently masturbate or did in the past and not at the time survey, the mean age for onset of masturbation was 15 years \((SD = 3)\), range 5 - 25 years.

Frequency of masturbation:

Among those who continue to masturbate \((n=179)\), a large proportion \((38\%)\) reported that they masturbated 3-5 times per week (Table 4.13).

Table 4.13 Masturbatory behavioural patterns \((n=179)\)

<table>
<thead>
<tr>
<th>Frequency of masturbation of those who continue to masturbate</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 per week</td>
<td>48(26.8)</td>
</tr>
<tr>
<td>3-5 per week</td>
<td>68(38)</td>
</tr>
<tr>
<td>6-10 per week</td>
<td>37(20.7)</td>
</tr>
<tr>
<td>&gt; 10 per week</td>
<td>13(7.3)</td>
</tr>
<tr>
<td>Rare (can't specify)</td>
<td>13(7.3)</td>
</tr>
</tbody>
</table>
Mode of masturbation:

The most commonly reported mode of masturbation was with hands (77%) followed by ‘tummy down’ position (17%) (Table 4.14).

Table 4.14 Mode of masturbation (n=176)

<table>
<thead>
<tr>
<th>Mode of masturbation of those who continue to masturbate</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using hands only</td>
<td>167 (77.3)</td>
</tr>
<tr>
<td>Tummy down only</td>
<td>37 (17.1)</td>
</tr>
<tr>
<td>Rub against hard surface</td>
<td>5 (2.3)</td>
</tr>
<tr>
<td>Using tools</td>
<td>5 (2.3)</td>
</tr>
<tr>
<td>Others (anal stimulation; sex toys)</td>
<td>2 (0.9)</td>
</tr>
</tbody>
</table>

Source of stimulation for masturbation:

Watching erotic materials on the internet was the most commonly reported source of stimulation for masturbation (28%) followed by erotic self-thoughts (19%) and erotic materials on CD/DVD (18%) (Table 4.15).

Table 4.15 Sources of masturbatory stimulation (n=174)

<table>
<thead>
<tr>
<th>Source of stimulation</th>
<th>Number of responses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erotic materials on internet</td>
<td>141 (27.7)</td>
</tr>
<tr>
<td>Erotic materials on CD/DVD</td>
<td>90 (17.6)</td>
</tr>
<tr>
<td>Erotic materials in hard copy</td>
<td>58 (11.5)</td>
</tr>
<tr>
<td>As part of sex/foreplay</td>
<td>69 (13.6)</td>
</tr>
<tr>
<td>As part of body massage service</td>
<td>52 (10.3)</td>
</tr>
<tr>
<td>Having erotic thoughts for self</td>
<td>99 (19.4)</td>
</tr>
</tbody>
</table>

Reasons for masturbating and not masturbating:

The reasons for masturbating were collected from those who reported to continue to masturbate. Among those who continue to masturbate, the most commonly reported reason was ‘to gain pleasure’ (24%), followed by ‘to relax and relieve stress’ (21%)
and ‘to enjoy sexual fantasies’ (14%). Among those who do not masturbate, the most commonly cited reason was the ‘preference for partner sex’ (26%), followed by ‘guilty or bad feelings’ (14%) and ‘being in a committed relationship’ (11%). The reasons for masturbating and not masturbating are provided in Appendix 4.10.

4.2.4.3.B - Does masturbatory status of Indian men differ by age, relationship status, religious affiliation or acculturation?

The difference in masturbatory status of Indian men was analysed using a number of variables selected by a priori logic such as age, relationship status and degree of religious affiliation.

Relationship status:

A chi-square test of independence (with $\alpha = .05$) was used to assess whether masturbatory status differs by relationship status. Table 4.16 shows the percentages in each relationship group. The chi-square test was statistically significant, $\chi^2 (1, n=226) = 6.98, p < .01$.

Table 4.16 Current masturbatory status of Indian men by their relationship status (n=226).

<table>
<thead>
<tr>
<th>Current masturbatory status</th>
<th>No n (%)</th>
<th>Yes n (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current relationship status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not in a relationship</td>
<td>10 (12.8)</td>
<td>68 (87.2)</td>
<td>78</td>
</tr>
<tr>
<td>In a relationship</td>
<td>42 (28.4)</td>
<td>106 (71.6)</td>
<td>148</td>
</tr>
<tr>
<td>Total</td>
<td>52 (23)</td>
<td>174 (77)</td>
<td>226</td>
</tr>
</tbody>
</table>

$\Phi = -.176$, $Odds Ratio = 6.8/2.5 = 2.7$

Age groups:

A chi-square test of independence (with $\alpha = .05$) was used to assess whether masturbatory status differs by age group. The chi-square test was statistically significant, $\chi^2 (2, n=229) = 9.90, p < .01$. The expected counts and standardised
residuals (Table 4.17) were inspected. A significant SR value is +/- 1.96 and one cell (35+, do not masturbate) was found to be significant. As an index of effect size, Cohen’s $w$ was 0.21, which can be considered small to medium. A higher proportion of men in the 35+ age group did not masturbate compared to men in other age groups.

Table 4.17 Current masturbatory status of Indian men by their age group (n=229).

<table>
<thead>
<tr>
<th>Age group</th>
<th>Current masturbatory status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>15-24</td>
<td>9(12.7)</td>
<td>62(87.3)</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-1.8</td>
<td>1.0</td>
</tr>
<tr>
<td>25-34</td>
<td>19(21.3)</td>
<td>70(78.7)</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>35+</td>
<td>24(34.8)</td>
<td>45(65.2)</td>
</tr>
<tr>
<td>Std. residual</td>
<td>2.1</td>
<td>-1.1</td>
</tr>
<tr>
<td>Total</td>
<td>52(22.7)</td>
<td>177(77.3)</td>
</tr>
</tbody>
</table>

Religiosity:

A chi-square test of independence was conducted to examine differences in masturbatory status of Indian men based on their religious affiliation and it was not significant. Appendix 4.11

Inference

- More men over the age of 35 years tend not to masturbate
- Indian men who are not in a relationship are 2.7 times more likely to masturbate than who are in a relationship.
- The masturbatory status of Indian migrant men did not differ by religiosity.

4.2.4.3.C - Does masturbatory status of Indian men differs by their length of residence or unilinear (SL 1-21) acculturation?

A chi-square test of independence was conducted to examine differences in masturbatory status of Indian men based on their religious affiliation and it was not significant. (Appendix 4.11)
Based on Suinn et al.'s (1987) suggestion and initially divided the respondents into low, medium, and high levels of acculturation on the basis of their SL-ASIA (1-21 items) scores ($21-48 = \text{low}; ~ 49-77 = \text{medium}; ~ \text{and} ~ 78-105 = \text{high}$). However, the frequency distribution revealed that there were very few Indian immigrant men in the high ($n=5$) compared to low ($n=117$) and medium ($n=81$) groups. Therefore, acculturation was collapsed across scores to create two categories, low ($n=117$) and medium-high ($n=86$). A chi-square test of independence was conducted to examine differences in masturbatory status of Indian men based on their unilinear acculturation scores and it was not significant. (Appendix 4.11)

4.2.4.3.4 - How do Indian men feel about masturbation?

The feelings experienced when masturbating were obtained from men who continue to masturbate (Group 1).

Men who do not masturbate (Group 2) were asked to report the feelings that they would experience if they masturbated.

Respondents were able to select more than one response and the feelings expressed by both groups are compared in Table 4.18.

The most commonly reported feeling in both groups was ‘satisfaction’ ($45\%$ and $31\%$). The second and third most commonly reported feelings in Group 1 were ‘healthy’ ($17\%$) and ‘guilt’ ($8\%$) respectively. In the other group, the second and third most commonly reported feelings were ‘guilt’ ($16\%$) and ‘awkward’ ($13\%$) respectively.
Table 4.18 Feelings associated with masturbatory behaviour in men who continue to masturbate and don’t masturbate (n=223).

<table>
<thead>
<tr>
<th></th>
<th>Men who continue to masturbate (n=178)</th>
<th>Men who don’t masturbate (n=45)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of responses (%)</td>
<td>Per cent of respondents</td>
</tr>
<tr>
<td>Guilty</td>
<td>28(8.3)</td>
<td>15.7</td>
</tr>
<tr>
<td>Disappointed</td>
<td>11(3.3)</td>
<td>6.2</td>
</tr>
<tr>
<td>Sinful</td>
<td>11(3.3)</td>
<td>6.2</td>
</tr>
<tr>
<td>Satisfied (Positive)</td>
<td>152(45)</td>
<td>85.4</td>
</tr>
<tr>
<td>Healthy (Positive)</td>
<td>58(17.2)</td>
<td>32.6</td>
</tr>
<tr>
<td>Attractive (Positive)</td>
<td>20(5.9)</td>
<td>11.2</td>
</tr>
<tr>
<td>Angry</td>
<td>3(0.9)</td>
<td>1.7</td>
</tr>
<tr>
<td>Stressed</td>
<td>2(0.6)</td>
<td>1.1</td>
</tr>
<tr>
<td>Anxious</td>
<td>7(2.1)</td>
<td>3.9</td>
</tr>
<tr>
<td>Awkward</td>
<td>16(4.7)</td>
<td>9</td>
</tr>
<tr>
<td>Empty</td>
<td>18(5.3)</td>
<td>10.1</td>
</tr>
<tr>
<td>Detached</td>
<td>12(3.6)</td>
<td>6.7</td>
</tr>
</tbody>
</table>

4.2.4.3.E - Is there a difference in how Indian men feel about masturbation based on the masturbatory behaviour status?

Based on these responses provided to the question on feelings (as shown in Table 4.18), participants were broadly grouped as those having positive, negative or mixed feelings towards masturbation.

Those who reported ‘satisfaction’ ‘healthy’ and/or ‘attractive’ were categorised as having positive feelings. Men who reported any feelings other than these three were
categorised as having negative feelings. Men who selected both positive and negative responses were categorised as having mixed feelings.

About two-thirds of men who continue to masturbate (Group 1, \( n=179 \)) expressed positive (65.7%) while the rest reported negative (9%) or mixed (25.3%) feelings. Among men who do not masturbate (Group 2, \( n=46 \)) more men expressed positive feelings while the rest reported negative (32.6%) or mixed feelings (15.2%). The differences in expressed feelings between the two groups were found to be significant by Chi-square test \( \chi^2 \ (2, n=225) = 16.85, p < .01 \). (Table 4.19) As an index of effect size, Cohen’s \( w \) was 0.27, which can be considered to be medium (Cohen, 1988).

Table 4.19 Masturbatory feelings expressed by Indian men who currently masturbate and those who do not masturbate (\( n=225 \)).

<table>
<thead>
<tr>
<th></th>
<th>Positive</th>
<th>Negative</th>
<th>Mixed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently don’t</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current masturbate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count (% within total)</td>
<td>25 (53.2)</td>
<td>15 (31.9)</td>
<td>7 (14.9)</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>117 (65.7)</td>
<td>16 (9)</td>
<td>45 (25.3)</td>
<td>178</td>
</tr>
<tr>
<td></td>
<td>142 (63.1)</td>
<td>31 (13.8)</td>
<td>52 (23.1)</td>
<td>225</td>
</tr>
</tbody>
</table>

4.2.4.3.F - What predicts positive feelings about masturbation among Indian men who continue to masturbate?

The predictors of positive feeling among Indian men who continue to masturbate were examined using a Binary Logistic Regression (BLR). For the purpose of BLR, a dummy variable for the feelings was created with the following binary code (negative or mixed feelings = 0 and positive feelings = 1). (Table 4.20)

Table 4.20 Feelings expressed by Indian migrant men who continue to masturbate (\( n=179 \)).

<table>
<thead>
<tr>
<th>Feelings expressed</th>
<th>( n ) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative or mixed feelings</td>
<td>61 (34.1)</td>
</tr>
<tr>
<td>Positive feelings</td>
<td>117 (65.9)</td>
</tr>
<tr>
<td>Total</td>
<td>178</td>
</tr>
</tbody>
</table>
Steps involved in selection of variables for the BLR

Step 1: A number of variables were selected by *a priori* logic to examine the predictors of positive feelings when masturbating. The selected variables were age (in years), degree of religious affiliation, relationship status*, length of residence in Australia, 21-item SL-ASIA score*, belief in Indian values*, fit with other Indians* and permissive sexual attitude.

Step 2: The variables marked with a * were omitted from BLR as they were found to be strongly correlated with permissive sexual attitude. Likewise, ‘Length of residence’ was strongly correlated with age and so excluded from the BLR. Age, degree of religious affiliation and permissive sexual attitude were retained in the final model.

Diagnostic statistics for BLR

Prior to interpreting the results of the BLR, basic residual statistics were examined.

1) For all cases \((n=151)\), the Cook’s distance was <1 and DFBeta values were <1

Inference: There were no influential cases having an effect on the model.

2) The cases were inspected for their standardised residual values. No more than 5 per cent of total cases (i.e. 7 cases) should have absolute values above 2 and no more than 1 per cent of cases (i.e. 1 case) have absolute values above 2.5 (Field, 2009). In this BLR, four cases had absolute standardised residual values above 2 and one case above 2.5. Inference: There were four outliers in total but it was well within the acceptable limits.

3) To measure the degree of influence of each case on the overall model, a Leverage value was calculated. The average Leverage value was .03. Cases with Leverages values more than thrice the average values have to be examined for accuracy of data entry and for any special reasons before excluding from the model (Field, 2009). No case had Leverage value more than thrice the average value and one case had the maximum value was .06. Inference: There was no case that had very high influence on the overall BLR model. Thus, the present BLR model conformed to all recommended diagnostic tests (Field, 2009).
The BLR model statistics was $\chi^2(3)=13.55$, $p<.01$. The Cohen’s effect size was calculated to be .09, which is a small-medium effect. The power for this statistical test was calculated to be 89 per cent. (Table 4.21)

Table 4.21: Logistic regression analyses examining the positive masturbatory feelings of Indian migrant men against by selected predictor variables ($n=151$).

<table>
<thead>
<tr>
<th>Included</th>
<th>95% CI for Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE)</td>
</tr>
<tr>
<td>Constant</td>
<td>.59 (.89)</td>
</tr>
<tr>
<td>Age (years)</td>
<td>.06* (.02)</td>
</tr>
<tr>
<td>Religious affiliation</td>
<td>-.07 (.15)</td>
</tr>
<tr>
<td>Permissive sexual attitude</td>
<td>-.46** (.18)</td>
</tr>
</tbody>
</table>

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

Binary Logistic Regression analysis indicated that of the three variables examined, age and permissive sexual attitude were the two significant predictors of positive feelings among Indian migrant men when masturbating. Between the two, the permissive sexual attitude was the strongest (46%) and the most significant predictor. Degree of religious affiliation (religiosity) was found to be a non-significant predictor.

Inference: As Indian men get older they are more likely to feel positive about masturbation. Likewise, Indian men are likely to feel positive about masturbation if they have a permissive sexual attitude. Lesser degree of religious affiliation was found to be predictive of positive feeling of Indian men when masturbating but it was not significant.
4.2.4.4 Safe sex behaviour

4.2.4.4.A - What are the safe sex behavioural patterns of Indian men?

The frequency distribution of all 24 items on the SSBQ is presented in appendix (4.12).

As mentioned earlier in the data preparation section, the study sample was broadly divided into two groups based on commitment with relationship. Group 1 was men who were ‘not in a committed relationship’ (i.e. single/never married, divorced or separated) \((n=131)\). Group 2 was those who were ‘in a committed relationship’ (i.e. married or live together/defacto) \((n=141)\) and those who reported ‘other’ relationship status were excluded.

The basic descriptive statistics of overall SSBQ for the above two groups of Indian men are provided below in the Table 4.22. The average mean score of three samples of young people who were single, reported by the SSBQ author, was 68.5 (Diiorio et al., 1992).

Table 4.22 Descriptive statistics of SSBQ among Indian immigrant men \((n=178)\)

<table>
<thead>
<tr>
<th></th>
<th>Mean score</th>
<th>Std deviation</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not in a committed relationship ((n=86))</td>
<td>65.97</td>
<td>12.29</td>
<td>63.34-68.61</td>
</tr>
<tr>
<td>In a committed relationship ((n=92))</td>
<td>64.32</td>
<td>11.76</td>
<td>61.88-66.75</td>
</tr>
</tbody>
</table>

4.2.4.4.B - Does safe sex behavioural patterns differ between men in a committed relationship and those who were not?

Mann-Whitney U test indicated that the overall SSBQ score of men who are not in a committed relationship \((mean \text{ rank} = 95.44, n=86)\) was not significantly different to men who are in a committed relationship \((mean \text{ rank} = 83.95, n=92)\). The test had a power less than 70% failed to have the minimum power (of 80%) due to inadequate sample size. Inference: The safe sex behavioural patterns, based on overall SSBQ score, did not differ between men who were in a committed relationship or not.
4.2.4.4.C - What are the safe sex behavioural patterns of Indian men who were not in a committed relationship?

Safe sex behaviours are examined in detail among men who are ‘not in a committed relationship’ as they are very likely to be younger in age and being more sexually active. Moreover, men in a steady committed relationship are likely to score low on the Safe Sex Behaviour Questionnaire (i.e. lower frequency of safe sex practice), which reflects the lack of need to practice safe sex with a steady sexual partner. Also, the SSBQ scale was originally developed using a sample of young people who were single.

Principal component analysis of the SSBQ was conducted involving Indian men who were not in a committed relationship and six factors were identified (refer to section 4.2.2). Basic descriptive statistics (mean scores, standard deviation and 95% CI) for the study sample and the possible mid-point values for each of the six SSBQ factors are provided in Table 4.23.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean score (s.d)</th>
<th>Score range (mid-value)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental preparedness to practice safe-sex</td>
<td>19.48 (5.21)</td>
<td>7-28 (17.5)</td>
<td>18.36-20.59</td>
</tr>
<tr>
<td>Avoidance of risky behaviours</td>
<td>13.55 (2.83)</td>
<td>4-16 (10)</td>
<td>12.93-14.16</td>
</tr>
<tr>
<td>Assertiveness in practicing safe sex</td>
<td>16.29 (3.37)</td>
<td>5-20 (12.5)</td>
<td>15.57-17.01</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>9.50 (3.03)</td>
<td>4-16 (10)</td>
<td>8.85-10.15</td>
</tr>
<tr>
<td>Assessment of sexual partner</td>
<td>6.56 (2.51)</td>
<td>3-12 (7.5)</td>
<td>6.02-7.09</td>
</tr>
<tr>
<td>Delay or avoid sexual intercourse</td>
<td>4.73 (1.68)</td>
<td>2-8 (5)</td>
<td>4.37-5.09</td>
</tr>
</tbody>
</table>

The mean score of first three factors ‘mental preparedness to practice safe sex’ (19.48), ‘avoidance of risky sexual behaviour’ (13.55) and ‘assertiveness in practicing safe sex’ (16.29) was more than the mid-point values (17.5, 10 and 12.5) respectively.
The mean score of last three factors were less than its respective mid-point value. The same is represented graphically below in Figure 4.2.

**Mental preparedness to practice safe-sex**

| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |

**Avoidance of risky behaviours**

<table>
<thead>
<tr>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
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</table>

**Assertiveness in practicing safe sex**

<table>
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<tr>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>9</th>
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<th>12</th>
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<th>14</th>
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<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
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</table>

**Interpersonal skills**

<table>
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<tr>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
</table>

**Assessment of sexual partner**

<table>
<thead>
<tr>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
</table>

**Delay or avoidance of sexual intercourse**

<table>
<thead>
<tr>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
</table>

Fig 4.2 – Grid scores of safe sex behaviour scale of Indian men (not in committed relationship).

4.2.4.4.D - Does safe sex behavioural patterns of men, not in a committed relationship, vary with age or unilinear acculturation?

All analytical statistics were performed on the first three principal components of the SSBQ as they had either high or moderate reliability scores.

Spearman’s rho tests were conducted to test whether there is a correlation between ranked age and safe sex practices among men who are not in a committed relationship. The non-significant test results indicated the presence of a weak positive correlation between ranked age and all three components of safe sex practice. The tests had a power of 40% (minimum 80%) due to inadequate sample size. Table provided in the appendix (4.13).
Likewise, Spearman’s rho tests were conducted to test whether there is a correlation between ranked acculturation measures and safe sex practices among men who are not in a committed relationship. The non-significant test results indicated the presence of a weak and negative correlation between ranked unilinear acculturation and ‘avoidance of risky sexual behaviours’ whereas as weak, positive correlation with the other two components (avoidance of risky sexual behaviours and assertiveness in practicing safe sex). The statistical test had a power of 40% (minimum 80%) due to inadequate sample size. Table provided in the appendix (4.13).

Inference

➢ A pattern could be observed, but not proven, that as men become older they are more likely to practice safe sex.
➢ As Indian men acculturate into western (Australian) culture they are more likely to be prepared and assertive to practice safe sex but less likely to avoid risky sexual behaviours.
4.2.4.5 Help-seeking attitudes for sexual health

4.2.4.5.A - Do Indian men seek help for sexual health? If yes, what are their preferences? If not, why?

Among those who responded (n=225), the vast majority (n=182, 81%) of men reported that they would seek a medical doctor if they had a sexual problem while the remainder (n=43, 19%) did not. A similar, large preference to seek help and source information from medical doctors was observed among Indian men who took part in the focus groups discussions.

Among the 182 men who reported that they would seek medical advice, about one in two (53%) preferred a General Practitioner while the rest preferred a specialist medical doctor (Table 4.24). Young (18-25 years) Indian men were three times more likely to prefer a specialist medical doctor than older men and the difference was statistically significant, $\chi^2 (1, n=179) = 12.22, p < .01$. (Table 4.25).

Table 4.24 Preferences in relation to medical help for a sexual problem (n=182)

<table>
<thead>
<tr>
<th>Choice of doctor</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Practitioner</td>
<td>97(53.3)</td>
</tr>
<tr>
<td>Sexual health specialist/Sexologist</td>
<td>76(41.8)</td>
</tr>
<tr>
<td>Urologist</td>
<td>6(3.3)</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>3(1.6)</td>
</tr>
<tr>
<td>Total</td>
<td>182 (100)</td>
</tr>
</tbody>
</table>

Table 4.25 Preference for type of medical doctor based on age (n=179)

<table>
<thead>
<tr>
<th>Age of men</th>
<th>GPs n (%)</th>
<th>Specialists n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young adults (18-25yrs)</td>
<td>17 (33)</td>
<td>35 (67)</td>
</tr>
<tr>
<td>Older adults (25+ yrs)</td>
<td>78 (61)</td>
<td>49 (39)</td>
</tr>
</tbody>
</table>

$^a$ Phi & Cramer’s V = −.261, Odds Ratio = 2.05/.63 = 3
Preferences of Indian men, who seek medical help toward the health professionals

Ethnicity and Gender:
Ethnicity and gender was not important for 68 and 52 per cent of Indian immigrant men respectively. Of the rest, more men preferred a non-Indian GP (24%) and a male GP (43%). The above findings are shown in Figure 4.3.

Regular medical doctor (General Practitioner):
Ninety-seven Indian men responded to the question on seeking a regular medical doctor for sexual problems. Of them, about one-fifth reported that they did not have a regular GP. Amongst others, a large proportion (69%) preferred to seek help from a regular GP (Figure 4.4).

Fig 4.3: Ethnic and gender preferences for a GP (n=97)

Fig 4.4: Preferences for regular GP (n=97)
Reasons for Indian men for not wanting to seek medical help for sexual health

The most common reason cited, by those who reported that they would not seek help from a medical doctor for sexual problems \((n=42)\), was the perception that a sexual problem is not a medical problem (Table 4.26).

Table 4.26 Reasons given by Indian men for not seeking medical help \((n=42)\)

<table>
<thead>
<tr>
<th>Reasons</th>
<th>n (% )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical doctors can’t do much about a sexual problem</td>
<td>6 (14.3)</td>
</tr>
<tr>
<td>I don’t think a sexual problem is a medical problem</td>
<td>11 (26.2)</td>
</tr>
<tr>
<td>I am not comfortable talking to a medical doctor</td>
<td>13 (31)</td>
</tr>
<tr>
<td>My regular medical doctor is like a family friend</td>
<td>3 (7.1)</td>
</tr>
<tr>
<td>Doctors may find it uneasy to talk about sex</td>
<td>6 (14.3)</td>
</tr>
<tr>
<td>Other reasons</td>
<td>3 (1.1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

4.2.4.5.B - What other actions do Indian men take if they have a sexual problem?

