

ACCULTURATION, PERCEIVED DISCRIMINATION, GENDER, AND PSYCHOLOGICAL  
DISTRESS AMONG SOUTH ASIAN YOUNG ADULTS

by

ANEESA SHARIFF

B.A., The University of British Columbia, 2002

M.Ed., The University of Alberta, 2006

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## Abstract

Acculturation theories have recently been updated; perceived discrimination is now thought to moderate the relationship between acculturation style and psychological distress (Berry, 2003). This study tested this hypothesis, along with gender differences in acculturation, perceived discrimination, and perceived discrimination as a moderator in the acculturation-distress relationship. It was thought that differences in gender role expectations for South Asian males and females would suggest possible differences in acculturation style. It was also predicted that differential gender based cultural stereotypes would suggest differences in perceived discrimination and its role in the acculturation-distress relationship for South Asian males versus females.

Two hundred twenty second generation South Asian young adults completed an online set of questionnaires assessing acculturation, perceived discrimination, and psychological distress. Contrary to the study hypotheses, there were no significant gender differences in acculturation or perceived discrimination. Additionally, results of structural equation modelling found perceived discrimination did not moderate the relationship between acculturation and psychological distress for the sample overall or for males and females separately. Contrary to existing acculturation research, there was also no significant link found between acculturation preferences and psychological distress. However, there was a moderate and statistically significant direct relationship between perceived discrimination and psychological distress. Current acculturation theories may need revision in light of these findings. Additionally, counsellors should consider the possibility that second generation South Asian clients' therapeutic issues may be tied to racial discrimination as opposed to acculturation or bicultural identity formation.

## Preface

This research was approved by the University of British Columbia Behavioural Research Ethics Board (Certificate # H08-03107).

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## Dedication

This dissertation is dedicated to my parents, whose support and patience has been invaluable to me over the years, and in particular, as I have endured the ups and downs of graduate school. The depth of their contributions to my academic success and personal development cannot be conveyed in words and pages; I will remain eternally grateful for their patience, understanding, and support.

## CHAPTER I

### INTRODUCTION

Canada is a multicultural society that is often considered a model of pluralism and diversity for other countries (Berry, 2003). Canadian multicultural policy explicitly encourages immigrants to retain some of their unique cultural values and behaviours, while simultaneously expecting them to integrate into the host/mainstream culture (Maton, 1995), which tends to be dominated by Euro Canadian influences (Berry). This multicultural policy is distinctive from those of other countries, such as the United States, which encourages a “melting pot” where immigrants are encouraged to assimilate into the dominant American culture in order to gain societal acceptance (Berry). In contrast, many European countries have adopted segregationist multicultural policies, where immigrants are kept socially isolated from the larger surrounding society and often form cultural ghettos (Berry).

Despite Canada’s explicit recognition of the benefits of a multicultural society, individuals from various ethnic groups continue to report ongoing racial discrimination (Tousignant, 1997). Public surveys have demonstrated that Canadians show a hierarchy of preferences in their attitudes toward various immigrant groups, with the least favourable attitudes toward immigrants of South Asian and Arab origin (Berry & Kalin, 1995). Evidence of discriminatory actions based on these ethnic preferences have emerged in studies of housing, employment, education, and social service delivery in Canada, with darker skinned and more culturally dissimilar immigrant groups perceiving higher levels of discrimination compared to invisible ethnic minorities (Dion, 2001; Tousignant). Such research highlights the continuing potential for prejudice and ethnic discrimination in Canada, which is often seen as a successful model of multiculturalism for other countries (Berry, 2003). In a recent article, Sue et al. (2007) asserted that, while overt racial discrimination may be on the decrease, more subtle and

ambiguous forms of racism, termed “racial microaggressions,” are on the rise. According to Sue et al., these incidents are defined as being every-day verbal or non-verbal behaviours that communicate more covert forms of hostility, invalidation, or insults toward ethnic minorities. Racial microaggressions are characterized by their subtlety, typically leaving the victim with a strong feeling of discomfort that he/she is unable to attribute clearly to discrimination, potentially making them just as hurtful as more obvious forms of racism (Sue et al.).

When not all cultural groups have equal opportunities to integrate with members of the dominant group in society due to experiences of discrimination, they may experience difficulties in their acculturation process as well as increased psychological distress (Berry, 2003). When individuals’ contact experiences with the host culture are negative, they may not have a chance to integrate into the dominant Canadian culture if they feel socially rejected or self-conscious due to their ethnic minority status (Padilla & Perez, 2003). According to social identity theory, such negative experiences may also result in a loss of desire to interact with members of the dominant Canadian culture and a preference to seek acceptance among members of the individual’s heritage ethnic group (Tajfel & Turner, 1986). While finding security and social affirmation among one’s own ethnic group may offer some protective mental health benefits, researchers have found that the overall net effect of perceived discrimination is still negative, noting increased hostility, paranoia, lowered self-esteem, anxiety, and depression (Branscombe, Schmitt, & Harvey, 1999; McCoy & Major, 2003).

In these cases, the national multicultural policy, which encourages full participation in both one’s home and host cultures, may not be health promoting if immigrants do not feel safe or fully accepted in their interactions with those from the dominant culture (Berry, 2003). When individuals are confronted with experiences of racism, a separation strategy that pulls them back to their own cultural group may be health protective (Tousignant, 1997). Recently, researchers

have begun to re-conceptualize models of acculturation to take into account these considerations (Phinney, Horenczyk, Liebkind, & Vedder, 2001). It is postulated that the best mental health option for a particular individual may depend on a combination of his/her immigrant group's reception in the host society and on the acculturation preferences of the individual and his/her family (Berry, 2003; Phinney et al.).

While researchers have begun to identify perceived discrimination as a potential moderator of the relationship between acculturation preferences and psychological functioning, there is currently no empirical research to provide support for this expanded model. The purpose of the current research was to test this model by examining the relationships among acculturation preferences, perceived discrimination, and psychological distress in a sample of second generation South Asian young adults. This chapter will describe the South Asian culture in terms of its specific values and traditions and will operationalize the constructs of acculturation, perceived discrimination, and psychological distress used in this study. A brief introduction to these core areas is provided in the following section.

### **South Asian Culture**

The term "South Asian" can be used to describe individuals of various religions and nationalities who draw their cultural origins from the Indian subcontinent (Assanand, Dias, Richardson, & Waxler-Morrison, 1990; Ibrahim, Ohnishi, & Sandhu, 1997). South Asian countries consist primarily of Pakistan, India, Nepal, Kashmir, Burma, Sri Lanka, and Fiji (Assanand et al.; Ibrahim et al.). Despite variability in regional South Asian languages and practices of specific subcultures, a common unifying core culture exists in the Indian subcontinent that pre-dates the contemporary geographical borders of South Asian countries and has been in existence since 7,000 B.C. (Ibrahim et al.). A long history of a common way of life among the individuals from the Indian subcontinent explains why a shared core culture exists

and cuts across nationalities, religions, and man-made geographical borders even today.

According to Matsumoto (2000), culture can be defined as:

A dynamic system of rules, explicit and implicit, established by groups in order to ensure their survival, involving attitudes, values, beliefs, norms, and behaviours, shared by a group but harboured differently by each specific unit within the group, communicated across generations (p. 24)

South Asian culture is typically distinct from that of the mainstream Euro Canadian society in several key ways, although these cultural norms can vary by sub group, family, and individual (Assanand et al., 1990). One of these differences involves the emphasis on collectivism. South Asian culture typically gives the family's welfare primary importance; individuals are expected to sacrifice their own personal desires to ensure the family's well-being when they are in conflict (Segal, 1991). The interdependence of family members is encouraged throughout the lifespan, and children are expected to remain socially and emotionally dependent on their parents to a certain degree even as adults (Assanand et al; Segal). Since South Asians are traditionally socialized to perceive themselves in relation to others, they are usually very conscious that their actions should not bring shame to their families, since individual behaviours are thought to reflect on the family's reputation within the community (Segal). When one person's behaviour departs from expected family norms, South Asian parents often perceive this as a loss of control, and react by attempting to instill feelings of shame and selfishness in the family member until the individual complies (Segal). These norms typically focus on various aspects of acculturation, such as dress, interaction patterns with other South Asians, mate selection and marriage, as well as religious and cultural customs (Almeida, 1996; Ghuman, 1994; Wakil, Siddique, & Wakil, 1981).

The South Asian culture traditionally delineates clearly defined gender roles, although there is variability in the degree to which families ascribe to this, especially in dual career families (Almeida, 1996; Assanand et al., 1990; Segal, 1991). The man's primary function is to provide financially for the family and to make the major decisions in the household, while the woman's role is traditionally that of nurturer, mother, and caretaker (Assanand et al.). South Asian culture espouses the belief that men and women have separate yet complementary functions in life which should both be respected and appreciated (Carolan, Bagherinia, Juhari, Himelright, & Mouton-Sanders, 2000). Similarly, South Asian daughters tend to be protected and sheltered by family members and often have greater restrictions placed on them compared to sons, because they are believed to be the source of the family's honour and respectability as future wives and mothers (Assanand et al.).

### **Acculturation**

The adjustment of living among two cultures leaves immigrants with two critical choices that are related to their cultural preferences. Berry (2001, 2003) conceptualizes acculturation as a process of cultural transition in which immigrants must make two related decisions regarding their heritage culture and that of the host country. First, immigrants must choose how much of their traditional cultural values and beliefs to maintain. Second, they must also decide the extent to which they wish to interact with and adopt the values and beliefs of the majority cultural group(s) (Berry). According to Berry, acculturation is therefore a multidimensional latent construct that involves decisions about cultural change with respect both to one's own group and to the majority group. Both attitudinal and behavioural changes related to acculturation can be expressed along these two dimensions (Berry).

In Berry's model, the outcomes of making these two related decisions can yield four different acculturation styles that immigrants use to respond to their home and host cultures.

Assimilation occurs when one chooses to reject one's heritage cultural identity and chooses instead to identify with and adopt fully the culture of the majority society (Berry, Kim, Power, Young, & Bujaki, 1989). In this case, the individual emphasizes the importance of becoming fully immersed in the dominant society and does not place value in retaining his/her traditional cultural practices and beliefs. In contrast, an individual who does not wish to become involved with the majority group and prefers to fully retain his/her heritage cultural identity is said to prefer a separated acculturation style. Integration, the third strategy, occurs when individuals place value on both the heritage and host cultures and attempt to selectively adopt aspects of each culture (Berry et al.). In this case, immigrants prefer to expand their perception of their cultural identities to include selective characteristics of the host culture in addition to those of their heritage ethnic backgrounds. The final type of acculturation strategy, marginalization, occurs when individuals feel alienated and disconnected from both cultures (Berry et al.).

While a large portion of acculturation preference is the result of individual choice, Berry (2003) has updated his model recently to state that the attitudes of individuals in the host culture and the country's national multicultural policy will also exert strong influences on individual acculturation preferences. For example, an immigrant who desires integration but who lives in a country with an assimilationist multicultural policy may not be fully accepted by the host society unless he/she chooses to reject the culture of origin, thereby restricting the available acculturation options. Therefore, acculturation is not only a multidimensional variable, but also one that is a mutual and reciprocal experience shared both by immigrants and those in the host society in which they settle (Berry).

A recent model of acculturation by Padilla and Perez (2003) has provided an alternative to Berry's model in several important ways by including relevant factors from social cognition into their conceptualization of acculturation. Specifically, they propose that social cognition,

cultural competence, social identity, and social stigma are four critical “pillars” upon which an individual’s acculturation preferences depend (Padilla & Perez). With regard to social cognition, these authors state that cognitive biases in information processing (e.g., confirmatory bias, selective perception, etc.) influence individual goals and perceptions in a given situation, which in turn influence a person’s acculturation preferences (Padilla & Perez). Cultural competence refers to a given individual’s ability to behave appropriately according to culturally defined norms, and is linked to being perceived as an “insider” who fits into the host society (Padilla & Perez). The third pillar, social identity, refers to one’s motivation to find belonging and kinship with a social group, while separating from those groups in which one does not feel accepted (Padilla & Perez). Therefore, the nature of one’s contact experiences and interactions with those from the host culture will have an impact on one’s social identity, thereby also influencing acculturation preferences (Padilla & Perez).

The final pillar, social stigma, posits that some cultural groups face more discrimination than others due to characteristics that are devalued by members of the host culture (Padilla & Perez). Specifically, the authors assert that acculturation is likely to be more difficult for individuals who are perceived to be more different than members of the dominant culture with respect to religion, skin colour, accents, and cultural practices. These individuals are more easily identifiable as outsiders, and tend to be easier targets of racism (Padilla & Perez). As a result, socially stigmatized persons are more likely to experience psychological distress due to fewer opportunities for positive contact experiences with members of the host culture, as well as social exclusion (either explicit or implicit) from privileged groups or institutions (Padilla & Perez). In these cases, the authors propose that it can be health promoting for these individuals to affiliate with others who are similarly stigmatized, such as those from their own ethnic group, since these interactions are likely to be more positive and less stressful, hostile, and anxiety provoking

(Padilla & Perez). Therefore, being a member of a more visibly distinct cultural group can potentially restrict one's acculturation options by limiting one's ability to participate fully in the dominant culture, as well as play an important role in which acculturation preferences are most adaptive with respect to psychological functioning.

### **Perceived Discrimination**

Perceived discrimination can be conceptualized as a stressful event involving unfair treatment that can trigger significant psychosocial distress (Landrine, Klonoff, Fernandez, & Roesch, 2006). Experiences of ethnic discrimination can involve both overt instances, in which there is a clear and obvious incident, such as a racial slur or physical attack, and covert "racial microaggressions," which are more subtle experiences that are not clearly attributable to racism, but leave the victim feeling upset or invalidated (Sue et al., 2007). Both overt and covert forms of ethnic discrimination are thought to be harmful. Recently, however, it has been suggested that covert racial microaggressions are potentially more upsetting, because one is left with an unsettled feeling that they have been treated unfairly (Sue et al.). Since they are not able to clearly attribute the situation to racism, the victims often expend much of their cognitive resources to try to make sense of the incident, and are left wondering whether their treatment was due to the perpetrator's prejudicial attitudes or to some personal characteristic (Sue et al.).

Health researchers have used a stress-coping model to conceptualize the effects of ethnic discrimination, which proposes that the level of psychological distress associated with perceptions of discrimination depends on both the frequency and emotional intensity of these experiences (Landrine et al.). Specifically, this model asserts that higher levels of discrimination, coupled with cognitive appraisal of these events as stressful or upsetting, can be conceptualized as forms of chronic stress that will relate to increased psychological distress over time (Landrine et al.). Therefore, individuals who perceive a higher amount of ethnic

discrimination in terms of frequency and/or emotional intensity through the acculturation process may become subject to heightened levels of stress, which may also relate to increased vulnerability for experiencing psychological difficulties (Berry, 2003; Padilla & Perez, 2003).

### **Psychological Distress**

Previous research investigating the relationship between acculturation preferences and psychological distress has used a range of different indicators of psychological functioning, including depression, anxiety, self-esteem, stress, and delinquent behaviours (Abouguendia & Noels, 2001; Aycan & Kanugo, 1998; Krishnan & Berry, 1992). Therefore, a broad spectrum conceptualization of psychological distress that incorporates a range of possible negative emotional symptoms (e.g., depression, anxiety, somatization, general stress) as well as positive adjustment (i.e., perceived well-being) is needed to situate the results of the current study in the context of prior work.

### **Purpose of the Study**

While acculturation models are generally moving in the direction of accounting for the influence of perceived discrimination (Berry, 2003; Padilla & Perez, 2003), neither of the most influential models currently incorporates this variable in a precisely specified manner. While perceived discrimination is incorporated in these models in a theoretical sense, empirical investigation is required to test these conceptual updates. The purpose of this research was to investigate the role of perceived discrimination in the relationship between acculturation preferences and psychological distress in South Asian young adults, as proposed by dominant models of acculturation (Berry). This study also examined possible gender differences with respect to the relationship between acculturation preferences and psychological distress. This investigation permitted testing of Berry's acculturation model, which has recently been updated. The results of this research may assist in providing empirical support for updated theories of

acculturation that may then be subjected to further research with more ethnically diverse samples to assess the degree of cross-validation. Additionally, the findings may also assist with formulating counselling approaches that are specifically tailored for South Asians and take into account gender, generational status, acculturation, and perceived discrimination. These strategies may help to promote positive cultural adaptation among South Asian youth in Canada.

### **Overview of Dissertation**

The chapter that follows will review existing literature on the roles of acculturation and perceived discrimination with respect to psychological distress, as well as the link between acculturation and perceived discrimination, and provide a theoretical critique of the dominant models of acculturation. The literature review will end with a statement of the problem and a delineation of the research hypotheses. The methods chapter will follow, which will describe the sample characteristics, selection criteria and recruitment procedures, measures used in the study, and the procedure. The methods chapter will end with a discussion of ethical issues pertaining to the research. Following this, psychometric data on the study measures will be provided; descriptive statistics on the research sample will be presented, followed by the results of the statistical procedures used to evaluate the plausibility of the research hypotheses. Finally, the implications for counselling practice and future research will be explored in the discussion chapter.

## CHAPTER II

### LITERATURE REVIEW

#### **Overview**

The purpose of this study was to examine the influence of perceived discrimination on the relationship between acculturation patterns and psychological distress in a sample of second generation South Asian young adults in Canada. Existing acculturation models have been conceptually updated to include perceived discrimination as a moderator in the acculturation-distress link. However, there is currently no empirical support for these propositions. This chapter presents a review of the existing literature on acculturation and perceived discrimination and begins by summarizing and evaluating the evidence for competing theories of acculturation. Following this, the chapter discusses existing research on the relationship between acculturation and psychological distress. This section is followed by an exploration of the role of perceived discrimination with respect to psychological distress. The chapter will then evaluate the relationship between perceived discrimination and acculturation, based on current research. The literature review ends with a statement of the problem, in which the limitations of existing research in the area are summarized, followed by a delineation of the specific research hypotheses.

#### **Dominant Theories of Acculturation**

Berry et al.'s (1989) model of acculturation is typically cited as the predominant theory that revolutionized this field of research. Specifically, Berry rejected a unidimensional model that proposed acculturation occurred along a continuum ranging from complete maintenance of the heritage culture to full assimilation into the host society over time (Berry et al.). Instead, he proposed a multidimensional conceptualization wherein immigrants' acculturation preferences do not always necessitate a trade off between valuing the host culture versus the heritage culture.

Berry et al. asserted that it was possible for immigrants to reject both cultures or embrace aspects of each and combine them in an integrated fashion. Berry's model also proposed that contextual factors, such as the national multicultural policy of the country, and the nature of an immigrant's contact experiences with members of the dominant host culture influence an individual's acculturation preferences (Berry, 2003). In contrast to previous unidimensional models of acculturation, Berry's theory broadened the conceptualization of this construct, allowing an expanded scope of possible acculturation options.

Ryder, Alden, and Paulhus (2000) compared the unidimensional and bidimensional models of acculturation in a large ethnically diverse sample. They confirmed that preferences for the heritage and mainstream cultures were related factors of the acculturation construct, and noted that the effect sizes of the bidimensional model were greater than those of the unidimensional model with respect to personality, identity, and adjustment. This suggests that the more complex model has more explanatory power and that Berry's bidimensional model accounts for more of the variance in acculturation than a unidimensional theory (Ryder et al.).

A substantial amount of research has used Berry et al.'s (1989) theoretical framework to study the acculturation process in South Asians. These studies all noted variability in the types of acculturation strategies adopted by participants, representing all four of Berry et al.'s acculturation strategies (e.g., Abouguendia & Noels, 2001; Aycan & Kanugo, 1998; Farver, Narang, & Bhadha, 2002; Ghuman, 1994; Krishnan & Berry, 1992; Kwak & Berry, 2001). While the number of studies utilizing Berry et al.'s model is impressive and their supportive results attest to the validity of a bidimensional theory, recently there has been some debate about the utility of categorizing individuals into Berry's four acculturation strategies (Ryder et al., 2000). Instead, some researchers have argued that analyzing host and heritage cultural preferences separately instead of combining them into one overall acculturation strategy may

capture more of the complexity of the process, while still adhering to Berry's model of the heritage and mainstream cultures as two related aspects of acculturation (Ryder et al.). Another parallel criticism is that, although Berry's (2001, 2003) model contends that contextual factors, such as multicultural policy and one's contact experiences (including experiences of discrimination) with members of the dominant culture will impact the acculturation process, he has not yet researched these factors empirically.