The two most commonly reported actions taken by Indian men if they have a sexual problem were ‘searching information anonymously’ (27%) and ‘talking to their partner’ (26%) (Table 4.27). A small proportion \((n=12, 3\%)\) reported that they would not take any action. The most common reason given for not taking any action was that the problem would disappear naturally \((n=5, 42\%)\).

Table 4.27 Potential actions taken by Indian men for a sexual problem \((n=211)\)

<table>
<thead>
<tr>
<th>Potential actions</th>
<th>Number of responses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take no action</td>
<td>12 (2.8)</td>
</tr>
<tr>
<td>Talk to partner</td>
<td>109 (25.5)</td>
</tr>
<tr>
<td>Talk to family member or friend</td>
<td>40 (9.3)</td>
</tr>
<tr>
<td>Seek a psychologist</td>
<td>19 (4.4)</td>
</tr>
<tr>
<td>Seek a sex therapist/counsellor</td>
<td>91 (21.3)</td>
</tr>
<tr>
<td>Look for information anonymously</td>
<td>116 (27.1)</td>
</tr>
<tr>
<td>Use telephone helpline</td>
<td>30 (7)</td>
</tr>
<tr>
<td>Take drugs/use devices by myself</td>
<td>11 (2.6)</td>
</tr>
</tbody>
</table>
4.3 Conclusion

This chapter has presented the detailed results of both qualitative and quantitative data collected from adult Indian men living in Australia. The significant predictors and relevant variables were examined to establish the relationships between dependent (sexual attitudes, masturbation and sexual) and key independent (acculturation and demographic) variables.

The qualitative findings demonstrated the communion and mutual aspects of sexuality among Indian men who took part in the focus groups. Liberal attitudes toward masturbation were also identified among Indian men across a wide range of ages and men in different relationship status. General awareness about sexual health was elicited and medical doctors were found to be the main source for information and help for Indian men. Some of the qualitative findings guided the selection of topics for further investigation in the second stage of data collection.

Biculturalism was the acculturation pattern of Indian men in the present study sample and this was in line with many of the past studies. However, the present study did examine the ‘values dimension’ separately and found Indian immigrant men tend to hold on to Indian values although they behave and self-identify themselves as bicultural.

Sexual attitudes of Indian immigrant men were examined using the Brief Sexual Attitudes Scale, which was psychometrically tested involving the Indian men in the present study. The findings were that Indian men tend to adopt more permissive sexual attitude as they assimilate in to the western (Australian) culture and have less permissive sexual attitude with higher degree of religious affiliation. However, unilinear measure of acculturation and religiosity were found to be a non-significant predictor of permissive sexual attitudes in the presence of other significant predictors (relationship status, masturbatory status and bilinear (values) measure of acculturation).

A range of findings of masturbatory behaviour of Indian immigrant men involving a community sample was presented. It was found that age and relationship status to be
significant factors in determining the masturbatory status of Indian men. A large proportion of men who masturbate were found to feel positive about masturbation. Age and permissive sexual attitude were found to be significant predictors of positive masturbatory feelings.

The Safe Sex Behaviour Questionnaire was psychometrically tested with the present study sample and a number of different factors were identified. These factors (treated as subscales) were then examined in detail among men who were not in a committed relationship. The findings indicated that the group of men scored above average scores for mental preparedness to practice safe sex, avoidance of risky sexual behaviours and assertiveness in practicing safe sex. However, they scored less than average for interpersonal skills, assessment of sexual partners and delaying or avoiding sexual intercourse. Safe sex behavioural patterns of Indian immigrant men who were not in a committed relationship were found to be no different to that of those who were in a committed relationship. Likewise, safe sex behaviour did not appear to differ with age or unilinear acculturation among men who were not in a committed relationship.

Most Indian immigrant men preferred to seek medical help for sexual problems and General Practitioners were the main source for information and help. For whom gender and ethnicity of the health professionals are important, more men preferred a male doctor of Western cultural background. More men preferred to seek help from a regular doctor, if they have one. A perception that sexual problems are not of medical nature was the single most common reason cited by men who don’t prefer to seek medical help. Searching for information on the Internet and talking to their partners were two other actions that Indian men would do to manage their sexual problems.

The following chapter will draw out the implications of findings reported here in relation to the literature and also relate findings to the theoretical framework. The findings will also be discussed from a broader context by addressing the implications for policy, clinical practice and future research.
Chapter 5 Discussion

The current project has three broad aims:

- To explore sexual perceptions, attitudes and behaviours of Indian immigrant men living in Australia.
- To explore the help-seeking attitudes of Indian immigrant men for sexual health
- To examine the effects of acculturation on sexuality of Indian immigrant men living in a multicultural society (Australia).

This chapter reviews and contextualises the key findings in relation to the literature. The first section compares the present study sample with that of the general Indian population in Australia and with previous studies involving Indian immigrants. This is followed by a discussion of the acculturation pattern observed among study participants. Next comparative analysis of the findings in relation to the research literature will be presented. Theoretical implications of the study are then discussed, with particular reference to the theory of planned behaviour and sexual scripting theory. The study’s strengths and limitations are reviewed, and the chapter concludes with a consideration of the implications for future research and clinical practice.

5.1 Representativeness of the study sample

Previous studies of sexuality and sexual health among Indian or Asian immigrants were conducted with young, college student samples that were not representative of the general community. Many of these studies acknowledged sampling as a major limitation. Other studies using community samples included only very small numbers of Indian/Asian participants and/or used only qualitative methods. The present study, by contrast, involved a wide age range, recruited directly from the community and used a mixed methods design.
5.1.1 The study sample and Australian Census (2006 and 2011) data

Figure 5.1 compares the study sample with that of the Indian population in Australia (as per the community information summary provided by the Australian Department of Immigration and Citizenship (DIAC) based on 2006 Census data). (Appendix 1.1)

Two sets of figures - the median age and unemployment rates for Indians (marked with asterisks) alone were sourced from a different publication of the DIAC that was based on 2011 Census data. (Appendix 1.2)

Figure 5.1 Comparison of study sample with Australian Census data

* Census 2011 data

Figure 5.1 shows that the present study sample is comparable to the general Indian population in Australia in regard to age, unemployment rate and ability to speak English. However, the proportion of Indians identifying as Hindus and educational status differed between the study sample and the general population. The difference in proportion of Hindus could be due to the different years in which the data were collected for this study (2010-11) and for the Census (2005-06). Overall, the proportion of males identifying themselves as Hindus increased from 0.8% (Census 2006) to 1.4% (Census 2011). The difference in educational status could be due to the fact that the study sample contains only men. Population data on educational status by gender and country of birth are currently not accessible.
5.1.2 The study sample and NATSAL-2 sample

Figure 5.2 compares the study sample with data on Indian men in the UK National Sexual Attitudes and Lifestyle (NATSAL-2) survey, which included 171 Indian men and was conducted around 2001. It shows that the study sample is comparable to the NATSAL-2 data in regard to age categories and relationship status. There is some difference in the ‘single’ category of relationship status: 34.2% in the study sample and 44.1% in the NATSAL-2 data. This could be due to the response choices that were available. In the present study, there were two response categories for relationship status (‘single, never married’ and ‘in a relationship/dating’) and both could be chosen by a person who is single but never married. The NATSAL had only one option (single, never married) for men who were not currently or previously married. When the proportions of those who responded single (34.2%) and in a relationship/dating (12.7%) are added, then this category (46.9%) is comparable to that of NATSAL-2 (44.1%).

Figure 5.2 Comparison of study sample with NATSAL-2 sample

The proportion of Indians identifying as Hindus and Sikhs also differed. This could be due to the different years of data collection (2011 v. 2002) and/or to the fact that Sikhs are a much larger community in the UK than in Australia. The present study included a much higher proportion of first generation immigrants (i.e. those born in India who migrated to Australia) while the NATSAL-2 had equal proportions of first
and second generation (born in the UK) Indian immigrant men. Other considerations in accounting for this difference include the fact that the present study specifically focused on first generation immigrants as well as the nature of the recruitment/promotion strategy, which targeted events and media that first generation immigrants are more likely to access. It should be noted, however, that the eligibility criteria did not exclude second-generation Indian immigrants and there were, in fact, 12 second-generation Indian male participants.

5.1.3 The study sample and ASHR sample

Figure 5.3 shows a comparison between the study sample and data from the Australian Study of Health and Relationships (ASHR) (Smith et.al, 2003), which were collected around 2001 and included 67 Indian male participants. The study sample characteristics are comparable to the ASHR data in regard to level of education, employment status and proportion of men who were single. The proportion of men who were married was higher and that of students was much lower in the ASHR data than in the study sample. Both differences could be attributable to a single factor, namely, the high volume of students who arrived in Australia for higher education around 2005. The ASHR data, it should be noted, were collected when Australia was just starting to become a popular destination for Indian students. It was only towards the very end of the last century that the recommendations of the Review of the Student Visa Program were implemented to facilitate sustainable growth in the Australian education industry, for which countries like India were a particular target (DIMA, 1998-99).
Since the present study included a much higher proportion of Hindus, it could be argued that its findings are more generalisable to Indian men in Australia who identify themselves as Hindus than to all Indian men. It should be noted, however, that the vast majority (80.5%) of all Indians identify themselves as Hindu (Census India, 2001).

Previous studies have reported that Asian Indians have the highest percentage of individuals who speak English “very well” compared to other Asian groups in the United States (Kumar & Nevid, 2010). Indians have also been reported to have the highest educational attainment and the highest employment rate compared to other Asian groups (Farver et al., 2002a; Kumar & Nevid, 2010; Robinson, 2009). Indian immigrant men in the present study sample were no different to the Indian groups reported in these studies.

**South Asians in Stage 1 and Indians in Stage 2 – Why?**

One of the limitations of past studies on culture and sexuality involving Asian immigrants is the manner in which the study participants were clubbed together as South-Asians or East Asians based on geographical boundaries. While it is practical to club participants for the purpose of statistical analyses, there is a risk of not examining finer cultural differences within those clubbed groups. For example, a study that clubbed Indians and Pakistanis as ‘South Asians’ or ‘Indian subcontinent’ could fail to address the socio-cultural-religious differences between Indians and Pakistanis. Significant differences between two South-Asian cultural groups (i.e. Indians and Pakistanis) were reported by a past study. This gap was addressed in the present study by having a specific focus on Indians.

At the beginning of present research, the focus was on wider South Asians (Indians, Pakistanis, Bangladeshis and Sri Lankans) with the intention of reaching out to a wider population and conduct within group analyses. However, the focus groups had higher representation of Indians although the study was more or less equally promoted to all four South Asian groups. Higher representation of Indians in FGD could be naturally due to higher proportion of Indian immigrants in Australia compared to other three groups. Given that Indians were highly represented in FGD
and in order to be specific about the findings of the present study, the target population was changed to Indians only for stage 2. The present study has generated ethnicity (Indian) specific scientific data which is available for comparison with other South Asian (Sri Lankans or Bangladeshis or Pakistanis) or other Asian or non-Asian groups.

**Summary**

The study sample can be considered representative of Indian men in the general Australian population with regard to age and ability to speak English (Figure 5.1). Its characteristics are also comparable to those identified in large-scale national studies conducted in both Australia and the UK (Figure 5.2, Figure 5.3).
5.2 Acculturation pattern of survey participants

Acculturation was the one of the key independent variables against which a number of
dependent variables (e.g. sexual attitudes) was examined. As noted earlier, most of
the previous studies of acculturation and sexuality used the assimilatory/unilinear
(length of stay) model and behavioural dimensional measures (e.g. language spoken at
home) of acculturation. An evidence-based conceptualisation of acculturation,
however, is orthogonal (bilinear) and multidimensional (behaviour, values and
identity).

For this reason, the revised 26-item Suinn-Lew Asian Self-Identity Acculturation
scale was used in the present study in order to capture the multidimensionality of
acculturation. An analysis of findings in relation to acculturation is presented below.
Unilinear and bilinear models are discussed separately.

5.2.1 Unilinear and multidimensional measures of acculturation (items 1-21 on
the SL-ASIA scale)

The mean score on a unilinear measure of acculturation among Indian immigrant men
in the study sample was 2.28 (Table 4.7). While a score of one is ‘very Indian’ and
five is ‘very Western’ (Australian), a score of 2.28 is much closer to ‘bicultural’. This
finding is in accordance with many previous studies, which reported biculturalism
(i.e. integration of the heritage and mainstream cultures) as the most frequent
acculturation style among Indian migrants throughout the world (Alam, 2007; Baek
Choi & Thomas, 2009; Dasgupta, 1998; Farver et al., 2002a; Farver et al., 2002b;
Gallegos & Nasim, 2011; Ghuman, 1997; Ghuman, 2000; Kumar & Nevid, 2010;
Robinson, 2009). The range in unilinear acculturation score in the present study (1.24
- 4.14) demonstrates that the majority of Indian participants had a moderate
acculturation score. The proportion with very high scores was minimal, as seen in one
other study (Gallegos & Nasim, 2011).
5.2.2 Bilinear and multidimensional measures of acculturation (items 22-26 of the SL-ASIA scale)

Nearly half (44%) of Indian immigrant men in the study sample thought that they fit well with other bicultural individuals (i.e. those whose behaviour has characteristics of both Indian and Western/Australian men) in the community. Moreover, the majority identified their own ethnicity as that of ‘biculturalism’. On the other hand, more of them (45%) said they believed in Indian values compared to those who believed in bicultural (both Indian and Western) or Western values only (21% and 11% respectively).

From an examination of the total SL-ASIA scale, it appears that Indian immigrant men in the study sample tended to report ‘biculturalism’ in relation to behavioural measures, irrespective of whether these represented a unilinear or bilinear model of acculturation. Similarly, Indian men tended to self-identify their ethnicity as ‘bicultural’, which could be based on a number of behavioural measures such as dress, language and food or entertainment preferences. In contrast, when Indian men were assessed for the values they believe in, a slightly different pattern was observed, with more men believing in Indian values. Thus, the bicultural acculturation pattern among Indian men found in this study (and many previous studies) was based primarily on behaviours and not on cultural values. The likely reasons for this bicultural pattern of acculturation among Indian migrants can be categorised into pre- and post-immigration factors. Possible pre-immigration factors reflect the long period of Western influence in India due to colonial settlement, the effects of globalisation and the ability to speak English well, which could enable Indians to settle more quickly and successfully in a new society. The Australian policy of multiculturalism and the presence of well-established Australian-Indian communities could be key post-immigration factors. These are discussed in more detail below.

Cultural values play a vital role in sexuality and sexual attitudes. They are widely regarded as the abstract motivations that guide, justify and explain individuals’ attitudes (Vauclair & Fischer, 2011). A multinational study involving over 20,000 people across 84 countries (including India), conducted between 1981 and 2004, concluded that attitudes towards dishonesty-illegality were not related to cultural
values whereas attitudes towards personal-sexual issues were predicted by the cultural value dimension (Vauclair & Fischer, 2011). Accordingly, the sexual attitudes of Indian men were specifically examined in the present study for differences on the value dimension along with standard behavioural and self-identity measures of acculturation.

Higher educational status has been strongly associated with cultural retention, which is a key element in the acculturation patterns of integration (biculturalism) (Berry, 1989). Indian immigrant men, in both the study sample and in community-based studies in Australia and other Western countries, have high educational status. This could also be a contributing factor to the biculturalism acculturation pattern observed among Indian immigrants.

Summary
Biculturalism was the dominant acculturation pattern among Indian immigrant men in the present study. In line with previous research, this was true for behavioural and self-identity measures of acculturation irrespective of unilinearity or bilinearity. In contrast, on values measures of acculturation, Indian immigrant men tended to hold on to Indian values. This pattern, which emerges when different dimensions of acculturation are examined, confirms the need for research to incorporate ‘cultural values’ as a variable (Schwartz et al., 2011; Vauclair & Fischer, 2011). The present study is the first to explore the values dimension among Indian immigrants.
5.3 Comparative analysis of findings

The research questions for this study were:

- What are the personal, social and cultural meanings of sexuality among Indian men living in Australia?
- What is the range of sexual attitudes and practices among Indian men living in Australia?
- Does acculturation influence sexual attitudes and behaviours of Indian immigrant men living in Australia? If so, how?
- What are the help-seeking attitudes of Indian immigrant men for sexual health?

In this section, the study’s findings are discussed in relation to comparable data from previous research.

5.3.1 Sexual attitudes and meanings

5.3.1.A - Permissive sexual attitudes

The mean permissive sexual attitudes score of the overall sample in the present study was closer to the median value. This means that these Indian immigrant men held moderate sexual attitudes (i.e. they were neither overly permissive nor overly conservative). In other words, Indian immigrant men do not hold a global attitude, either conservative or liberal, towards sexuality. Rather, they tend to hold conservative sexual attitudes towards some issues and liberal attitudes towards others.

This is illustrated in the responses to individual items within the permissive attitudes subscale (Appendix 4.8). For example, Indian men expressed a fairly liberal attitude towards casual sex (52.2% either agreed or strongly agreed with it) but a very conservative attitude towards multiple, concurrent sexual relationships (59.7% either disagreed or strongly disagreed). This pattern could be due to the characteristics of the study sample, which included a mix of Indian men of different age, relationship
status, religiosity and pattern of acculturation. Each of these variables, except age, was found to have a significant effect on permissive sexual attitudes.

These findings cannot be directly compared with those from previous studies, for several reasons. First, the study samples were very different (young college students in previous research, a more heterogeneous community sample in the present study). Secondly, no previous study used a validated tool (such as the Brief Sexual Attitudes Scale) to comprehensively measure sexual attitudes but relied instead on one or several isolated questions. Thirdly, previous research mainly focused on a few limited topics related to permissive sexual attitudes, such as premarital or casual sex, whereas the present study used a number of different issues to derive a composite score.

Regardless of these differences, my findings clearly challenge the overall picture that emerged from previous research, which was that Indians tend to hold more conservative sexual attitudes. This sharp difference highlights the fact that different samples potentially produce totally different patterns of permissive sexual attitudes and confirms the importance of studying sexual attitudes using a community-representative sample rather than a convenience sample of students. Accordingly, my findings on permissive sexual attitudes are highly original and provide a baseline of data for future comparative and/or longitudinal research.

At the same time, my findings did support a number of common assumptions about permissive sexual attitudes. These were that Indian men who are in a relationship tend to hold more conservative sexual attitudes (Table 4.14) and that, as Indian men assimilate into Western culture (i.e. the unilinear model of acculturation), their sexual attitudes shift towards greater sexual permissiveness (Table 4.14. While the assumption was supported, the correlation between the two was weak.

Similarly, it was predicted that men who believe in Indian values and who think they fit with other Indians in the community would have more conservative sexual attitudes and this proved to be the case (Table 4.15, 4.16). However, the size of effect that cultural values ($r=.33$, medium) had on the difference in permissive sexual attitudes was greater than that for behavioural competency (fit with other Indians)
(r=.17, small). On the other hand, ethnic self-identity did not have a significant influence on permissive sexual attitudes.

A key finding of the present study – that cultural values have a greater influence on permissive sexual attitudes - is supported by the results of a recent multinational (84 countries), longitudinal (1984-2004) study involving a very large sample (n= 211,397 men and women)(Vauclair & Fischer, 2011). This large study found that attitudes towards dishonest-illegal issues were not related to cultural values but that the values dimension predicted attitudes towards personal-sexual issues. This differential effect of bilinear acculturation on permissive sexual attitudes is one of the key findings of the present study. Thus, Indian immigrant men’s permissive sexual attitudes are better predicted by the values they hold on to rather than by the way they behave or how they identify themselves (i.e. as Indian, bicultural or Western/Australian).

Statistical testing of the correlation between age and sexual permissiveness score (Table 4.13) found a pattern in which, as Indian men become older, their sexual attitudes do become more conservative. Although the finding conforms to the general assumption (that older Indian men would hold more conservative sexual attitudes), the correlation was not statistically significant and the strength of association was only weak. While the small sample size could account for this non-significant finding with weaker correlation, there may be other reasons (methodological or cultural) why ageing does not have a significant impact on the sexual attitudes of these Indian men. First, the sample contained a very small proportion of older men (cf. 31% aged 15-24 and 60% aged 25-44). It is also possible, however, that other factors are involved and these are considered below.

According to Hindu mythology and doctrine of law (Manu), there are four stages in the life of a Hindu man (Tarakeshwar, Pargament, & Mahoney, 2003). For the boy-student (Brahmacharya) (8-20 years), the prime duty is to acquire knowledge and skills. This is followed by the stage of being a married man/householder (Grihasta), during which the pursuit of wealth (Artha) and indulgence in sexual pleasure (Kama) are the main duties; this stage extends to the age of 50-55 years. The third stage (Vanaprastha) is when a Hindu man has to renounce physical, material and sexual pleasures and retire from professional and social life. This is followed by the last
stage (Sannyasa), during which he is totally devoted to God and to the spreading of wisdom and religion.

Applying this classification to the present sample of Indian men, most of whom identified their religion as Hinduism, it is apparent that a large proportion of them fall into the second stage (Grihasta). The high proportion of married men (49%) further supports this. The fact that most of the participants (married or not) belong to the household stage of life could explain the permissive sexual attitude pattern observed. On the other hand, the fact that the same permissive sexual attitude pattern was observed among the young men could be due to the effects of rapid westernisation and globalisation. Overall, permissive sexual attitudes among Indian men in the present study did not vary much by age but this could be due to a number of religious and cultural factors. This would be worthwhile to explore in more detail in future studies.

In Indian culture (including literature and Hindu mythology), sexuality has always been portrayed positively but only within the context of a committed relationship (marriage). Accordingly, Indian men in the present study who are married or in a committed relationship should have held more liberal sexual attitudes than their younger counterparts. In fact, however, they held more conservative attitudes. There are few possible reasons for this counter-intuitive finding. First, it could be that the questions used to assess permissiveness (i.e. sexual experience with an uncommitted partner) induced men who were in a committed relationship to provide a socially desirable response. This methodological barrier has been noted in sexuality research (Gregson, Zhuwau, Ndlovu, & Nyamukapa, 2002).

Secondly, it could reflect how sexual ‘permissiveness’ is conceptualised and measured in research. The permissiveness subscale of BSAS (used in the present study) primarily relates permissiveness to sexual encounters/relationships without commitment and this is reflected in the wording of the survey items (e.g. It is okay to have an ongoing relationship with more than one person at the same time). By contrast, Hindu literature and mythology emphasise sexual pleasures within a committed relationship. If, on the other hand, permissiveness was operationalised as ‘variety’ or ‘freedom’ in sexual experience (e.g. using positions other than
missionary, having sex during the day rather than at night without lights on, and/or in relation to nudity), it may have produced a different pattern of attitudes. Permissiveness is a broad concept and future studies could operationalise and measure different aspects of it.

Finally, it could be that Indian immigrant men who are in a committed relationship (and also older than those who were single) could be holding on to the conservative Indian values around sexuality more strongly than their counterparts in India. Such a pattern was found in a study conducted with Indian youth and their parents (French et al., 2005).

In the present study, belief in Indian values was found to be one of the strongest predictors of permissive sexual attitudes. This in turn raises an important question: What are the Indian values around sexuality and from where do they originate? Answers to these questions clearly involve complex sociological issues and are well beyond the scope of the present study. However, one can reasonably assume that many Indian values around sexuality would have originated from or been influenced by the Victorian, puritanical sexual values implanted by three centuries of British rule. On the other hand, it is important to bear in mind that a number of ancient Indian poems, sculptures and popular literature such as the Kama Sutra depicted laissez-faire (liberal) attitudes towards sexuality (Ramanathan & Weerakoon, 2012).

This is the first study to include masturbatory status in an examination of permissive sexual attitudes among Indian men. Findings from the focus group discussions around moral views on masturbation predicted that men who masturbate would have more permissive sexual attitudes. These qualitative data were well supported by statistical analysis of the quantitative data. Masturbation is discussed in more detail below.

In addition to reporting differences in sexual permissiveness among Indian men, an effort was made to examine the predictive nature of different factors on these attitudes. The factors examined were relationship status, unilinear (1-21 items score) and bilinear measures (value dimension) of acculturation and masturbatory status. In the presence of all four factors, the unilinear measure of acculturation turned out to be the only non-significant predictor of sexual permissiveness. On the other hand, the
value dimension was found to be a significant predictor, along with masturbatory and relationship statuses.