Padilla and Perez (2003) have drawn on Berry's (2001) model and have attempted to expand it by incorporating a broader conceptualization of acculturation that incorporates research from social psychology. Specifically, they hypothesize that successful navigation of the acculturation process depends partially on social stigma (Padilla & Perez). Immigrants who are perceived to be outsiders or more culturally different (i.e., in terms of skin colour, ethnicity, religion, language) from members of the dominant culture are thought to have a more difficult time achieving integration due to their distinctiveness (Padilla & Perez). While social stigma and perceived discrimination are not the same, ethnic minority groups who are perceived to be more culturally dissimilar have also reported higher levels of discrimination in Canada (Tousignant, 1997). Benefits of this model over Berry's include an expanded conceptualization of acculturation that potentially holds more explanatory power in terms of including relevant research from social psychology on social stigma, social cognition, social identity, and cultural competence (Padilla & Perez). In this way, their theoretical framework builds on Berry's bidimensional model and goes beyond it, potentially capturing more of the rich contextual factors as well as the intra-individual variables (i.e., social identity, cognition, and cultural competence) involved in the acculturation process.

While Berry's model is bidimensional and implies that the host country's multicultural policy and discrimination may affect the acculturation process, Berry does not define these

constructs in detail, making them difficult to operationalize for research purposes. His focus appears to be on the acculturation preferences themselves. Additionally, Berry's model does not take into account intra-individual factors that may play a role in decision making about acculturation preferences. In contrast, Padilla and Perez's focus is on the specific social contextual and intra-individual factors that affect immigrants' acculturation preferences, which results in a more contextualized approach to understanding acculturation and more detailed descriptions and definitions of potential moderating factors. On the other hand, Padilla and Perez's model has not yet been tested empirically, is a fairly new model, and is less parsimonious than Berry's framework. These reasons may explain why Padilla and Perez's model has not been used more frequently in serving as a theoretical base for existing acculturation research.

### **Acculturation and Psychological Distress**

#### **Research on South Asians**

Immigrant youth who are born and raised in the North American host culture often face considerable pressure to assimilate, due to their exposure to multiple competing cultures through their school experiences (Baptiste, 1993; Segal, 1991). The bulk of acculturation research has demonstrated that first and second generation youth tend to experience challenges in relating to their home and host cultures, particularly when parents and peers exert opposing cultural pressure on the individual (Segal). Since the South Asian culture is one that places a considerable emphasis on parental control and authority (Segal; Sharma, 2000), South Asian youth may be especially vulnerable to complications in the acculturation process. In particular, they may struggle to gain peer acceptance while also facing strong parental pressure to conform to traditional cultural behavioural norms, which may create increased stress within the family, as well as personal difficulties in emotional well-being (Segal).

While the acculturation process can be stressful in itself, the acculturation strategies adopted by individuals have also been linked to a variety of psychosocial outcomes in South Asians. A number of studies have investigated the relationship between acculturation styles and psychological distress among South Asians. In a seminal study, Krishnan and Berry (1992) investigated this link using a correlational survey design in a sample of South Asian adolescents and young adults in the United States. Using stepwise multiple regression, they found that the integration acculturation strategy was the most popular choice and predicted the least amount of both psychological (cognitive and affective symptoms) and psychosomatic (physical symptoms) stress (Krishnan & Berry). In addition, they noted that assimilation predicted the greatest amount of psychological stress, while separation was linked to the highest amounts of psychosomatic stress (Krishnan & Berry). Their results are particularly compelling due to the wide age ranges represented in the sample, as well as the variability in participant religion, length of residence, and equality of gender representation. Moreover, this was the first study that compared the adaptiveness of the various acculturation strategies outlined by Berry et al.'s (1989) model. However, the sample size of 76 was somewhat small in relation to the number of variables included in the study, and the participants were all drawn from the mid-west region of the United States, which limits the generalizability of Krishnan and Berry's findings.

Additionally, there are some measurement issues with the instruments used in this study. The stress measure Krishnan and Berry used was developed based on ethnographic field work with the Australian aboriginal population, and no psychometric data was provided in Krishnan and Berry's study to support its utility for the South Asian population, which is a more urban and verbal ethnic group. Furthermore, the measure of acculturation attitudes, which is based on Berry's theory and research, is now considered obsolete due to recent advances in the measurement of acculturation (Ryder et al., 2000). Since Krishnan and Berry's study used

questionable measures, their findings should be interpreted with caution. Krishnan and Berry's findings are often widely cited to substantiate the proposition that integration is linked to the least psychological distress. However, updated research that uses more psychometrically sound measures is needed to substantiate Krishnan and Berry's initial results.

In a similar study highlighting the importance of the family context on South Asian children's behaviour, Aycan and Kanugo (1998) found that youths' behaviour was related to their parents' acculturation strategies. Specifically, they noted that a parental acculturation strategy that integrated aspects of the South Asian and dominant Canadian cultures was predictive of the least amount of behaviour problems in youth. In contrast, they found that parental assimilation predicted higher amounts of delinquent and externalizing behaviours in South Asian young persons (Aycan & Kanugo). The results of this study seem particularly compelling given that this research was carried out in a Canadian context and was methodologically rigorous. Sample recruitment employed random selection of participants residing in several geographic regions across Canada. Furthermore, the sample size was large and consisted of 558 respondents, with adequate cross gender representation, diversity of South Asian religious subgroups, and variability in age ranges of participants. The results of Aycan and Kanugo's work suggests that, in the collectivist South Asian culture, parental cultural choices have a significant impact on the psychosocial adjustment of second generation youth. However, the degree of parental influence on youths' acculturation choices may hold less weight at later stages of development, such as young adulthood (Talbani & Hasanali, 2000).

Shams (2001) conducted a study comparing the relationship between acculturation preferences and psychological distress among South Asian adolescents in Great Britain. Using a correlational survey design, he found that participants tended to adopt a separated acculturation style, favouring affiliation with other South Asians rather than forming mixed ethnic friendships

(Shams). However, participants reported that these cultural choices were related to heightened feelings of loneliness and isolation (Shams). While Shams used a large sample size ( $N = 651$ ), one flaw of his study is that he did not include a measure of perceived racism, which would have been especially important given Great Britain's multicultural context, which does not explicitly encourage integration. It is possible that South Asian youth in this study may have desired friendships with individuals from other ethnic groups, but perceived societal barriers to affiliation with them. This explanation would account for participants' heightened feelings of loneliness; those who desired to reach out and build friendships may have been met with social rejection by individuals from other ethnic groups. Their findings are generally consistent with those of Krishnan and Berry (1992), who also found separation to be associated with increased psychosomatic stress. These studies therefore indicate some important preliminary patterns in South Asians' psychological distress in relation to their acculturation preferences.

Farver, Narang, et al. (2002) conducted a study on South Asian families residing in the United States using a correlational survey design to investigate the relationships between acculturation style, family conflict, and adolescent psychological functioning. They found that South Asian youth who endorsed either an integrated or assimilated acculturation style also tended to report significantly higher self-esteem than participants who favoured separation or marginalization. Both of these acculturation strategies involve a certain level of identification with and commitment to the dominant host society, which may facilitate higher self-esteem through increased potential for social acceptance by the mainstream culture.

Farver, Narang, et al.'s (2002) findings are similar to those of Krishnan and Berry (1992), who also noted that youth who preferred to integrate aspects of both their home and host cultures reported better psychological adaptation. Farver, Narang, et al. and Krishnan and Berry's results are both congruent with those of Shams (2001), as all three of these studies reported some level

of psychological distress associated with separating oneself from the dominant mainstream culture of the host country. However, Farver, Narang, et al. also found that there were no significant differences in self-esteem among those who preferred assimilation into the majority society compared to those who favoured integration. In contrast, Krishnan and Berry noted that both assimilation and separation were associated with significant levels of stress, while integration was clearly predictive of the least stress. The discrepancy in the findings regarding the adaptiveness of the assimilation strategy may be attributable to the different outcome variables used in each study. Krishnan and Berry used a measure of acculturative stress, while Farver, Narang, et al. used self-esteem, which may explain the differential levels of adaptiveness associated with a preference for the South Asian culture over the host culture. Overall, given the variability in findings, the results of these studies reinforce the need to examine acculturation preferences in relation to multiple indicators of psychological health.

### **Research on other Ethnic Minority Groups**

A few studies have also found that separation from the host society is not always associated with negative mental health outcomes in ethnic minority youth, and that integration and assimilation are not always predictive of better psychological adjustment. While the following studies have explored this in non South Asian samples, their results are important to note because the research on South Asians is limited. Additionally, their findings may shed light on some of the general trends that have been noted in this line of research.

A mixed methods study that explored the relationship between acculturation preferences and life satisfaction in Mexican American youth found that stronger orientation toward the heritage Mexican culture predicted higher life satisfaction among participants (Edwards & Lopez, 2006). In contrast, they found that degree of orientation toward the dominant Euro American culture was not a significant factor in Mexican youths' well-being (Edwards &

Lopez). This suggests that a strong affirmation of their heritage culture was more critical in influencing participants' appraisals of their quality of life than the extent to which they identified with the mainstream American culture. One strength of this study is the synthesis of both quantitative and qualitative methodologies (researchers utilized quantitative surveys followed by open-ended questions). They then used both statistical analyses and thematic analysis to obtain their results, representing a sophisticated methodology capitalizing on the strengths of both qualitative and quantitative methods. However, their sample was composed of Mexican Americans and it is unclear if Edwards and Lopez's findings would generalize to South Asians.

In other related research, Safdar, Lay, and Shrutthers (2003) investigated the link between acculturation style and psychological distress among Iranian immigrants to Canada. In contrast to the findings of Farver, Narang, et al. (2002), Krishnan and Berry (1992), and Shams (2001), they found that separation was not predictive of depression, suggesting that Iranian immigrants did not report any significant depressive symptoms related to choosing separation (Safdar et al.). In contrast to Farver, Narang, et al., these authors found that assimilation was associated with psychological distress in the form of psychosomatic symptoms in participants (Safdar et al.). One strength of this study included availability of both English and Farsi translations of the study measures, which all obtained acceptable values of Cronbach's Alpha. However, all participants were immigrants residing in Ontario, which may limit generalizability to Iranians living in other provinces as well as to second generation immigrants. Additionally, the acculturation measure used in this research is now considered obsolete, due to recent advances in the measurement of acculturation, which require the findings to be interpreted with some caution (Ryder et al., 2000).

Amer and Hovey (2007) also examined the relationship between acculturation preferences and mental health in a sample of 120 second generation Arab American participants.

In contrast to the results of Farver, Narang, et al. (2002) and Krishnan and Berry (1992), they did not find integration to be significantly associated with less depressive symptoms. Instead, they noted that higher religiosity among Arab Americans in their sample was negatively associated with depression. On the other hand, they also found that greater separation, less assimilation, and higher religiosity predicted significantly more acculturative stress (Amer & Hovey). Their results are somewhat puzzling, since one would expect similar patterns on participant ratings of depression and acculturative stress, since these two constructs overlap to some extent. However, Amer and Hovey's somewhat contradictory findings highlight the need to assess the adaptiveness of acculturation preferences across multiple domains of psychological distress, as one indicator of mental health may be insufficient to capture the complexity of this process.

While the research of Edwards and Lopez (2006), Safdar et al. (2003), and Amer and Hovey (2007) have investigated the acculturation-distress link in non South Asian immigrant groups, their findings attest to the complex relationships that exist in this line of research. These studies have demonstrated that much variability exists in the adaptiveness of one's acculturation preferences, depending on the ethnic group, measures used, and the country in which the research was carried out. Therefore, taken together, the research on the acculturation-distress link raises questions about whether integration is always associated with less psychological distress. In some cases it appears that adopting either an assimilated or separated acculturation style may also be related to less psychological distress (Farver, Narang, et al., 2002; Safdar et al.).

### **Gender Differences**

Given the clearly defined gender roles traditionally espoused in the South Asian culture, it is plausible that youth may adopt different acculturation preferences based on their gender. A number of studies have examined the association between acculturation patterns and gender

among South Asian youth. Ghuman (1994) found that while both males and females preferred integration, males were somewhat more traditional in their acculturation attitudes. These gender differences suggest that South Asian females may prefer integration because they may have more to gain than males in the way of increased gender equality (Ghuman). The South Asian culture places more restrictions on the behaviour of females, due to their traditional role as protectors of family honour and future mothers, who will transmit cultural customs to their children (Almeida, 1996; Assanand et al., 1990; Dion & Dion, 2001). Since the role of South Asian males is to promote the upward socioeconomic mobility of their families through integration into the host culture, they may not be as motivated to seek out increased independence through their acculturation process as females (Almeida; Assanand et al.; Dion & Dion).

Interestingly, while South Asian men and women in Ghuman's (1994) study rejected separation from the host culture, they did not express desires to assimilate, indicating strong preferences to maintain their heritage language, religion, and ethnic names. Ghuman's findings are in line with those of Krishnan and Berry (1992), who found that South Asian males tended to adopt more separated acculturation patterns, while females favoured integration to a greater degree. Although Ghuman's sample was restricted in age to adolescents, the study is one of few that was conducted on South Asians in a Canadian context, and is congruent with Krishnan and Berry's findings.

Farver, Bhadha, and Narang (2002) also compared acculturation related gender differences among South Asians. In contrast to Ghuman's (1994) findings, they noted that South Asian females tended to report feeling marginalized from both the heritage and mainstream cultures, while males endorsed integration (Farver, Bhadha, et al.). It is possible that South Asian adolescent females may react to opposing pressure from family and peers by becoming

alienated from both the South Asian and Western cultures. In contrast, South Asian males are typically allowed more independence and freedom than females, and, therefore, may experience much less family pressure to conform to South Asian behavioural norms. Dion and Dion (2001) also reported that South Asian families tend to have higher socialization expectations of their daughters. The more distinctive the heritage culture is from that of the host country, the greater the amount of pressure parents may place on their daughters in response to a perceived threat to their core values (Dion & Dion).

The findings of Farver, Bhadha, et al. (2002) may be tempered by geography; their research was conducted in the United States, and the results may not be representative of South Asian youths' acculturation processes in Canada. Differing geographical make up, multicultural policies, and societal pressures unique to the United States may all potentially influence acculturation styles, which may not generalize to individuals residing in another country. Nevertheless, Farver, Bhadha, et al.'s results alert researchers to important potential trends specific to South Asian females that are important to be aware of when studying acculturation preferences among South Asians.

Talbani and Hasanali (2000) specifically targeted the acculturation process in South Asian adolescent girls in Canada. Using qualitative semi-structured interviews, they noted several emergent themes related to various aspects of acculturation. The participants voiced concerns about the amount of parental constraints placed on their freedom, particularly with respect to socializing with friends (Talbani & Hasanali). The participants also resented the idea of arranged marriages, and confirmed the enormous pressures and cultural tensions they face with respect to balancing living in two cultures and fulfilling parental expectations (Talbani & Hasanali). The females further reported that their desire to assimilate into the dominant

Canadian culture increased as they grew older, particularly once they moved away from home to begin university (Talbani & Hasanali).

The results of Talbani and Hasanali (2000) suggest that an excessive amount of parental control may, ironically, strengthen adolescent South Asian girls' rebellion and commitment to the host culture, while also alienating them from their heritage ethnic practices and beliefs. One strength of this study is its qualitative methodology, which adds a depth and richness of information to the existing quantitative studies in this section, which have pointed toward more general patterns of gender related acculturation differences among South Asians. Additionally, their results are particularly compelling since it is one of the few studies that have been conducted within a Canadian cultural context, although all participants were recruited from Montreal, which is culturally and linguistically distinct from other major cities in Canada (Berry & Kalin, 1995). Therefore, it is unclear how well their results will generalize beyond adolescence to young adulthood as well as how representative their experiences will be of South Asian females in other regions of Canada. Nonetheless, Talbani and Hasanali's findings are congruent with the results of other research reviewed in this section, suggesting a general pattern of increased distress associated with being a South Asian female navigating the acculturation process. It also highlights the salience of studying the period of young adulthood in relation to the acculturation process, due to the increased autonomy youths gain through immersion in post secondary education, or by moving away from the family home for work or education (Talbani & Hasanali).

The gender differences in acculturation preferences among South Asian males and females suggests that it is possible that there may also be gender differences among the tendency to perceive discrimination, as well as its potential effects on psychological adjustment among South Asians. Since many of the cultural stereotypes post 9/11 seem to highlight being young,

male, and darker skinned (Padilla & Perez, 2003), it is likely that South Asian males may experience higher levels of discrimination than females. Additionally, given the different acculturation styles that are preferred by gender, reflected in the research reviewed earlier in this section, it appears that males may be at greater risk for becoming targets for discrimination. Their gender and greater freedom and opportunities for contact with the host culture afforded them by their families may expose them to more frequent experiences of discrimination, which may be a significant factor in accounting for their emotional well-being in conjunction with their acculturation preferences. In contrast, for South Asian females, it is possible that perceived discrimination will not significantly moderate the relationship between acculturation and psychological distress, since they may not be targeted as frequently as males for discriminatory treatment.

### **Perceived Discrimination and Psychological Distress**

Experiences of ethnic discrimination have been conceptualized as a stressor and linked to a variety of types of psychological distress, including paranoia, depression, low self esteem, and anxiety (Combs et al., 2006; Gee, Spencer, Chen, Yip, & Takeuchi, 2007; Liang, Alvarez, Juang, & Liang, 2007). When South Asian youth are exposed to the host culture through their school and social experiences, they have more chances for cross-cultural interaction and immersion in all aspects of the host society. However, the degree to which they participate in the dominant mainstream Canadian culture may place South Asians at higher risk for being targets of discrimination, due to the increased exposure to members of the host society, who may hold prejudicial attitudes of certain ethnic minorities.

A number of studies have investigated the discrimination-distress link among a variety of ethnic groups. Combs et al. (2006) examined this relationship in a sample of 128 African American university students using a correlational survey design. They found that a higher

degree of perceived racism was positively related to anger, hostility, externalizing attributions, and sub clinical levels of paranoia (Combs et al.). One of the significant strengths of this study included the use of multiple outcome measures to serve as indicators of psychological adjustment. However, the authors did not control for participants' levels of ethnic identity, which is known from previous literature to influence the tendency to perceive discrimination (Combs et al.). Finally, African Americans have a distinct cultural history in the United States characterized by previous slavery, and these results, although noteworthy, will not necessarily generalize to other ethnic groups, such as South Asians, who have a different immigration history. Nonetheless, the findings of Combs et al. attest to the various types of psychological harm that can be associated with perceived racism, which is particularly informative when such research is lacking for South Asians.

Another study specifically examined perceived racial discrimination as a predictor of having a DSM-IV psychological disorder in Asian Americans (Gee et al., 2007). Using logistic regression, participants who perceived racial discrimination were twice as likely to be diagnosed with one disorder within the past year, and three times as likely to be diagnosed with multiple disorders (Gee et al.). These results were particularly noteworthy due to the rigorous study design; the researchers controlled for a number of potential confounds, including socioeconomic status, acculturative stress, family cohesion, physical health, and social desirability. The idea that perceived discrimination is a significant predictor of mental health and emotional well-being in Asian Americans (which included South Asian respondents) over and above other acculturation related and sociodemographic factors is particularly salient. This result indicates that perceived discrimination is an important variable in and of itself in accounting for Asian Americans' mental health.

Much of the research on the effects of perceived discrimination appears in the social psychology literature. In an experimental design, Louis and Taylor (1999) examined the behavioural consequences of discrimination among 80 undergraduate university students in Canada by randomly assigning participants to various scenarios of low, medium, and high levels of discrimination. They found that even relatively minor incidents of discrimination appeared to trigger resentment in participants, even when they did not take action against the discriminatory event (Louis & Taylor). Their results are particularly salient in light of the methodological rigour associated with the experimental design they utilized. However, the presentation of written scenarios in which participants are asked to imagine themselves lacks ecological validity, and their responses may not map onto how discriminatory events are experienced in more naturalistic contexts. Nonetheless, their results highlight the potential for even relatively minor discriminatory events to negatively impact psychological functioning and reinforce the idea that discrimination is a salient variable in predicting emotional well-being.