5.3.1.B - Attitudes towards birth control

Of all the four attitude subscales, the mean score for the birth control subscale was the lowest. This means that the present sample of Indian men held the attitude that controlling (unwanted) birth is a shared sexual responsibility between men and women. The findings further suggest that an attitude of shared responsibility increases with age, which could be attributed to maturity, both general and sexual. More importantly, a responsible attitude towards birth control was found to be higher among men who were not in a relationship. This particular finding is of public health importance as it has direct relevance to the prevention of unwanted pregnancies. A possible explanation of this finding may lie in the fact that a public health campaign about birth control as a measure to limit population growth has been in effect in India for decades.

Men who believe in non-Indian values tend to have an egalitarian and responsible attitude towards birth control while those who believe in Indian values tend to hold the view that controlling birth is not part of responsible sexuality. Anecdotally, the difference could be due to a popular religious belief that procreation is a natural outcome of sex (a gift of God) and that human beings should not control it (i.e. act against the will of God). The procreative aspect of sexuality did come up as a theme in the focus group discussions and Indian men did perceive sex as spiritual union. The attitude to birth control was not influenced by unilinear acculturation or by the length of residence in Australia. There are no comparable data on this particular attitude from previous research.
5.3.1.C - Attitudes towards sexual communion

The mean score of the sexual communion subscale was the second lowest of all four subscale mean scores. This much lower mean score (compared with that of the median score for the scale) means that Indian immigrant men tend to hold the attitude that sex is not only an important part of any one person’s life but is a unifying phenomenon between those involved, through love and intimacy. This finding did not differ among Indian immigrant men based on their age, relationship status and religiosity or with acculturation.

The pattern of attitudes towards sexual communion found in the quantitative data did not come as a surprise but merely reinforced the findings from the focus group discussions. When the qualitative data on the topics of the meaning and importance of sex were analysed, the key theme to emerge was that Indian immigrant men primarily considered sex to be a mutual phenomenon that increases bonding and satisfaction between the partners.

The focus group discussions started with the broad, open-ended question ‘What does sex mean to you?’ This was felt to be a less confronting topic to initiate discussion on a very sensitive subject among a group of participants, especially in a research setting. It is quite possible that, for many of the focus group participants, this was the first time they had discussed the subject.

What sex means to an individual at a particular point in life cannot be strictly compartmentalised into reproduction, pleasure or bonding/intimacy. Sex could mean the same or different things to different people. Sexual meanings may also undergo change over the lifespan depending on various factors such as sexual desire, physical and intellectual ability, health status, relationship status, financial situation, and the socio-cultural environment in which the person lives. The meanings around sex for an individual in a (sexual) relationship can also be influenced by the partner’s sexual desires, morals and needs and, together, they may generate a shared sexual meaning. Similarly, the purpose or significance of sex in a person’s life could be to reproduce,
to express masculinity/feminism, to experience self-esteem, to gain pleasure, to be intimate with another person or to increase bonding with a partner.

Sexual meaning, along with values and morals, constitutes the cultural component, which is one of three determinants of sexual desire (Levine, 2003). The other two determinants of sexual desire are sex drive (biological) and motivation (psychological). The cultural component reflects values, meanings and rules about sexual expression that are inculcated in childhood and may be reconsidered throughout life. In other words, sexual desire mediates the influence of sexual values and meanings on sexual behaviour. It is evident that sexual meanings are formed early in life and that they influence the patterning of sexual desire along with changing social, relational and health conditions (Levine, 2003). Whether sexual desire can influence the re-organisation of sexual meanings, especially when there is a change in the cultural context (as in migration from one society to another), is a topic that needs detailed scientific inquiry. Careful exploration of such sexual meanings for an individual or a couple, especially those who present with one or more sexual problems, can assist health professionals to conceptualise and contextualise the problem and this in turn could lead to enhanced treatment outcomes.

5.3.1.D - Attitudes toward sexual instrumentality

The mean score for the sexual instrumentality subscale in the present study was very close to the median value. This result means that these Indian immigrant men viewed sex in two ways: as a self-focused pleasurable physical activity and as a mutually pleasurable physical activity. Each of these two aspects has its own significance and can be applied to the interpretation of different findings in the present study. The first aspect is relevant to the findings on masturbation while the second is relevant to the findings on sexual communion and sexual meaning.

From the quantitative data, it appears that Indian men tend to view sex as a self-focused, pleasurable physical activity. Although this finding was generated in

10 Sexual desire is defined as the sum of the forces that lean us towards or away from sexual behaviour.
reference to sex between two persons, one could reasonably apply it in the context of solitary sex (self-masturbation). This seems justified in view of the liberal attitudes towards masturbation expressed by many men in the focus groups. Similarly, the instrumentality attitude that sex is a mutually pleasurable physical activity supports and strengthens the quantitative finding that sex is a unifying phenomenon (sexual communion) as well as the qualitative findings around sexual meanings and the importance of sex.

In its assessment of attitudes towards sexuality, the scale (BSAS) does not include a single question on masturbation and the term ‘sex’ is operationalised as an interpersonal behaviour. If solitary sex (i.e. masturbation) was included as a topic in the BSAS, at least in the instrumentality subscale, the findings could have been applied more directly and strongly to other findings on masturbation. On the other hand, reference to masturbation might have influenced the responses (towards either conservative or liberal), as masturbation is a value-laden and culturally sensitive topic.

5.3.1.E - Comparison of BSAS mean scores between present and author’s studies

Table 5.1 compares the mean scores for each of the four BSAS subscales from the present study with those from the three studies through which the scale was initially developed (Hendrick et al., 2006). These figures are displayed for descriptive purposes only. The differences were not analysed for statistical significance and no explanations are provided for possible differences or similarities. It should be noted that, in all three original studies, over 96 per cent of men were aged 22 years or less and over 70 per cent were European Americans.
Table 5.1 Comparison of BSAS mean scores in the present study and original scale development studies

<table>
<thead>
<tr>
<th>Scale development studies</th>
<th>Mean scores (men)</th>
<th>Present study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Study 1 (n=202)</td>
<td>Study 2 (n=172)</td>
</tr>
<tr>
<td>Permissiveness</td>
<td>3.38</td>
<td>3.36</td>
</tr>
<tr>
<td>Birth control</td>
<td>1.62</td>
<td>1.63</td>
</tr>
<tr>
<td>Communion</td>
<td>2.15</td>
<td>2.03</td>
</tr>
<tr>
<td>Instrumentality</td>
<td>3.27</td>
<td>3.34</td>
</tr>
</tbody>
</table>

Interpretation: The lower the score, the greater the endorsement of the attitude.
5.3.2 Masturbation

Masturbation is a psychosexual behaviour and constitutes part of normal sexual development (Coleman, 2003). Masturbation, however, is not tolerated in many cultures, which strongly believe that self-gratifying bodily pleasure violates the ethics of human society (Coleman, 2003). In some societies, masturbation is not tolerated on health grounds, due to the high value that is placed on semen conservation (Bullough, 2003).

As discussed in Chapter 2 (Section 2.1.2.3), masturbation is a research topic of high relevance and importance among South Asian/Indian men (Ramanathan & Weerakoon, 2012). For this reason, the present study used both qualitative and quantitative methods to explore the topic in relation not only to attitudes but also to behaviour and feelings. Unlike previous studies, in which only one or two questions addressed the topic, the present survey included a separate section on masturbation with multiple questions and it was also addressed in greater detail in all focus group discussions.

5.3.2.A - Masturbatory attitudes

Attitudes towards masturbation were assessed qualitatively (i.e. in focus group discussions) but not quantitatively. However, few items of the sexual attitude scale (BSAS) were indirectly related to sexual behaviours such as masturbation (e.g. it is okay for sex to be just good physical release). An assumption, prior to conducting the present study, was that Indian immigrant men would hold conservative attitudes towards masturbation. There were several reasons for this assumption. First, previous studies reported that Asian immigrants held more conservative sexual attitudes than any other ethnic group (Leiblum et al., 2003). Secondly, Asian immigrant students were found to be less likely to masturbate compared with their non-Asian peers (Meston & Ahrold, 2010). As well, other studies had reported a high burden of masturbatory guilt among Indian male patients accessing sex clinics in India (Kendurkar, Kaur, Agarwal, Singh, & Agarwal, 2008; Kulhara & Avasthi, 1995; Manjula et al., 2003; Schensul et al., 2006) and social research conducted in India.
with young college students reported that they held negative attitudes towards masturbation (Bhugra, Mehra, de Silva, & Bhintade, 2007).

Surprisingly, the majority of Indian immigrant men in the present study expressed liberal attitudes towards masturbation and gave a range of reasons to justify their views (see Section 4.7.3). Closer examination of the qualitative responses and of the socio-demographic characteristics of focus group participants showed that those who expressed liberal attitudes were older men who were in a steady relationship, whereas those who expressed conservative or mixed views tended to be young and single.

In the focus groups, five young men did not participate (remained silent or refused to respond) in this part of the discussion. All of these non-participatory young men were observed to be newer immigrants to Australia. This observation is in line with another study that reported negative attitudes towards masturbation among recent immigrant students of South-Asian origin (Leiblum, Wiegel & Brickle 2003). A possible explanation for the non-participation of these young men in the present study is that they may have found it difficult to express their views about masturbation in a group of older men. The inter-generational dynamics of the focus groups may have negatively influenced the participation of these young adults, especially in a culture where respect to one’s elders is expected and highly valued.

Men living in a steady sexual partnership were found to be slightly more favourably inclined to masturbation than those men who lived alone (Dekker, 2003). The difference in relationship status of the young and newer migrants compared to that of older men is another possible reason for the silence of the young men and the more positive attitudes towards masturbation among the older men. It has been suggested (Helitzer-Allen et al., 1994) that focus groups are not ideal for exploring variation in individual attitudes to socially sensitive topics such as masturbation. While use of this methodology may have contributed to the non-participation of some men, it was not an issue for many others, who had no problem expressing their views about masturbation in a group setting.

Another possible explanation for the silence of these participants is that they may be experiencing a kind of cultural ambiguity. The convergence of conservative sexual
attitudes with rapid sexual liberalisation may be creating a form of cultural ambiguity for many - especially younger - people in modern Indian society. It is mainly young adults and adolescents in India who are inundated with new Western ideas and knowledge regarding sexuality, which competes with views passed on to them by their elders. Could this diverse, and often contradictory, set of values and attitudes towards sexual issues, experienced as cultural ambiguity, be at work in the attitudes of recently arrived young Indian men in Australia? Will it diminish in the long term according to the particular dynamics of an individual’s acculturation? While suggestive, these ideas about cultural ambiguity among India’s youth require further research.

5.3.2.B - Masturbatory behaviour

Many young Indian men access clinical services with concerns over masturbation. It is common for them to lack knowledge about normal masturbatory behaviour. Not knowing what constitutes ‘normal’ behaviour could provoke anxiety, which is fuelled by poor knowledge about sexuality among Indian men. For health professionals, one of the limiting factors in addressing these men’s concerns is lack of ethnic specific, community-derived scientific information about masturbatory behaviours. Thus, the findings of the present study fill an important gap in clinicians’ understanding of the normal distribution of masturbatory behaviour among Indian men.

The vast majority (95.7%) of men in the present sample did report that they have masturbated at some point in their life. This is comparable to the NATSAL-2 data, which reported a figure of 95% among all men in the UK but much higher than the global average (83%) (Durex(R), 2007). The mean age of onset of masturbation was 15 years, which is slightly older than for men of other ethnicities where age of onset varied between nine and 13 years (Bancroft, 2009 p.152). Among Indian men in the present sample who continue to masturbate, about 26.8% masturbated at least once or twice a week, which is comparable to the figure (27%) reported for men in the US National Health and Social Life Survey (NHSLS) (Laumann, 1994, as cited in Bancroft, 2009, p. 185). More than one-third of men in the present study masturbated between three and five times a week. This is slightly lower than the average frequency reported for men (5.8 times) in the Australian national data (Richters et.al, 2003).
Among men across all ethnicities, the most commonly reported method of masturbation is manual stimulation and this remains true for Indian men (using hands) in the present sample. From anecdotal clinical experience, it seems that many Indian men masturbate lying face down and rubbing against surfaces such as a mattress, pillow or floor. This somewhat unique masturbatory pattern among Indian men was confirmed by the present study, with 17 per cent of men reporting ‘tummy down’ position as a method for masturbation. Visual sources of erotic materials (on Internet or CD/DVD) were most commonly used for stimulation prior to and/or during masturbation, followed by erotic self-thoughts (fantasising imagination). There are no previous data with which to compare these findings.

The two most frequently selected reasons for masturbating and the proportion of men reporting these in the present study sample were ‘to gain pleasure’ (79%) and ‘to relax and relieve stress’ (68%). In comparison, the US NHISLS reported the following for all men: ‘to relieve sex tension’ (73%) and ‘for physical pleasure’ (40%). Although the order is reversed and the proportions differ between the two datasets, the themes are the same. The top two reasons for not masturbating, reported by men who do not masturbate (n=42), were ‘preference for partner sex over masturbation’ (52%) and ‘willing to have control over sexual urges’ (30%).

Masturbatory behaviour did not differ by religiosity in the present study sample. Indian men aged 35 years and above and in a relationship were less likely to masturbate than their counterparts (younger men and those who are not in a relationship, respectively). The single most common reason reported by men who do not masturbate (n=42) was ‘preference for partner sex over masturbation’ (52%). Within the framework of Western sexuality therapy, it is quite possible to assume that a person has low sexual desire/libido if he does not masturbate and/or has never masturbated. This assumption needs careful consideration when dealing with Indian patients/clients. The findings of the present study demonstrate that, among Indian men, avoidance of masturbation could be due to a range of issues other than lack of sexual desire.
5.3.2.C - Effect of acculturation on masturbatory attitudes and behaviours

Given that masturbation is highly influenced by socio-cultural factors, a fruitful line of research would be to track changes in masturbatory attitudes and behaviours as an effect of acculturation, globalisation and urbanisation (Coleman, 2003). A small number of quantitative studies has examined the role of acculturation in masturbatory attitudes (Chapter 2). Two of these (Kennedy & Gorzalka, 2002; Meston et al., 1998) reported that acculturation was associated with a significant shift in masturbatory attitudes. Both, however, used a single unilinear/assimilatory measure (length of residence in Canada) to assess acculturation. Another Canadian study found that acculturation did not increase overall ‘sexual comfort’ among Asians and South Asian students (Leiblum et al., 2003). ‘Sexual comfort’ was scored using a single item that included masturbation along with homosexuality, nudity and oral sex and acculturation was operationalised through length of residence and degree of self-identification or conflict with Western (US/Canadian) culture. In other words, this study only assessed masturbatory attitudes indirectly. Moreover, it failed to mention whether the sexual comfort score was unaffected by the unilinear or bilinear measure of acculturation.

In the present study, the role of acculturation was investigated for its effect on masturbatory attitudes in Stage I (qualitative data) and for its effect on masturbatory behavior in Stage II (survey). Data on masturbatory behaviour were not sought from the focus group participants because the topic was felt to be too sensitive. Data on attitudes to masturbation were not collected from the survey participants for logistical reasons, as there was already a high number of items in the questionnaire (100) for an online survey. In any case, the Brief Sexual Attitudes Scale – Instrumentality section included several closely related items, though these were not specific to masturbation.

Among focus group participants, it appears that those who expressed liberal attitudes towards masturbation had lived in Australia longer than those who held conservative attitudes or who were silent or had mixed views. One participant explicitly described how his stay in Australia and exposure to Australian (Western) culture had changed his view of masturbation. This would seem to lend support to the findings from two of the earlier Canadian studies mentioned above (Kennedy & Gorzalka, 2002; Meston et
al., 1998). While length of residence alone could have influenced a shift in masturbatory attitudes among the men in the focus groups, it is also possible that other aspects of acculturation (values, self-identity, behavioural competency) had a moderating effect on their liberal views about masturbation. However, the only acculturation-related information collected from the focus group participants was length of residence.

Further analysis of the qualitative data on masturbatory attitudes revealed that those who expressed liberal attitudes were also older men who were in a steady relationship, which was not the case among those who held conservative views. It seems reasonable to hypothesise that, in studies conducted among adolescents and young students of Asian origin that report negative attitudes to masturbation, this observation is masked by length of residence. Although age and length of residence are inseparable measures (as a person lives longer in a new country he/she is also growing older), it is important to examine separately the effects of age, relationship status and length of residence on masturbatory attitudes.

By contrast, length of residence and SL-ASIA acculturation (either unilinear or bilinear) scores did not have any significant effect on the masturbatory behaviour of Indian men in the present study. This differential effect of acculturation on masturbatory attitudes and behaviour is in line with previous studies that have reported acculturation had significant impact on general sexual attitude but not on actual sexual experience (Brotto et al., 2007; Meston & Ahrold, 2010).

Comparing the present study’s findings on masturbatory attitudes and behaviours, it appears that older (35+) Indian men and those who are in a relationship tend to hold liberal attitudes towards masturbation but are also less likely to masturbate. In other words, the fact that men hold liberal attitudes does not necessarily mean they are more likely to masturbate. Similarly, those holding conservative attitudes are not necessarily less likely to masturbate. A differential effect of acculturation was also observed between masturbatory attitudes and behaviour. While past studies have reported differential effects of acculturation on general sexual attitudes and behaviours, none provided a theoretical explanation for this. This lacuna is addressed in a later section.
The present (qualitative) investigation found liberal attitudes toward moral aspects of masturbation among a community sample of Indian immigrant men of mixed age groups. This finding was counter-intuitive to the researchers and challenges some of the past study findings that reported unfavourable attitudes toward masturbation among Indian men. Therefore, this finding in particular needs closer and detailed exploration.

These liberal attitudes could be due to a couple of reasons. First, the acculturative process could have enabled these Indian immigrant men to access correct information which in turn helped them overcome the myths/irrational beliefs and negative attitudes about masturbation. This was actually evident from one of the focus group participant’s expression. Second, economic growth and technological advancements (globalisation) could have shifted these Indian immigrant men’s attitudes toward masturbation even before they arrived in Australia. Third, Indian immigrant men in the present study sample were well educated and this (literacy) could have influenced these men’s attitudes. Fourth, the mature age group and sexual maturity of the study participants could have influenced their general and masturbatory sexual attitudes. Finally, it could be that Indian men have always had liberal attitudes toward masturbation, at least those who are well educated, but it was never explored.

Masturbation is a taboo topic in many sex-negative societies (Bullough, 2003) and it is a common (Western) perception that India is a conservative nation on matters related to sexuality including masturbation. However, there is no scientific evidence generated from a community-representative sample of Indians to demonstrate their attitudes toward sexuality or masturbation in particular.

Few past Indian studies have reported unfavourable attitudes and conservative views toward masturbation (Bhugra, Mehra, de Silva & Bhintade, 2007; Leiblum et al., 2003; Kulhara & Avasthi, 1995) but it is important to bear in mind that those studies either used clinic or college samples, which were not representative of the general community. In contrast, the present investigation had a much representative sample of Indian immigrant men in Australia.

In moral terms, the texts of Hinduism regard sexual purity very highly as part of a holy life, but it is not evident from these texts whether masturbation violates sexual
purity (Cornog, 2003, pp. 182-3). Seeking bodily (sexual) pleasures through masturbation is condemned, but only for those who have sworn to observe a celibate life and for the first stage of a man’s life (brahmacharyam), from childhood through adolescence, when a boy is expected to focus on studying. Traditionally, anyone else who masturbated was encouraged to undertake a light penance, such as bathing, worshipping the sun and offering prayers (Bullough, 2003).

5.3.2.D - Masturbatory feelings

Many of the ill effects of masturbation have been found to stem from negative feelings associated with it rather than from the behaviour itself (Coleman, 2003). Previous investigations of masturbation among South Asians mainly reported on attitudes and behaviour but very rarely on feelings (McKelvey et al., 1999; Meston et al., 1996). This knowledge gap was addressed in the present study, which examined feelings associated with masturbation among Indian immigrant men.

About two-thirds of men who continue to masturbate reported one of three positive feelings (satisfying, healthy or attractive), with the vast majority (85%) of them reporting ‘satisfying’. This finding is in line with the suggestion that masturbation provides a form of self-soothing mood regulation (Frohlich & Meston, 2002). Among those who do not masturbate, the survey explored the feelings they would experience if they had to masturbate. Surprisingly, half of these men reported they would have a ‘satisfying’ feeling if they had to masturbate but they did not actually masturbate. The second and third most commonly reported feelings in this scenario were guilt and awkwardness. Three factors that might predict positive feelings among men who continue to masturbate were examined. Of these, permissive sexual attitude was the strongest predictor of positive feelings about masturbation. While age was somewhat predictive, religiosity was found to be not predictive of positive feelings towards masturbation.
5.3.3 Sexual health

5.3.3.A Safe sex behaviour

Over recent decades, a number of sexuality researchers have investigated risky sexual behaviours or safe sex practice, especially among high-risk population groups such as men who have sex with men, injecting drug users, and commercial sex workers. The common focus in these studies has been on risk factors for transmission of infections through sexual activity. Several studies involving either adult or adolescent South Asian/Indian immigrants have addressed the topics of safe sex practice and risk factors for STIs and HIV (Bradby & Williams, 1999; Fenton et al., 2005; Fisher et al., 2003; Griffiths, Prost, et al., 2008).

As discussed in Chapter 2, most of these studies relied on one or two measurable items/questions such as frequency of condom use, age at first sexual intercourse, or number of sexual partners. In contrast to the present study, none employed a validated scale that not only covered these topics but also included much broader topics related to safe sex such as interpersonal skills, intentions/mental preparedness to practice safe sex, and assessment of sexual partners. As is so often the case, much of the information we have about safe sex behaviour among Indian immigrants has been mainly derived from young people (school or college students) (Bradby & Williams, 1999; Coleman & Testa, 2007; French et al., 2005). Very few studies of sexual health have involved older (e.g. 30-40 years) Indian immigrants (Fenton et al., 2005; Gagnon et al., 2010; Griffiths et al., 2011). Details of these studies are provided in Appendix 1. The present study has generated data on safe sex behaviour among adult Indian immigrant men who were recruited from the general community rather than from a particular high-risk group.

While several measurement tools/questionnaires are available to assess the pattern of safe sex practices among those who are considered to be at high risk for HIV or STIs, there is a paucity of psychometrically validated safe sex scales or questionnaires that can be used in the general community. The Safe Sex Behaviour Questionnaire was used in the present study because it was originally developed for use with the general (US) community (Diiorio et al., 1992) and its wording was appropriate for this group of participants.
The analyses of SSBQ data (Section 4.2.2) primarily focused on the sample of Indian immigrant men who were young and not in a committed relationship. This is mainly due to the fact that the SSBQ was developed and psychometrically validated with three samples of young, single students (Diiorio et al., 1992). As well, the scale does not provide any instructions to respondents as to whether they should answer the questions based on their sexual encounters with a steady or casual partner. It is understandable that those who engage in sexual activity with a steady partner might not need to practice safe sex (by, for example, using condoms) because of trust (or perceived trust) and commitment in the relationship. Condoms may not be used (as a contraceptive) with a committed female partner if other birth control measures are in place. Because the present study had a higher proportion of Indian immigrant men who are in a committed relationship, it was decided that the results on safe sex would be less accurate if the total sample was involved in the analyses of SSBQ. Nonetheless, relevant findings were compared between those who were in a committed relationship and those who were not and no significant difference was found.

Ideally, safe sex behaviour should be assessed according to the number of sexual partners; frequency of partner change and the nature of sexual activity but this sensitive information were not collected as part of the present investigation. For the same reason, the present study sample could not be categorised based on risk profile.

The principal component analysis of data on safe sex frequency among Indian immigrant men who are not in a committed relationship found six components/subscales. Because no comparative data exist, the mean scores for each of the six subscales were compared to the mid-values of the respective subscales. The findings suggest that Indian immigrant men, who are not in a committed relationship, tend to score higher than average on three of the six subscales: mental preparedness to practice safe sex, avoidance of risky sexual behaviours and assertiveness in practising safe sex. On the other hand, these men scored slightly lower than average on interpersonal skills, assessment of sexual partner and delay in sexual intercourse. One could reasonably interpret these results to suggest that, overall, the safe sex behavioural pattern of Indian immigrant men who are not in a committed relationship
tends to involve lower risk. Due to lack of comparative data, however, it remains an open question whether this pattern is more or less risky than that of similar cohorts of men in other cultural groups. The present study’s findings on safe sex behaviour of Indian immigrant men provide baseline data for comparison with those from future research.

In the present study, Indian men who were in a committed relationship tended to practice safe sex less frequently (lower SSBQ mean score) than those who were not in a committed relationship. Although the difference could not be proven statistically, this finding does not come as a surprise. There is clearly less reason to practice safe sex with a steady sexual partner because of the trust involved in a committed relationship. It is important, nonetheless, to consider other factors that may be significant in an Indian context. Women in a monogamous relationship have been identified as an at-risk group for HIV in India (Gangakhedkar et al., 1997; Newmann et al., 2000). This is mainly because Indian men who engage in casual and extramarital sexual activities tend not to use condoms when having sex with their wives, fearing this may lead to relationship and family break-up. Indian men also tend to believe that condoms are restrictive and reduce pleasure and should be reserved for use with commercial sex workers (a well identified high-risk group for HIV in India) (Fisher et al., 2003). Finally, lower frequency of safe sex practice could be due to poor sexual health knowledge or denial of personal risk of infection, as previous research suggests (Griffiths, Prost, et al., 2008; Shedlin et al., 2006).

5.3.3.B - Attitudes towards help-seeking
A better understanding of help-seeking attitudes and behaviour around sexual health may help to improve access to treatment for sexual problems and, in turn, lead to better health and well-being (Moreira et al., 2005). In the present study, the section on help-seeking was developed from the questions used in a large-scale global study of sexual attitudes and behaviours (GSSAB) (Moreira et al., 2005). The rationale was that the GSSAB involved a large sample (27,500 men and women, aged 40-80 years) in 29 countries but totally excluded the whole of the Indian sub-continent/South Asia. According to the authors, convenience dictated the selection/non-selection of particular countries.
The present study attempts to compare findings on the help-seeking attitudes of Indian immigrant men with those from the GSSAB. There is, however, an important difference between the two. The GSSAB examined help seeking ‘behaviours’ of men and women who reported experiencing at least one sexual problem. In contrast, the present study examined help seeking ‘attitudes’ of Indian immigrant men and did not collect information about sexual problems and methods of dealing with these. This limitation is discussed in more detail below.

From both the qualitative and quantitative data, it is evident that the majority of Indian immigrant men prefer to seek advice and help for sexual health from medical practitioners. A high preference for seeking medical help could be due to the perception that sexual problems are physical or biological in nature (Bhui, 1998; Ramakrishna & Weiss, 1992) and should be treated accordingly (e.g. by taking medications).

A visit to a general practitioner (GP)\(^{11}\) is often the first point of call for males (and females) of any cultural background with any health concerns in Australia (AIHW, 2011). Patients seeking medical attention for sexual health problems are often managed by GPs (Freedman, Britt, Harrison, & Mindel, 2006). This also proved to be the case in the present study. Among Indian immigrant men who preferred a medical practitioner (n=182) for sexual health, one in two preferred a GP. A higher preference for GP care in sexual health matters has also been reported in previous research, which found GPs to be the single largest source of sexual health information and care among South Asians (Bhui et al., 1994; Griffiths, Prost, et al., 2008).

Acceptability and accessibility could well explain this preference among Indian immigrant men in Australia. The fact that GPs are medical doctors is in conformity with the health beliefs of Indian immigrant men, for whom sexual problems are viewed as biological phenomena. GPs may be the only source known to these men, and they are readily accessible in the community through self-referral. As well,

\(^{11}\) A general practitioner is a registered medical doctor who provides person-centred, continuing, comprehensive and coordinated whole person health care to individuals and families in their communities (RACGP, 2011).
accessing to a GP is mostly free\textsuperscript{12} of cost under the Australian Medicare\textsuperscript{13} system. GPs are also able to make decisions about appropriate specialist care, if indicated. Thus, GPs are likely to be the best – and, for some, the only - source of sexual health care for Indian immigrant men in Australia.

Among Indian men who preferred to seek help from a GP ($n=97$), neither ethnicity nor gender was an important issue for many in the choice of a particular practitioner. This finding was well supported in the data obtained from focus group discussions. The lack of importance attached to gender was also found in a large scale UK study, which reported that gender matching between GP and patient is more of an issue for South Asian women than men (Griffiths, French, et al., 2008). On the other hand, the same UK study reported that ethnic matching is problematic for all South Asians, which is in contrast to the present study’s finding.

Indian immigrant men for whom gender of the GP was an important issue expressed a clear preference for the same gender. This is in line with previous findings that overseas-born males had a much higher preference (79\%) for a male (sexual) health care professional than did Australian-born (47\%) males (Ramanathan et al., 2008). Of those who had a preference for GPs based on ethnicity, more Indian immigrant men (24\%) preferred a GP of Western ethnic origin than of Indian ethnic origin (8\%).

Of the 97 Indian immigrant men who preferred to seek help from a GP for sexual health, about four-fifths (78\%) did actually have a regular GP – that is, a single GP whom they regularly consult for all health related issues. Among those who had a regular GP, most preferred their regular GP for help with sexual health issues.

A large proportion (42\%) of Indian immigrant men in the present study preferred to seek sexual health care from specialist medical doctors rather than GPs. This is contrary to some previous findings that South Asians (including Indians) were less likely to self-refer to specialist sexual health services (Dhar et al., 2010; Griffiths, Prost, et al., 2008; Tariq et al., 2007). One possible explanation may be that the

\textsuperscript{12} Many GPs in Australia bulk-bill their patients, meaning there is no gap payment for patients.

\textsuperscript{13} Medicare offers free or low-cost health care to eligible Australian residents (www.medicareaustralia.gov.au)
The present study collected data on attitudes while other studies investigated actual help-seeking behaviour.

On closer examination, however, it appears that young (18-25 years) Indian immigrant men are less likely to prefer GPs for sexual health care. This is in line with a UK study that reported young people (aged 13-21 years), specifically Indian youth, preferred non-GP sexual health services (French et al., 2005). A similar pattern was found among young Vietnamese in Australia (Rawson & Liamputtong, 2009). The main reason reported in both of these studies was that young people were concerned about breaches of confidentiality, particularly by general practitioners who might know their parents. However, both these previous studies included mainly second-generation immigrant youth. Fear that GPs might discuss their sexual problems with parents could be more of an issue for second-generation youth than for first-generation immigrants who live by themselves. The present study focused primarily on first-generation Indian men and included only 12 second-generation Indian immigrants, so this suggestion cannot be tested.

According to the Bettering the Evaluation and Care of Health (BEACH) program data, females (57%) accounted for a larger proportion of the 95,839 GP encounters between 2010-2011 than men (43%) (Britt et al., 2011). Although the difference was consistent across all age groups, the maximum (about two-fold) difference was noted in the age group 15-24 years (women 5.4% vs. men 3.2%). Of all GP visits between 2010-2011, those related to the ‘male genital system’ (using the International Classification of Primary Care-2 codes) ranked lowest (0.8% of 149,005) among the top 30 reasons for GP encounters (Britt et al., 2011). Thus it appears that young men, in general, access GPs in lower proportion than older men and women for any health problems/concerns and particularly for sexual health care.

There are a number of other possible reasons for young Indian immigrant men’s lower preference for GPs in relation to sexual health care. Some of these could be specific to this immigrant group while others could be part of a wider pattern. They include:

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14 ICPC-2 Male genital system includes but is not limited to sexually transmissible infections, sexual dysfunctions, testicular and penile pain, prostate conditions, infertility and genital cancer.
A perception that GPs are there to serve common ailments and acutely sick patients whereas sexual problems are complex and only appropriate for a specialist.

Issues related to confidentiality. This has been shown to constitute a barrier to sexual health care for South Asians (Dhar et al., 2010; French et al., 2005; Griffiths, French, et al., 2008). Young and newer immigrants could be more concerned about potential breaches of confidentiality by a GP than by a specialist, as the former are based in their local community and are likely to be accessed by their friends and family.

Lack of awareness about the problems that a GP can manage and about the high ethical standards that GPs follow in order to protect the privacy and confidentiality of patients.

A sense of uncertainty about GPs’ level of comfort and competency in addressing sexual health problems/concerns, whereas these are the core concern of sexual health specialists.

A person with a sexual problem could have a sense of ‘permission granted’ to talk freely about such problems with sexual health specialists rather than GPs.

Influence of previous experience. Anecdotally, middle and upper class Indians prefer to access health care, for any reason, from a specialist practitioner with a post-graduate degree in medicine rather than someone with only a basic undergraduate degree. The Indian health system also allows self-referral to specialists and patients have to pay the total cost. This lived experience of seeking specialist doctors for any health-related problems in India could influence the attitudes of Indian immigrant men, leading them to prefer specialists to GPs for sexual health care.

Although the ‘male genital system’ ranked lowest on the list of reasons for GP encounters (Britt et al., 2011), given Australia’s small population size and the burden of sexually transmissible infections (STI), GPs continue to be one of the major providers of STI care in this country (Temple-Smith, Mulvey, & Keogh, 1999). Specialist sexual health services are provided by two publicly funded sources in Australia – public sexual health clinics and family planning clinics - as well as by private medical specialists. Public sexual health clinics in Australia provide clinical services free of cost to everyone and cater well to the needs of culturally and
linguistically diverse (CALD) clients/patients. These clinics, however, focus more on STI care. Family planning clinics, on the other hand, primarily focus on clinical services such as contraception, infertility, women’s services (e.g. Pap test) and STIs; they also address the needs of CALD patients. Family planning clinical services are provided free to those who are eligible under Medicare and for others at very minimal cost or through personal donations. Thus, specialist sexual health services are readily accessible and culturally acceptable (Ramanathan et al., 2008). This may be another reason why many young Indian immigrant men prefer to seek care from sexual health specialists. Sexual health specialists in private settings primarily manage sexual problems such as erectile dysfunction and premature ejaculation through private billing. Patients either self-refer or are referred by GPs and other health care professionals.

In the present study, GPs were the single largest group of medical practitioners preferred by Indian immigrant men for help with sexual health matters. An unexpected finding (from both qualitative and quantitative data), however, was that non-GP specialists were nearly equally preferred. Possible explanations for this have been discussed above, but further exploration is needed. It is also clear that help seeking attitudes and behaviours need to be assessed separately in relation to STIs and other matters of sexual (dys)function (such as erectile dysfunction). While all of these fall under the broad category of ‘sexual health’, there could be differences in how care is accessed for STIs and erectile dysfunction that reflect, among other possible factors, the urgency and importance of the problem and cost.

5.3.3.C - Awareness about sexual health

Poor knowledge of sexual health (specifically about STIs) has been reported among Asian, South Asian and Indian immigrants (Griffiths, Prost, et al., 2008; Shedlin et al., 2006). In this study, general awareness around STIs was only examined in the qualitative stage. A key finding was that many Indian immigrant men were aware of STIs but this was largely limited to awareness of HIV/AIDS, probably reflecting widespread public campaigns on the topic in India and elsewhere over the past two decades. Awareness of other common STIs (in Australia) such as gonorrhoea and chlamydia, however, was much more limited.
Knowledge of STIs was assessed using the qualitative data on Indian immigrant men’s responses to the question: ‘How could someone get STIs?’ Although the question related to mode of transmission, the participants tended to link their responses to identification of negatively evaluated groups, such as homosexual men, or - to a lesser extent – of risky sexual behaviours themselves, such as unprotected sex or sex with multiple partners. This pattern of thinking may stem from negative media campaigns, especially in India, that portray all homosexual men as being at risk of STIs. Such campaigns mask the fact that it is the risky sexual activity itself that is the problem rather than the fact of being gay or engaging in homosexual activity. A potential by-product of this way of thinking is the denial of personal risk for STIs, a pattern that has been reported among Indians (Shedlin et al., 2006). The focus group participants tended to identify poor hygiene and sex during menstruation (with a non-infected partner) as risk factors for STIs, although neither is a definite risk factor on its own. Future research on immigrants, especially those who arrive from countries where formal sex education does not exist, need to address adequacy of sexual health awareness and knowledge in greater detail.
5.4 Theoretical implications

A detailed review of sex research literature concluded that the majority of studies had no explicit theoretical basis (Weis, 1998). The present study, by contrast, employed a specific conceptual framework around culture and sexuality to examine whether—and how—acculturation influences sexuality. This framework, with particular reference to Berry’s model of acculturation and its associated measurement scale (26-item SL-ASIA), which is used in the present study, were discussed in Chapter 2 (Section 2.2). In this section, the findings will be discussed in relation to two well-known theories—Sexual Scripting Theory and the Theory of Planned Behaviour. The discrepancies and similarities between sexual attitudes and behaviour, observed in the present and in past studies, will be discussed in relation to these theoretical frameworks.

5.4.1 Sexual Scripting Theory (SST)

While theories of acculturation consider psychological adaptation to changes in the cultural environment, they do not specifically address its influence on sexuality. In other words, a gap exists between our understanding of the psychosocial aspects of the culture change process and its impact on sexual attitudes and behaviours. There is a well-known theoretical framework—Sexual Scripting Theory (SST) (Simon & Gagnon, 1984)—that addresses the influence of culture on sexuality. This framework provides a foundation for interpreting the present study’s findings on the more complex issue at the heart of this thesis, namely, the role of cultural change in sexuality.

SST is the most frequently cited theory in sexual science. According to Bancroft (2009): “Sexual scripts are defined at three distinct analytical levels: cultural scenarios (paradigmatic assemblies of the social norms that impinge on sexual behaviour), interpersonal scripts (where social convention and personal desire must meet), and intrapsychic scripts (the realm of the self-process)” (p. 10).

The SST postulates that cultural scenarios are rarely predictive of actual (sexual) behavior, even in the seemingly most traditional social settings: “cultural scenarios are too abstractly generic to be mechanically applied in all circumstances” (Bancroft,
2009). Sexual attitudes can be used to represent cultural scenarios (Mahey et. al., 2001). Thus conceptualised, cultural scenarios (i.e. as represented by sexual attitudes) are said to be less predictive of an individual’s sexual behaviours.

In the context of migration, one could reasonably expect that acculturation would influence or mediate a shift in sexual attitudes but that this in turn would not necessarily result in changed behaviour. Such differential effects have been reported from studies examining the influence of acculturation on both sexual attitudes and behaviours (Brotto et al., 2007; Meston & Ahrold, 2010). The present study did not examine sexual behaviours corresponding to the sexual attitudes measured in the BSAS scale so the influence of cultural scenarios on sexual behaviours could not be tested. However, future studies could measure sexual attitudes and the corresponding behaviour to precisely examine the role of cultural scenarios on sexual behaviour.

5.4.1.1 Application of SST to masturbatory attitudes and behaviours

In the present study, masturbation is the only sexuality topic for which data on both attitudes and behaviours was collected. The qualitative (sexual meanings) and quantitative (sexual attitudes - communion and instrumentality subscales) tended to suggest that Indian men view sex (interpersonal) as a mutual or unifying phenomenon. On the other hand, these men tend to hold favourable attitudes towards self-masturbation (intra-psychic) and many agreed that sex could just be a physical release. A difference in attitudes could be found between topics that are of interpersonal and intra-psychic nature. Despite holding attitudes that sex is a mutual and unifying phenomenon, many did continue to self-masturbate and to feel positive about it. A discrepancy could be observed between general sexual attitudes and masturbatory behaviour. This discrepancy between general sexual attitudes and masturbatory behaviour supports the assumption of SST that cultural scenarios (attitudes) are rarely predictive of sexual behaviour (in this case, masturbation).

Caution needs to be exercised here, however, as the sexual attitudes were not specific to masturbation.

On the other hand, congruence between masturbatory-specific attitudes and actual masturbatory behaviour can be found in the study’s overall findings. The qualitative data strongly suggested that Indian immigrant men tend to hold favourable attitudes
towards masturbation. This masturbation-specific attitude was in line with the masturbatory behavioural pattern of Indian immigrant men (i.e. more men continuing to masturbate and also to feel positive about it). This congruence challenges the theoretical principle of SST that cultural scenarios (attitudes) are rarely predictive of sexual behaviour. A possible reason for this is that attitudes could have a differential effect on sexual behaviours that involve only the self (e.g. masturbation) and those that involve others (e.g. intercourse). The only caution in interpreting this finding is that masturbatory attitudes and behaviour were collected in different stages, although the characteristics of participants in the focus groups and survey were comparable.

The link between masturbatory attitudes and behaviour are further explained using the Theory of Planned Behaviour.

5.4.2 Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (Ajzen, 1991) suggests that the decision to engage in a particular behaviour is the result of a rational process which takes into consideration the behavioural options, evaluates the consequences or outcomes of each, and reaches a decision on whether to act or not. This decision is then reflected in behavioural intentions, which are considered to be strong predictors of actions (behaviours) in a particular situation.

Several factors, grouped under two sets, could serve as moderators of the link between attitudes and behaviour, affecting the strength of this relationship. The first of these are situational factors (i.e. situational constraints that prevent attitudes from being expressed in overt behaviour). The second set of factors is related to the attitude itself. This includes factors such as attitude origin (how attitudes are formed), attitude strength and attitude specificity. Of these, strength of attitude is the most important since it encompasses four vital components: intensity (how strong is the emotional reaction provoked by the attitude); importance (the extent to which an individual deeply cares about and is personally affected by the attitude, which is in turn determined by the extent to which the attitude is personally relevant to the individual who holds it); knowledge (how much an individual knows about the attitude object); and accessibility (how easily the attitude comes to mind in various situations).
5.4.2.1 Application of TPB and attitude-behaviour moderators to findings on masturbation

The principles of TPB and the moderators of the attitude-behaviour link offer insight into the present study’s findings about masturbatory attitudes and behavior. Focus group participants provided a range of justifications for their favourable attitudes towards masturbation. This addresses the core assumption of TPB, suggesting that an action (masturbatory behaviour) is the result of a rational process that includes consideration of consequences (i.e. justifications for masturbating). Some of the justifications addressed behavioural options, as proposed by TPB. For example, one participant (F1D) justified masturbation as a better and harmless option compared to sexual affairs and sexual assaults. Some other justifications addressed the evaluation of outcomes or consequences. For example, masturbation was justified on the ground that it causes no harm to health (F4C). Thus all of these justifications could have culminated in an intention to masturbate. Although this behavioural aspect was not addressed in the focus groups, the quantitative data demonstrated that a large proportion of men do masturbate. Not all moderators of the attitude-behaviour link, were examined in the quantitative stage but one key moderator (intensity) - that is, the ‘affect’ or the feelings associated with masturbation – was included. Many Indian men expressed positive feelings and it is quite possible that this positive affect could establish or sustain a strong link between favourable masturbatory attitudes and actual masturbatory behaviour.

5.4.3 Implications for future research

Much more qualitative research is needed before sexual scripting theory can usefully be applied in quantitative research (Bancroft, 2009). The present study represents a limited attempt to implement the staged qualitative-quantitative design recommended by Bancroft. The main limitation arose from the use of the focus group method. Group discussions generated information on social norms around sexuality and on Indian immigrant men’s sexual attitudes but this is not the best technique for capturing in-depth data on actual sexual behaviour and lived experience. For this purpose, individual interviews are to be preferred. Thus future studies should consider using a mix of qualitative methods in order to generate themes, which can then be used to develop a quantitative research design.
In addition, the principles of TPB were applied post hoc to the findings. Future research would benefit from its application during the developmental stage of the project, thus facilitating the collection of more precise information.
5.5 Strengths and limitations of the present study

The present study had a number of strengths in regard to its sampling, methodology and conceptual framework. These can be summarised as follows:

- Unlike previous studies of acculturation and sexuality conducted with college students, it used a community representative sample.
- It is the first such study to use a mixed methods approach to explore a culturally sensitive topic among a major immigrant group.
- Unlike previous studies that conceptualised and measured acculturation as a unilinear phenomenon, this project used both unilinear and bilinear concepts of acculturation.
- The use of a well-researched tool (revised, 26 items SL-ASIA scale), which incorporates all three dimensions (behavioural, values and self-identity) of acculturation, allowed precise examination of the differential effects of each dimension on sexuality.
- Where previous research examined sexual attitudes using one or two questions around selected topics (such as premarital sex or casual sex), the present study used a validated tool to measure sexual attitudes across a range of sexuality-related topics. This meant that sexual attitudes could be examined using composite scores (of subscales), rather than mere percentages of single sexual attitudes items.
- Each of the components (such as mental readiness, assertive communication) identified on the safe sex behaviour scale account for safe sex in a real world setting. For the same reason, the present study reported composite scores on safe sex behaviour rather than focusing on few isolated topics (such as condom use), as was typical in previous research.
- The topic of masturbation was explored in great detail for the first time among Indians and, indeed, among Asians.

There were also a number of limitations, which reflected both the exploratory nature of the study and the fact that the project was not fully funded. The exploratory nature of this study meant that, while a wide range of sexuality topics were covered, not each could be addressed in detail. A particular shortcoming was the failure to collect any
data on actual sexual experience or behaviours of Indian immigrant men (except for masturbation) (e.g. number of sexual partners, frequency of sexual intercourse, age at first intercourse, existence of sexual problem or management strategies). Such data would have allowed more precise assessment of the vital link between attitudes and behaviours and provided a much clearer picture of Indian immigrant men’s help-seeking in relation to sexual health. Asking such culturally sensitive questions could, however, have further limited the sample size.

While demographic details were collected (on paper) at the start of the focus groups, additional details on masturbatory behavior could have been collected individually in this way, which would have enriched the analysis of the qualitative data on masturbatory attitudes. It was felt, however, that it would have been inappropriate to ask a community sample of participants to provide such sensitive information.

The survey had an adequate sample size for most of the statistical tests and, where necessary, a power calculation was carried out to confirm this. Small sample size was more of a concern for those statistical tests that were not significant and had less than the minimum required power of 80 per cent. These results need to be interpreted with caution, as findings of non-significance could be due to the small sample size and may (or may not) have proved to be significant with a larger sample. The number of items (100) and the perceived amount of time needed to complete the survey (which was somewhat longer than the actual time needed) could have discouraged many potential participants or led to incomplete responses. This seems likely, given the number of visits to the survey (compared to the final number of participants) and the amount of missing data.

While an online survey reaches out to a much wider community and provides total anonymity, it has its disadvantages. It is possible for non-eligible persons (e.g. under 18 years, female, living outside Australia) to participate and the same person could participate multiple times. Although potential participants were informed of the eligibility criteria on the survey’s home page, these remain possibilities, perhaps for reasons of curiosity about sexuality research. This could probably explain why there were more than 2000 visits to the survey site. The online survey tool (Zoomerang) had the facility to collect participants’ IP addresses, which could have enabled
responses to be tracked to source. Although this feature could have eliminated some of these problems, it was not used because it would have affected anonymity and potentially limited the sample size.

Online methods of data collection have the advantage of wider access for participants to take part in the survey. At the same, the disadvantage of online surveys is that it is limited to people who have access to computer and Internet. This limitation has the potential to impose bias in sample selection especially in societies that have higher proportion of people who don’t have access to computers and internet or not computer literate. According to the 2011 Australian Census data, a vast majority (i.e. 74%) of Australians, aged 15 years and above, have access to computer and Internet (ABS 2011). Therefore, the online method of data collection is less likely to have imposed bias. There is no accessible population in Australia on immigrants specific data on access to computer and Internet.
5.5 Conclusion

This research explored the sexuality and sexual health of Indian immigrant men living in Australia and examined the influence of acculturation on sexual attitudes and behaviours. It addressed some of the gaps in knowledge and methodology identified in the literature by collecting data from the community, involving a representative sample of Indian immigrant men and employing a mixed methods approach. The application of both unilinear and bilinear measures of acculturation, the use of validated tools to measure complex concepts (i.e. acculturation, sexual attitudes and safe sex behaviour) and the employment of a theoretical model to explain the results further enhanced the study’s strengths.