Gaudet, Clement, and Deuzeman (2005) conducted a study on 100 first and second generation Lebanese Canadians. Using a correlational survey design, they found that higher perceived discrimination in participants was negatively related to self-esteem and positively related to depressive symptoms (Gaudet et al.). This research was carried out in a Canadian cultural context, in contrast to the bulk of other research reviewed here, and the sample demographics showed considerable heterogeneity. However, the number of participants was somewhat small given the number of variables they were examining ( $N = 100$ ), and their findings may not generalize to other ethnic groups, such as the South Asians. Nonetheless, Gaudet et al.'s results are congruent with those of Combs et al. (2006) and Gee et al. (2007), which were conducted on other ethnic groups, suggesting a larger pattern of a direct positive relationship between perceived discrimination and psychological distress.

Verkuyten (1998) conducted a correlational survey study with Turkish and Moroccan adolescents in the Netherlands to examine the relationship between perceived discrimination and self-esteem. She found that personal self-esteem was independent of group self-esteem, and that perceived personal discrimination was linked to lower personal self-esteem, while perceived group discrimination was negatively related to lower group self-esteem (Verkuyten). Furthermore, a path analysis revealed that perceived personal discrimination was also related to a decreased sense of personal control. Although the author used a causal model for data analysis, causation cannot be inferred due to the correlational methodology used. Furthermore, the reliability of all the measures used in her study were below acceptable levels as measured by Cronbach's alpha, so her results must be interpreted cautiously. Additionally, she did not comment on whether the measures had been previously validated for use on the cultural groups in her sample. Nevertheless, Verkuyten's study provides a general idea of the potential impacts of perceived discrimination on psychological functioning, consistent with the findings of Gaudet et al. (2005), Combs et al. (2006), and Gee et al. (2007).

To the best of the researcher's knowledge, only one study has examined the discrimination-distress link in the South Asian population specifically. Rahman and Rollock (2004) used a correlational survey design with a sample of 199 South Asian international students in the United States. Using hierarchical multiple regression, they found that perceived prejudice was the strongest predictor of depressive symptoms among their participants, and accounted for the most unique variance in the regression model. Acculturation status, as measured by degree of intercultural contact, was not directly related to depression scores and did not contribute any unique variance. Rahman and Rollock's results are particularly salient in light of their finding that perceived prejudice captured the most variability in predicting depressive symptoms in South Asian students. However, all of the participants were

international students and relatively new to the host country, which may limit the generalizability of this research to first generation and sojourner South Asian young adult immigrants.

Nonetheless, Rahman and Rollock's study is the only one to have specifically examined the discrimination-distress link among the South Asian population, making their findings particularly relevant and noteworthy for the current research.

Noh and Kaspar (2003) examined the relationship between perceived discrimination and depressive symptoms in 180 Korean immigrants in Toronto. Using random sampling procedures, the researchers used a correlational survey design to investigate the relationships among these variables. Their results indicated that one's coping style moderated the relationship between perceived discrimination and depression in participants. Specifically, they found that individuals who used personal confrontation in dealing with experiences of discrimination tended to report fewer symptoms of depression than those using emotional distraction and passive acceptance (Noh & Kaspar). One of this study's major strengths is the use of a randomized sample as opposed to a convenience sample, which allows for a more diverse and varied group of participants who may be more representative of the Korean immigrant population in Canada. However, their results may not generalize to other Asian groups such as the South Asians. Nonetheless, all Asian groups tend to share certain values, such as an emphasis on family harmony and group solidarity, among others, so some degree of generalizability may not be surprising. Overall, Noh and Kaspar's study points out the importance of moderating factors, such as coping responses, in the relationship between perceptions of discrimination and psychological distress, emphasizing the complexity of the link between these variables.

Liang et al. (2007) conducted a similar study on Asian American university students, hypothesizing that coping style would mediate the relationship between perceived racism and

stress. Using a correlational survey design, they found that coping style was a significant partial mediator depending on gender. Specifically, they noted that higher perceived racism in males predicted more support-seeking, which in turn predicted higher levels of stress, which was not found in female participants (Liang et al.). For women, increased levels of stress due to perceiving discrimination was attributable to the use of active coping strategies instead of support-seeking (Liang et al.). The authors concluded that Asian Americans' coping responses to experiences of discrimination differ depending on gender, and that different coping styles are related to more adaptive psychological outcomes for Asian men and women. Their results suggest that the relationship between discrimination and psychological distress is not only complex, but may be quite different for males and females. The inclusion of a number of South Asians in the sample, coupled with a large sample size of 336 participants, makes Liang et al.'s results particularly salient.

In other related research, Umana-Taylor and Updegraff (2007) used a correlational survey design to investigate the role of self-esteem as a mediator of the discrimination-depression relationship among 273 Latino adolescents residing in the United States. Using a path analysis, they found that self-esteem was a partial mediator of this link, with 43 % of the impact of perceived discrimination on depressive symptoms being attributable to its effects on self-esteem (Umana-Taylor & Updegraff). However, they also noted that there was still a significant direct relationship between perceived discrimination and depression. Therefore, they concluded that experiences of discrimination may be related to lower self-worth, which may then increase one's susceptibility to depression (Umana-Taylor & Updegraff). Similar to Noh and Kaspar's (2003) research, which found that coping responses moderate the discrimination-distress link, this study also highlights the complex nature of the interrelationships among perceiving discrimination and its effects on psychological adjustment. However, Umana-Taylor

and Updegraff's research was undertaken with the Latino population, who have a different immigration history and contact experiences with the host culture than South Asians. Therefore, their results may not generalize to other ethnic groups, although they highlight an important trend in drawing attention to the complexity of the discrimination-distress link, congruent with the findings on Korean immigrants by Noh and Kaspar. Since the research on South Asians specifically is so limited, it is especially important to note the trends established in related research on perceived discrimination and psychological distress in other ethnic groups.

Cassidy, O'Connor, Howe, and Warden (2004) conducted a study specifically on South Asian youth in Scotland to examine the role of self-esteem in the discrimination-distress relationship. Cassidy et al. used a sophisticated two stage design involving both stratified random sampling followed by convenience sampling as well as a combination of both interview and questionnaire data. Congruent with the results of Umana-Taylor and Updegraff (2007), Cassidy et al. found support for self-esteem as a full mediator in the discrimination-distress relationship for South Asian males but not females. Interestingly, female participants reported a direct association, with perceived discrimination predicting higher levels of anxiety (Cassidy et al.). However for males, the relationship between perceived discrimination was fully mediated through its negative effects on self-esteem, which in turn predicted higher levels of both depression and anxiety (Cassidy et al.). Once again, these results point to the differential relationships among discrimination and psychological distress based on participant gender in the South Asian culture, highlighting the salience of gender differences when studying the discrimination-distress link among South Asians.

Overall, the research reviewed in this section is consistent in suggesting that there appears to be a significant association between perceptions of racial discrimination and some form of psychological distress, whether depression, anxiety, paranoia, resentment, or anger

(Combs et al., 2006). However, the studies in this section also point to a complex link between discrimination and emotional distress, with several potential moderators (i.e., coping style, gender) and mediators (i.e., self-esteem) that influence the negative consequences associated with perceiving discrimination (Cassidy et al.; Noh & Kaspar; Umana-Taylor & Updegraff). Given the paucity of research on South Asians, more research is needed to gain further insight into the mechanisms by which perceived discrimination tends to impact psychological distress within this ethnic group.

### **Ethnic Identity, Perceived Discrimination, and Psychological Distress**

Several researchers have proposed that ethnic identity, or one's subjective sense of attachment and belonging to the heritage culture, moderates the discrimination-distress link (Crocker & Major, 1989; Phinney et al., 2001). Using a correlational design, Mossakowski (2003) hypothesized that higher ethnic identity in Filipino participants would buffer against the negative effects of perceiving racial discrimination. In line with their predictions, they did find that higher ethnic identity predicted fewer depressive symptoms in participants. The authors suggest that ethnic identity is an important protective factor for minority groups, because it involves a sense of acceptance at least from within one's own heritage cultural group (Mossakowski). Strengths of this study included a large sample size of 2109 participants that used stratified random sampling for recruitment, allowing for a more representative sample. Mossakowski's results may not generalize to the South Asian group, but her findings raise an important consideration of the role of ethnic identity in the discrimination-distress relationship.

In a correlational survey using 295 Anglophone university students in Ottawa, Damji, Clement, and Noels (1996) investigated the relationship between ethnic identity and psychosocial adjustment. They found that a strong ethnic identity predicted significantly fewer symptoms of depression and significantly higher self-esteem among participants. Damji et al.'s

findings are congruent with those of Mossakowski (2003), which was conducted with Filipinos, suggesting an important preliminary trend that will need to be replicated in more culturally diverse samples, including South Asians. Regardless, their research is important to note because it raises questions about whether ethnic identity might play a similar role in the relationship between perceived discrimination and psychological distress among South Asians.

McCoy and Major (2003) conducted two experimental studies to investigate the moderating role of group identification on the affective outcomes of perceived gender and racial discrimination. Across both studies, participants who were higher in group identification reported more depressive symptomology in response to a manipulated instance of discrimination than participants who endorsed weaker group identification (McCoy & Major). The authors interpreted their findings by suggesting that discrimination, whether gender or racial, was experienced as a threat to the self for individuals who attached importance to their group membership, resulting in psychological distress. McCoy and Major also found that making externalizing attributions to discrimination for negative events only appeared to be beneficial for individuals who were low in group identification, because group membership was not central to their self-concepts. In contrast to the results of Mossakowski (2003) and Damji et al. (1996), who found high ethnic identity to mitigate against the negative effects on mental health, McCoy and Major concluded that high group identification is not always self-protective. Mossakowski and Damji et al. both used correlational survey designs, while McCoy and Major used an experimental design, which may help to explain these inconsistencies.

In a similar study, Branscombe, Schmitt, and Harvey (1999) used a correlational survey design with African Americans and found that participants who perceived higher levels of discrimination tended to report decreases in both personal and collective self-esteem, as well as increased hostility toward Euro Americans. Interestingly, there was also a significant indirect

positive effect on personal well-being for participants who reported higher ethnic identification, suggesting that stronger ethnic identity helped to buffer against the negative effects of discrimination (Branscombe et al.). This mixed finding contradicts those of McCoy and Major (2003), Mossakowski (2003), and Damji et al. (1996), suggesting that the relationship between ethnic identity and mental health outcomes of perceiving discrimination are complex and not well understood. Overall, Branscombe et al.'s model implies that the perceived experience of discrimination holds both direct negative effects as well as potential indirect positive effects on strengthening ethnic identification. In either case, existing literature appears to agree that ethnic identity itself does impact the relationship between perceived discrimination and distress in one form or another, making it an important variable to control for when trying to isolate the relationship between perceived discrimination and psychological distress.

While Branscombe et al. (1999) utilized a confirmatory approach to their study, beginning with an existing theoretical model based on their prior research, they used a correlational as opposed to experimental design with a convenience sample. Furthermore, their study was carried out in the United States with African American participants, so it is unclear as to whether their model can be extended to South Asians in Canada, who have a different immigration history and cultural experiences. Nonetheless, Branscombe et al.'s study highlights the complex nature of the relationships between perceived discrimination, psychological distress, and ethnic identity, which are important trends to note when conducting similar research on South Asians.

### **Perceived Discrimination and Acculturation**

Researchers have proposed that certain acculturation preferences may influence the tendency to experience or perceive discrimination (Branscombe et al., 1999). Specifically, adopting a separated acculturation style may be associated with some hyper vigilance in looking

for signs of discriminatory treatment in the environment (Branscombe et al.). On the other hand, the reverse trend has also been proposed; experiences of discrimination may draw the victim back to their own ethnic group as a way of finding social acceptance and belonging. In this case, individuals may choose separation as a coping response to experiences of discrimination (Padilla & Perez, 2003). However, very little empirical research has been conducted to test the existence, strength, and direction of the hypothesized relationships between acculturation and perceived discrimination.

Jaskinskaja-Lahti, Liebkind, Horenczyk, and Schmitz (2003) conducted a correlational study on Finnish, German, and Israeli repatriates from the former Soviet Union to examine the relationship between discrimination and acculturation attitudes. They found that immigrants whose acculturation styles were most in conflict with those encouraged by the host country's multicultural policy tended to perceive more discrimination (Jaskinskaja-Lahti et al.). They utilized an impressive sample size ( $N = 898$ ) and studied participants of several different ethnic backgrounds. Their results represent an initial step toward establishing a relationship between the two constructs of acculturation and discrimination, although their findings may not generalize to other ethnic groups. Additional research is needed using a South Asian sample.

In a related study, Romero and Roberts (1998) conducted a school based survey with 3071 African American, European American, Mexican American, and Vietnamese American adolescents in the United States. Using hierarchical multiple regression, they found that participants who preferred a separated acculturation style tended to report higher levels of perceived discrimination. While the large sample size with representation of four major cultural groups was impressive, all of the participants were recruited from Texas, which may limit the generalizability of their results to other regions of the United States. Furthermore, it is uncertain whether their findings would hold for South Asians, as well as those residing in Canada, who

may have different cultural experiences than those living in Texas. Nonetheless, their results seem congruent with those of Jaskinskaja-Lahti et al. (2003), providing more evidence for a link between acculturation and discrimination.

In a related study, Goto, Gee, and Takeuchi (2002) used quantitative surveys on 1500 Chinese Americans to examine predictors of perceived discrimination. They found that participants who reported higher preferences for the host culture tended to report more experiences of unfair treatment due to racial discrimination than participants who were less acculturated to American culture (Goto et al.). Specifically, those who reported higher levels of behavioural acculturation were two thirds as likely to report experiences of discrimination as less acculturated individuals (Goto et al.). These results are particularly salient in light of the fact that all participants were second generation Chinese Americans.

While this study used an impressive sample size and a sophisticated three stage probability sampling technique to recruit participants, they utilized a measure of perceived discrimination that consisted of only one item, which raises questions about the limited reliability of a one item measure. Interestingly, their results appear to contradict those of Jaskinskaja-Lahti (2003) and Romero and Roberts (1998), who both found the opposite pattern, with separation being positively related to perceiving higher levels of discrimination. The incongruent findings of these studies highlight the need for additional research with a South Asian sample to investigate the nature and strength of the relationship between acculturation and perceived discrimination.

### **First Generation versus Second Generation South Asians**

First and second generation immigrants, although from the same ethnic group, may face very different acculturation related challenges. Abouguendia and Noels (2001) compared acculturation and psychological adjustment in first and second generation South Asian university

students in Canada. In comparison to first generation South Asians, second generation youth reported significantly higher levels of psychological distress in the form of depression and low self-esteem, which was related to the degree of cultural family hassles (Abouguendia & Noels). Second generation immigrants also reported more daily in-group hassles with other South Asians than first generation participants (Abouguendia & Noels). In-group hassles were defined as acculturation related family conflicts, parental perceptions of youth being too “Westernized,” family pressures for cultural maintenance, and a perceived lack of acceptance by other members of one’s ethnic group. No significant differences were found with respect to preferred acculturation styles among first and second generation participants; integration was favoured, followed by marginalization, assimilation, and separation (Abouguendia & Noels).

This pattern of results was interpreted as an indicator that youth alternated between feeling a sense of belonging to both cultures, and other times to neither culture, possibly suggesting experiences of discrimination and conflicting societal opinions of South Asians (Abouguendia & Noels). Higher integration was related to less in-group and out-group hassles (i.e., racial discrimination, and language barriers) only for first generation youth (Abouguendia & Noels). This pattern suggests that second generation South Asians continue to experience acculturation challenges and family adaptation difficulties, which may be attributed to the heightened potential for differential cultural orientations when youth are raised in Canada and parents are foreign born (Shariff, 2006). These findings attest to the unique experiences of second generation South Asians compared to first generation youth. Second generation individuals appear to be subject to higher levels of stress related to acculturation and family conflict, making them an important subgroup to study in relation to personal adjustment (Shariff). One flaw in Abouguendia and Noels’ study was the unequal gender representation in their second generation sample, with the vast majority of participants being female. It is possible

that their findings may not be representative of second generation South Asian males' experiences.

At present, it is uncertain whether the findings of Abouguendia and Noels (2001) can be ascribed solely to generational status, or whether the disproportionate number of female participants may have affected these results. Nevertheless, their results highlight the acculturation challenges specific to second generation young adults, which are particularly salient given that their study is one of few that examine acculturation in a South Asian sample in Canada. Other researchers have also highlighted the importance of focusing on second generation South Asians' acculturation (Mehta, 1998; Shariff, 2006). Maira (1996) commented on the salience of gender role conflicts for second generation South Asians, particularly for females, with regard to balancing cultural expectations for normative behaviour in both the South Asian and Western cultures.

### **Statement of the Problem**

South Asians are a geographically and religiously diverse group of individuals whose common cultural values, beliefs, and practices bind them together. Their main heritage values centre around the importance of the family unit and emphasize obedience to elders, affiliation with other South Asians, familial interdependence over the lifespan, and a self-concept that exists in relation to others (Segal, 1991). The literature review presented research that highlights the continuing potential for challenges related to the acculturation process, given the two different cultural contexts that South Asian youth attempt to balance, as well as experiences of discrimination.

Research findings on the adaptiveness of various acculturation strategies among South Asians has been mixed, with some studies finding integration to be related to positive psychological adaptation, and others noting that some degree of separation or assimilation

appears to be the most health promoting (Safdar et al., 2003). Various patterns of gender differences in South Asian youths' acculturation styles have been noted, with a tendency for females to prefer the mainstream culture and males to prefer the heritage culture (Ghuman, 1994). This emergent trend has been attributed to the greater freedom provided to females in the mainstream host culture, and the higher status granted to males within the heritage South Asian culture (Almeida, 1996; Assanand et al., 1990; Dion & Dion, 2001; Ghuman, 1994). While research on the acculturation-distress link among immigrants is provocative, the different patterns of associations found indicates that more research is needed to resolve inconsistencies in the existing literature that speaks to the complexities of the relationship between acculturation preferences and psychological distress. In particular, more research is needed in a Canadian context, given the limited number of acculturation studies that have been undertaken in Canada (Abouguendia & Noels, 2001). However, the studies reviewed suggest that the relationships among acculturation preferences and psychological health are more complex than previously thought and not currently well understood.

Research findings on the relationship between perceived discrimination and psychological distress have consistently shown a direct positive relationship among these two variables. However, other studies have noted that this link is complex and that factors such as self-esteem, gender, and coping style can influence this relationship, by intensifying or mitigating the effects of perceived discrimination. Some studies have investigated acculturation style as one possible moderator of the relationship between perceived discrimination and psychological distress. However, no empirical research has been conducted to examine the reverse possibility (as proposed in dominant models of acculturation), that perceived discrimination may moderate the relationship between acculturation and psychological distress (Berry, 2003; Padilla & Perez, 2003). Additionally, given the gender roles present in traditional

South Asian culture and the differential pressures upon males and females (Dion & Dion, 2001), it will be important to examine whether such models cross-validate across genders, which has not been researched to date.

The majority of acculturation studies have applied Berry's (2001, 2003) acculturation model, breaking down cultural orientations into integration, separation, marginalization, and assimilation strategies. However, recent developments in acculturation measurement highlight the importance of considering the heritage and mainstream cultural preferences separately as opposed to combining them into a single overall acculturation strategy, which causes some of the complexity of the acculturation process to be lost by imposing an artificial dichotomy upon continuous scores (Ryder et al., 2000).

The majority of the existing literature has been conducted in the United States, which espouses a different multicultural policy than that of Canada, a factor found to influence the acculturation decisions of immigrants (Berry, 2001). Furthermore, the majority of existing studies on South Asians has focused on the first generation, despite the fact that second generation youth appear to be more vulnerable to experiencing acculturation related challenges and higher levels of psychological distress (Abouguendia & Noels, 2001). Additionally, virtually no research has been carried out on South Asian young adults, who tend to have more opportunities to experiment with different cultural behaviours due to immersion in post secondary studies and when they move out of the parental home for educational or work purposes (Talbani & Hasanali, 2000).

The current research study addressed existing limitations in current research in several ways. First, no study had thus far used a combination of Berry's (2003) and Padilla and Perez's (2003) acculturation models as a theoretical rationale to empirically examine the relationship between acculturation preferences, perceived discrimination, and psychological distress, along

with possible gender differences, to help resolve the theory-research gap. This study was the first of its kind to investigate whether perceived discrimination was indeed a relevant moderator in the relationship between acculturation preferences and psychological distress, as has been proposed recently in theory (Berry; Padilla & Perez). Additionally, investigating possible gender differences added another layer of sophistication which had not been studied before, capturing more of the complexity of the acculturation process in one particular ethnic group. Second, the current research added to the limited acculturation research on South Asians, who are currently the second most numerous immigrant group in Canada, filling an important gap in existing research. Third, the current study used multiple indicators of psychological distress in contrast to previous studies, which have used single indicators of mental health. Fourth, the study contributed to the paucity of acculturation literature that has been carried out in a Canadian context.

The purpose of this dissertation study was to examine the role of perceived discrimination in the relationship between acculturation preferences and psychological distress in second generation South Asian young adults, as well as to investigate gender differences among these variables. Based on prior research, this study had four main hypotheses: (a) males would report stronger preferences for the heritage culture and weaker preferences for the mainstream culture than females, (b) males would report significantly higher levels of perceived discrimination than females, (c) perceived discrimination would moderate the acculturation-psychological distress in South Asian young adults overall, and (d) perceived discrimination would be a significant moderator of the relationship between acculturation style and psychological distress for males, but not for females, when the sample was split by gender.

The following chapter describes the methodology of this study. The criteria for participation in the study are first outlined, followed by a description of the recruitment

strategies used. The demographic profile of participants is then presented, followed by information on the study measures and a description of the procedures for implementation of the study.

## CHAPTER III

### METHOD

The objective of this study was to investigate the role of perceived discrimination in the relationship between acculturation preferences and psychological distress among second generation South Asian young adults, a question which has not yet been addressed empirically despite theoretical conceptualizations (Berry, 2003; Padilla & Perez, 2003). This study also aimed to investigate gender differences in the relationships between acculturation preferences, perceived discrimination, and psychological distress. This chapter provides information on the research participants, including the criteria for involvement in the research, study design and recruitment procedures, and the demographic characteristics of the sample. The measures used to operationalize and assess the constructs of interest are then described in detail, followed by the procedures used for study implementation. Considerations regarding cultural sensitivity and appropriateness of the measures and procedures for ethnic minority populations are also discussed in an integrated fashion throughout the chapter.

#### **Participants**

##### **Study Criteria**

There were three criteria for participation in this research: (a) the individual identified their heritage as South Asian, (b) the participant was between the ages of 18 and 25, and (c) the participant currently resided in Canada and had arrived in Canada before the age of five years. The first criterion of South Asian cultural heritage was established to maintain an inclusive stance in this study to ensure that participating families represented the various cultural subgroups of South Asians currently represented in Canada, such as those of Indian, Pakistani, and Fijian background (Statistics Canada, 2001). As previously discussed, South Asians have a common cultural value system despite differences in regional subcultures, countries of origin,

and language use (Ibrahim et al., 1997). This study focused on young adults because university experiences and/or moving out of the parental home during young adulthood typically afford South Asian youth increased freedom to experiment with different cultural behaviours (Hennink, Diamond, & Cooper, 1999). Furthermore, existing models of emerging adulthood highlight this developmental period as a time of enhanced identity exploration, often through the process of behavioural experimentation (Arnett, 2000). Taken together, these findings suggest that the time of young adulthood, defined by Arnett as taking place between the ages of 18 and 25 years, appears to be the most salient time for studying acculturation processes in South Asian youth. The next criterion, current residence in Canada, was established to control for the potential influence of differences in national multicultural policy of other countries on participants' acculturation preferences. Finally, the last criterion of second generation status was established because previous research has identified second generation individuals as experiencing their own unique acculturation challenges, an area that has been understudied in existing research (Abouguendia & Noels, 2001; Shariff, 2006).

### **Study Design**

The study consisted of an internet administered survey package that participants completed online. Internet administered surveys have several advantages, including increased anonymity of participants (who do not need to come face to face with the researcher, thereby potentially reducing socially desirable responding), and increased convenience for participants (who can complete surveys in their homes and at their leisure). In addition, the majority of young adults in North America appear to prefer communicating and expressing themselves over the internet, as evidenced by the popularity of social networking sites, blogs, and mobile communication (Livingstone, 2008). Finally, internet administered surveys have the advantage of being more "green" by minimizing paper use in printing hard copies of survey packages.

## **Recruitment Strategies**

South Asian young adults were recruited for study participation nationally across Canada, as well as locally in Vancouver, to allow for increased variability within the sample across multiple Canadian cities, to reach more South Asian youth, and to obtain results that are generalizable on a national scale. Recruitment by the researcher (and/or research assistant) occurred primarily through utilization of personal ties within the South Asian community, acquaintances, attendance at cultural events, and via notices and internet recruitment strategies. Tran (1993) advocates the use of a convenience sample in cases of participants who are typically hard to access for research participation, such as those from immigrant and ethnic minority groups. Pernice (1994) also notes that a major obstacle to obtaining study participation of immigrant groups is their lack of familiarity with social science research, as well as a strong cultural stigma against providing personal information to a family or cultural outsider (Pernice). While recruitment of personal acquaintances is advocated in cross cultural research within hard to recruit populations, participant anonymity is respected by only approaching individuals once to verbally explain or pass out notices about the study. Potential participants are left with the information to decide if they wish to take part in the research or not, and are not asked to justify their reasons for declining participation.

Four bicultural South Asian research assistants were hired across Canada to assist with participant recruitment on a national scale and to facilitate recruitment of different South Asian religious and cultural sub groups. The research assistants were hired on the basis of their extensive networks of South Asian contacts from the Hindu, Sikh, and Muslim communities, and followed the same procedure for participant recruitment as the researcher. One research assistant self identified as Pakistani Zoroastrian, another as Pakistani Muslim, the third as Indian Hindu, and the fourth, as Indian Sikh.

The researcher (or research assistant) posted notices describing the study on bulletin boards across university and college campuses in the Lower Mainland (See Appendix A), and the campuses of several other major Canadian universities and colleges (University of British Columbia, Simon Fraser University, Kwantlen Polytechnic University, Langara College, University of Toronto, University of Alberta, York University, University of Western Ontario). Notices were also posted at places of worship and distributed at cultural club meetings at university and college campuses. Email announcements describing the nature and purpose of the study were made on campus list serves and e-newsletters, as well as national cultural group list serves, such as Yahoo groups. (See Appendix B). The researcher or research assistant also attended different South Asian cultural events separately in their local communities and verbally communicated the content of the recruitment notices (See Appendix A) to potential participants, and provided written hand outs of these notices to interested individuals.

Finally, a message describing the study (See Appendix B) was sent via Facebook and Twitter, (international social networking sites) to all the researcher's and research assistants' personal contacts and a notice describing the nature and purpose of the study (See Appendix A) was also posted on the researcher's and research assistants' personal Facebook/Twitter pages, along with a link to the study's website. It was hoped that utilizing this resource would allow more potential study participants to be reached on a national scale via word of mouth, with participants and/or Facebook/Twitter contacts referring others to the internet survey site using snowball sampling. Since most youth between the ages of 18 and 25 maintain accounts on social networking sites, it was important to tap into such methods for study recruitment, as they often represent the preferred mode of communication among today's youth (Livingstone, 2008). As of March, 2010, the number of users on Facebook had increased to 13, 952, 740 for Canada alone, which represents almost half of the country's population (Burcher, 2010). Interested potential

participants were directed to the study website, where they could access the online consent form and questionnaires anonymously.

**Power Analysis.** A power analysis was conducted prior to data collection, to determine an adequate sample size to detect a significant effect if one in fact does exist. Using the procedure outlined by Cohen and Cohen (1983), the population Pearson's  $r$  was estimated by consulting the  $r$ s obtained in previous related research, which ranged from .24 to .54 (Liang, Juang, & Liang, 2007; Yoo & Lee, 2005). The population  $r$  was set slightly below the lowest value, at .20, in order to obtain a conservative estimate of statistical power given a sample size of 200 participants (Cohen & Cohen). Based on these values, the power was estimated to be .81, confirming that 200 participants was an adequate sample size for the purposes of this research.

**Participant Profile.** Two hundred ninety four second generation South Asian young adults participated in this study, however only 220 cases were included in the statistical analyses because 22 individuals did not meet one or more of the research criteria for study inclusion and 52 individuals did not complete the surveys. Of the 220 cases that were used in the sample, 73 (33.18%) were male and 147 (66.82%) were female. The vast majority of participants reported their marital status as single (98.20%), and 58.60% were born in Canada, while 41.40% arrived before the age of five. The majority of participants' families had immigrated to Canada directly from a South Asian country (80.90%), and 73.50% of the young adults were currently living with family or relatives. The sample learned about the study in a variety of ways: 39.30% by word of mouth, 34.20% from social networking sites or an internet virtual news group, 18.70% from an email announcement, 5.00% from a notice posted on a post secondary campus, religious place of worship, or notice distributed at a South Asian cultural event, and 2.70% from a cultural or religious club at a post secondary campus. The majority of participants (56.20%) were full

time college/university students and not currently employed. Only 15.50% were working full time.

The age of participants ranged from 18 to 25, with the mean age being 21.44, approximately mid way between the minimum and maximum ages. Household family size ranged from 1 to 6, with a mean of 4.10 individuals residing in the household (including the participant). In terms of highest level of education achieved, 37.30% of the sample had completed partial university, 20.50% were university graduates, 16.00% were high school graduates, 11.40% had completed graduate or professional school, 8.70% had finished college/trade school, and 5.90% had completed partial high school. Table 1 breaks down the participants by South Asian countries of origin, Table 2 provides descriptive data on participants' religious backgrounds, and Table 3 presents information related to participants' geographic locations within Canada.

Table 1

*Participant Countries of Origin*

Country of Origin	Frequency	Percent
India	157.00	71.40
Pakistan	40.00	18.20
Sri Lanka	9.00	4.10
Fiji	6.00	2.70
Bangladesh	2.00	.90
Nepal	2.00	.90
Other	4.00	1.80

Table 2

*Participant Religious Affiliations*

Religion	Frequency	Percent
Sikh	86.00	39.10
Muslim	63.00	28.60
Hindu	46.00	20.90
Christian	10.00	4.50
No religion	6.00	2.70
Buddhist	5.00	2.30
Zoroastrian	4.00	1.80

Table 3

*Participants' Current Geographic Location*

Geographic Location	Frequency	Percent
Vancouver	111.00	50.90
Toronto	59.00	27.10
Edmonton	18.00	8.30
Ontario rural town	7.00	3.20
Victoria	6.00	2.80
B.C. rural town	5.00	2.30
Saskatchewan	5.00	2.30
Montreal	4.00	1.80

## Study Materials and Measures

In conducting cross-cultural research, it is important that, when possible, the measures are psychometrically validated for use on the particular ethnic minority group being studied (Matsumoto, 2000). Several researchers have highlighted the need to use instruments that have demonstrated cross cultural validity (Matsumoto; Pernice, 1994; Rogler, 1989). This is determined by examining whether the items are culturally relevant for members of a particular ethnic group regarding the variables that the instrument was initially intended to measure (Matsumoto; Pernice; Rogler). Matsumoto and Pernice both advocate the use of instruments that have been cross-validated on the population being studied to increase the probability of obtaining accurate data. Keeping this issue of cultural sensitivity in mind, the psychometric properties of instruments in previous studies conducted with South Asian samples are reported when such data is available.

**Informed consent form.** Participants read the informed consent form prior to completing the study questionnaires, which explained that the purpose of the research was to examine the impact of experiences of discrimination on South Asians in Canada (See Appendix C). The form also explained the procedure for completing the study, the voluntary nature of participation, and the methods used to protect participant anonymity and confidentiality. Participants were informed that completion of the questionnaire packet served as their consent to participate, and they were advised to print a hard copy of the form for their records.

**Demographics.** Demographic information for participants was collected using the Information Form developed by the researcher (See Appendix D). Participants provided basic information about their countries of origin, indicated whether they were born in Canada, family size, socioeconomic status (years of education and current employment), gender, age, religion, and their place of residence.

**Acculturation.** Participants completed the Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000) to measure their acculturation preferences. This instrument, based on Berry's model of acculturation, consists of 20 items that elicit acculturation related attitudes toward key areas of cultural life, such as values, maintenance of traditions, and social relationships. The 20 items are grouped under two subscales, the Heritage culture subscale and the Mainstream culture subscale. Each subscale consists of 10 items, and parallel items are used to assess both heritage and mainstream culture preferences separately. For example, the heritage item assessing marriage preferences is, "I would be willing to marry a person from my heritage culture," and the equivalent mainstream culture item is "I would be willing to marry a North American person" (Ryder et al.).

Before beginning the questionnaire, participants are asked to think of their heritage culture as one they had been raised in or that was a significant part of their ethnic background. After reading each item, participants rate their level of agreement along a 9-point Likert scale, ranging from 1 (Strongly Disagree) to 9 (Strongly Agree). For the Mainstream subscale, participants imagine Canadian or North American culture as they respond to the items, again rating their level of agreement with each statement along the same 9-point Likert scale, ranging from 1 (Strongly Disagree) to 9 (Strongly Agree).

The VIA yields two scores, one for each subscale, which indicates the overall preference for the heritage culture and for the mainstream culture. The Heritage subscale score is obtained by calculating the mean of the odd-numbered items, and the Mainstream subscale score is derived by obtaining the mean of the even-numbered items. The maximum mean score on each subscale is 9, whereas the minimum mean score is 1.

The mean scores from the two subscales can be kept as separate and independent scores, in keeping with Berry's model of acculturation which stipulates that acculturation preferences for

the heritage and mainstream cultures are two related aspects of acculturation (Berry, 2001, 2003).

A study by Krawczyk and Ryder (2005) reported good internal consistency for the VIA in a sample of South Asian university students in Canada, obtaining a Cronbach's Alpha of .90 for the Heritage subscale and .79 for the Mainstream subscale. Factor analysis confirmed that both subscales represented two domains of acculturation on the measure (Krawczyk & Ryder). Additionally, Ryder et al. (2000) reported good concurrent validity for the VIA; the Heritage subscale score was found to be negatively correlated with a measure of Western identification in an ethnically mixed sample that included South Asians, while the Mainstream subscale score was positively correlated with Western identification.

**Ethnic identity.** Ethnic identity has been shown in previous research to influence the relationship between perceived discrimination and psychological distress (Crocker & Major, 1989; Damji et al., 1996; McCoy & Major, 2003; Mossakowski, 2003; Phinney et al., 2001). Specifically, the majority of this research has noted that high ethnic identity in conjunction with perceiving high levels of discrimination relates to protective effects against depressive symptoms and lowered self-esteem (Crocker & Major; Damji et al., Mossakowski; Phinney et al.). Thus, several studies have shown that ethnic identity appears to significantly moderate the relationship between perceived discrimination and psychological functioning due to the protective effects of feeling a sense of attachment to one's ethnic group (Crocker & Major). To isolate the relationship between perceived discrimination and psychological distress, it was therefore necessary to control for differences in ethnic identity across participants, which might have suppressed some of the variance accounted for by perceived discrimination if it was not held constant.

To control for differences in ethnic identity, participants completed the Multigroup Ethnic Identity Measure-Revised (MEIM-R; Phinney & Ong, 2007). The MEIM-R conceptualizes identity development as a continuous variable, with higher scores indicating higher levels of ethnic identity achievement. The revised version is a brief measure consisting of six items that assess internal attitudes toward both exploration of and commitment to a personalized ethnic identity (Phinney & Ong). This measure is based both on Marcia's identity status paradigm and Tajfel and Turner's (1986) model of group identity, in which ethnic identity is conceptualized as a distinct aspect of social identity, which is defined as the portion of an individual's self-concept that arises out of his/her membership in a social group (Phinney & Ong). The MEIM-R assesses broad aspects of ethnic identity that are assumed to be universal across cultural groups, such as a sense of belonging to one's ethnic group (e.g., "I feel a strong sense of attachment towards my own ethnic group"), and exploration of one's cultural heritage (e.g., "I have often done things that will help me understand my ethnic background better") (Phinney & Ong).

The items of the MEIM-R are rated along a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores reflecting increased levels of identity achievement. Participants are first asked to name the ethnic group that they belong to, and then proceed to respond to the items on the measure. The MEIM-R yields an overall score by summing across items and obtaining the mean item score (Phinney & Ong, 2007). The maximum mean item score on the MEIM-R is 5 and the minimum mean item score is 1.

Phinney and Ong (2007) reported a Cronbach's Alpha of .81 for the MEIM-R in an ethnically mixed sample that included South Asians, indicating good internal consistency of the measure. The results of a confirmatory factor analysis in the same sample also confirmed that ethnic identity consisted of two independent factors, exploration and commitment (Phinney &

Ong). Additionally, a study by Farver, Narang, and Bhadha (2002) reported that the concurrent validity of the original MEIM is supported by significant positive correlations between ethnic identity scores and the use of separation and integration acculturation strategies on measures of acculturation style, which are thought to overlap with ethnic identity (Phinney, 1992).

**Perceived discrimination.** To assess levels of perceived discrimination, participants completed the General Ethnic Discrimination Scale (GEDS; Landrine et al., 2006). The GEDS is an 18 item self-report measure that evaluates the frequency and intensity of perceived ethnic discrimination across a variety of situations that include work, public places, and health care (e.g., “How often have you been treated unfairly by people in service jobs such as store clerks, waiters, bartenders, bank tellers, and others because of your race/ethnic group?” “How often have you been called a racist name?”). Participants respond to each item three times, once for the frequency of occurrence over the lifetime, again for the frequency in the past year, and thirdly based on the degree of stress associated with the event (Landrine et al., 2006).

Landrine et al. (2006) reported high internal consistency in the standardization sample (which included South Asians), Cronbach’s Alpha on each of the three subscales ranged from .91 to .94. The results of a confirmatory factor analysis also found strong and significant factor loadings for the three subscales when this analysis was run separately for African Americans, Caucasian, Asian American, and Hispanic participants, suggesting that the GEDS adequately taps the latent construct of perceived discrimination (Landrine et al.). Additionally, another factor analysis performed specifically on an ethnically mixed college student sample yielded factor loadings that ranged from .80 to .98 for the three subscales.

**Psychological distress.**

*Center for Epidemiologic Studies Depression Scale.* Participants completed the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) to evaluate depressive

symptoms. It consists of 20 items that measure symptoms of depression in the general population, and assesses cognitive, affective, and behavioural aspects of depression (e.g., “I thought my life had been a failure,” “I talked less than usual,” “I felt sad” (Radloff). Participants rate each item along a 4-point Likert scale ranging from 0 (Rarely/none of the time) to 3 (All of the time/5-7 days) with respect to the degree to which they endorsed these symptoms in the past week. Overall scores can range from 0 to 60; higher scores reflect higher levels of depressive symptoms (Rahman & Rollock, 2004). The CES-D has been used widely as an outcome measure in relation to both acculturation and perceived discrimination across many ethnic groups, including South Asians (Rahman & Rollock). It has also demonstrated good construct validity; results of a factor analysis confirmed a three factor solution composed of somatic symptoms, negative mood, and interpersonal difficulties (Amer & Hovey, 2007). Cronbach’s Alpha was reported to be .85 in a non clinical sample (Radloff).