The study found that Indian immigrant men’s overall sexual attitudes were balanced between conservativeness and permissiveness. Their sexual attitudes tended to vary between liberalism and conservatism, depending on the attitude object. Belief in cultural values, one of three dimensions of bilinear acculturation, was found to be highly predictive of permissive sexual attitudes whereas measures of unilinear acculturation were not. This differential effect supports the large body of evidence that multi-dimensional, bilinear/orthogonal acculturation is conceptually deeper and methodologically more appropriate than assimilatory or unilinear measures of acculturation. A few commonly held assumptions and previous findings regarding the sexual attitudes of Indians were confirmed while others were challenged. According to the theory of planned behaviour, a gap exists between attitudes and behaviours and a number of factors determine that gap. Future studies could build on the present findings by collecting data on actual behaviour to extend our understanding of whether such a gap exists between sexual attitudes and behaviours and what factors may be associated with it. An interesting line of research would be to examine whether acculturation, along with other moderating factors, strengthens or weakens the link between sexual attitudes and behaviours.

Studies that have examined ethnicity, culture or acculturation and sexuality among Indians, including the present study, failed to address the caste system and its impacts on sexual attitudes. Indian masterpieces on sexuality, such as the *Kama Sutra*, are
often used to generalise about the sexuality of all Indians when in fact it may merely reflect the practices of a particular social class (i.e. those of high or royal rank) and its constituent castes. There are about 2,378 major castes and tribes in India (Olcott, 1944). Hinduism is generally recognised to be as much a social system as a religion and its social framework embodying caste rituals has governed the lives of the majority of Indians for hundreds of years (Sana, 1993). Accordingly, it would be both interesting and important to examine the influence of caste specific ritualistic beliefs and values on sexual attitudes and behaviours. However, the rapid blurring of caste hierarchies due to modernisation, economic growth and educational attainment and the highly sensitive nature of the class and caste systems pose a major challenge to research on an already sensitive topic.

Studies from as long ago as 1948 (Kinsey, Pomeroy, & Martin, 1949) and the following years (Weinberg, Lottes, & Gordon, 1997) have found differences in sexuality among different classes of society, with more educated people having less restrictive sexual attitudes and behaviours. In the present study, the high educational status of Indian immigrant men (80% had at least a bachelor degree) could be a reason for their liberal sexual attitudes. It was not possible, however, to perform statistical tests due to the skewness of the sample in relation to educational status.

For the first time, the topic of masturbation was given due attention. It has often been reported that Indians tend to hold very unfavourable/conservative attitudes towards masturbation and have a higher degree of guilt about this normal psychosexual behaviour. These findings, however, were mainly based on studies conducted in India involving clinical or student samples. The present study found that a large proportion of Indian immigrant men hold favourable/liberal attitudes towards masturbation and that they continue to masturbate and feel positive about it.

A bilinear measure of acculturation (belief in values) strongly predicted permissive sexual attitudes, which in turn predicted positive feelings about masturbation. This finding has important clinical implications as it has been documented that most of the ill effects of masturbation come from the guilty feelings associated with the behaviour rather than the behaviour itself (Coleman, 2003). Many Indian immigrant men viewed masturbation as a healthy and safe alternative sexual experience. These
findings support the idea that masturbation is a means of achieving sexual health (Coleman, 2003) for Indian immigrant men depending on their attitudes and feelings towards it. In clinical settings, it is vital to assess an Indian male client’s/patient’s cultural values and beliefs, attitudes and feelings towards masturbation before recommending it as a form of sexual therapy.

As in previous research, the present study found a ‘bicultural’ pattern of acculturation among Indian immigrant men in Australia, but this was limited to dimensions of behaviour and self-identity. For the first time, the values dimension of Indian immigrants was assessed separately to these two dimensions. Indian immigrant men in my sample continue to believe in Indian values despite expressing a bicultural pattern in general behaviours and self-identity. In practical terms, this means that an Indian man could behave (talk, eat or read) like a Western person or identify himself as a person of both cultures, which might give the impression that he has settled well in Australia and has integrated the two cultures. Yet it is quite possible that, internally, he still holds to Indian values. As mentioned earlier, it is these core values that were found to be predictive of permissive sexual attitudes. Thus, a discrepancy could exist between the overt behaviour and internal values of an immigrant.

This discrepancy should be borne in mind when practitioners deal with immigrant clients/patients who present with sexual problems. Although the problem (e.g. erectile dysfunction) per se is the same for any client/patient, its expression and experience can vary from person to person, depending on cultural factors (such as values, beliefs, attitudes) and health literacy/knowledge about the problem. Strongly held beliefs within the culture cause vulnerable individuals to develop concerns about sexual performance, thereby leading to not only sexual but also mental and general health problems (Bhugra & Silva, 1993).

Effective health care today is best viewed holistically and part of that holistic view is to understand the cultural values, common beliefs and practices of the individual (Bengiamin, Downey & Heuer, 1999) and that of family members, where appropriate. Thus, in the management of sexual problems of patients from diverse cultural backgrounds, it would be of great benefit to assess the value dimension of their acculturation and not merely note the number of years they have lived in Australia or
how they behave or self-identify. A brief assessment of cultural values and associated beliefs could help health professionals better understand a particular patient’s self-explanatory model of his or her own (sexual) problem and health.

Such exploration of a person’s (sexual) health problem(s) within the context of cultural meanings, values and beliefs is at the core of cross-cultural competency, a strategy that is central to addressing racial/ethnic disparities in health and health care delivery (Betancourt, Green, Carrillo, & Ananeh-Firempong, 2003). In a real world clinical setting, it may not be practical to assess acculturation of immigrant clients/patients in the same way as researchers do. However, a few simple questions could elicit the multidimensional aspect of bilinear acculturation (which, in the present study, was assessed using five items of the SL-ASIA scale). Alternatively, the values and beliefs specific to a health problem could be explored using a set of generic questions based on Kleinman’s explanatory model of health and disease (Kleinman, Eisenberg, & Good, 1978).

Being aware of cultural differences, exploring clients/patients’ worldviews about health and illness and identifying potential cultural conflicts behind a sexual problem – all these are critical to therapeutic effectiveness.

Some of the study’s findings pertaining to sexual health (i.e. safe sex behaviour and help seeking) are of public health relevance and significance. In Australia, sexual health is an integral part of public health and awareness of STIs continues to be promoted through the Second National Strategy on Sexually Transmissible Infections 2010-2013 (DoHA, 2010). Raising awareness of STIs among priority and non-target populations, such as individuals at very low risk of STIs (individuals in long-term monogamous relationships), is a priority activity of this strategy. Unlike sex workers and gay men from CALD backgrounds, however, the general immigrant community of CALD background was not identified as a target group for sexual health promotion. Future research on immigrants, especially those who arrive from countries where formal sex education does not exist, need to address adequacy of sexual health awareness and knowledge in greater detail.

15 Young people, Aboriginal and Torres Strait Islanders, gay men and men who have sex with other men and sex workers.
The present study has shown that safe sex behaviour is reasonably frequent among Indian immigrant men who are young and not in a committed relationship. On the other hand, there were low levels of awareness about the prevalence of common STIs in Australia and poor knowledge about their transmission among Indian immigrant men. In relation to help seeking, the vast majority of study participants said that they would seek medical help for sexual health problems, either from a GP or specialist, or take some other action to manage it. Although this demonstrates a high degree of willingness to manage sexual problems and seek appropriate help, the findings were based on reported intentions and may not relate to actual help seeking behaviour when the need arises. Some of the initial Stage 2 findings, especially those on help-seeking attitudes, warrant further qualitative development. Future research could address this gap by exploring the purpose and meaning behind seeking help from a medical doctor and how Indians view the role of allied health professionals such as psychologists and sexuality therapists.

Hinduism is not a religion in the same sense Westeners use that term to refer to a system of clear beliefs about a personal God and a spiritual world apart from this materialistic world (Francoeur, 1992). Unlike Christianity or Islamism, the sexual beliefs and values of Hinduism are complex. Sex is heavily discussed as a path of desire and at the same time as an ultimate responsibility. Also, sex is condemned for celibate monks and for men in their early days of student life (Brahmacharya) whereas sex is celebrated for those who in their householder stage of life (Grihasta). A recent sociological review article, on the attitudes towards non-heterosexuality, states that Hinduism provides rich resources for contemporary support for non-heterosexuality more so than any other major religious faith and at the same time provides resource for contrary stance (Hunt, 2011). Thus, the highly sensitive and convoluted nature of Hinduism and fluid nature of sexuality pose a great challenge to study the influence of religious (Hindu) values and beliefs on human sexuality. To-date, there is no accessible scientific data on the topic ‘Hinduism on sexuality’ but future research could attempt to explore the above with bearing in mind the political sensitivity and conceptually complex nature of Hinduism.
The fluid nature of culture and sexuality makes it difficult to measure them precisely in research settings. Some of the findings, in this and previous studies, that have been attributed to the effects of acculturation could well be due to the effects of globalisation. In an era of rapid technological advancement, population mobility and social networking, globalisation is a very complex phenomenon that challenges easy measurement. Moreover, separating the effects of acculturation and globalisation on phenomena like sexuality is particularly difficult. One potential research strategy would be to assess the cultural make-up (values, beliefs) and sexual attitudes and behaviour of a sample of immigrants, both pre- and post-migration, and follow the same group of participants at various stages after their arrival to the destination country might add another angle to such study with the main focus on the impact of acculturation. Conducting such longitudinal studies would be both labour- and cost-intensive but could provide an in-depth understanding of the interplay between culture and sexuality and, possibly, allow us to separate the effects of acculturation and globalisation.
References


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APPENDIX

APPENDIX 1 – CRITICAL EVALUATION OF SEXUALITY STUDIES INVOLVING INDIAN IMMIGRANTS
<table>
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<th>Study</th>
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<th>Key objectives</th>
<th>Key findings relevant to Indians</th>
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<tr>
<td>1) Griffiths 2011 UK QUAN</td>
<td>Total sample: 11,161 Indian sample: 393 Indian Men =171 Age: 16-44 years Community sample</td>
<td>To compare attitudes, experiences of learning about sex and first intercourse among Indians and Pakistanis using a probability survey of Britain’s general population. National Survey of Sexual Attitudes and Lifestyle (NATSAL-2) with ethnic booster sample.</td>
<td>Median age at first intercourse was 20 years. Over one-third of Indian men reported religion as a ‘very important’ aspect of their life. Most men condemned premarital sexual activity on religious grounds. Nonetheless two-thirds reported being in a non-marital relationship at first sexual intercourse and many expressed no misgivings. Sample: born in the UK (51%) or moved to UK &lt;16yrs (22%) moved to UK &gt;16 yrs (27%). Findings may not be generalisable to first generation immigrants.</td>
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| 2) Gagnon 2009 Canada QUAN | South Asians = 122 Men -44 (7 Indian) Women 87 (24 Indian) Clinic and community sample Mean age = 32 years | To examine how gender disparities in decision-making power affect knowledge, attitudes and practices (KAP) regarding prevention of HIV and STI transmission among South-Asians*  
*Indian, Pakistani, Bangladeshi & Sri Lankans | More men than women felt they had ‘high’ decision-making power. Apart from this one finding of men, the study did not provide any results for male participants even though KAP data and migration details (length of residency, language preference, migration status) were collected from men. |
| 3) Tariq 2007 UK QUAN | 250 case-controls Indians 154 Mean age = 26 years | To evaluate mode of referral, number of STIs diagnosed, and the offering and uptake of HIV testing in patients of South Asian* ethnicity.  
*Indian, Pakistani, Bangladeshi & Sri Lankans | South Asians were more likely than non-South Asians to be referred to genito-urinary medicine services by other providers. Lack of self-referral to GUM services by South-Asians could reflect the cultural and socioeconomic barriers to GU medicine services. |
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<td>4) Coleman 2007 UK QUAN</td>
<td>Total sample: 3,026 Indian sample: 612 Indian Men: 300 Age: 15-18 years School sample</td>
<td>To provide evidence about the sexual health knowledge, attitudes and behaviours of an ethnically diverse sample of young people.</td>
<td>Although Indians were identified in the present study sample and had a sizeable representation, no within group analysis (Among Asians) or interaction analysis (ethnicity by gender) were done.</td>
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<td>5) Shedlin 2006 US QUAL</td>
<td>Men only Hispanics, West Indies &amp; Asian Indians Sample size – not reported Age: 18-64 years Community sample</td>
<td>To describe and compare factors that provides the context for risk and prevention of HIV/AIDS. To identify and describe HIV risks among both new and more established immigrant populations within the urban settings of North America (New York City).</td>
<td>The authors highlight a link between acculturative stressors and psychological distress and HIV risk-related behaviours. Indian men saw casual sex as an appropriate release for unmarried men. Participants perceived American culture as liberated, with more options for having multiple partners and/or not using condoms with casual partners. Some Indian men described using alcohol in conjunction with visits to commercial sex workers. Denial of personal risk of infection among Indian men, possibly due to lack of STI knowledge.</td>
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<td>6) Hahm, 2006 QUANA</td>
<td>Total sample = 1048 Indians = 113 Male = 55 Mean age -16 years Language at home</td>
<td>To study the difference in gender and acculturation among Asian American adolescents’ first sexual intercourse.</td>
<td>Those who were not US born but use English at home are considered as more acculturated than who are born in US but don’t use English. There was no evidence of association between acculturation and sexual experience among men.</td>
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<td>7) French 2005 UK QUAL Research report.</td>
<td>Total sample: 75 Indian sample: 25 Indian Men: 10 Age: 13-21 years Community sample Not published in journal.</td>
<td>To determine what factors influence the young people’s (Indian, Bangladeshi and Jamaican) beliefs and behaviours with regards to their reproductive and sexual health. To examine differences in gender, religion, culture, and educational and employment aspirations, which may affect sexual and reproductive attitudes and behaviours.</td>
<td>A majority of the respondents reported Hinduism as their religion. Religion did not seem to be a strong determining factor in terms of sexual attitude and behaviour for young Indians. Mixed views on premarital sex were observed. Decision not to have premarital sex was based on personal preference and interpretation of their religion, rather than their religion dictating this behaviour. Indian men and boys were found to have greater permission to explore sex than women.</td>
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<td>8) Fenton 2005 UK QUAN</td>
<td>Total sample: 11,161 Indian sample: 393 Indian Men =171 Age: 16-44 years NATSAL -2</td>
<td>To investigate the frequency of high-risk sexual behaviours and adverse sexual health outcomes in five* ethnic groups in Great Britain. *White, Black Caribbean, Black African, Indian and Pakistani.</td>
<td>Substantially older age at first sexual intercourse, lower lifetime and recent sexual partners, and low numbers of concurrent partners could account for the low STI rates in Indian and Pakistani men and women. Higher reporting of new sexual partner from outside the UK was found among Pakistanis and not Indians. Travel to countries of origin, and the maintenance of close family ties were identified as possible reasons. Sample: born in the UK (51%) or moved to UK &lt;16yrs (22%) moved to UK &gt;16 yrs (27%). Findings may not be generalisable to first generation immigrants.</td>
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Indian sample: 18  
Men only  
Age: 20-36 years  
Gay men: 5  
Community sample  
Not published in journal. | To explore sexual attitudes, beliefs and experience of Indian and Pakistani men in Chicago.  
To identify culturally influenced issues with potential bearing on transmission of HIV/AIDS. | Majority identified as Hindus and had high (n=17) religious observance. Most men were well educated and employed.  
Discrepancy between sexual attitude and behaviour was noted.  
Sexual risk taking behaviours were common among the South Asian men especially men aged over 40 and under 25 years of age, irrespective of migration or SES status.  
Negative attitudes toward use of condoms were expressed.  
Several of the sexually active men included drinking alcohol with their sexual activity.  
Frequent reluctance to seek health care for potentially embarrassing matters from culturally congruent medical doctors was observed. |
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<td>10) Leiblum, 2003 Canada QUAN A</td>
<td>South Asians = 29 Indians – not reported Mean age - 25 years Cross-Cultural Attitude Scale - Length of residence &amp; Ethnic identification</td>
<td>To investigate relative contribution of ethno-cultural variables (ethnicity, religion and religiosity, gender) and degree of acculturation to mainstream Western culture to the sexual beliefs of US and Canadian medical students of diverse ethnic backgrounds.</td>
<td>With respect to sexual comfort, the Asians and South-Asians obtained the most conservative scores, when acculturation was held constant. Among medical students from South Asian backgrounds, masturbation was generally viewed negatively and acculturation did not appear to increase their sexual comfort. South Asians, as a group, were found to be the most conservative and least susceptible group to changing their sexual beliefs/attitudes in the direction of greater liberality as a result of acculturation. On ranking religious affiliation and sexual conservatism, Hinduism was on the top end of the scale (i.e. most conservative) and no religion on the low end (most liberal).</td>
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<td>11) Ratti, 2000 QUAN A</td>
<td>South Asian = 46 European = 52 Mean age – 34 years Indians – Not reported Ghuman’s Acculturation Scale</td>
<td>To compare the correlates of HIV high-risk sexual behaviour among Canadian men of South Asian* and European origin who have sex with men. * Bangladesh, Bhutan, India, Nepal, Pakistan or Sri Lanka.</td>
<td>South Asian Canadians scored significantly higher for internalised homophobia than their European counterparts. Less acculturated South-Asian men were more likely to be closeted and married, and, consequently, both less likely to have social networks supportive of safe sex practices and more likely to engage in casual sex in more public spaces.</td>
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<td>12) Bradby</td>
<td>Total sample: 375 South Asians: 203 Indian sample: Not reported Age: 16 years (mean) Student sample</td>
<td>To map the reported behaviours and attitudes of young Britons of South Asian* origin that may have implications for sexual health. *Indian, Pakistani, Bangladesh</td>
<td>Study failed to report ethnic origin of its sample. Unmarried South Asian men were four times more likely than South Asian women to have experienced sexual intercourse. South Asian men were less likely than non-Asian men to report using condom.</td>
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<td>13) Meston</td>
<td>Total sample: 702 Asian sample: 356 Indians = 10 Mean age = 20. Students (university) sample Length of residence.</td>
<td>To examine possible differences in sexual behaviour, attitude and knowledge between Asian and non-Asians. The inclusion criteria for being categorised as ‘Asian’ (those who speak one of East or Southeast Asian language) forced Indians to be classified as ‘non-Asians’.</td>
<td>Males were more likely than females to endorse a wide range of sexual fantasies, to report a higher frequency of fantasizing, to have engaged in masturbation, and to masturbate more frequently. This effect was true for both non-Asian and Asian students and across length of residency in Canada among Asians.</td>
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<td>14) Bhugra</td>
<td>South Asian men only Total sample: 52 Indians – not reported Age: 16-61 years Hindus: 8 Community sample</td>
<td>To study about the process of ‘coming out’, a process which involves a complex interaction of intra- and interpersonal transformations, by South Asian men in the UK. Country of birth details – not provided.</td>
<td>The study found out that families and religion played important role in the process of coming out. Sisters were most likely to be told first. The author commented that migrant Asian gay community is a sexual minority within a racial minority and does not ‘fit’ well with the ‘majority’ gay community.</td>
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<td>15) Bhui,</td>
<td>Retrospective case notes analysis. Asians 21 (Indian =7) Non-Asians 20. Age range 21- &gt;60</td>
<td>To identify the socio-demographic characteristics of Asians presenting to the service. To examine and demonstrate differences in characteristics of presentation, diagnoses and outcome for the Asian group.</td>
<td>Penis bends on attempted sex, weak semen and low desire, tiredness after masturbation were some of the complaints among Asian men. Majority (17) in both Asian and non-Asian group were referred by their GP.</td>
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Studies marked with ‘A’ were those that had acculturation as a study variable.
APPENDIX 2 –

ADVERTISEMENTS, MEDIA RELEASES AND COMMUNITY SUPPORT
Ad on 30/10/2008 in Bangla-Sydney
Volunteers Needed for Focus Group Discussion
If your are male from Bangladesh, India, Pakistan or Sri Lanka, aged 18 years or above and can speak and read English, then you may wish to participate in a PhD research at the University of Sydney...Details...Sent by Vijay Ramanathan

Ad on 29/10/2008 in PakOZ and OzLanka

Volunteers Needed for Focus Group Discussion
'Sexual Health of South Asian Migrant Men Living in Australia'
Men, 18yrs or above from India, Pakistan, SriLanka or Bangladesh, speak & read English can participate.

Contact
Dr Vijay Ramanathan
0416634647
vram4831@usyd.edu.au

For more information visit
http://usyd.edu.au/sexualhealth/vijay
a study at University of Sydney.
STAGE 2 - ADVERTISEMENTS

Sexual health of Indian Men Living in Australia

The University of Sydney is conducting a study on the impacts of migration on attitudes toward human sexuality, sexual behaviours and sexual health of Indian men living in Australia. We are requesting participants aged 18+ and fluent in English to participate in this survey. Participation in this survey is voluntary, anonymous and confidential. The survey takes about 20 minutes to complete. To know more about the study or to participate, click on the link http://www.zoomerang.com/Survey/WEB2BRRRL93L9M/

Facebook ad (paid)

Sexual Health—INDIAN MEN
zoomerang.com

Participant in a research about sexual health of Indian men and enter a draw to win $500.

View on Site - Create a Similar Ad

Google Ad (paid)

Sexual Health of Indian Men Living in Australia

Suggested Bid: $0.06 – 0.73 AUD
Study looks into sexual health of Indian migrant men

The University of Sydney is conducting an online survey and study on the impacts of migration on attitudes toward human

Media Coverage – Stage 2

Invitation for survey

Indian men who have migrated to Australia are invited to complete an online survey about their sexual health and attitudes.

The information will be used for a Sydney University study into whether their migration has affected their attitudes toward human sexuality, sexual behaviors, and sexual health.

It is being conducted by Dr. Vijayalakshmi Ramaswamy as part of his PhD research at the Graduate Program in Sexual Health.

"Despite Indians being a significant immigrant population, there is currently very little information available on the impacts of migration on sexual health," she said.

"It is important for clinicians, researchers, and policy makers to have information about psychosocial and cultural impacts of migration on sexual behaviors, sexual knowledge, attitude, values, and practices.

"If there is a continued lack of this information, it will limit our ability to anticipate the possible patterns and magnitude of sexual health issues and to identify any barriers to accessing health information and appropriate care."

Participants should be aged 18 plus and fluent in English to fill in the online survey. Participation is voluntary, anonymous, and confidential.

It takes about 20 minutes to complete. To participate in the study visit zoomracing.com/stor-
Support of South-Asian community organisations for Stage 1

FEDERATION OF AUSTRALIAN INDIAN ASSOCIATIONS INC (FAIA)
PO BOX 215, Wentworthville NSW 2145

25 May 2006

PAKISTAN ASSOCIATION OF AUSTRALIA
Incorporated in New South Wales

Our Ref: 2000/1
Your Ref:

29 May 2008

Sri Lanka Association of NSW Inc.
GPO Box 3120, Sydney NSW 2001
President - Mr. Kumar Athulathmudali (02) 8783-5373
5, Greenwell Road, Preston, NSW 2170
Phone: 61 2 8783-5373 Mob: 0432 660 494
Treasurer - Mr. Daman Panditaratne (02) 8901-4484
Secretary - Mr. Shelton Peiris (02) 9502-4998

24.05.2008

Support of Indian community organisations for Stage 2

United Indian Associations Inc.

210
The Human Research Ethics Committee of the University of Sydney approved all study tools.
PARTICIPANT INFORMATION STATEMENT
Research Project

Title: Sexual Health of South Asian Migrant Men Living in Australia

(1) What is the study about?

This research aims to gain a better understanding of the sexual knowledge, attitude, values of South Asian men, their help seeking behaviour for sexual health issues and the socio-cultural impact on sexual health of South Asian migrant men living in Australia. The study is done involving men who have attained minimum 18 years of age, born in India, Pakistan, Sri Lanka or Bangladesh and fluent in English.

(2) Who is carrying out the study?

The study is being conducted by Dr Vijayasarathi Ramanathan and will form the basis for the degree of Doctor of Philosophy at The University of Sydney under the supervision of Dr Gomathi Sitharthan and Dr Patricia Weerakoon.

(3) What does the study involve?

The study involves you participating in discussion among a focus group involving up to five other South Asian men and highly trained person will facilitate the discussion. The topics and questions discussed will be relevant to the research aims and will not be pointed at any one participant. You do not have to identify yourself by name and you will be requested not to identify others by name at any time during the discussion. You can respond only to the questions that you want to. The discussion will be audio-recorded for transcribing purposes only and will not identify any individual participant. The focus group discussions will be organised around Lidcombe area. You will not be paid for your participation but be reimbursed, up to a maximum of AUD 50.00, for the travel costs that you incur as a result of participating in this study.