***Cohen-Hoberman Inventory of Physical Symptoms.*** Since many Asian cultures tend to manifest psychological distress in the form of somatic complaints, physical symptoms of anxiety were assessed using the Cohen-Hoberman Inventory of Physical Symptoms (CHIPS; Cohen & Hoberman, 1983). It is composed of 33 items that tap common physical and psychosomatic symptoms (e.g., “In the past two weeks, how much were you bothered by heart pounding or racing,” “migraine headache” (Cohen & Hoberman). However, items exclude symptoms that are obviously psychologically oriented, such as feeling depressed or nervous (Cohen & Hoberman). Each item is rated along a 5-point Likert scale ranging from 0 (Strongly Disagree) to 4 (Strongly Agree), with higher scores reflecting higher levels of distress associated with the physical symptoms (Cohen & Hoberman). Items are summed to obtain a total score, which can range between 0 and 132. The CHIPS was found to demonstrate good convergent validity with other

measures of psychological distress, and Cronbach's Alpha was .88 indicating strong internal consistency among item responses (Cohen & Hoberman).

***Perceived Stress Scale-10.*** To evaluate subjective appraisals of life stress, participants completed the Perceived Stress Scale-10 (PSS-10; Cohen & Williamson, 1988). This ten item questionnaire assesses how unpredictable, uncontrollable, and overwhelmed participants feel in their lives, which are essential features of stress (e.g., "In the last month how often have you felt confident about your ability to handle your personal problems?," "In the last month how often have you been angered because of things that were outside your control?") (Cohen & Williamson). Participants rate their level of agreement with each item along a 5-point Likert scale ranging from 0 (Never) to 4 (Very Often). Items are summed to obtain a total score ranging between 0 and 40. Cohen and Williamson maintain that perceived stress is a theoretically distinct construct that is not significantly correlated with other measures of psychological distress, making it a useful addition as another outcome measure. The PSS-10 was found to be moderately associated with other stress measures as well as having a solid factor structure, indicating good construct validity (Cohen & Williamson).

***Satisfaction with Life Scale.*** As a measure of subjective well-being, participants also completed the Satisfaction with Life Scale (SWLS; Diener, Emons, Larsen, & Griffin, 1985). This five item questionnaire is designed to assess participants' cognitive appraisals of their general life satisfaction (e.g., "In most ways my life is close to my ideal," "The conditions of my life are excellent") (Diener et al.). Participants are asked to rate their level of agreement with each item along a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). The items are summed to obtain a total score ranging from 5 to 35. A study by Yoo and Lee (2005) found a Cronbach's Alpha of .84 in a sample of Asian Americans that included South

Asians. Additionally, Diener et al. reported good convergent and discriminant validity with other measures of subjective well-being.

### **Procedure**

Interested potential participants completed the research questionnaires on an internet website, designed for the current study, to allow for more anonymous and convenient access to study participation, as well as to reach a wider range of potential participants on a national scale. Participants began by reading the informed consent form on the website and were informed that agreement to participate was assumed by submission of the questionnaire package to the server. They were given the option of providing their current email address if they wished to be entered in a draw to win one of ten gift cards worth 25 dollars, regardless of whether they chose to proceed with the study or decided to withdraw. Finally, those who decided to participate completed the research measures. The average time required for participants to finish the surveys was approximately 30 minutes, although they were free to take as much time as they needed.

### **Ethical Issues**

A number of ethical issues were taken into account in planning all phases of the research. This study used a convenience sample, part of which was recruited through the researcher's and research assistants' South Asian communities (e.g., religious centres, cultural clubs, etc.). To guard against potential participants feeling obligated to participate or pass on the study description to their personal contacts, the researcher and assistants respected individuals' rights for voluntary participation and freedom of consent by refraining from any follow up contact with individuals who did not express an initial interest in participating in the research. Additionally, the researcher and assistants did not have knowledge of who completed the study or whether individuals forwarded on the study description email to other potential participants. Moreover,

since contact with the participants was via the internet in many cases, potential participants could easily ignore the study description if they were not interested in participating or forwarding it on to others. The young adults were not asked to explain or justify their reasons for declining participation. The right to voluntary participation was also explicitly stated in the informed consent form.

Potential participants were invited to submit their contact information for consideration in a draw to win one of 10 gift cards worth 25 dollars to compensate them for their time, consistent with the University of British Columbia behavioural research ethics board guidelines. This amount was considered large enough to provide adequate remuneration, yet was still a modest amount. Potential participants who decided not to complete the measures were also given the same opportunity to enter the draw, in keeping with British Columbia laws that distinguish between a “draw” and a “lottery,” the latter of which is illegal without a permit.

The study procedures addressed the possibility that being asked to reflect on acculturation challenges, experiences of discrimination, and one’s psychological functioning might result in some emotional distress among some participants. A list of national crisis hotlines and other resources was prepared in advance and posted as a link on all the survey web pages to minimize the potential for psychological harm in participants.

Participants’ questionnaire data were coded and scored by the researcher. Participant data were assigned code numbers, and individuals were not asked to submit their names or other identifying information unless they chose to enter the draw. A list of these individuals’ contact information was maintained electronically on the study website, along with all participant responses, on a secure encrypted server; only the researcher had the password to log onto the server. A hard copy of this list was printed and stored by the researcher in a locked filing cabinet, and was only used for the purposes of notifying the draw winners.

The next chapter will outline the psychometric properties of the measures (as derived from the current sample), explore the nature of the data including whether all relevant statistical assumptions were met, and present the results of statistical analyses that tested the hypotheses posed by the study. Results of follow up post hoc analyses conducted will also be presented.

## CHAPTER IV

### RESULTS

The purpose of this study was to examine the role of perceived discrimination in the relationship between acculturation preferences and psychological distress in second generation South Asian young adults ( $N = 220$ ), as well as to investigate gender differences among these variables. It was hoped that shedding light on these complex relationships would provide empirical support for newly revised theories of acculturation (Berry, 2003; Padilla & Perez, 2003). The results of this research can also inform counsellors' approaches to helping clients navigate the acculturation process, which may be complicated by high levels of perceived discrimination or have differential impacts across gender.

#### **Hypotheses**

This study advanced four main hypotheses derived from previous research (Berry, 2003; Padilla & Perez, 2003): (a) the males would report stronger preferences for the heritage culture and weaker preferences for the mainstream culture than the females, (b) the males would report significantly higher levels of perceived discrimination than the females, (c) perceived discrimination would moderate the acculturation-psychological distress in South Asian young adults overall, and (d), perceived discrimination would moderate the relationship between acculturation and psychological distress for the males, but not for the females when the sample was split by gender.

This chapter begins by providing psychometric information on the research measures. Following this, information on data distributions, missing data, outliers, and statistical assumptions of the tests employed are discussed. Next, descriptive information on the South Asian young adults' acculturation preferences based on the Vancouver Index of Acculturation (VIA; Ryder et al., 2000), ethnic identity on the Multigroup Ethnic Identity Measure Revised

(MEIM-R; Phinney & Ong, 2007), perceived discrimination on the General Ethnic Discrimination Scale (GEDS; Landrine et al., 2006), depression on the Centre for Epidemiological Studies for Depression scale (CES-D; Radloff, 1977), health related anxiety symptoms on the Cohen Hoberman Inventory of Physical Symptoms (CHIPS; Cohen & Hoberman, 1983), perceived stress on the Perceived Stress Scale (PSS-10; Cohen et al., 1983), and subjective well being on the Satisfaction with Life Scale (SWLS; Diener et al., 1985) is presented. Following this descriptive information, the statistical results associated with the specific research hypotheses are reported.

### **Psychometric Information on Research Measures**

The reliability of the research measures was first evaluated by calculating the Cronbach's Alpha to obtain an estimate of the internal consistency of each measure (see Table 4 for Alpha values and number of items comprising each measure). Exploratory factor analysis with varimax rotation was used to extract groups of reliably measured factors in the research measures. Varimax rotation was used to maximize the variance of the squared loadings of each factor on each variable, so each factor would have either a large or a small loading on each variable (see Appendix E for tables of factor loadings). The results of the factor analysis were as expected for each of the research measures; all items showed adequate to good factor loadings (ranging from .37- .92) on the latent constructs they were designed to measure.

Table 4

*Cronbach's Alpha for Research Measures*

Scale	Cronbach's Alpha	Items
Vancouver Index of Acculturation (VIA)	.82	20
Multigroup Ethnic Identity Measure-Revised (MEIM-R)	.88	6
General Ethnic Discrimination Scale (GEDS)	.97	18
Center for Epidemiological Studies Depression Scale (CES-D)	.92	20
Cohen Hoberman Inventory of Physical Symptoms (CHIPS)	.95	33
Perceived Stress Scale-10 (PSS-10)	.90	10
Satisfaction with Life Scale (SWLS)	.90	5

**Screening of the Data**

Before testing the hypotheses advanced in this study, the research data were explored for outliers, missing data, and violations of pertinent statistical assumptions. Three outliers were found based on the results of box plot graphs of the distributions of the GEDS. Instead of excluding the outliers from the analysis, their total scores (which were at the high upper limit) were changed to the mean plus twice the standard deviation, as is recommended by Field (2005). This procedure is recommended in the absence of a clear explanation for the elevated score as opposed to simply eliminating the case from the analysis, which ignores data that may be an accurate representation of the constructs being assessed (Field).

The data were then examined for violations of statistical assumptions involved in the planned statistical analyses: bivariate correlations, *t* tests, and structural equation modelling. Scatter plots, histograms, and box plots were visually examined to look for skewed distributions and non linear relationships, which showed that the variables were all positively skewed, except

for SWLS, which was negatively skewed. The direction of the skew appears to be logical given that a non clinical sample of young adults in post secondary settings was used. A logarithmic transformation of the total scores on these measures was performed, resulting in approximately normal distributions of the data. All statistical analyses were then performed on the transformed variables (Field, 2005). The structural equation model results did not violate the assumption of multivariate normality.

### **Descriptive Information**

Table 5 summarizes the South Asian young adults' scores on the measures for the overall sample as well as by gender. Information on the ranges, means, and standard deviations for all measures used in the study are provided for the overall sample as well as separately for males and females. Additionally, the same information is provided using data from other studies that have utilized the same measures on South Asians as a basis for comparison. An independent samples *t* test was used to test whether mean scores on the variables were significantly different for males versus females. Overall, the descriptive statistics indicate statistically significant gender differences among several of the variables' mean scores. Female participants ( $n = 147$ ) had higher mean scores on depressive symptoms (CES-D), health concerns (CHIPS), and perceived stress (PSS-10) compared to males ( $n = 73$ ). The correlation matrix showing the intercorrelations among variables is presented in Table 6. This table reveals the expected intercorrelations among the variables, except for the positive correlation between the VIA Heritage and Mainstream scores, which has been shown in previous studies to be negatively related. The correlation between these subscales of the VIA, is statistically significant and of moderate strength ( $r = .37$ ), which provides empirical support for acculturation as a latent construct consisting of these two separate yet related dimensions (Cole, Maxwell, Arvey, & Salas, 1993). The substantial correlation of the MEIM with the VIA Heritage scores is also

expected, given the theoretical proposition that ethnic identity is a related but distinct aspect of acculturation (Berry, 2003). The moderate positive correlation of MEIM with the GEDS discrimination scores correspond to the findings of previous research as well.

Table 5

*Descriptive Statistics on Measures by Gender (N= 220)*

Scale	Range	M	SD	<u>Comparison Data</u>	
				M	SD
VIA Heritage subscale					
Overall	2.30-9.00	6.95	1.29	7.52	.95 (Shariff, 2006)
Males (n = 73)	3.20-9.00	6.83	1.31	7.16	1.00
Females (n = 147)	2.30-9.00	7.00	1.28	7.82	.80
VIA Mainstream subscale					
Overall	2.40-9.00	6.68	1.18	7.10	1.07 (Shariff, 2006)
Males	3.00-9.00	6.68	1.17	6.83	1.01
Females	2.40-9.00	6.67	1.18	7.32	1.08
GEDS Lifetime subscale					
Overall	18.00-79.00	35.92	14.64	37.54	13.00 (Landrine, 2006)
Males	18.00-79.00	33.70	13.85	--	--
Females	18.00-74.00	37.03	14.93	--	--
GEDS Past Year subscale					
Overall	18.00-69.00	31.00	13.14	32.87	11.18 (Landrine, 2006)
Males	18.00-68.00	30.62	12.39	--	--
Females	18.00-69.00	31.19	13.53	--	--

Scale	Range	<i>M</i>	<i>SD</i>	Comparison Data	
				<i>M</i>	<i>SD</i>
CES-D					
Overall	.00-56.00	17.62	11.81	14.26	13.47 (Sumer et al, 2008)
Males	.00-44.00	12.86	8.87	--	--
Females	.00-56.00	19.99***	12.38	--	--
CHIPS					
Overall	.00-104.00	23.69	20.79	not available	
Males	.00-70.00	16.27	16.48	--	--
Females	.00-104.00	27.37***	21.75	--	--
PSS-10					
Overall	.00-40.00	18.77	7.76	15.30	6.60 (Cohen et al., 1988)
Males	.00-36.00	15.88	7.61	--	--
Females	3.00-40.00	20.21***	7.45	--	--
SWLS					
Overall	5.00-35.00	21.53	7.16	24.90	6.10 (Pavot et al., 2008)
Males	7.00-35.00	22.88	6.82	--	--
Females	5.00-35.00	20.86	7.25	--	--
MEIM					
Overall	1.00-5.00	3.72	.92	3.18	.45 (Shariff, 2006)
Males	1.00-5.00	3.54	.94	3.20	.47
Females	1.00-5.00	3.81*	.90	3.17	.44

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

Table 6

*Intercorrelations Among the Study Variables*

Variable	1	2	3	4	5	6	7	8
1. VIA Mainstream	--	.37**	-.17**	-.14**	-.10	-.12	.17*	-.11
2. VIA Heritage		--	.24**	.09	.11	.08	.01	.43**
3. GEDS Lifetime			--	.32**	.34**	.31	-.28**	.60**
4. CES-D Depression				--	.59**	.68**	-.59**	.01
5. CHIPS Anxiety					--	.51**	-.44**	.03
6. PSS-10 Stress						--	-.57**	.02
7. SWLS Life Satisfaction							--	.00
8. MEIM Ethnic Identity								--

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

*Note.* correlations are based on pair wise comparisons.

### Analysis Results

#### Hypothesis 1: Gender Differences in Acculturation Preferences

Differences in South Asian males' and females' logarithmically transformed acculturation scores on the VIA were examined by using independent samples *t*-tests to evaluate hypothesis 1. No significant acculturation differences were observed between South Asian males and females on the Heritage subscale of the VIA,  $t(218) = .81, p = .42$ . No statistically significant gender differences were found on the Mainstream subscale of the VIA either,  $t(218) = -.10, p = .92$ . These results suggest that South Asian males and females did not differ significantly in their acculturation to either the heritage South Asian culture or to the Euro Canadian mainstream culture.

**Hypothesis 2: Gender Differences in Perceived Discrimination**

Differences in South Asian males' and females' levels of perceived discrimination were also tested with an independent samples *t*-test using the log transformed scores. There were no significant differences among males and females regarding perceived discrimination in the past year,  $t(218) = .16, p = .87$ . Males and females also did not differ significantly in perceived discrimination over the lifetime,  $t(218) = 1.61, p = .11$ . Thus, there was no empirical support for hypothesis two; South Asian males did not report significantly higher levels of perceived discrimination than females. Mean scores on the GEDS in the current study were not remarkably different from those reported in the standardization sample for the measure (Landrine et al., 2007).

**Hypothesis 3: Prediction of Psychological Distress**

Structural equation modelling using AMOS 7.0 was used to test whether perceived discrimination significantly moderated the relationship between acculturation and psychological distress. Structural equation modelling (SEM) was chosen over the use of hierarchical multiple regression due to its ability to model relationships among latent variables with multiple indicators, leading to more reliable results due to reduced error variance (Hopwood, 2007; Kline & Dunn, 2000). In traditional hierarchical multiple regression moderation, predictors are first centered on the mean (i.e., the mean of the variable is subtracted from each individual score) in order to reduce multicollinearity of predictors, which occurs when the interaction term is constructed by multiplying the predictors together. However, if this same procedure is followed in SEM, the matrix will be "not positive definite," and the analysis will not result in a solution due to the information from the matrix being unsolvable (Hopwood; Kline & Dunn).

While several approaches have been proposed to handle this problem, there is no consensus among statisticians of which one is best, particularly because the majority of them are

complex and prone to error (Kline & Dunn, 2000). For the current study, the deviation score approach was used, which is a non technical and straight forward way of modelling interaction terms using latent variables in SEM (Kline & Dunn). In this approach, all predictors (both latent and observed variables) are entered into the model as raw scores (not centered scores). The interaction term latent variable, however, is composed of the cross products of centered predictor scores as opposed to raw scores (Kline & Dunn). Acculturation was modelled as a latent variable consisting of two indicators, uncentred log transformed VIA Mainstream and VIA Heritage scores, consistent with Berry's (2003) theory of acculturation and supported by the moderate correlation among these subscale scores found in the current study. Perceived discrimination was modelled as an observed variable using the uncentred log transformed GEDS lifetime frequency score with the effects of the MEIM scores statistically removed. The acculturation by perceived discrimination interaction term was modelled as a latent variable with two indicators, the VIA Mainstream by GEDS lifetime centered scores, and the VIA Heritage by GEDS lifetime centered scores. A latent Psychological Distress outcome variable was created using the CES-D (depression), CHIPS (anxiety related health concerns), and PSS-10 (general stress) as indicators. These indicators were chosen to represent the latent variable of Psychological Distress due to their potential to be most strongly related to the latent construct, and because prior acculturation research has used single measures of anxiety, depression, and stress as outcome variables to link acculturation to some form of psychological distress. The SWLS scores (positive well being) were excluded from the structural equation model due to low factor loading on the latent variable of Psychological Distress. See Figure 1 for a visual diagram of the input model.

The SEM analysis was then performed to determine whether perceived discrimination moderated the relationship between acculturation and psychological distress. The path from

each latent variable to one indicator was arbitrarily fixed to 1 to allow a basis for comparison among multiple indicators (Maruyama, 1998). The parameters between the error and disturbance terms and their associated indicator variables were also fixed to 1 by default in AMOS so that the model could be identified. Identification occurs when the amount of input information (i.e., number of regression equations) in the matrix is equal to or exceeds the number of paths that need to be estimated; when this does not happen the model cannot be identified and output path estimates cannot be generated (Kline & Dunn, 2000; Maruyama). Maximum likelihood estimation was used to test the structural equation model since there were no violations of multivariate normality (see Figure 2 for visual output model with parameter estimates). The results indicated a poor overall fit of the obtained model to the hypothesized structural model,  $\chi^2 (20, N = 220) = 94.62, p = .00$ . Other fit indices also suggested poor fit; Comparative Fit Index = .79, Root Mean Square Error of Approximation = .13 (90% confidence interval ranged from .11-.16).