(4) How much time will the study take?

The focus group discussion may take up to a maximum of 90 minutes.

(5) Can I withdraw from the study?

Being in this study is completely voluntary - you are not under any obligation to consent and - if you do consent - you can withdraw at any time without prejudice or penalty. If you withdraw from participation during the discussion, any audio-recorded information that you have provided during the discussion, till the point of withdrawal, cannot be separated and destroyed as your responses are not individually
identifiable. Any other information you may have given to the interviewer up to that point will be destroyed.

(6) Will anyone else know the results?

All aspects of the study, including results, will be strictly confidential and only the researchers will have access to information on participants. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

(7) Will the study benefit me?

Your participation in this study may have benefits for the entire South Asian community living in Australia and in other similar Western countries.

(8) Can I tell other people about the study?

Yes.

(9) What if I require further information?

When you have read this information, Dr Vijayasarathi Ramanathan will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Vijayasarathi Ramanathan, PhD Candidate on 0416634647 or email vram4831@usyd.edu.au or Dr Gomathi Sitharthan, Senior Lecturer on 02 9351 9584 or email G.Sitharthan@usyd.edu.au

(10) What if I have a complaint or concerns?

Any person with concerns or complaints about the conduct of a research study can contact the Senior Ethics Officer, Ethics Administration, University of Sydney on (02) 9351 4811 (Telephone); (02) 9351 6706 (Facsimile) or gbriody@usyd.edu.au (Email).

This information sheet is for you to keep
PARTICIPANT CONSENT FORM

I, .............................................................., give consent to my participation in the research project

TITLE:   Sexual Health of South Asian Migrant Men Living in Australia

In giving my consent I acknowledge that:

1. The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

2. I have read the Participant Information Statement and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

3. I understand that my involvement is strictly confidential and no information about me will be used in any way that reveals my identity.

4. I understand that being in this study is completely voluntary – I am not under any obligation to consent.

5. I consent to the audio-recording of the interview.

6. I understand that I can withdraw from the study at any time if I do not wish to continue and any recorded information provided by me during the discussion, till the point of withdrawal, cannot be separated and destroyed as my responses are not individually identifiable. Any other information that I may have given to the interviewer up to this point will be destroyed.

Signed:  ........................................................................................................................................

First Name: .................................................................

Surname: .................................................................

Date: .................................................................
Focus Group Discussion: TOPICS and Questions

PERCEPTIONS ABOUT SEX, SEXUAL ANATOMY and FUNCTION

What does sex mean to you?
What is the average frequency of having sex (in a week)?
What do you think is the average size of a male organ/genital?
On an average, how long CAN a man (of your age) have sex each time?
About when, at what age do men start getting erections?
About when, at what age do men become incapable of getting erections?
About when, at what age do men start getting ejaculation?
About when, at what age do men become incapable of getting ejaculation?
- Sex-related materials (videos, pictures, sex chats) are getting more and more accessible through internet and television. What do you think morally of the increased availability of this material?

SEXUAL ACTIVITY

What makes sex ‘good’ sex?
Is having good sex important for one’s quality of life?
Many men, of all age, masturbate. In what moral terms do you view masturbation?

SEXUAL ILL-HEALTH & HELP SEEKING

What do you call the infections caused by sex?
How could someone get these infections?
What are the possible sexual problems a man might face in his life?
If you need some information about sex related issues, where do you get it?
Where do men generally go for treatment of sex related problems?

CULTURAL INFLUENCE

How do you perceive your ‘Own’ vs. ‘Australian’ culture in terms of sexual issues?
- How do you perceive the role of sex in your life?
1. What is the study about?

The purpose of this research is to further our understanding of the impacts of acculturation on sexual values, attitudes and behaviour of Indian migrant men living in Australia. The study also explores the help-seeking behaviours of Indian migrant men to sexual health information and care.

2. Who can participate in this study?

You can participate in this study:
- if you are aged 18 years or above;
- Were born in India and migrated to Australia or born to Indian parents in Australia; and
- Fluent in English.

3. Who is carrying out the study?

The study is being conducted by Dr. Vijayasarathi Ramanathan as part of his PhD research at the Graduate Program in Sexual health at the University of Sydney. The research is conducted under the supervision of Dr Gomathi Sitharthan, Senior Lecturer in Psychology, the Graduate Program in Sexual Health, the University of Sydney; and Dr Patricia Weerakoon, Director of the Graduate Program in Sexual Health, the University of Sydney.

4. What does the study involve?

The study invites participants to complete questionnaires on-line which will take approximately 20-30 minutes to complete. Participation in this survey is voluntary and confidential.

5. Can I withdraw from the study?

Being in this study is completely voluntary - you are not under any obligation to participate in the study and you can leave questions unanswered if you feel uncomfortable. If you consent to being part of this study, you will be required to click the “SUBMIT” button. If you decide NOT to consent do not click the “SUBMIT” button. You can withdraw any time prior to submitting your completed questionnaire/survey by closing the window on the web browser. Once you have submitted your questionnaire/survey anonymously, your responses cannot be withdrawn.
5. Will anyone else know the results?

All aspects of the study, including results, will be strictly confidential and only the researchers will have access to the collected data. The IP address will not be collected in the dataset with the survey responses and therefore could not be linked back to individual responses. A report of the study will be submitted for publication, but individual participants will not be identifiable in such a report.

6. Will the study benefit me?

Your participation in this survey will raise your awareness on acculturation and sexual health. The findings of this study will have impact of future policy development for better sexual health care for migrants in Australia. In appreciation of the time that you are willing to spend to complete this survey, you are eligible to enter a lucky draw to win a $500 worth of electronic gadget or cash prize. Entering the draw is optional and if you opt to enter the draw, you will be asked to provide your email id, which will be used only to notify the winner.

7. Can I tell other people about the study?

We would encourage you to discuss this project with others. Anyone who is interested in this project can access the website. Please contact: Dr. Gomathi Sitharthan on, (02) 9351 9584 or gomathi.sitharthan@sydney.edu.au or Dr Vijayasarathi Ramanathan on vram4831@uni.sydney.edu.au

8. What if I require further information?

If you would like to know more at any stage, please feel free to contact: Dr. Gomathi Sitharthan on, (02) 9351 9584 or gomathi.sitharthan@sydney.edu.au or Dr Vijayasarathi Ramanathan on vram4831@uni.sydney.edu.au

9. What if I have a complaint or concerns?

Any person with concerns or complaints about the conduct of a research study can contact the Deputy Manager, Human Ethics Administration, University of Sydney on +61 2 8627 8176 (Telephone); +61 2 8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email).

Please proceed to the survey. You may print or download this information sheet.
Sexual Health of Indian Migrant Men Living in Australia

**Section 1 of 6: Demographics (10)**

**Question 1**
Age (completed years):

**Question 2**
Highest level of education obtained
- Less than high school
- High School
- TAFE
- Bachelors degree
- Master's degree
- Doctoral degree

**Question 3**
Current employment status
- Employed – Casual
- Employed – Permanent
- Self-employed/Business
- Unemployed
- Retired
- Student

**Question 4**
Current relationship status
- Single, Never Married
- In a relationship/dating
- Live together/De-facto
- Married
- Separated
- Divorced
- Widowed
- Others _______________________________

**Question 5**
Current religious affiliation
- Hindu
- Christian
- Muslim
- Buddhism
- Jainism
- Sikh
- None
- Others _______________________________

**Question 6**
Please rate your level of affiliation to your current religion

<table>
<thead>
<tr>
<th></th>
<th>1 (none)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 (High)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Question 7
In which year did you first arrive in Australia? (N/A if born in Australia)

Question 8
How many years have you been living in Australia?

Question 9
Please list the countries, other than Australia, where you lived as a migrant? Please mention the country names and the approximate number of years lived in each of the countries [e.g Singapore – 3 years]

<table>
<thead>
<tr>
<th>Name of the country</th>
<th>Total number of years of residence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Question 10
Please provide details of the place where you spent most of your life in India (N/A - I have not lived outside Australia)

<table>
<thead>
<tr>
<th>Name of the place</th>
<th>State</th>
<th>Type - Metropolitan city/ City/ Town/ Village</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 2 of 6: Masturbation (9)

Question 11
Which one of these statements best describe your masturbatory behaviour

- I continue masturbation since started (skip Q18 and Q19)
- I have masturbated in the past but not now (go to Q18 and Q19)
- I have never masturbated in my life so far (go to Q18 and Q19)

Question 12
On an average, how often do you (or did) masturbate in a week?

- Once or twice a week
- 3-5 times/wk
- 6-10 time/wk
- More than 10 times/wk
- Can't specify (I rarely masturbate)

Question 13
At what age did you start masturbating?

Question 14
What could stimulate you to masturbate? (you may select more than one option)

- Looking at erotic materials (images, movies) on the internet
- Looking at erotic materials on the CD/DVD/VHS
- Looking at erotic materials on magazines/other paper based materials
- As part of sex/foreplay
- As part of a body massage service
- Having erotic thoughts to myself (fantasising)
- Others _________________________________
### Question 15
**How do you masturbate?**
- [ ] Using hands
- [ ] Lay down on the tummy and rub the penis on the bed or floor
- [ ] Rub the penis against other hard surfaces
- [ ] Using tools (bottle, hollow pipe)
- [ ] Others

### Question 16
**What are your reasons for wanting to masturbate? (you may select more than one option)**
- [ ] To gain pleasure
- [ ] To self-explore and improve my sexuality
- [ ] To improve mood
- [ ] To relax and relieve stress
- [ ] To avoid sex with my partner
- [ ] To decrease my sexual arousal
- [ ] I can't avoid or stop masturbating (compulsion)
- [ ] To arouse or give pleasure to my partner
- [ ] I masturbate because others do it
- [ ] I use masturbation as a substitute for partner sex
- [ ] To enjoy my sexual fantasies
- [ ] I don't feel sexually attractive to others
- [ ] I masturbate when I am bored
- [ ] Others ________________________________

### Question 17
**What feelings do you experience when you masturbate? (you may select more than one option)**
- [ ] Guilty
- [ ] Disappointed
- [ ] Sinful
- [ ] Satisfied
- [ ] Healthy
- [ ] Attractive
- [ ] Angry
- [ ] Stressed
- [ ] Anxious
- [ ] Awkward
- [ ] Empty
- [ ] Detached
- [ ] Others

### Question 18
**What are your reasons for avoiding masturbation? (you may select more than one option)**
- [ ] It is against my morals or values
- [ ] I know I’d regret it and would feel guilty or bad about it
- [ ] I was raised to believe it wrong
- [ ] I have no desire or interest in masturbation
- [ ] I prefer partner sex over masturbation
- [ ] I fear of negative social evaluation of my act
- [ ] I am not comfortable with my own sexuality (sexual behaviours, body image)
- [ ] When I am stressed, anxious, depressed or worried
- [ ] It makes me less horny during partner sex
- [ ] I am in a committed relationship
The sexual thoughts and fantasies during masturbation bothers me
I like to have control over my sexual urges
Others ______________________________

Question 19
What feelings would you experience if you did masturbate? (you may select more than one option)

- Guilty
- Disappointed
- Sinful
- Satisfied
- Healthy
- Attractive
- Angry
- Stressed
- Anxious
- Awkward
- Empty
- Detached
- Others

Section 3 of 6: Help Seeking Behaviour for Sexual Health (8)

Question 20
If you have sexual problem(s), will you seek help from medical doctors?

- Yes (skip Q25)
- No (go to Q25)

Question 21
From which medical doctor will you seek help for your sexual problem(s)?

- General Practitioner
- Sexual health specialist
- Sexologist
- Urologist
- Psychiatrist
- Others ______________________________

Question 22
Will you seek help from your regular medical doctor for sexual problem(s)?

- Yes
- No
- I don’t have a regular doctor

Question 23
What is your preferred gender of the medical doctor from whom you seek help for sexual problem(s)?

- Male
- Female
- Gender of the doctor is not important

Question 24
What is your preferred ethnicity of the medical doctor from whom you seek help for sexual problem(s)?

- Indian doctor
Question 25

What are the reasons for not consulting a doctor?

- A doctor cannot do much
- I do not think it is a medical problem
- I am not comfortable talking to a doctor
- My regular doctor is like a family friend
- Doctor uneasy to talk about sex
- Others

Question 26

What else will you do if you have sexual problem(s) *(you may select more than one option)*

- Take no action (go to Q27)
- Talk to my partner
- Talk to family member/friend
- Talk to psychologist
- Talk to sex therapist or counsellor
- Talk to a clergy person or religious adviser
- Look for information anonymously (internet or magazine)
- Use telephone helpline
- Take drugs/use devices by myself
- Others ________________________________

Question 27

What are the possible reasons for not taking any action?

- I thought sexual problems are normal with ageing
- I am comfortable the way I manage the sexual problem by myself
- I don’t not think sexual problems are very serious
- I will wait to see if problem goes away
- Others ________________________________

Section 4 of 6: Suinn-Lew Asian Self-Identity Acculturation Scale – Revised (26 items)

INSTRUCTIONS: The questions which follow are for the purpose of collecting information about your historical background as well as more recent behaviors which may be related to your cultural identity.

Choose the one answer which best describes you.

Question 28

What language can you speak?

- An Indian language only (for example, Hindi, Tamil, Punjabi etc.)
- Mostly an Indian language, some English
- An Indian language and English about equally well (bilingual)
- Mostly English, some Indian
- Only English

Question 29

What language do you prefer?

- An Indian language only (for example, Hindi, Tamil, Punjabi etc.)
Mostly an Indian language, some English
An Indian language and English about equally well bilingual
Mostly English, some Indian
Only English

Question 30
How do you identify yourself?

- Indian
- Asian
- Asian-Australian
- Indian-Australian
- Australian

Question 31
Which identification does (did) your mother use?

- Indian
- Asian
- Asian-Australian
- Indian-Australian
- Australian

Question 32
Which identification does (did) your father use?

- Indian
- Asian
- Asian-Australian
- Indian-Australian
- Australian

Question 33
What was the ethnic origin of the friends and peers you had, as a child up to age 6?

- Almost exclusively Indians
- Mostly Indians
- About equally Indian groups and Anglo-Australian groups
- Mostly Anglo-Australians or other non-Indian ethnic groups
- Almost exclusively Anglo-Australians or other non-Indian ethnic groups

Question 34
What was the ethnic origin of the friends and peers you had, as a child from 6 to 18?

- Almost exclusively Indians
- Mostly Indians
- About equally Indian groups and Anglo-Australian groups
- Mostly Anglo-Australians or other non-Indian ethnic groups
- Almost exclusively Anglo-Australians or other non-Indian ethnic groups

Question 35
Whom do you now associate with in the community?

- Almost exclusively Indians
- Mostly Indians
- About equally Indian groups and Anglo-Australian groups
- Mostly Anglo-Australians or other non-Indian ethnic groups
- Almost exclusively Anglo-Australians or other non-Indian ethnic groups
Question 36
If you could choose, whom would you prefer to associate with in the community?
- Almost exclusively Indians
- Mostly Indians
- About equally Indian groups and Anglo-Australian groups
- Mostly Anglo-Australians or other non-Indian ethnic groups
- Almost exclusively Anglo-Australians or other non-Indian ethnic groups

Question 37
What is your music preference?
- Only Indian music (for example, Hindi, Tamil, Punjabi etc.)
- Mostly Indian music
- Equally Indian and English music
- Mostly English music
- Only English music

Question 38
What is your movie preference?
- Only Indian-language movies
- Mostly Indian-language movies
- Equally Indian language and English-language movies
- Mostly English-language movies
- Only English-language movies

Question 39
What generation are you? (select the generation that best applies to you)
- 1st Generation = I was born in India
- 2nd Generation = I was born in Australia, either parent was born in India
- 3rd Generation = I was born in Australia, both parents were born in Australia, and all grandparents born in India
- 4th Generation = I was born in Australia, both parents were born in Australia, and at least one grandparent born in India and one grandparent born in Australia
- 5th Generation = I was born in Australia; both parents were born in Australia, and all grandparents also born in Australia.
- Don't know what generation best fits since I lack some information.

Question 40
Where were you raised?
- In India only
- Mostly in India, some in Australia
- Equally in India and Australia
- Mostly in Australia, some in India
- In Australia only

Question 41
What contact have you had with India?
- Raised one year or more in India
- Lived for less than one year in India
- Occasional visits to India
- Occasional communications (letters, phone calls, etc.) with people in India
- No exposure or communications with people in India
| Question 42 |
| What is your food preference at home? |
| ☐ Exclusively Indian food |
| ☐ Mostly Indian food, some Australian |
| ☐ About equally Indian and Australian |
| ☐ Mostly Australian food |
| ☐ Exclusively Australian food |

| Question 43 |
| What is your food preference in restaurants? |
| ☐ Exclusively Indian food |
| ☐ Mostly Indian food, some Australian |
| ☐ About equally Indian and Australian |
| ☐ Mostly Australian food |
| ☐ Exclusively Australian food |

| Question 44 |
| Do you |
| ☐ Read only an Indian language |
| ☐ Read an Indian language better than English |
| ☐ Read both an Indian and English equally well |
| ☐ Read English better than an Indian language |
| ☐ Read only English |

| Question 45 |
| Do you |
| ☐ Write only an Indian language |
| ☐ Write an Indian language better than English |
| ☐ Write both an Indian and English equally well |
| ☐ Write English better than an Indian language |
| ☐ Write only English |

| Question 46 |
| If you consider yourself a member of the Indian group (Indian, Indian-Australian, Australian-Indian, whatever term you prefer), how much pride do you have in this group? |
| ☐ Extremely proud |
| ☐ Moderately proud |
| ☐ Little pride |
| ☐ No pride but do not feel negative toward group |
| ☐ No pride but do feel negative toward group |

| Question 47 |
| How would you rate yourself? |
| ☐ Very Indian |
| ☐ Mostly Indian |
| ☐ Bi-cultural |
| ☐ Mostly Westernized |
| ☐ Very Westernized |

| Question 48 |
| Do you participate in Indian occasions, holidays, traditions, etc.? |
| ☐ Nearly all |
| ☐ Most of them |
| ☐ Some of them |
A few of them

None at all

Question 49
Rate yourself on how much you believe in Indian values (e.g., about marriage, families, education, work):

(don't believe) 2 3 4 (strongly believe)

Question 50
Rate your self on how much you believe in Australian (Western) values:

(don't believe) 2 3 4 (strongly believe)

Question 51
Rate yourself on how well you fit when with other Indians:

(don't fit) 2 3 4 (fit very well)

Question 52
Rate yourself on how well you fit when with other Australians who are non-Indian (Westerners):

(don't fit) 2 3 4 (fit very well)

Question 53
There are many different ways in which people think of themselves.

Which ONE of the following most closely describes how you view yourself?

I consider myself basically an Indian person. Even though I live and work in Australia, I still view myself basically as an Indian person.

I consider myself basically as an Australian. Even though I have an Asian background and characteristics, I still view myself basically as an Australian.

I consider myself as an Indian-Australian, although deep down I always know I am an Indian.

I consider myself as an Indian-Australian, although deep down, I view myself as an Australian first.

I consider myself as an Indian-Australian. I have both Indian and Australian characteristics, and I view myself as a blend of both.
Listed below are several statements that reflect different attitudes about sex. For each statement fill in the response on the answer sheet that indicates how much you agree or disagree with that statement. Some of the items refer to a specific sexual relationship, while others refer to general attitudes and beliefs about sex. Whenever possible, answer the questions with your current partner in mind. If you are not currently dating anyone, answer the questions with your most recent partner in mind. If you have never had a sexual relationship, answer in terms of what you think your responses would most likely be.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Indicate your degree of agreement with each of the statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>1</td>
<td>I do not need to be committed to a person to have sex with him/her</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Casual sex is acceptable</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I would like to have sex with many partners</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>One-night stands are sometimes very enjoyable</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>It is okay to have ongoing sexual relationships with more than one person at a time</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sex as a simple exchange of favors is okay if both people agree to it</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The best sex is with no strings attached</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Life would have fewer problems if people could have sex more freely</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>It is possible to enjoy sex with a person and not like that person very much.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>It is okay for sex to be just good physical release</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Birth control is part of responsible sexuality</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>A woman should share responsibility for birth control</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>A man should share responsibility for birth control</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Sex is the closest form of communication between two people</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>A sexual encounter between two people deeply in love is the ultimate human interaction</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>At its best, sex seems to be the merging of two souls</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Sex is a very important part of life</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Sex is usually an intensive, almost overwhelming experience</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Sex is best when you let yourself go and focus on your own pleasure</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Sex is primarily the taking of pleasure from another person</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>The main purpose of sex is to enjoy oneself</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Sex is primarily physical</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Sex is primarily a bodily function, like eating</td>
<td></td>
</tr>
</tbody>
</table>
### Safe Sex Behaviour Questionnaire (24 items)

**Directions:** Below is a list of sexual practices. Please read each statement and respond by indicating your degree of use of these practices.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Indicate your degree of use of these practices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>1</td>
<td>I insist on condom use when I have sexual intercourse</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I use cocaine or other drug prior to or during sexual intercourse</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I stop foreplay long enough to put on a condom (or for my partner to put on a condom)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I ask potential sexual partners about their sexual histories</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I avoid direct contact with my sexual partner’s semen or vaginal secretions</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I ask my potential sexual partners about a history of bisexual/homosexual practices</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I engage in sexual intercourse on a first date</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I abstain from sexual intercourse when I do not know my partner’s sexual history</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I avoid sexual intercourse when I have sores or irritation in my genital area</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>If I know an encounter may lead to sexual intercourse, I carry a condom with me.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I insist on examining my sexual partner for sores, cuts or abrasions in the genital area</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>If I disagree with information that my partner presents on safer sex practices, I state my point of view</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I engage in oral sex without using protective barriers such as condom or rubber dam</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>If swept away in the passion of the moment, I have sexual intercourse without using a condom</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I engage in anal intercourse</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I ask my potential sexual partners about a history of IV drug use</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>If I know an encounter may lead to sexual intercourse, I have a mental plan to practice safer sex.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>If my partner insists on sexual intercourse without a condom, I refuse to have sexual intercourse</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I avoid direct contact with my sexual partner’s blood</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>It is difficult for me to discuss sexual issues with my sexual partners</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I initiate the topic of safer sex with my potential sexual partner</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I have sexual intercourse with someone who I know is a bisexual or gay person</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>I engage in anal intercourse without using a condom</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>I drink alcoholic beverages prior to or during sexual intercourse</td>
<td></td>
</tr>
</tbody>
</table>
Thank you for spending your valuable time to take part in this survey. In appreciation, we would like to invite you to enter a lucky draw to win a $ 500 AUD worth electronic gadget or cash prize. Entering the draw is optional. If you opt to enter the draw, please provide your email id below which will be used ONLY to notify the winner. Please provide your email id in capital letters (if acceptable) and state it clearly.

Email id:
APPENDIX 4 - RESULTS
<table>
<thead>
<tr>
<th>FGD No.</th>
<th>FGD ID</th>
<th>Age (yrs)</th>
<th>Relationship</th>
<th>Religion</th>
<th>Religious affiliation*</th>
<th>Year of arrival</th>
<th>How many years (yrs)</th>
<th>Lived outside of Australia &amp; India (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>27</td>
<td>Single</td>
<td>Hindu</td>
<td>5</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>26</td>
<td>Single</td>
<td>Hindu</td>
<td>4</td>
<td>2006</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>C</td>
<td>39</td>
<td>Married</td>
<td>Hindu</td>
<td>4</td>
<td>2006</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>D</td>
<td>58</td>
<td>Married</td>
<td>Hindu</td>
<td>5</td>
<td>1988</td>
<td>20</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>F</td>
<td>72</td>
<td>Married</td>
<td>Hindu</td>
<td>^</td>
<td>1978</td>
<td>30</td>
<td>^</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>65</td>
<td>Married</td>
<td>Hindu</td>
<td>4</td>
<td>1991</td>
<td>18</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>50</td>
<td>Married</td>
<td>Hindu</td>
<td>5</td>
<td>1986</td>
<td>22</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>25</td>
<td>Single</td>
<td>Hindu</td>
<td>3</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
<td>48</td>
<td>Single</td>
<td>Hindu</td>
<td>2</td>
<td>2002</td>
<td>6</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>F</td>
<td>27</td>
<td>Single</td>
<td>Hindu</td>
<td>^</td>
<td>2004</td>
<td>4</td>
<td>^</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>25</td>
<td>Single</td>
<td>Hindu</td>
<td>^</td>
<td>2006</td>
<td>2</td>
<td>^</td>
</tr>
<tr>
<td>3</td>
<td>D</td>
<td>53</td>
<td>Married</td>
<td>Hindu</td>
<td>4</td>
<td>1998</td>
<td>11</td>
<td>Indonesia (3)</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>25</td>
<td>Single</td>
<td>Hindu</td>
<td>^</td>
<td>2008</td>
<td>1</td>
<td>^</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>27</td>
<td>Single</td>
<td>Hindu</td>
<td>5</td>
<td>2008</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>C</td>
<td>26</td>
<td>Single</td>
<td>Hindu</td>
<td>^</td>
<td>2007</td>
<td>1</td>
<td>^</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>19</td>
<td>Single</td>
<td>Hindu</td>
<td>2</td>
<td>2007</td>
<td>1.5</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>E</td>
<td>20</td>
<td>Single</td>
<td>Hindu</td>
<td>^</td>
<td>2007</td>
<td>1.5</td>
<td>^</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>27</td>
<td>Single</td>
<td>Hindu</td>
<td>.</td>
<td>2003</td>
<td>5</td>
<td>^</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>61</td>
<td>Married</td>
<td>Hindu</td>
<td>3</td>
<td>2002</td>
<td>6</td>
<td>UK (6)</td>
</tr>
<tr>
<td>5</td>
<td>C</td>
<td>34</td>
<td>Single</td>
<td>Christian</td>
<td>3</td>
<td>Born in Australia</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>29</td>
<td>Single</td>
<td>Hindu</td>
<td>N/A</td>
<td>2006</td>
<td>2</td>
<td>^</td>
</tr>
</tbody>
</table>

Rate of religious affiliation 1 - None 5 - Very high  ^ Missing data
FGD3: A (50yo, SriLanka), B (45yo, Bangladesh), E (50yo, Mixed) FGD5:D (60yo, SriLanka)
Appendix 4.2  Summary of online data collection (n=268)

<table>
<thead>
<tr>
<th></th>
<th>Online survey – version 1 (without lucky draw)</th>
<th>Online survey – version 2 (with lucky draw)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launched</td>
<td>05/11/2010</td>
<td>20/01/2011</td>
</tr>
<tr>
<td>Closed</td>
<td>19/01/2011</td>
<td>03/10/2011</td>
</tr>
<tr>
<td>Duration</td>
<td>~ 2 months</td>
<td>~ 9 months</td>
</tr>
<tr>
<td>Partial responses</td>
<td>95</td>
<td>134</td>
</tr>
<tr>
<td>Complete responses</td>
<td>67</td>
<td>142</td>
</tr>
<tr>
<td>Number of lucky draw</td>
<td>N/A</td>
<td>83</td>
</tr>
<tr>
<td>entries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The total sample size of the study was 278 but there was a gradual reduction in the number of responses after the initial items. This could be due to a number of factors. First, the questionnaire contained 100 items, so participants may well have lost motivation, especially in view of the fact that none of the questions or sections was mandatory to become eligible for the lucky draw. Self-exclusion from a section (e.g. safe sex behaviour), due to lack of relevance or some other factor, may also have contributed. All those who completed the paper survey provided complete data. This could suggest that people become bored more quickly with online surveys than with paper-based versions. A summary of the completion rate for each section of the survey is provided in the table below.

Summary of completed survey data

<table>
<thead>
<tr>
<th></th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of participants who took part in the survey</td>
<td>278</td>
</tr>
<tr>
<td>Total number of participants who completed the survey online</td>
<td>268(96.4)</td>
</tr>
<tr>
<td>Total number of participants who completed the paper survey</td>
<td>10(3.6)</td>
</tr>
<tr>
<td>Total number of participants who completed:</td>
<td></td>
</tr>
<tr>
<td>Sections 1-6 (complete response)</td>
<td>189(67.9)</td>
</tr>
<tr>
<td>Sections 1-5 (up to BSAS scale)</td>
<td>200(71.9)</td>
</tr>
<tr>
<td>Sections 1-4 (up to SL-ASIA scale)</td>
<td>206(74.1)</td>
</tr>
<tr>
<td>Sections 1-3 (up to help seeking)</td>
<td>222(79.8)</td>
</tr>
<tr>
<td>Sections 1-2 (up to masturbation)</td>
<td>230(82.7)</td>
</tr>
<tr>
<td>Section 1 (only demographics)</td>
<td>273(98.2)</td>
</tr>
</tbody>
</table>
Appendix 4.3  Examination of continuous variables for normal distribution

<table>
<thead>
<tr>
<th>Measure</th>
<th>Skewness (S.E)</th>
<th>Kurtosis (S.E)</th>
<th>K-S test (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (n=273)</td>
<td>1.06 (.15)</td>
<td>1.12 (.29)</td>
<td>.10**</td>
</tr>
<tr>
<td>Length of residence (n=257)</td>
<td>1.36 (.15)</td>
<td>1.12 (.30)</td>
<td>.21**</td>
</tr>
<tr>
<td>Acculturation Scale (1-21 items) (n=203)</td>
<td>1.08 (.17)</td>
<td>2.54 (.34)</td>
<td>.08**</td>
</tr>
<tr>
<td>Birth Control (n=197)</td>
<td>1.14 (.17)</td>
<td>1.23 (.35)</td>
<td>.22**</td>
</tr>
<tr>
<td>Communion (n=196)</td>
<td>1.05 (.17)</td>
<td>1.12 (.35)</td>
<td>.12**</td>
</tr>
<tr>
<td>Instrumentality (n=199)</td>
<td>0.17 (.17)</td>
<td>−0.60 (.34)</td>
<td>.07**</td>
</tr>
<tr>
<td>Permissiveness (n=201)</td>
<td>0.02 (.17)</td>
<td>−1.01 (.34)</td>
<td>.07**</td>
</tr>
<tr>
<td>Safe-Sex Behaviour Questionnaire (n=86)</td>
<td>−1.06 (.26)</td>
<td>1.67 (.51)</td>
<td>.10**</td>
</tr>
</tbody>
</table>

* *p<.05  **p<.01
Appendix 4.4  

<table>
<thead>
<tr>
<th>Factor Loading 26-item SL-ASIA Scale</th>
<th>Rotated Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>(R) Belief in Indian values</td>
<td>.78</td>
</tr>
<tr>
<td>(R) Fit with other Indians</td>
<td>.76</td>
</tr>
<tr>
<td>Do you participate in Indian occasions, holidays, traditions, etc</td>
<td>.73</td>
</tr>
<tr>
<td>If you consider yourself a member of the Indian group, how much pride you have in this group?</td>
<td>.70</td>
</tr>
<tr>
<td>How would you rate yourself?</td>
<td>.52</td>
</tr>
<tr>
<td>What is your food preference at home?</td>
<td>.32</td>
</tr>
<tr>
<td>Ethnicity of friends and peers you had, as a child from 6-18?</td>
<td>-.01</td>
</tr>
<tr>
<td>Ethnicity of friends and peers you had, as a child up to age 6?</td>
<td>.05</td>
</tr>
<tr>
<td>Where were you raised?</td>
<td>-.08</td>
</tr>
<tr>
<td>What generation are you?</td>
<td>.04</td>
</tr>
<tr>
<td>What language can you speak?</td>
<td>.00</td>
</tr>
<tr>
<td>What language do you prefer?</td>
<td>.16</td>
</tr>
<tr>
<td>Language - do you read</td>
<td>.21</td>
</tr>
<tr>
<td>Language - do you write</td>
<td>.16</td>
</tr>
<tr>
<td>What is your food preference at restaurant?</td>
<td>.21</td>
</tr>
<tr>
<td>Fit with Australians</td>
<td>-.06</td>
</tr>
<tr>
<td>Belief in Australian values</td>
<td>-.04</td>
</tr>
<tr>
<td>If you could choose, whom would you prefer to associate within the community?</td>
<td>.52</td>
</tr>
<tr>
<td>Whom do you associate within the community?</td>
<td>.43</td>
</tr>
<tr>
<td>What is your movie (language) preference?</td>
<td>.22</td>
</tr>
<tr>
<td>What contact have you had with India?</td>
<td>-.02</td>
</tr>
<tr>
<td>What is your music (language) preference?</td>
<td>.21</td>
</tr>
<tr>
<td>How do you identify yourself?</td>
<td>.04</td>
</tr>
<tr>
<td>(Modified) self identity (item 26)</td>
<td>.30</td>
</tr>
<tr>
<td>What identification does (did) your mother use?</td>
<td>-.15</td>
</tr>
<tr>
<td>What identification does (did) your father use?</td>
<td>.12</td>
</tr>
</tbody>
</table>

### Eigenvalues

<table>
<thead>
<tr>
<th></th>
<th>3.40</th>
<th>3.13</th>
<th>2.99</th>
<th>2.38</th>
<th>1.89</th>
<th>1.83</th>
<th>1.34</th>
</tr>
</thead>
</table>

### % of variance

<table>
<thead>
<tr>
<th></th>
<th>13.1</th>
<th>12.0</th>
<th>11.5</th>
<th>9.15</th>
<th>7.28</th>
<th>7.03</th>
<th>5.16</th>
</tr>
</thead>
</table>

### α

|          | .81  | .83  | .80  | .73  | .55  | .66  | .44  |

Factors:

1. Indian cultural affiliation  
2. Indian cultural exposure  
3. Language  
4. Australian cultural affiliation and association  
5. Entertainment  
6. Identity  
7. Ethnic identity of parents
Appendix 4.5  
Factor Loading of Brief Sexual Attitude Scale

<table>
<thead>
<tr>
<th>Rotated Factor Loadings</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>One night stands are sometimes very enjoyable</td>
<td>.84</td>
<td>.06</td>
<td>.07</td>
<td>-.11</td>
<td>.24</td>
</tr>
<tr>
<td>I would like to have sex with many partners</td>
<td>.83</td>
<td>.05</td>
<td>.09</td>
<td>-.04</td>
<td>.03</td>
</tr>
<tr>
<td>It is okay to have ongoing sex relationship with more than 1 person at a time</td>
<td>.81</td>
<td>.09</td>
<td>-.15</td>
<td>.06</td>
<td>-.13</td>
</tr>
<tr>
<td>Casual sex is acceptable</td>
<td>.78</td>
<td>.11</td>
<td>.06</td>
<td>.01</td>
<td>.29</td>
</tr>
<tr>
<td>I don’t need to be committed to a person to have sex with him/her</td>
<td>.75</td>
<td>.09</td>
<td>.06</td>
<td>-.11</td>
<td>.11</td>
</tr>
<tr>
<td>It is possible to enjoy sex with a person and not like that person very much</td>
<td>.68</td>
<td>.27</td>
<td>-.04</td>
<td>-.16</td>
<td>-.13</td>
</tr>
<tr>
<td>Sex as a simple exchange of favour is okay if both people agree to it</td>
<td>.68</td>
<td>.13</td>
<td>.06</td>
<td>-.06</td>
<td>.43</td>
</tr>
<tr>
<td>It is okay for sex to be just good physical release</td>
<td>.58</td>
<td>.29</td>
<td>.20</td>
<td>.08</td>
<td>.23</td>
</tr>
<tr>
<td>The main purpose of sex is to enjoy oneself</td>
<td>.17</td>
<td>.80</td>
<td>-.02</td>
<td>-.02</td>
<td>.15</td>
</tr>
<tr>
<td>Sex is primarily physical</td>
<td>.22</td>
<td>.79</td>
<td>-.02</td>
<td>.01</td>
<td>-.09</td>
</tr>
<tr>
<td>Sex is primarily the taking pleasure from another person</td>
<td>.06</td>
<td>.75</td>
<td>-.09</td>
<td>.09</td>
<td>.09</td>
</tr>
<tr>
<td>Sex is best when you let yourself go and focus on your own pleasure</td>
<td>-.01</td>
<td>.68</td>
<td>.06</td>
<td>.12</td>
<td>.32</td>
</tr>
<tr>
<td>Sex is primarily a bodily function, like eating</td>
<td>.25</td>
<td>.68</td>
<td>-.05</td>
<td>.09</td>
<td>-.10</td>
</tr>
<tr>
<td>A man should share responsibility for birth control</td>
<td>-.04</td>
<td>-.07</td>
<td>.83</td>
<td>.10</td>
<td>-.05</td>
</tr>
<tr>
<td>A woman should share responsibility for birth control</td>
<td>.07</td>
<td>.03</td>
<td>.80</td>
<td>.02</td>
<td>-.09</td>
</tr>
<tr>
<td>Birth control is part of responsible sexuality</td>
<td>.15</td>
<td>-.12</td>
<td>.75</td>
<td>.09</td>
<td>.09</td>
</tr>
<tr>
<td>Sex is usually an intensive, almost overwhelming experience</td>
<td>.00</td>
<td>.05</td>
<td>.56</td>
<td>.46</td>
<td>.27</td>
</tr>
<tr>
<td>Sex is a very important part of life</td>
<td>.06</td>
<td>.09</td>
<td>.49</td>
<td>.40</td>
<td>.46</td>
</tr>
<tr>
<td>A sexual encounter between two people deeply in love is the ultimate human interaction</td>
<td>-.09</td>
<td>.09</td>
<td>.21</td>
<td>.80</td>
<td>-.08</td>
</tr>
<tr>
<td>At its best, sex seems to be the merging of two souls</td>
<td>-.14</td>
<td>-.03</td>
<td>.27</td>
<td>.77</td>
<td>-.23</td>
</tr>
<tr>
<td>Sex is the closest form of communication between two people</td>
<td>-.02</td>
<td>.15</td>
<td>-.09</td>
<td>.69</td>
<td>.23</td>
</tr>
<tr>
<td>The best sex is no strings attached</td>
<td>.49</td>
<td>.14</td>
<td>-.04</td>
<td>-.09</td>
<td>.63</td>
</tr>
<tr>
<td>Life would have fewer problems if people could have sex more freely</td>
<td>.51</td>
<td>.11</td>
<td>.02</td>
<td>.05</td>
<td>.58</td>
</tr>
</tbody>
</table>

| Eigenvalues | 5.16 | 3.05 | 2.68 | 2.21 | 1.73 |
| % of variance | 22.44 | 13.26 | 11.63 | 9.61 | 7.52 |
| α | .90 | .81 | .79 | .70 | .70 |

Factors
Permissiveness; Instrumentality; Birth control; Communion; Problematic sex/permissiveness
<table>
<thead>
<tr>
<th>Appendix 4.6</th>
<th>Factor Loading of Safe Sex Behaviour Questionnaire (21 items*)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rotated Factor Loading</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>know an encounter may lead to intercourse, I carry a</td>
<td>.809</td>
</tr>
<tr>
<td>condom with me</td>
<td></td>
</tr>
<tr>
<td>I insist on condom use when I have intercourse</td>
<td>.777</td>
</tr>
<tr>
<td>I stop foreplay long enough for me or my partner to put</td>
<td>.646</td>
</tr>
<tr>
<td>on a condom</td>
<td></td>
</tr>
<tr>
<td>If I know an encounter may lead to intercourse, have</td>
<td>.610</td>
</tr>
<tr>
<td>mental plan to do safe sex</td>
<td></td>
</tr>
<tr>
<td>If my partner insists on intercourse without condom, I</td>
<td>.492</td>
</tr>
<tr>
<td>refuse to have intercourse</td>
<td></td>
</tr>
<tr>
<td>If I disagree with info that my partner presents on safe</td>
<td>.449</td>
</tr>
<tr>
<td>sex, I state my point of view</td>
<td></td>
</tr>
<tr>
<td>I DON'T engage in anal intercourse (R)</td>
<td>.145</td>
</tr>
<tr>
<td>I DON'T have sex with someone who is bi or gay (R)</td>
<td>-.141</td>
</tr>
<tr>
<td>I DON'T engage in intercourse on a first date (R)</td>
<td>-.170</td>
</tr>
<tr>
<td>I DON'T engage in anal intercourse without using condom (R)</td>
<td>.301</td>
</tr>
<tr>
<td>If swept away in the passion, I DON'T have intercourse</td>
<td>.064</td>
</tr>
<tr>
<td>without condom (R)</td>
<td></td>
</tr>
<tr>
<td>I avoid direct contact with partner's blood</td>
<td>.255</td>
</tr>
<tr>
<td>I DON'T use cocaine/drugs prior to or during</td>
<td>.150</td>
</tr>
<tr>
<td>intercourse (R)</td>
<td></td>
</tr>
<tr>
<td>I avoid intercourse when I have sores or irritation on my</td>
<td>.322</td>
</tr>
<tr>
<td>genital area</td>
<td></td>
</tr>
<tr>
<td>I insist on examining my sexual partner for lesions in</td>
<td>.047</td>
</tr>
<tr>
<td>genital area</td>
<td></td>
</tr>
<tr>
<td>I ask my potential sex partners for h/o of IV drug use</td>
<td>-.077</td>
</tr>
<tr>
<td>I initiate topic of safer sex with potential sexual partners</td>
<td>.510</td>
</tr>
<tr>
<td>I ask my potential sex partners for h/o bi- or</td>
<td>.028</td>
</tr>
<tr>
<td>homosexual practice</td>
<td></td>
</tr>
<tr>
<td>I ask potential sex partners for their sexual histories</td>
<td>.229</td>
</tr>
<tr>
<td>I avoid direct contact with my partner's semen or</td>
<td>-.013</td>
</tr>
<tr>
<td>vaginal secretions</td>
<td></td>
</tr>
<tr>
<td>I abstain from intercourse when I don't know my partner's</td>
<td>.109</td>
</tr>
<tr>
<td>sex history</td>
<td></td>
</tr>
</tbody>
</table>

*Three items from the original scale as they less than minimum KMO value of .5. R – reversed scored item.
1) Mental preparedness to practice safe sex 2) Avoidance of risky sexual behaviours
3) Assertiveness in practicing safe sex 4) Interpersonal skills
5) Assessment of sexual partner and 6) Delay or avoid sexual intercourse.
Appendix 4.7 Suinn-Lew Asian Self-Identity Acculturation Scale – Revised (26)

1. What language can you speak? N=207
   1. An Indian language only (for example, Hindi, Tamil, Punjabi etc.) 13(6.3)
   2. Mostly an Indian language, some English 7(3.4)
   3. An Indian language and English about equally well (bilingual) 152(73.4)
   4. Mostly English, some Indian 35(16.9)
   5. Only English 0

2. What language do you prefer? N=206
   1. An Indian language only (for example, Hindi, Tamil, Punjabi etc.) 11(5.3)
   2. Mostly an Indian language, some English 19(9.2)
   3. An Indian language and English about equally well (bilingual) 116(56.3)
   4. Mostly English, some Indian 46(22.3)
   5. Only English 14(6.8)

3. How do you identify yourself? N=207
   1. Indian 113(54.6)
   2. Asian 2(1.0)
   3. Asian-Australian 1(0.5)
   4. Indian-Australian 79(38.2)
   5. Australian 12(5.8)

4. Which identification does (did) your mother use? N=207
   1. Indian 203(98.1)
   2. Asian 0
   3. Asian-Australian 1(0.5)
   4. Indian-Australian 3(1.4)
   5. Australian 0

5. Which identification does (did) your father use? N=207
   1. Indian 199(96.1)
   2. Asian 4(1.9)
   3. Asian-Australian 0
   4. Indian-Australian 4(1.9)
   5. Australian 0

6. What was the ethnic origin of the friends and peers you had, as a child up to age 6? N=206
   1. Almost exclusively Indians 135(65.5)
   2. Mostly Indians 53(25.7)
   3. About equally Indian groups and Anglo-Australian groups 9(4.4)
   4. Mostly Anglo-Australians or other non-Indian ethnic groups 7(3.4)
   5. Almost exclusively Anglo-Australians or other non-Indian ethnic groups 2(1.0)

7. What was the ethnic origin of the friends and peers you had, as a child from 6 to 18? N=205
   1. Almost exclusively Indians 118(57.6)
   2. Mostly Indians 63(30.7)
   3. About equally Indian groups and Anglo-Australian groups 10(4.9)
   4. Mostly Anglo-Australians or other non-Indian ethnic groups 11(5.4)
   5. Almost exclusively Anglo-Australians or other non-Indian ethnic group 3(1.5)
8. Whom do you now associate with in the community? 
1. Almost exclusively Indians 10(4.9) 
2. Mostly Indians 88(42.7) 
3. About equally Indian groups and Anglo-Australian groups 74(35.9) 
4. Mostly Anglo-Australians or other non-Indian ethnic groups 25(12.1) 
5. Almost exclusively Anglo-Australians or other non-Indian ethnic groups 9(4.4) 

9. If you could choose, whom would you prefer to associate with in the community? 
1. Almost exclusively Indians 10(4.9) 
2. Mostly Indians 5(2.5) 
3. About equally Indian groups and Anglo-Australian groups 42(20.6) 
4. Mostly Anglo-Australians or other non-Indian ethnic groups 122(59.8) 
5. Almost exclusively Anglo-Australians or other non-Indian ethnic groups 22(10.8) 

10. What is your music preference? 
1. Only Indian music (for example, Hindi, Tamil, Punjabi etc.) 21(10.3) 
2. Mostly Indian music 56(27.5) 
3. Equally Indian and English music 96(47.1) 
4. Mostly English music 24(11.8) 
5. Only English music 7(3.4) 

11. What is your movie preference? 
1. Only Indian-language movies 10(4.8) 
2. Mostly Indian-language movies 34(16.4) 
3. Equally Indian language and English-language movies 112(54.1) 
4. Mostly English-language movies 45(21.7) 
5. Only English-language movies 6(2.9) 

12. What generation are you? (select the generation that best applies to you) 
1. 1st Generation 193(93.7) 
2. 2nd Generation 11(5.3) 
3. 3rd Generation 1(0.5) 
4. 4th Generation 0 
5. 5th Generation 0 
6. Don't know what generation best fits since I lack some information. 1(0.5) 

13. Where were you raised? 
1. In India only 159(77.6) 
2. Mostly in India, some in Australia 21(10.2) 
3. Equally in India and Australia 6(2.9) 
4. Mostly in Australia, some in India 10(4.9) 
5. In Australia only 9(4.4) 

14. What contact have you had with India? 
1. Raised one year or more in India 128(63.4) 
2. Lived for less than one year in India 4(2.0) 
3. Occasional visits to India 46(22.8) 
4. Occasional communications (letters, phone calls, etc.) with people in India 23(11.4) 
5. No exposure or communications with people in India 1(0.5)
15. What is your food preference at home? N=206
   1. Exclusively Indian food 50(24.3)
   2. Mostly Indian food, some Australian 95(46.1)
   3. About equally Indian and Australian 57(27.7)
   4. Mostly Australian food 3(1.5)
   5. Exclusively Australian food 1(0.5)

16. What is your food preference in restaurants? N=205
   1. Exclusively Indian food 25(12.2)
   2. Mostly Indian food, some Australian 58(28.3)
   3. About equally Indian and Australian 95(46.3)
   4. Mostly Australian food 27(13.2)
   5. Exclusively Australian food 0

17. Do you N=205
   1. Read only an Indian language 1(0.5)
   2. Read an Indian language better than English 11(5.4)
   3. Read both an Indian and English equally well 116(57.6)
   4. Read English better than an Indian language 52(25.4)
   5. Read only English 23(11.2)

18. Do you N=207
   1. Write only an Indian language 0
   2. Write an Indian language better than English 9(4.3)
   3. Write both an Indian and English equally well 119(57.5)
   4. Write English better than an Indian language 55(26.6)
   5. Write only English 24(11.6)

19. If you consider yourself a member of the Indian group (Indian, Indian-Australian, Australian-Indian, whatever term you prefer), how much pride do you have in this group? N=202
   1. Extremely proud 103(51.0)
   2. Moderately proud 54(26.7)
   3. Little pride 16(7.9)
   4. No pride but do not feel negative toward group 25(12.4)
   5. No pride but do feel negative toward group 4(2.0)

20. How would you rate yourself? N=206
   1. Very Indian 53(25.7)
   2. Mostly Indian 49(23.8)
   3. Bicultural 83(40.3)
   4. Mostly Westernized 16(7.8)
   5. Very Westernized 5(2.4)