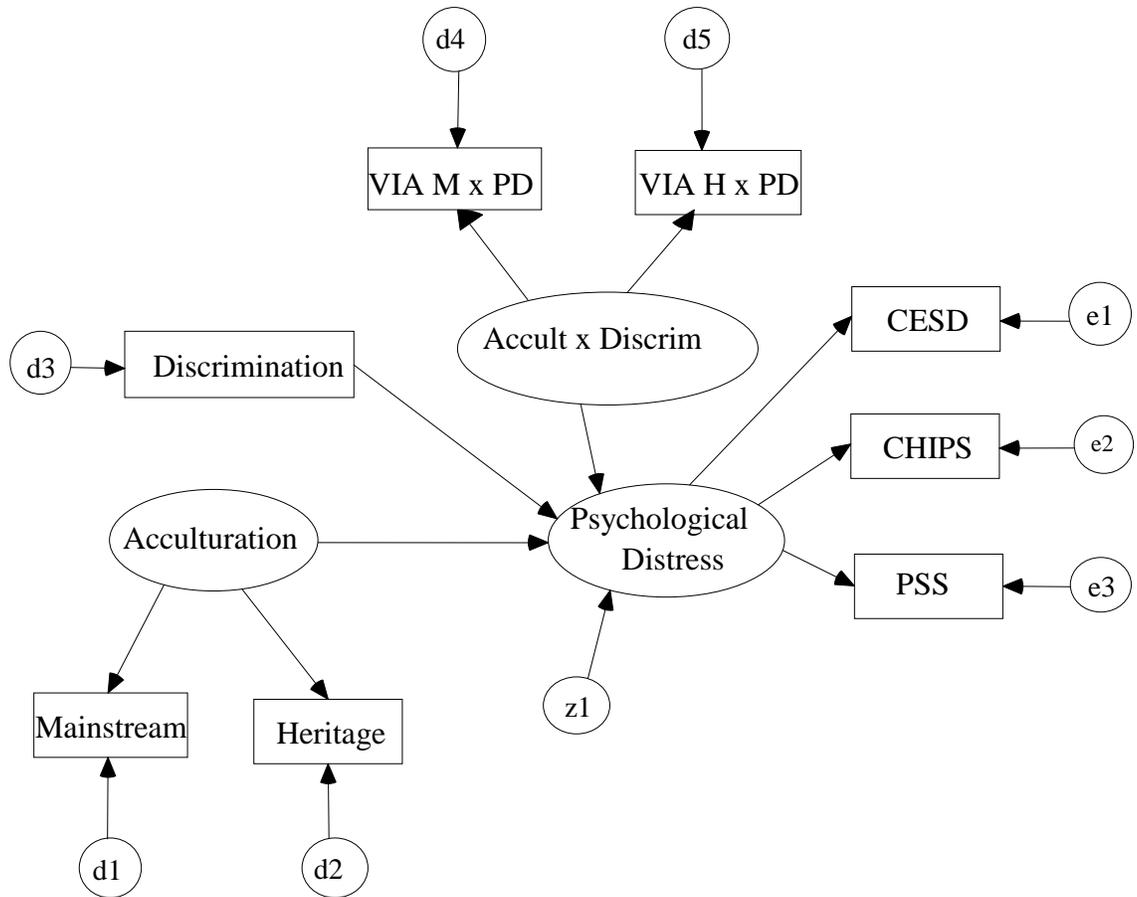


Figure 1. Theoretical model of perceived discrimination as a moderator of the relationship between acculturation and psychological distress in South Asians.

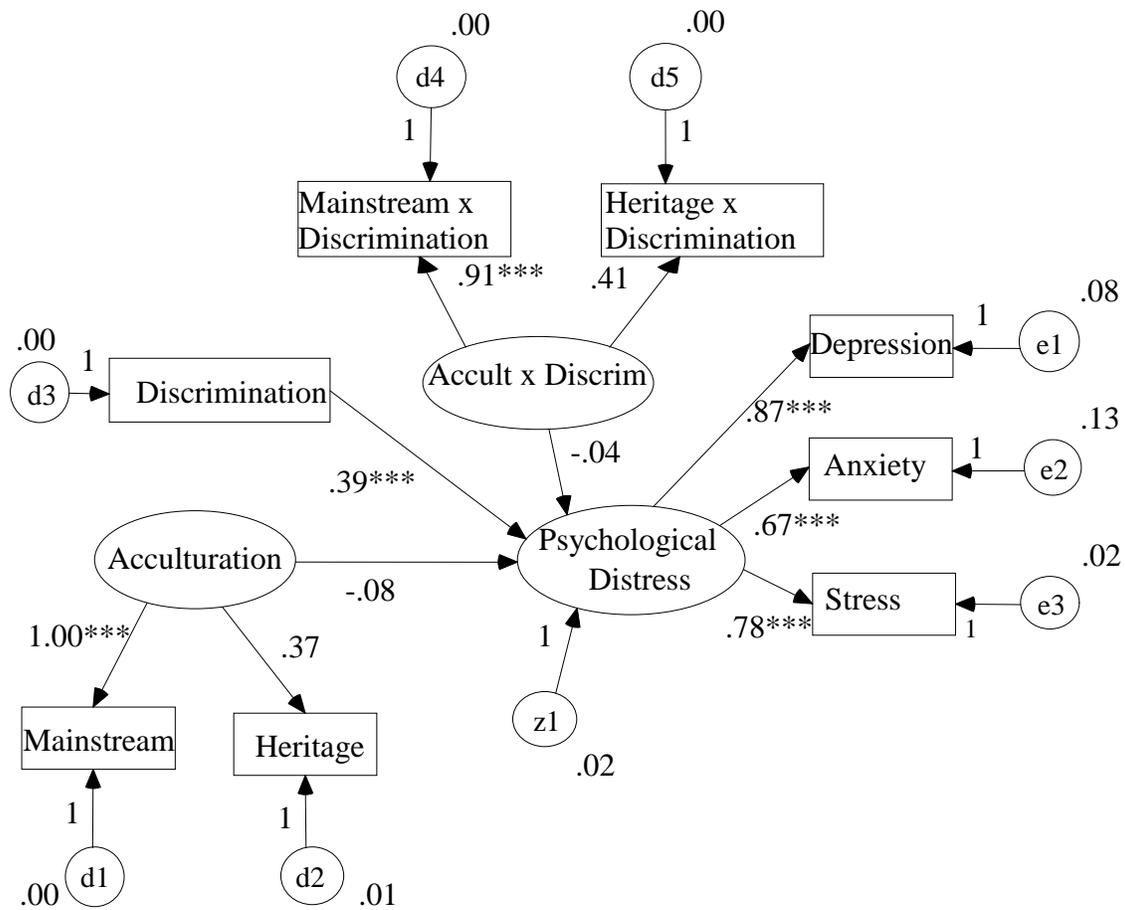


Figure 2. Output model with standardized regression weights for parameter values and error variance associated with each indicator ( $N = 220$ ). \*\*\*  $p < .001$ .

The standardized direct path from perceived discrimination to psychological distress ( $\beta = .39$ ) was statistically significant ( $p < .001$ ). The standardized direct influence of acculturation on psychological distress was not significant ( $\beta = -.08$ ,  $p = .28$ ), nor was the latent acculturation by perceived discrimination moderator ( $\beta = -.04$ ,  $p = .59$ ). The overall model statistics indicate a poor fit to the data and did not provide support for perceived discrimination as a moderator of acculturation and distress.

#### **Hypothesis 4: Gender Differences in the Prediction of Psychological Distress**

The same structural equation model was run separately for males and females to assess differences in model fit across gender in single sample comparisons. It was not possible to use multigroup analysis to compare data from males and females simultaneously due to significant violations of multivariate normality among the females. In the absence of multigroup analysis, overall consistency of the model across gender can be noted through single sample comparisons, but inferences about whether parameter estimates among males and females are significantly different cannot be made ([www.faculty.chass.ncsu.edu](http://www.faculty.chass.ncsu.edu)). It was hypothesized that perceived discrimination would significantly moderate the relationship between acculturation and psychological distress for males, but not for females. Although the male sub sample ( $n = 73$ ) was significantly smaller than the female sub sample ( $n = 145$ ) and multigroup analysis to test model invariance could not take place, the single sample comparisons are provided here as a starting point for future research.

**Females.** SEM was performed to test whether perceived discrimination significantly moderated the relationship between acculturation and psychological distress in females using the same procedure as for the overall sample. Generalized least squares estimation was used to test the same SEM model for the female subsample ( $n = 145$ ) due to violations of multivariate normality (Shimizu & Kano, 2006). Two cases with incomplete data were deleted from the original female subsample to allow estimation to take place (Shimizu & Kano). The results showed a poor overall fit of the obtained model to the hypothesized structural model,  $\chi^2(20, N = 145) = 82.86, p = .00$ . The Goodness of Fit Index was .86 and the Root Mean Square Residual was .01; both also indicate poor fit of the data to the hypothesized model. See Figure 3 for the output model with standardized regression weights and error variance for South Asian females.

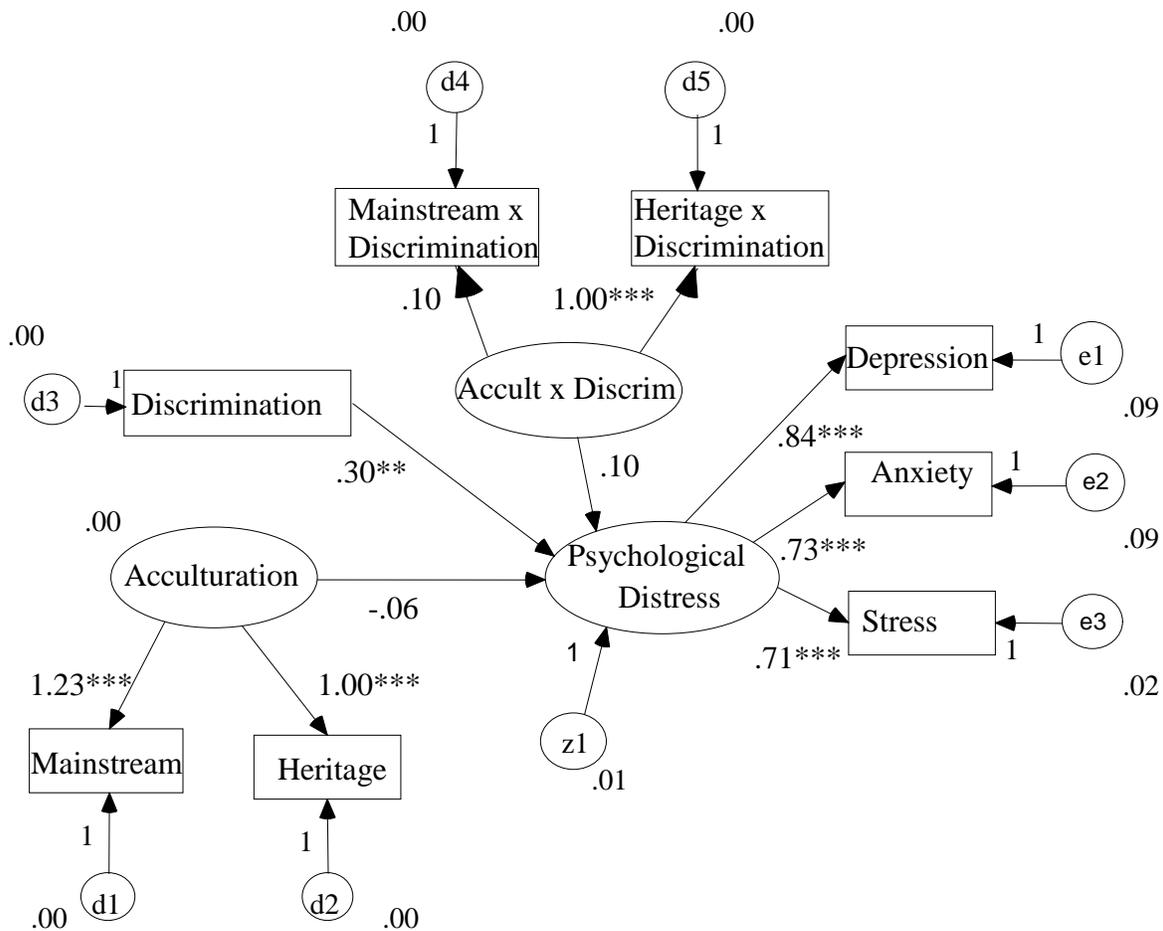


Figure 3. Output model with standardized regression weights for parameter values and error variance associated with each indicator for South Asian females ( $n = 145$ ). \*\*  $p < .01$ . \*\*\*  $p < .001$ .

The standardized direct path from perceived discrimination to psychological distress ( $\beta = .30$ ) was statistically significant ( $p = .004$ ). The standardized direct path from acculturation to psychological distress was not significant ( $\beta = -.06$ ,  $p = .55$ ); nor was the path from the acculturation by perceived discrimination interaction variable to psychological distress ( $\beta = .10$ ,  $p = .32$ ). Therefore, there was no significant direct relationship between acculturation and psychological distress, nor did perceived discrimination moderate this relationship.

However, there was a significant direct relationship between perceived discrimination and psychological distress in South Asian females.

**Males.** SEM was performed to test whether perceived discrimination significantly moderated the relationship between acculturation and psychological distress in males using the same procedure as for the overall sample. Maximum likelihood estimation was used because assumptions of multivariate normality were met. The results showed a poor overall fit of the obtained model to the hypothesized structural model,  $\chi^2 (20, N = 73) = 40.45, p = .004$ . The Comparative Fit Index was .80 and the Root Mean Square Error of Approximation was .12 (90% confidence interval ranged from .07 to .17). Both fit indices indicate poor fit of the data to the hypothesized model. See Figure 4 for the output model with standardized regression weights and error variance for South Asian males.

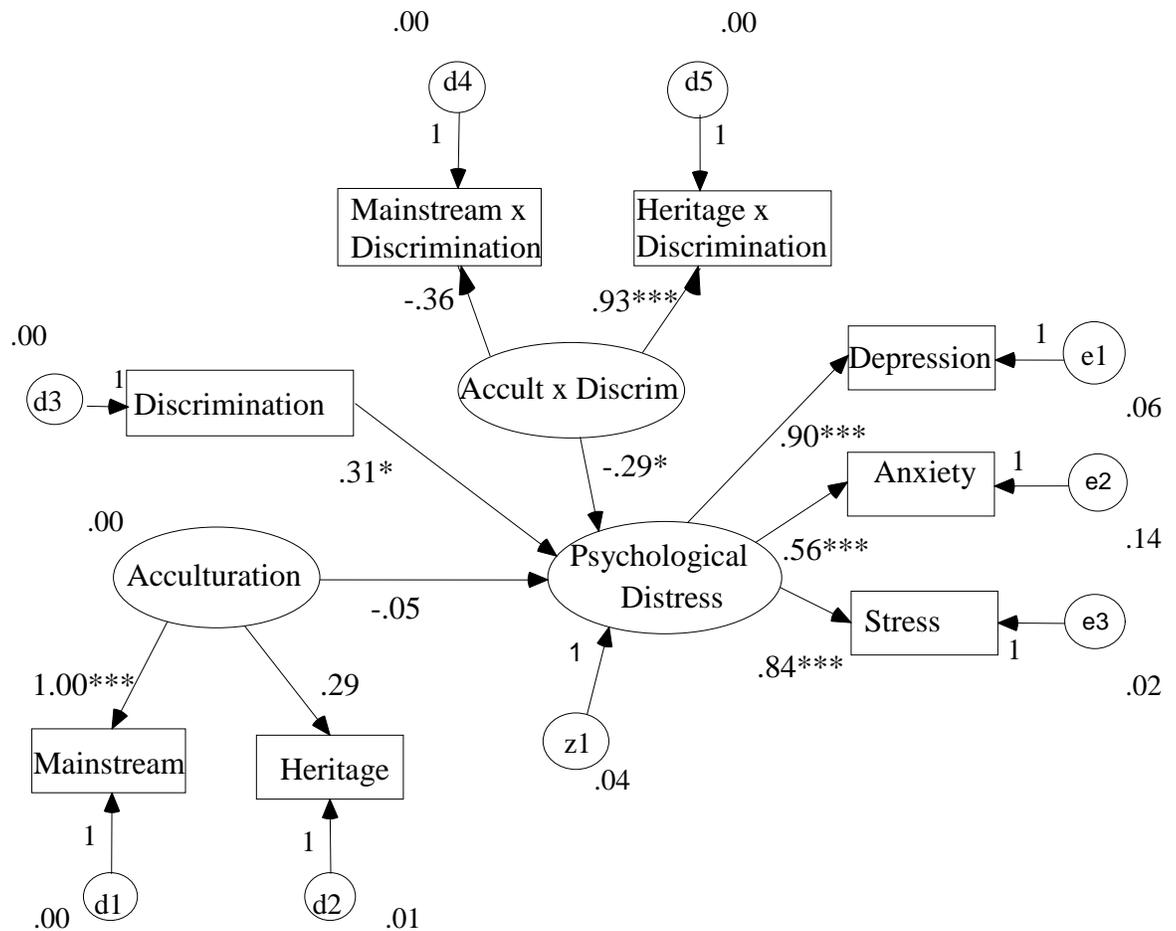


Figure 4. Output model with standardized regression weights for parameter values and error variance associated with each indicator for South Asian males ( $n = 73$ ). \*  $p < .05$  \*\*\*  $p < .001$ .

The standardized direct path from perceived discrimination to psychological distress ( $\beta = .31$ ) was statistically significant ( $p = .01$ ), but the standardized direct path from acculturation to psychological distress was not ( $\beta = -.05$ ,  $p = .67$ ). The relationship between the moderator latent variable and psychological distress was significant for males ( $\beta = .29$ ,  $p = .02$ ).

## Post Hoc Analyses

### Gender Differences in Psychological Distress

A significant amount of research on South Asian females indicates that they are at increased risk for psychological adjustment difficulties due to opposing pressure from peers and family to behave according to conflicting social and cultural norms (Assanand et al., 2000; Segal, 1991). An independent samples *t* test revealed that South Asian females scored significantly higher than males on depressive symptoms on the CES-D,  $t(218) = 4.02$ ; health related anxiety symptoms on the CHIPS,  $t(218) = 3.54$ ; and general stress on the PSS-10,  $t(218) = 4.03$ , all  $ps < .05$ . However, males and females did not differ significantly in subjective well being on the SWLS,  $t(218) = -1.99$ ,  $p = .05$ . This result suggests that both South Asian males and females endorsed similar levels of life satisfaction, despite females reporting higher levels of depression on the CES-D, health concerns on the CHIPS, and general stress on the PSS-10.

Despite the poor fit statistics for the overall model and the small male sample size of 73, further follow up analyses were conducted on the statistically significant interaction effect in males by testing the simple slopes (refer back to Figure 4).

To assist with interpretability of how perceived discrimination may impact acculturation, the sample was split into high and low levels of perceived discrimination (i.e., one standard deviation above and below the mean, respectively), as is recommended by Hopwood (2007) and Kline and Dunn (2000). However, this procedure resulted in very unequal sub groups (only 8 cases were classified as “high perceived discrimination”). Since this procedure was not feasible for comparative purposes, high and low groups on perceived discrimination were created by using median splits to divide the male subsample into high ( $n = 38$ ) and low ( $n = 35$ ) on perceived discrimination. The SEM was then run for each subgroup of males to note any changes in the direction or strength of the relationship between acculturation and psychological

distress (see Figures 5 and 6 for output models with standardized regression weights for parameter values and associated error variances).

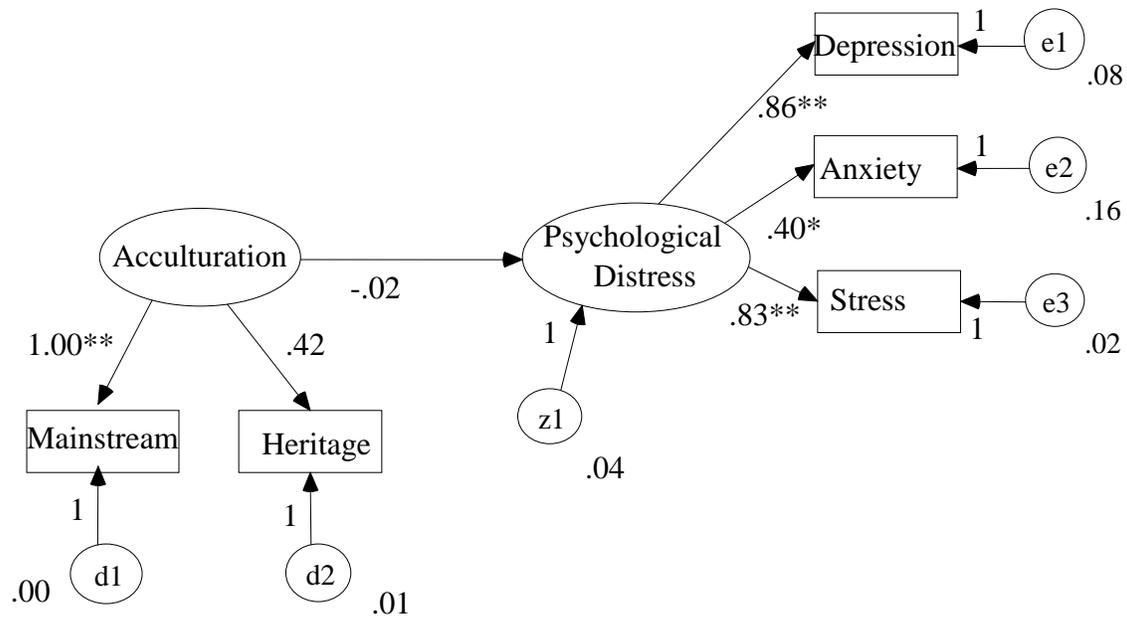


Figure 5. Structural equation model used to assess the simple slopes in South Asian males reporting higher levels of perceived discrimination ( $n = 38$ ). \* $p < .05$ . \*\* $p < .01$ .