21. Do you participate in Indian occasions, holidays, traditions, etc.? N=205
   1. Nearly all 20(9.8)
   2. Most of them 62(30.2)
   3. Some of them 78(38.0)
   4. A few of them 37(18.0)
   5. None at all 8(3.9)
22. Rate yourself on how much you believe in Indian values (e.g., about marriage, families, education, work): N=206
1 (do not believe) 3(1.5)
2 31(15.0)
3 35(17.0)
4 72(35.0)
5 (strongly believe) 65(31.6)

23. Rate your self on how much you believe in Australian (Western) values: N=204
1 (do not believe) 6(2.9)
2 48(23.5)
3 83(40.7)
4 49(24.0)
5 (strongly believe) 18(8.8)

24. Rate yourself on how well you fit when with other Indians: N=204
1 (do not fit) 6(2.9)
2 24(11.8)
3 44(21.6)
4 63(30.9)
5 (fit very well) 67(32.8)

25. Rate yourself on how well you fit when with other Australians who are non-Indian (Westerners): N=205
1 (do not fit) 6(2.9)
2 40(19.5)
3 58(28.3)
4 70(34.1)
5 (fit very well) 31(15.1)

26. There are many different ways in which people think of themselves. Which ONE of the following most closely describes how you view yourself? N=206
1. I consider myself basically an Indian person. Even though I live and work in Australia, I still view myself basically as an Indian person. 81(39.3)
2. I consider myself basically as an Australian. Even though I have an Asian background and characteristics, I still view myself basically as an Australian. 6(2.9)
3. I consider myself as an Indian-Australian, although deep down I always know I am an Indian. 71(34.5)
4. I consider myself as an Indian-Australian, although deep down, I view myself as an Australian first. 3(1.5)
5. I consider myself as an Indian-Australian. I have both Indian and Australian characteristics, and I view myself as a blend of both. 45(21.8)
### Appendix 4.8 Descriptive Statistics of Brief Sexual Attitude Scale

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Moderately agree</th>
<th>Neutral</th>
<th>Moderately disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I do not need to be committed to a person to have sex with him/her (n=201)</td>
<td>47(23.4)</td>
<td>45(22.4)</td>
<td>25(12.4)</td>
<td>26(12.9)</td>
</tr>
<tr>
<td></td>
<td>Casual sex is acceptable (n=199)</td>
<td>52(26.1)</td>
<td>52(26.1)</td>
<td>24(12.1)</td>
<td>28(14.1)</td>
</tr>
<tr>
<td>2</td>
<td>I would like to have sex with many partners (n=198)</td>
<td>34(17.2)</td>
<td>35(17.7)</td>
<td>33(16.7)</td>
<td>29(14.6)</td>
</tr>
<tr>
<td></td>
<td>One-night stands are sometimes very enjoyable (n=199)</td>
<td>52(26.1)</td>
<td>37(18.6)</td>
<td>36(18.1)</td>
<td>20(10.1)</td>
</tr>
<tr>
<td>3</td>
<td>Sex as a simple exchange of favors is okay if both people agree to it (n=201)</td>
<td>23(11.4)</td>
<td>30(14.9)</td>
<td>28(13.9)</td>
<td>22(10.9)</td>
</tr>
<tr>
<td></td>
<td>It is okay to have ongoing sexual relationships with more than one person at a time (n=201)</td>
<td>58(28.9)</td>
<td>33(16.4)</td>
<td>35(17.4)</td>
<td>27(13.4)</td>
</tr>
<tr>
<td>4</td>
<td>The best sex is with no strings attached (n=201)</td>
<td>43(21.4)</td>
<td>32(15.9)</td>
<td>34(16.9)</td>
<td>36(17.9)</td>
</tr>
<tr>
<td></td>
<td>Life would have fewer problems if people could have sex more freely (n=196)</td>
<td>48(24.5)</td>
<td>45(23.0)</td>
<td>43(21.9)</td>
<td>23(11.7)</td>
</tr>
<tr>
<td>5</td>
<td>It is possible to enjoy sex with a person and not like that person very much. (n=201)</td>
<td>19(9.5)</td>
<td>38(18.9)</td>
<td>34(16.9)</td>
<td>38(18.9)</td>
</tr>
<tr>
<td></td>
<td>It is okay for sex to be just good physical release (n=198)</td>
<td>46(23.2)</td>
<td>60(30.3)</td>
<td>37(18.7)</td>
<td>22(11.1)</td>
</tr>
<tr>
<td>6</td>
<td>Birth control is part of responsible sexuality (n=199)</td>
<td>113(56.8)</td>
<td>42(21.1)</td>
<td>27(13.6)</td>
<td>1(0.5)</td>
</tr>
<tr>
<td></td>
<td>A woman should share responsibility for birth control (n=193)</td>
<td>102(52.8)</td>
<td>35(18.1)</td>
<td>39(20.2)</td>
<td>6(3.1)</td>
</tr>
<tr>
<td>7</td>
<td>A man should share responsibility for birth control (n=198)</td>
<td>103(52.0)</td>
<td>39(19.7)</td>
<td>41(20.7)</td>
<td>7(3.5)</td>
</tr>
<tr>
<td></td>
<td>Sex is the closest form of communication between two people (n=197)</td>
<td>71(36.0)</td>
<td>58(29.4)</td>
<td>28(14.2)</td>
<td>24(12.2)</td>
</tr>
<tr>
<td>8</td>
<td>A sexual encounter between two people deeply in love is the ultimate human interaction (n=197)</td>
<td>99(50.3)</td>
<td>48(24.4)</td>
<td>28(14.2)</td>
<td>13(6.6)</td>
</tr>
<tr>
<td></td>
<td>At its best, sex seems to be the merging of two souls (n=195)</td>
<td>88(45.1)</td>
<td>50(25.6)</td>
<td>28(14.4)</td>
<td>18(9.2)</td>
</tr>
<tr>
<td>9</td>
<td>Sex is a very important part of life (n=196)</td>
<td>131(66.8)</td>
<td>47(24.0)</td>
<td>9(4.6)</td>
<td>3(1.5)</td>
</tr>
<tr>
<td></td>
<td>Sex is usually an intensive, almost overwhelming experience (n=194)</td>
<td>78(40.2)</td>
<td>73(37.6)</td>
<td>30(15.5)</td>
<td>5(2.6)</td>
</tr>
<tr>
<td>10</td>
<td>Sex is best when you let yourself go and focus on your own pleasure (n=200)</td>
<td>45(22.5)</td>
<td>53(26.5)</td>
<td>45(22.5)</td>
<td>36(18.0)</td>
</tr>
<tr>
<td></td>
<td>Sex is primarily the taking of pleasure from another person (n=199)</td>
<td>22(11.1)</td>
<td>48(24.1)</td>
<td>56(28.1)</td>
<td>46(23.1)</td>
</tr>
<tr>
<td>11</td>
<td>The main purpose of sex is to enjoy oneself (n=199)</td>
<td>38(19.1)</td>
<td>61(30.7)</td>
<td>36(18.1)</td>
<td>36(18.1)</td>
</tr>
<tr>
<td></td>
<td>Sex is primarily physical (n=201)</td>
<td>29(14.4)</td>
<td>56(27.9)</td>
<td>38(18.9)</td>
<td>47(23.4)</td>
</tr>
<tr>
<td>12</td>
<td>Sex is primarily a bodily function, like eating (n=200)</td>
<td>37(18.5)</td>
<td>53(26.5)</td>
<td>37(18.5)</td>
<td>39(19.5)</td>
</tr>
</tbody>
</table>

Highest frequency responses are highlighted in bold font.
### Appendix 4.9

Analytical statistics of BSAS subscales and self-identity acculturation variables

<table>
<thead>
<tr>
<th></th>
<th>Permissiveness</th>
<th>Birth control</th>
<th>Communion</th>
<th>Instrumentality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Indian identity</td>
<td>94.11</td>
<td>101.08</td>
<td>103.56</td>
<td>95.49</td>
</tr>
<tr>
<td>(Bicultural or Australian)</td>
<td>(n=121)</td>
<td>(n=118)</td>
<td>(n=118)</td>
<td>(n=119)</td>
</tr>
<tr>
<td>Indian identity</td>
<td>110.28</td>
<td>94.60</td>
<td>89.49</td>
<td>105.49</td>
</tr>
<tr>
<td></td>
<td>(n=79)</td>
<td>(n=78)</td>
<td>(n=77)</td>
<td>(n=79)</td>
</tr>
<tr>
<td>Mann-Whitney</td>
<td>U = 4006.5</td>
<td>U = 4298</td>
<td>U = 3887.5</td>
<td>U = 4223</td>
</tr>
<tr>
<td>U test</td>
<td>z = – 1.93</td>
<td>z = – .81</td>
<td>z = – 1.71</td>
<td>z = – 1.21</td>
</tr>
</tbody>
</table>

* p<0.05  ** p<.01
## Appendix 4.10

### Reasons for masturbating (n=179)

<table>
<thead>
<tr>
<th>Reasons for wanting to masturbate</th>
<th>Number of responses* (%)</th>
<th>Percent of total respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>To gain pleasure</td>
<td>142(23.8)</td>
<td>79.3</td>
</tr>
<tr>
<td>To self-explore and improve my sexuality</td>
<td>32(5.4)</td>
<td>17.9</td>
</tr>
<tr>
<td>To improve mood</td>
<td>48(8.1)</td>
<td>26.8</td>
</tr>
<tr>
<td>To relax and relieve stress</td>
<td>122(20.5)</td>
<td>68.2</td>
</tr>
<tr>
<td>To avoid sex with my partner</td>
<td>8(1.3)</td>
<td>4.5</td>
</tr>
<tr>
<td>To decrease my sexual arousal</td>
<td>35(5.9)</td>
<td>19.6</td>
</tr>
<tr>
<td>I can’t avoid or stop masturbating (compulsion)</td>
<td>22(3.9)</td>
<td>12.8</td>
</tr>
<tr>
<td>To arouse or give pleasure to my partner</td>
<td>14(2.3)</td>
<td>7.8</td>
</tr>
<tr>
<td>I masturbate because other do it</td>
<td>1(0.2)</td>
<td>0.6</td>
</tr>
<tr>
<td>I use masturbation as a substitute for partner sex</td>
<td>46(7.7)</td>
<td>25.7</td>
</tr>
<tr>
<td>To enjoy my sexual fantasies</td>
<td>84(14.1)</td>
<td>46.9</td>
</tr>
<tr>
<td>I don’t feel sexually attractive to others</td>
<td>3(0.5)</td>
<td>1.7</td>
</tr>
<tr>
<td>I masturbate when I am bored</td>
<td>38(6.4)</td>
<td>21.2</td>
</tr>
<tr>
<td>Total</td>
<td>596(100%)</td>
<td></td>
</tr>
</tbody>
</table>

### Reasons for avoiding masturbation (n=44)

<table>
<thead>
<tr>
<th>Reasons for avoiding masturbation</th>
<th>Number of responses* (%)</th>
<th>Percent of total respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is against my morals or values</td>
<td>8(9.1)</td>
<td>18.2</td>
</tr>
<tr>
<td>I know I would regret it and feel guilty or bad about it</td>
<td>12(13.6)</td>
<td>27.3</td>
</tr>
<tr>
<td>I was raised to believe it is wrong</td>
<td>2(2.3)</td>
<td>4.5</td>
</tr>
<tr>
<td>I have no desire or interest in masturbation</td>
<td>7(8)</td>
<td>15.9</td>
</tr>
<tr>
<td>I prefer partner sex over masturbation</td>
<td>23(26.1)</td>
<td>52.3</td>
</tr>
<tr>
<td>I fear negative social evaluation of my act</td>
<td>4(4.5)</td>
<td>9.1</td>
</tr>
<tr>
<td>I am not comfortable with my own sexuality</td>
<td>1(1.1)</td>
<td>2.3</td>
</tr>
<tr>
<td>When I am stressed, anxious, depressed or worried</td>
<td>2(2.3)</td>
<td>4.5</td>
</tr>
<tr>
<td>Makes me less horny during partner sex</td>
<td>2(2.3)</td>
<td>4.5</td>
</tr>
<tr>
<td>I am in a committed relationship</td>
<td>10(11.4)</td>
<td>22.7</td>
</tr>
<tr>
<td>Sexual thoughts and fantasies during masturbation</td>
<td>4(4.5)</td>
<td>9.1</td>
</tr>
<tr>
<td>I like to have control over my sexual urges</td>
<td>13(14.8)</td>
<td>29.5</td>
</tr>
<tr>
<td>Total</td>
<td>88(100%)</td>
<td></td>
</tr>
</tbody>
</table>

* Multiple responses
### Appendix 4.11

Current masturbatory status based on degree of religious affiliation of Indian migrant men (n=229).

<table>
<thead>
<tr>
<th>Current masturbatory status</th>
<th>No  n (%)</th>
<th>Yes n (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree of religious affiliation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4 (15.4)</td>
<td>22 (84.6)</td>
<td>26 (11.4)</td>
</tr>
<tr>
<td>2</td>
<td>4 (12.1)</td>
<td>29 (87.9)</td>
<td>33 (14.4)</td>
</tr>
<tr>
<td>3</td>
<td>13 (22)</td>
<td>46 (78)</td>
<td>59 (25.8)</td>
</tr>
<tr>
<td>4</td>
<td>13 (22.4)</td>
<td>45 (77.6)</td>
<td>58 (25.3)</td>
</tr>
<tr>
<td>5</td>
<td>18 (34)</td>
<td>35 (66)</td>
<td>53 (23.1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>52</td>
<td>177</td>
<td>229 (100%)</td>
</tr>
</tbody>
</table>

Current masturbatory status based on length of residence of Indian migrant men (n=220).

<table>
<thead>
<tr>
<th>Current masturbatory status</th>
<th>No  n (%)</th>
<th>Yes n (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of residence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newer migrants (&lt; 5 years)</td>
<td>23 (22.8)</td>
<td>78 (77.2)</td>
<td>101 (100)</td>
</tr>
<tr>
<td>Older migrants (5 or more years)</td>
<td>28 (23.5)</td>
<td>91 (76.5)</td>
<td>119 (100)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51 (23.2)</td>
<td>169 (76.8)</td>
<td>220</td>
</tr>
</tbody>
</table>

\( \chi^2 (1, n=220) = 0.18, \text{ N/S} \)

Current masturbatory status based on unilinear SL-ASIA scale (1-21 items) score of Indian migrant men (n=199).

<table>
<thead>
<tr>
<th>Current masturbatory status</th>
<th>No n (%)</th>
<th>Yes n (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SL-ASIA scale score (1-21 items)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>27 (23.7)</td>
<td>87 (76.3)</td>
<td>114 (100)</td>
</tr>
<tr>
<td>Medium-High</td>
<td>15 (17.6)</td>
<td>70 (82.4)</td>
<td>85 (100)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>42 (21)</td>
<td>157 (78.9)</td>
<td>199</td>
</tr>
</tbody>
</table>

\( \chi^2 (1, n=199) = 1.07, \text{ N/S} \)
# Appendix 4.12 Descriptive Statistics of Safe Sex Behaviour Questionnaire

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Sometimes</td>
<td>Most of the times</td>
<td>Always</td>
</tr>
<tr>
<td>1</td>
<td>I insist on condom use when I have sexual intercourse (n=184)</td>
<td>31(16.8)</td>
<td>41(22.3)</td>
<td>47(25.5)</td>
</tr>
<tr>
<td>2</td>
<td>I use cocaine or other drug prior to or during sexual intercourse (n=185)</td>
<td>174(94.1)</td>
<td>5(2.7)</td>
<td>1(0.5)</td>
</tr>
<tr>
<td>3</td>
<td>I stop foreplay long enough to put on a condom (or for my partner to put on a condom) (n=184)</td>
<td>48(26.1)</td>
<td>63(34.2)</td>
<td>39(21.2)</td>
</tr>
<tr>
<td>4</td>
<td>I ask potential sexual partners about their sexual histories (n=183)</td>
<td>74(40.4)</td>
<td>56(30.6)</td>
<td>31(16.9)</td>
</tr>
<tr>
<td>5</td>
<td>I avoid direct contact with my sexual partner’s semen or vaginal secretions (n=185)</td>
<td>56(30.3)</td>
<td>50(27)</td>
<td>45(24.3)</td>
</tr>
<tr>
<td>6</td>
<td>I ask my potential sexual partners about a history of bisexual/homosexual practices (n=184)</td>
<td>108(58.7)</td>
<td>35(19)</td>
<td>14(7.6)</td>
</tr>
<tr>
<td>7</td>
<td>I engage in sexual intercourse on a first date (n=184)</td>
<td>115(62.5)</td>
<td>52(28.3)</td>
<td>12(6.5)</td>
</tr>
<tr>
<td>8</td>
<td>I abstain from sexual intercourse when I do not know my partner’s sexual history (n=184)</td>
<td>58(31.5)</td>
<td>51(27.7)</td>
<td>29(15.8)</td>
</tr>
<tr>
<td>9</td>
<td>I avoid sexual intercourse when I have sores or irritation in my genital area (n=185)</td>
<td>22(11.9)</td>
<td>28(15.1)</td>
<td>24(13)</td>
</tr>
<tr>
<td>10</td>
<td>If I know an encounter may lead to sexual intercourse, I carry a condom with me. (n=185)</td>
<td>52(28.1)</td>
<td>22(11.9)</td>
<td>32(17.3)</td>
</tr>
<tr>
<td>11</td>
<td>I insist on examining my sexual partner for sores, cuts or abrasions in the genital area (n=184)</td>
<td>80(43.5)</td>
<td>40(21.7)</td>
<td>30(16.3)</td>
</tr>
<tr>
<td>12</td>
<td>If I disagree with information that my partner presents on safer sex practices, I state my point of view (n=185)</td>
<td>36(19.5)</td>
<td>52(28.1)</td>
<td>37(20)</td>
</tr>
<tr>
<td>13</td>
<td>I engage in oral sex without using protective barriers such as condom or rubber dam (n=184)</td>
<td>56(30.4)</td>
<td>44(23.9)</td>
<td>42(22.8)</td>
</tr>
<tr>
<td>14</td>
<td>If swept away in the passion of the moment, I have sexual intercourse without using a condom (n=184)</td>
<td>80(43.5)</td>
<td>65(35.3)</td>
<td>18(9.8)</td>
</tr>
<tr>
<td>15</td>
<td>I have sexual intercourse with someone who I know is a bisexual or gay person (n=184)</td>
<td>139(75.5)</td>
<td>18(9.8)</td>
<td>11(6)</td>
</tr>
<tr>
<td>16</td>
<td>I engage in anal intercourse (n=184)</td>
<td>146(79.3)</td>
<td>19(10.3)</td>
<td>10(5.4)</td>
</tr>
<tr>
<td>17</td>
<td>If I know an encounter may lead to sexual intercourse, I have a mental plan to practice safer sex. (n=185)</td>
<td>38(20.5)</td>
<td>24(13)</td>
<td>41(22.2)</td>
</tr>
<tr>
<td>18</td>
<td>If my partner insists on sexual intercourse without a condom, I refuse to have sexual intercourse (n=184)</td>
<td>55(29.9)</td>
<td>53(28.8)</td>
<td>26(14.1)</td>
</tr>
<tr>
<td>19</td>
<td>I avoid direct contact with my sexual partner’s blood (n=183)</td>
<td>33(18)</td>
<td>20(10.9)</td>
<td>22(12)</td>
</tr>
<tr>
<td>20</td>
<td>It is difficult for me to discuss sexual issues with my sexual partners (n=183)</td>
<td>92(50.3)</td>
<td>59(32.2)</td>
<td>19(10.4)</td>
</tr>
<tr>
<td>21</td>
<td>I initiate the topic of safer sex with my potential sexual partner (n=183)</td>
<td>32(17.4)</td>
<td>50(27.2)</td>
<td>61(33.2)</td>
</tr>
<tr>
<td>22</td>
<td>I have sexual intercourse with someone who I know is a bisexual or gay person (n=184)</td>
<td>139(75.5)</td>
<td>18(9.8)</td>
<td>11(6)</td>
</tr>
<tr>
<td>23</td>
<td>If I disagree with information that my partner presents on safer sex practices, I state my point of view (n=185)</td>
<td>36(19.5)</td>
<td>52(28.1)</td>
<td>37(20)</td>
</tr>
<tr>
<td>24</td>
<td>I drink alcoholic beverages prior to or during sexual intercourse. (n=184)</td>
<td>90(48.9)</td>
<td>74(40.2)</td>
<td>12(6.5)</td>
</tr>
</tbody>
</table>
### Appendix 4.13

Correlation between age and safe sex practice of men who were not in a committed relationship (n=85)

<table>
<thead>
<tr>
<th>Mental preparedness to practice safe sex</th>
<th>Avoidance of risky sexual behaviours</th>
<th>Assertiveness in practicing safe sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td>$r_s = .08$</td>
<td>$r_s = .14$</td>
</tr>
<tr>
<td>Non-significant.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Correlation between acculturation and safe sex practice of men who were not in a committed relationship

<table>
<thead>
<tr>
<th>Mental preparedness to practice safe sex</th>
<th>Avoidance of risky sexual behaviours</th>
<th>Assertiveness in practicing safe sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-item SL-ASIA (n=85)</td>
<td>$r_s = .14$</td>
<td>$r_s = -.04$</td>
</tr>
<tr>
<td>Length of residence (n=78)</td>
<td>$r_s = .05$</td>
<td>$r_s = -.03$</td>
</tr>
<tr>
<td>Non-significant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 5 - CORRESPONDENCE
2008 – Approval for Stage 1

Dr. G. Sitharthan
Faculty of Health Sciences
Cumberland Campus – C42
The University of Sydney

Dear Dr. Sitharthan,

Thank you for your correspondence dated 23 July 2008 addressing comments made you by the Human Research Ethics Committee (HREC). After considering the additional information, the Executive Committee at its meeting on 30 July 2008 approved your protocol entitled Sexual Health of South Asian Migrant Men Living in Australia.

Details of the approval are as follows:

Ref No.: 07-2008/11128
Approval Period: July 2008 to July 2009
Authorised Personnel: Dr. G. Sitharthan, Dr. V. Ramanathan

2010 – Approval for Stage 2

Address for correspondence:
OFFICE OF ETHICS ADMINISTRATION
LEVEL 6
JANE FOS3 RUSSELL BUILDING – G02
THE UNIVERSITY OF SYDNEY NSW 2006

HUMAN RESEARCH ETHICS COMMITTEE
REQUEST FOR MODIFICATION

Principal Investigator: Dr. Gomathi Sitharthan
Department: Graduate Program in Sexual Health
Address: Faculty of Health Sciences, Cumberland campus, C42 The University of Sydney
Communication - permission to use few items from the ‘Attitudes Toward Masturbation Scale’.

Dear Dr. Ramanathan,

I would be happy to have you use the ‘Attitudes Toward Masturbation Scale’

You might also ask the first author, Chantal Young, PhD: chantal.young@gmail.com

I have cc’d her on this email.

Best wishes,
Charlene Muenlenhard

Charlene Muenlenhard, Ph.D.
Professor
Department of Psychology
Women, Gender, and Sexuality Studies Program

Department of Psychology
426 Freiser Hall
University of Kansas
1415 Jayhawk Blvd.
Lawrence, KS 66045-7556

Phone: (785) 864-9660
Email: charlene@ku.edu

Communication – permission to use SL-ASIA scale

So far, we have not devised a short version of the scale.

My opinion is that it would be fine for you to adapt the scale to fit your needs, as long as you had a good explanation of why and how you modified it, and you explained your rationale to your dissertation committee and/or to the journal editor if you submit it for publication. Of course, it would be probably be good for you to ask your dissertation advisor for advice! 😊

Best wishes,
Charlene M

Link to scoring was provided by the author.
Communication – permission to use Brief Sexual Attitudes Scale

Dr. Ramanathan,

You are very welcome to use our BSAS in your research. I have attached copies of the scale as well as the original scaling article about it.

Susan Hendrick

Communication – permission to use the Safe Sex Behaviour Frequency scale

Hi Dr. Ramanathan,

Yes, you have my permission to use the scale. I assume that all the information you need is in the book. If you have additional questions, just let me know. Good luck with your research.

Colleen

Colleen DiIorio, PhD, RN, FAAN
Professor
1518 Clifton Rd. NE
Atlanta, GA 30322
Phone: 404-727-8741