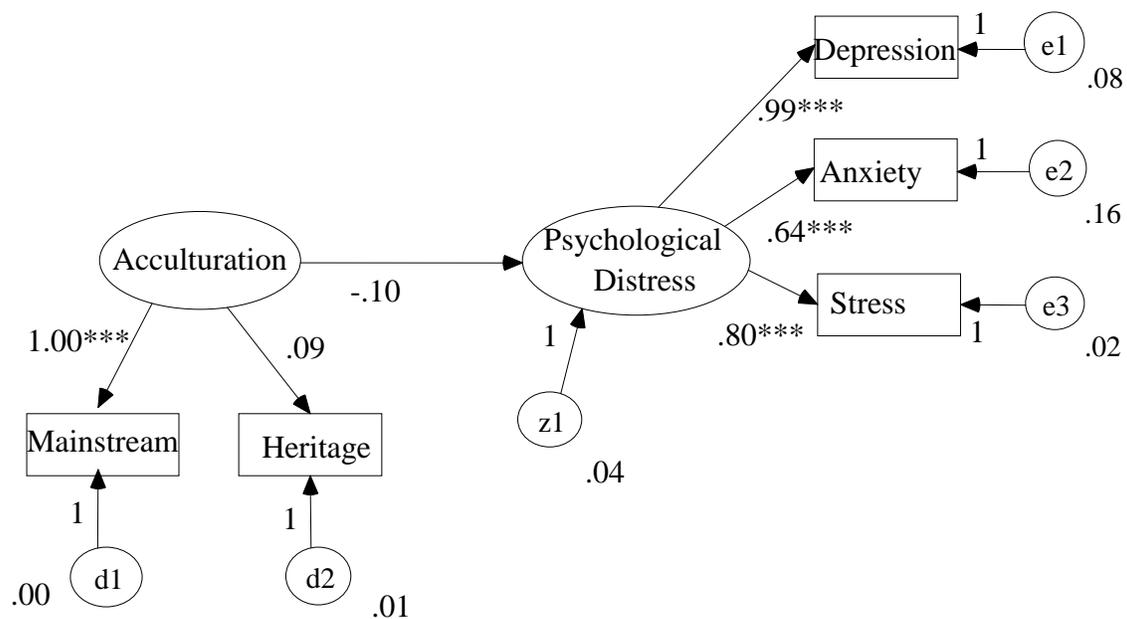


Figure 6. Structural equation model used to assess the simple slopes in South Asian males reporting lower levels of perceived discrimination ( $n = 35$ ). \*\*\* $p < .001$ .

The analysis of the simple slopes indicated that the strength of the acculturation-distress relationship was increased in the context of low perceived discrimination for South Asian males. However, in either case, the acculturation-distress link was still non significant, both in the context of high and low perceived discrimination.

### **Demographic Differences**

Independent samples *t* tests were used to compare differences on demographic variables in the sample. Previous research has indicated that immigration history may impact psychological functioning among South Asians (Almeida, 1996). South Asians whose families did not arrive directly from a South Asian country ( $n = 42$ ) reported significantly higher levels of anxiety related health concerns on the CHIPS compared to those young adults whose families had immigrated to Canada directly ( $n = 178$ ) from South Asia,  $t(218) = -3.05, p = .003$ . Immigration history was not associated with any other differences on the research variables.

Existing literature has also highlighted the potential for South Asians of varying religions to report differences in psychological adjustment (Almeida, 1996). In terms of religion, South Asian Muslims ( $n = 63$ ) reported significantly higher levels of depression on the CES-D compared to South Asian Hindus ( $n = 46$ ),  $t(107) = -2.38, p = .02$ . South Asian Sikhs ( $n = 86$ ) scored significantly lower on the Heritage subscale of the VIA than Hindus, Levene's non homogeneity corrected  $t(127.34) = 3.34, p = .001$ . However, Sikhs also perceived significantly higher amounts of discrimination than Hindus,  $t(130) = -2.06, p = .04$ .

Separate SEM analyses were performed to further illuminate differences in psychological distress among religious sub groups of South Asians. The overall sample was split into Hindus ( $n = 46$ ), Sikhs ( $n = 86$ ), and Muslims ( $n = 63$ ). SEM was conducted using generalized least squares estimation due to significant deviations from multivariate normality among the Hindu and Sikh subsamples (Shimuzu & Kano, 2006). The data did not fit the hypothesized model for

Hindus,  $\chi^2 (20, N = 46) = 43.73, p = .00$ . Root Mean Square Residual was .01 and the Goodness of Fit Index was .76. The data was also a poor fit to the hypothesized structural equation model for Sikhs,  $\chi^2 (20, N = 86) = 50.71, p = .00$ . The Root Mean Square Residual was .01 and the Goodness of Fit Index was .85, also suggestive of poor fit. In contrast to Sikhs and Hindus, the results of SEM (using maximum likelihood estimation) for Muslims showed that the data did fit the model,  $\chi^2 (20, N = 63) = 29.52, p = .07$ . Additionally, the Comparative Fit Index was .90 and Root Mean Square Error of Approximation was .09 (90% confidence interval ranged from .00 to .15). Although the overall chi square statistic for Muslims indicates good fit to the model, this statistic did not converge with the value for the Root Mean Square Error of Approximation, which indicated poor fit. See Figures 7, 8, and 9 for output models with standardized regression estimates and associated error variances for each of the three religious subgroups.

Across all three religious subgroups, perceived discrimination was not found to significantly moderate the relationship between acculturation and psychological distress, nor was there a significant direct link between acculturation and psychological distress. However, the Muslim group appeared to differ somewhat from Hindus and Sikhs; there was preliminary support for the overall fit of the data to the hypothesized model because there was a significant main effect for the relationship between perceived discrimination and psychological distress only for Muslims. Moreover, the factor loadings of observed measures on the latent variables functioned differently across the three groups, indicating variability in how the constructs operate across religion. Overall, the results of the SEM analyses for Hindu, Sikh, and Muslim South Asians suggest important emerging differences that will require further investigation with larger sample sizes.

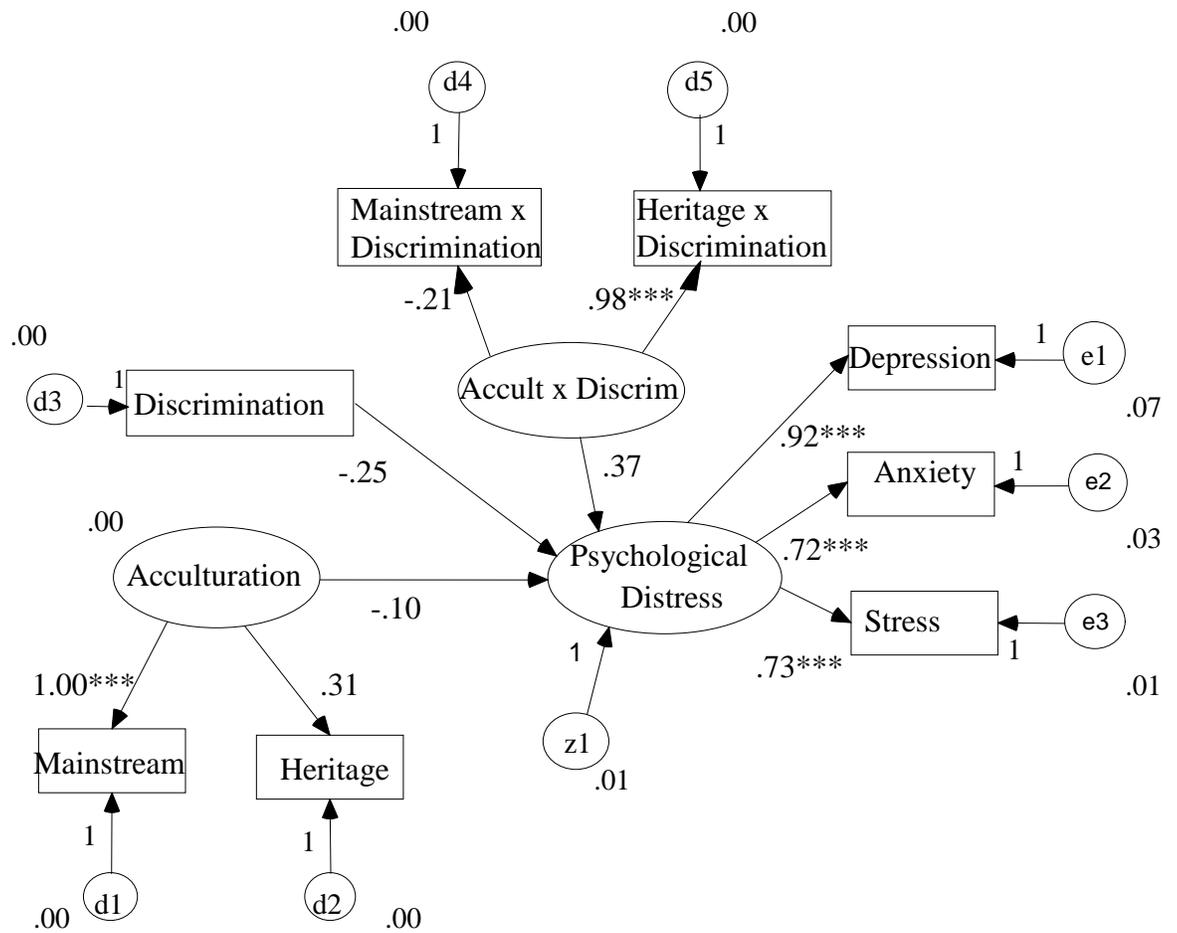


Figure 7. Output model of standardized regression estimates and associated error variances for South Asian Hindus ( $n = 46$ ). \*\*\*  $p < .001$ .

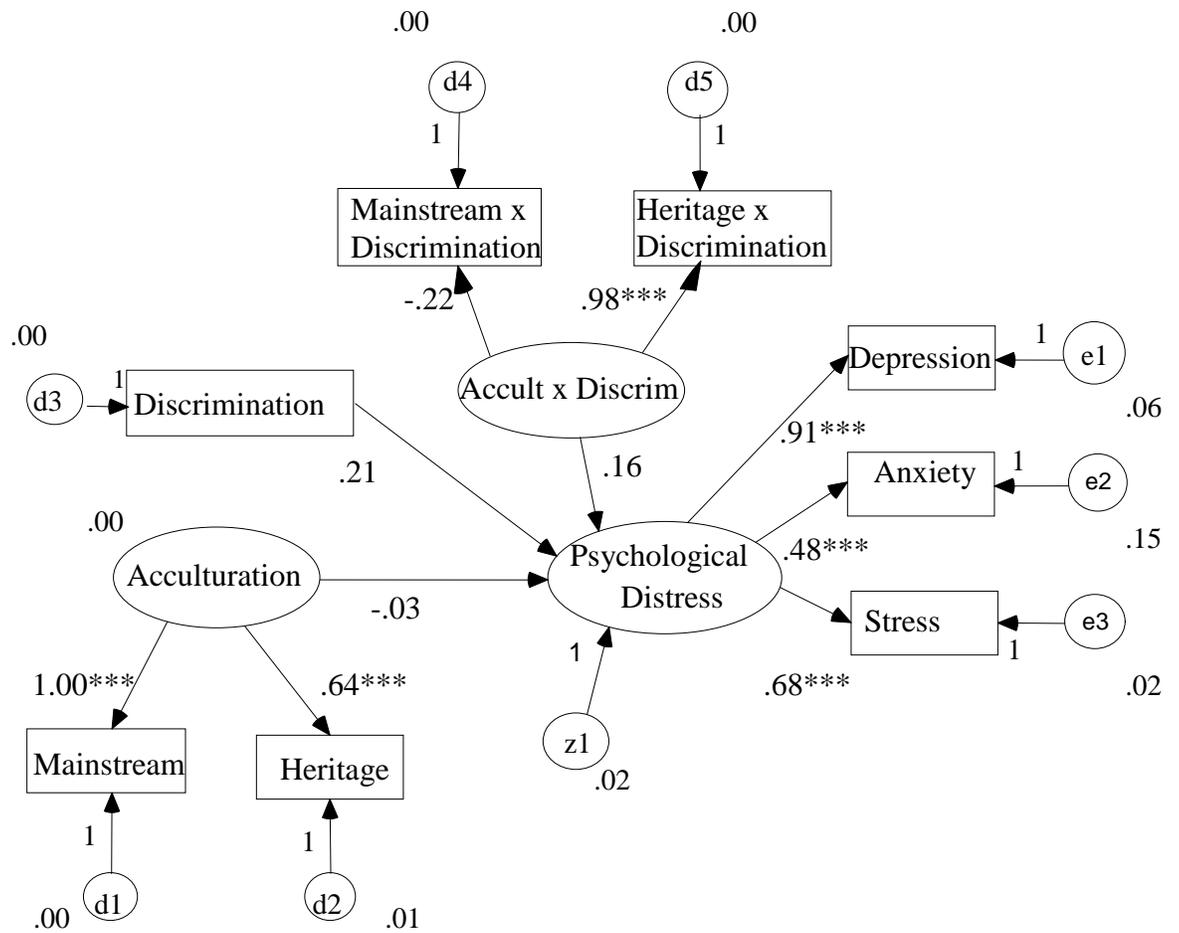


Figure 8. Output model with standardized regression estimates and associated error variances for South Asian Sikhs ( $n = 86$ ). \*\*\*  $p < .001$ .

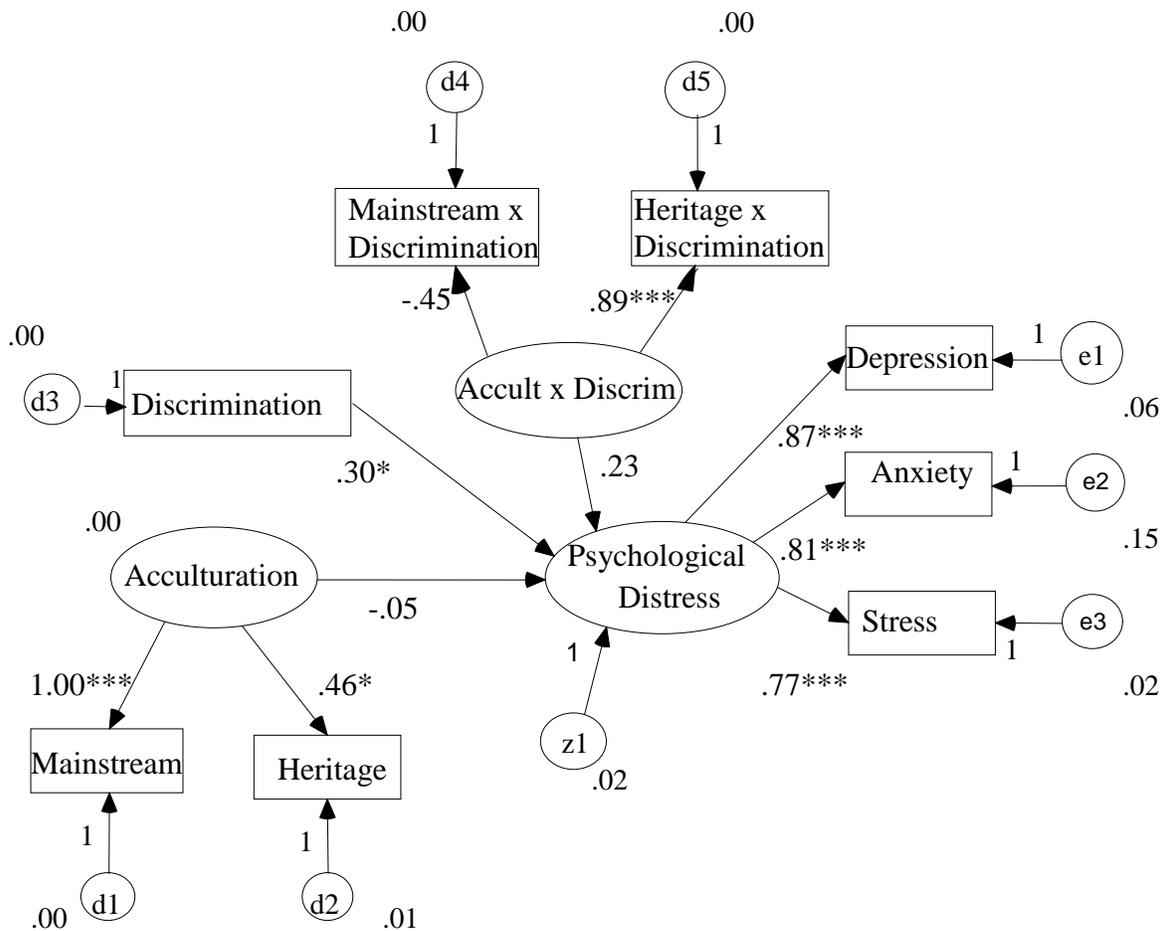


Figure 9. Output model of standardized regression estimates and associated error variances for South Asian Muslims ( $n = 63$ ). \*  $p < .05$ . \*\*\*  $p < .001$ .

### Variables related to Acculturation Scores

Bivariate correlations were computed to look at interrelationships between acculturation scores, perceived discrimination, and psychological distress. In contrast to the VIA Heritage scores, only VIA Mainstream scores were significantly related to certain aspects of psychological distress in South Asians, and only weakly at best;  $r = -.14$ ,  $p = .03$  for depressive symptoms on the CES-D, and  $r = .17$ ,  $p = .01$  for subjective well being on the SWLS. Perceived discrimination was also significantly, although weakly, related to VIA Mainstream scores,  $r = -.17$ ,  $p = .01$  and to VIA Heritage scores,  $r = .24$ ,  $p < .001$ .

The next chapter will discuss the results of this research within the context of existing literature on second generation South Asians. The limitations and delimitations of the study's findings will be discussed, along with implications for both theory and counselling practice.

## CHAPTER V

## DISCUSSION

The goal of the current research was to test a theoretical reconceptualization of newly expanded acculturation models (Berry, 2003). The current study proposed four hypotheses that were derived from previous acculturation research and theory: (a) South Asian females would report weaker preferences for the heritage South Asian culture and stronger preferences for the mainstream Euro Canadian culture than males, (b) males would report higher levels of perceived discrimination than females, (c) perceived discrimination would moderate the relationship between acculturation and psychological distress, and (d) when the sample was split by gender, perceived discrimination would moderate the acculturation-distress relationship for males, but not females. The study resulted in four noteworthy findings. First, South Asian male and female young adults did not differ in their acculturation preferences for the heritage or mainstream cultures. Second, there were no gender differences among males' and females' reports of perceived discrimination in Canada. Third, perceived discrimination did not moderate the relationship between acculturation and psychological distress. Fourth, these relationships were similar for both males and females, in that perceived discrimination did not act as a moderator for either males or females.

Additionally, post hoc analyses revealed that South Asian females reported significantly higher levels of psychological distress in the areas of depression, anxiety related health symptoms, and general stress than South Asian males, but did not differ on a measure of their overall satisfaction with life and perceived well being. Follow up analyses to test the simple slopes of the significant acculturation by perceived discrimination interaction term in the male sample showed that the acculturation-distress link was somewhat stronger in the context of low levels of discrimination, although the relationship remained statistically non significant. Finally,

South Asians who self identified as Sikhs and Muslims reported higher levels of perceived discrimination and depression, respectively, compared to South Asian Hindus. Follow up analyses using SEM comparing these three religious groups found that the hypothesized model fit the data only for the Muslim group in terms of overall fit statistics, due to the significant relationship between perceived discrimination and psychological distress. Across all three groups, however, perceived discrimination was not found to act as a moderator.

This chapter will explore the theoretical and practical implications of these results (both significant and non significant findings) in the context of existing literature while taking into account the sample characteristics. Both the limitations and delimitations of the study will be discussed; directions for future research, along with suggestions for counselling practice, will also be identified.

### **Gender and Acculturation**

Second generation South Asian young adult males and females in the study did not report any gender differences in their acculturation preferences for their heritage South Asian culture or the mainstream Canadian culture. Previous research has stressed the importance of gender related acculturation differences, particularly in the South Asian culture, in which gender roles are traditionally clearly defined (Ghuman, 1994). Differences in parental expectations for South Asian sons and daughters regarding appropriate cultural behaviours have been well documented in existing literature (Almeida, 1996; Dion & Dion, 2001; Segal, 1991). South Asian girls have reported family pressure to conform to traditional cultural behavior norms while feeling an internal desire to adopt more mainstream behaviours (Talbani & Hasanali, 2000). Research has also indicated that females demonstrated a greater desire to experiment with mainstream Canadian behaviours compared to South Asian males due to the increased freedom afforded

them in the mainstream culture, but report being prevented to do so by their families (Dion & Dion, 2001; Ghuman, 1994; Hennink, Diamond, & Cooper, 1999; Segal, 1991).

Given the existing literature, it was surprising that no gender differences in acculturation style were found in the current research. The pattern of results has been mixed, with some studies noting South Asian girls reporting higher preferences for the heritage culture than males (Shariff, 2006), and other studies showing the reverse trend, with males reporting higher heritage cultural preferences while females prefer the mainstream culture (Ghuman, 1994). Regardless of the pattern, the studies have been consistent in pointing to some type of gender based acculturation differences among South Asian males and females. The sample means on measures of acculturation in the current study demonstrated that females did report somewhat higher preferences for their heritage culture than males, however this difference was not statistically significant. Mean scores for preferences for the mainstream culture were almost equivalent across males and female participants.

The lack of statistically significant gender differences in acculturation preferences in the current study indicates that gender may not be as salient in predicting South Asian acculturation patterns as has been previously posited by existing research, at least for young adults. The majority of existing research has compared gender differences in South Asian adolescents (Ghuman, 1994; Hennink et al., 1999; Segal, 1991), while the current study utilized a sample of young adults. South Asian adolescent girls' behaviour is likely to be more easily monitored by parents due to the higher percentage of adolescents who reside in the home. However, during young adulthood, many South Asians move out of the family home or gain increased freedom while living at home through immersion in post secondary social and extra curricular activities (Hennink et al.). Therefore, any pre existing acculturation differences between South Asian males and females as adolescents may dissipate by the time they reach young adulthood, when

females have increased freedom to behave according to their own internal preferences (Talbani & Hasanali). By young adulthood, South Asians may have also decreased experimentation with competing cultural behaviours and norms, possibly washing out any gender differences that may have existed during the period of adolescence.

The lack of gender differences in acculturation preferences may not be adaptive within a family context. Although the sample consisted of young adults aged 18 to 25, 73.50% of them continued to reside with family or other relatives. Given the different parental expectations for cultural behaviours in sons and daughters within the South Asian culture, females who adopt similar acculturation styles to males may continue to experience heightened family pressure and conflict (Dion & Dion, 2001; Wakil et al., 1981). Parents may continue to expect adult daughters to display fewer behaviours and values characteristic of the mainstream Canadian culture compared to sons. They have been found to react by applying increased pressure for daughters to conform to their behavioural expectations or view high mainstream behaviours as pathological (Talbani & Hasanali, 2000; Wakil et al.). South Asian parents may also use traditional parenting styles such as instilling guilt or shame in daughters as a means of controlling their behaviour. This has been found to be related to identity confusion (Segal, 1991).

### **Gender and Perceived Discrimination**

Given the increase in religious and cultural stereotyping (particularly post 9/11) targeting darker skinned, Arab looking males (Padilla & Perez, 2003), it was proposed that South Asian males would report higher levels of perceived discrimination than females. This hypothesis was not supported in the study; males and females did not differ on perceived discrimination. In fact, the sample means indicate that females reported somewhat higher levels of discrimination,

although this difference was not statistically significant. Overall, this finding indicates that South Asian male and female young adults perceive similar levels of ethnic discrimination.

The literature on racial micro aggressions (Sue et al., 2007) discusses the dangers of cultural stereotyping which can lead to “micro insults” in which behaviours outside of one’s conscious awareness convey cultural insensitivity or are demeaning to another person’s cultural, gender, or sexual identity (Sue et al.). South Asian females are sometimes stereotyped as being subservient to males, culturally oppressed, subject to domestic violence, and sexually exotic (Patel, 2007; Sue et al.). Such stereotypes are reinforced in popular media, which tends to highlight tragic stories of South Asian women being physically abused by spouses, murdered (i.e., “honour killings”) by family, or forced into arranged marriages. While such cases do exist, they represent the exception, not the norm, of the experiences of the majority of South Asian women in Canada. The tendency of the media to highlight such extreme cases and explain them in terms of cultural values and beliefs has contributed to negative stereotypes of South Asian females (Dion & Dion, 2001). Therefore, individuals may falsely assume that all South Asian women fit this profile, which can stigmatize them in occupational, academic, and social settings.

South Asian women may be subject to racial micro insults based on these popular stereotypes; they may experience subtle negative reactions to them by bosses, co workers, professors, colleagues, friends, counsellors, and other individuals (Sue & Sue, 2007). For example, counsellors may make subtle micro insults in sessions with a South Asian female who discusses a troubled romantic relationship by assuming that these issues are due to the woman being mistreated or oppressed.

South Asian males are also subject to their own negative cultural stereotypes and racial profiling. Males are frequently screened and searched more thoroughly at airports since 9/11 due to appearance (darker skin, ethnic names, beards) (Padilla & Perez, 2003). They may also

be denied entry into night clubs due to being stereotyped as violent or as ethnic gang members. When males enter counselling, they may receive micro insults from counsellors who assume they will be dominant when interacting with females, have terrorist links, or ties to gangs.

Overall, second generation South Asian males and females are just as likely to report perceived discrimination, since both genders are subject to negative cultural stigma and stereotyping (Sue & Sue, 2007). Existing research conducted across Vancouver, Toronto, and Montreal has also demonstrated that Canadians reported a hierarchy of preferences for immigrants of varying ethnic backgrounds (Berry & Kalin, 1995). Among the least preferred ethnic groups were South Asians and Arabs (Berry & Kalin), indicating that discrimination is a relevant issue within Canadian society, both from the perspective of the perceiver as well as from individuals from within the dominant culture. In the current sample, the majority of participants reported they were from Vancouver or Toronto, which makes the findings particularly salient in light of Berry and Kalin's research, and also points to the possibility of perceiving discrimination in urban centres of Canada and not just in rural or small towns. Furthermore, the second generation sample in the current study highlights the potential for perceiving discrimination to extend well beyond first generation immigrants, and is an important issue for second generation South Asians.

### **Acculturation, Perceived Discrimination, and Psychological Distress**

The current study found that contrary to recent theoretical reconceptualizations of the acculturation process (Berry, 2003; Padilla & Perez, 2003), perceived discrimination did not moderate the relationship between acculturation preferences and psychological distress. Closer examination of the interrelationships among these three variables indicated a significant direct relationship between perceived discrimination and psychological distress in second generation South Asian young adults. Surprisingly, no direct relationship between acculturation and

psychological distress was found, which contrasts with the findings of previous research (Amer & Hovey, 2007; Farver, Narang, et al., 2002; Krishnan & Berry, 1992). These studies have used variable measures of acculturation and distress to operationalize these constructs; the current study was the first to use multiple indicators of these latent variables. Additionally, when latent constructs are not operationalized in the same way across studies, interpretation becomes more difficult as the specific research measures used can become a confound in explaining differential results across studies.

The acculturation-distress link has been heavily stressed in Berry's acculturation theory, and he has frequently posited that integration (high preference for both the heritage and mainstream cultures) is related to less psychological distress in individuals across various ethnic groups (Berry, 2001; Berry, 2003; Krishnan & Berry, 1992). However, this contention rests on the results of a small handful of studies which have used varying measures of acculturation and distress, as stated above. The current study utilized a large sample size compared to previous studies and a sophisticated multivariate methodology involving multiple indicators of acculturation and psychological distress, in contrast to previous research. Berry's (2003) acculturation theory has also highlighted Canada as a model of cultural pluralism with its mosaic immigration policy, as compared to the United States' melting pot and some European countries' segregationist multicultural ideologies. However, Berry's own research demonstrated that Canadians reported discriminatory attitudes toward immigrants who appeared more culturally and ethnically dissimilar from the dominant Euro Canadian culture (Berry & Kalin, 1995). The focus on acculturation as a predictor of psychological distress among immigrants in Canada has therefore overlooked the importance of perceived discrimination as an independent contributor to emotional well being.

While there has been much research in the United States on the discrimination-distress link, there has been substantially less work in this area in Canada. The findings of the current study point to the importance of studying other predictors of psychological distress that may be more relevant for immigrants in Canada, such as perceived discrimination.

Notably, the significant relationship between perceived discrimination and distress among South Asian young adults in the study is made more salient by the fact that all of the participants were second generation immigrants. The bulk of existing research on second generation immigrants has focused on youths' identity and acculturation conflicts as the primary predictors of psychological adjustment and well being (Abouguendia & Noels, 2001; Kwak & Berry, 2001; Segal, 1991), to the exclusion of examining other relevant variables such as perceived discrimination. Although the literature on the discrimination-distress link in Canada is sparse compared to the United States, the little research that exists within a Canadian context has focused on first generation immigrants' experiences (Dion, 2001).

As stated earlier, the exclusive focus on acculturation preferences and identity development in relation to psychological distress among second generation Canadian immigrants has overlooked other important predictors of distress. It has widely been assumed that acculturation and bicultural identity formation have been the most salient conflicts for second generation immigrants, while perceived discrimination and racism are most salient for first generation and refugee immigrants (Assanand et al., 1990; Almeida, 1996; Phinney et al., 2001; Segal, 1991).

Overall, the lack of significant findings for any relationship between acculturation preferences and psychological distress poses a noteworthy challenge to Berry's theory of acculturation, at least where South Asians are concerned. For second generation South Asians who are young adults, it appears that higher perceived discrimination, and not acculturation,

predicts psychological distress in terms of depression, anxiety related health concerns, and general stress. Thus, theories of psychological adjustment among immigrants should focus more on the role of perceived discrimination than exclusively on acculturation preferences, use uniform measures of acculturation to operationalize this construct in the same way across studies, along with multiple indicators of psychological distress. The current study was the first to use structural equation modelling (as opposed to multiple regression) as a method to test Berry's (2001) theoretical propositions. This may explain why the current study's findings are the first to shed light on this interesting pattern of results.

Additionally, Berry's (2003) assertion that perceived discrimination moderates the acculturation-distress relationship should be re visited in light of the current study's findings and should be investigated in various ethnic groups in Canada to determine if this finding cross validates across ethnic groups. Berry posited that integration can only be successfully pursued in the context of low levels of perceived discrimination in the host country, and he contends that this is pre condition is met in Canada, given the multicultural policy advocating integration as opposed to assimilation or separation. However, this pattern was not observed in the current study; acculturation did not predict psychological distress, and perceived discrimination served as an independent predictor of distress. It is possible that, due to negative cultural stereotypes of South Asians, it is perceived discrimination that takes precedence over emotional well being regardless of a person's acculturation preferences. It may also be possible that acculturation moderates the relationship between perceived discrimination and psychological distress instead of the reverse proposition, which was tested in the current study, and based on Berry's (2001, 2003) theory of acculturation.

In addition to the difficulties with measurement of acculturation and psychological distress related to the lack of uniform and publically available measures utilized in the bulk of

Berry's research, his acculturation model is focused largely on intergroup relations from a sociological perspective. This type of framework, while useful for a conceptual understanding of the interplay between individual acculturation processes and group level attitudes toward multiculturalism, may require some revision using path diagrams to specify the exact relationships among acculturation, perceived discrimination, and psychological adaptation. This type of revision to Berry's model, along with the use of uniform measures of these constructs, would assist future acculturation research to advance.

### **Perceived Discrimination as a Moderator across Gender**

Contrary to what was hypothesized, the relationship among acculturation, perceived discrimination, and psychological distress was similar across both South Asian males and females. That is, perceived discrimination failed to moderate the relationship between acculturation and distress for both males and females. However, it should be noted that the sample consisted of mostly females, therefore the gender comparisons were composed of small and unequal subsamples of females versus males. The current study showed a direct relationship between perceived discrimination and psychological distress for both males and females. Across both genders, depressive symptoms were the best indicator of psychological distress associated with higher perceived discrimination.

As discussed earlier in the chapter, it appears that both South Asian males and females are subject to cultural stereotyping and racial profiling. Females are more likely to be stereotyped as submissive and oppressed (Sue et al, 2007; Sue & Sue, 2008). Males, on the other hand, may be subject to racial profiling and stereotyping as terrorists and gang members (Padilla & Perez, 2003; Sue et al.). The bulk of research on South Asians' personal adjustment has focused on its relations to the acculturation process, which has highlighted females' difficulties related to opposing family pressure, rebellion, and identity confusion (Dion & Dion,

2001; Segal, 1991). As stated earlier in the chapter, there has been a noticeable gap in discrimination research within a Canadian context, which has made it easier for South Asian males' personal adjustment issues to be overlooked. The lack of attention given to males creates the impression that it is only South Asian females who suffer from psychological distress, resulting in a biased and incomplete picture of South Asians' adjustment (Dion & Dion; Shariff, 2006; Talbani & Hasanali, 2000). More research is needed to investigate the unique barriers to psychological adjustment that South Asian males may face in order to develop appropriate counselling interventions for them.

### **Post Hoc Findings**

#### **Gender and Psychological Distress**

Post hoc analyses revealed that South Asian females reported significantly higher levels of distress than males in depression, health concerns, and general stress. This pattern was not surprising because existing research has demonstrated a similar trend in the broader population as well, with females reporting higher rates of psychological distress than males (Kingree, 1995). Therefore, the finding in the current study may reflect a more general pattern of gender differences in psychological distress present across several cultural groups. However, the sample demographics in the current study also revealed that 73.50% of participants continued to reside with family or relatives, which may point to heightened family conflict regarding increased parental expectations for females. This finding raises questions about how family conflict may be related to psychological distress in South Asian females. To the best of the researcher's knowledge, there have been virtually no studies which have empirically investigated this relationship among South Asians. Given that the majority of the young adult sample in the current study continued to reside with family members, this will be an important avenue to explore for future research.

While the above discussion presents interesting possibilities, these findings were the result of post hoc analyses and are therefore tentative at this time. Counsellors and researchers should exercise appropriate caution in drawing conclusions from these preliminary findings; future research will be needed to further examine these patterns.

### **Immigration History and Anxiety**

Post hoc analyses revealed that South Asians whose families migrated directly from a South Asian country to Canada reported less anxiety related health concerns compared to those whose families did not migrate to Canada directly from their country of origin. South Asian young adults whose family migration history is more complicated may have experienced instability or other challenges to have provoked subsequent moves, eventually ending up in Canada. Many South Asian families have moved to Canada from the United Kingdom, East Africa, the Middle East, or the United States (Almeida, 1996; Assanand et al., 1990). These nations hold different multicultural policies from that of Canada which are not as inclusive, and in many cases, do not present equal employment opportunities for immigrants (Berry, 2001; 2003). South Asians in these countries may have faced financial or employment difficulties, racism or discrimination, separation from extended family that may have migrated to Canada, or other anxiety provoking experiences to promote dissatisfaction. A pre existing history of stressful experiences might contribute to elevated anxiety over time, thereby accounting for this difference among direct and indirect arrival in South Asians.

If this is the case, it cannot be presumed that South Asian young adults whose families have lived in other countries before arrival in Canada would face less psychological adjustment issues due to prior experience with cultural adaptation. In fact, the results of this study point to the opposite pattern. It is possible that South Asians' higher anxiety related health symptoms are tied to their parents' psychological distress or acculturation difficulties. This once again

highlights the propensity for South Asian young adults' anxiety to be situated within a family context and impacted by their parents' own adjustment. However, this finding should be interpreted with caution due to its post hoc nature and small subsample sizes. Future research should attempt to compare direct arrival South Asian families to non direct arrival South Asian families on measures of perceived discrimination, acculturation preferences, and psychological distress to note what, if any, systematic differences among these groups emerge.

### **Religion, Perceived Discrimination, and Depression**

South Asian Muslims reported higher levels of depression than Hindus, while Sikhs reported higher perceived discrimination than Hindus. This finding, although based on small and unequal subsample sizes, indicates an important preliminary pattern that will require further research. A study by Robinson (2005) that compared Hindu, Sikh, and Muslim South Asians in the United Kingdom also found religious sub group differences in the area of acculturation preferences. In particular, these researchers noted that Hindus tended to adopt an assimilation acculturation strategy more frequently than Muslims and Sikhs and also reported more positive contact experiences with the dominant society (Robinson). It is possible that Sikhs and Muslims reported higher depression and perceived discrimination in the current study due to higher rates of negative cultural stereotyping.

Regarding the Muslim subgroup in the current study, perceived discrimination significantly predicted higher psychological distress, with the best indicator being depressive symptoms. A study by Amer and Hovey (2007) also confirmed the higher rates of perceived discrimination in their Muslim sample following 9/11, and noted that higher rates of religiosity was related to higher depression. Although this emerging pattern indicates an important consideration of differential functioning across religious sub groups, further research will be needed to confirm these speculations.

Sikhs in the current study reported higher perceived discrimination compared to Hindus. Existing research indicates that immigrant groups who look more culturally distinctive from that of the dominant society in terms of appearance such as skin colour, religious dress, as well as those whose traditional practices are viewed as foreign are often stigmatized by the mainstream society (Kalin & Berry, 1995). Thus, it is possible that Sikhs, who are sometimes distinguished from Hindus by turbans or ceremonial daggers, might perceive more discrimination toward them than Hindus.

Sikhs also have a much longer immigration history in Canada compared to other South Asian groups. The earliest Sikh immigrants to Canada began arriving in 1904, and were often subject to racist immigration policies which barred them for years through bans on non continuous voyages from India to Canada (Wakil et al., 1981). Additionally, negative media attention surrounding events such as the Air India bombing and periodic temple violence may also contribute to negative cultural stereotyping of Sikhs today. This lengthy history of overt racism in Sikhs' early days of immigration, coupled with ongoing negative cultural stereotypes in Canada, may help to explain why Sikhs in the current study perceived more discrimination than Hindus. A long history of racism may be passed on through generations of Sikh families' narratives and impact Sikhs' perceptions of themselves in the dominant society.

Despite Sikhs' higher perceived discrimination compared to Hindus, they did not report significantly higher psychological distress than Hindus. This suggests the presence of some protective factors that may help Sikh young adults cope more adaptively with this added stress. Therefore, despite heightened perceived discrimination, it is possible that Sikh young adults demonstrate resilience in the face of this stressor. All in all, further research will be needed to corroborate these post hoc results that point to religious sub group differences in perceived discrimination and depressive symptoms.

## Study Limitations and Delimitations

### Delimitations

The current study used a non random, convenience sample. Participants were recruited across Canada via research assistants, word of mouth, notices at cultural events and post secondary campuses, and via the internet (Facebook messages, groups, and email list serves of South Asian clubs/groups). It is possible that those who are not active within the South Asian community (i.e., not members of cultural club, do not attend South Asian events, or have South Asian friends) are underrepresented in the current sample due to these recruitment methods. However, there was no other means of reaching South Asians who are cut off from the cultural community. Convenience sampling is often used in psychological research, particularly in cross cultural contexts, in which the sample is unfamiliar with social sciences research and may be suspicious of researchers who have not established credibility within their cultural communities (Pernice, 1994).

A disproportionately large number of participants had arrived from India (71.40%), were females (66.80%) as opposed to males (33.20%), and 78.00% of the sample was from either Vancouver or Toronto. Thus, the results may be more applicable to Indian South Asian females living in larger, urban metropolis cities within Canada, thereby limiting the external validity of the findings. On the positive side, a variety of religious affiliations were represented in the sample, with the greatest numbers of participants self identifying as Muslims, Sikhs, and Hindus (which represent the three most common religions of South Asians). Additionally, although females outnumbered males in the study, it was still possible to conduct gender comparisons to note differences and similarities among males and females.

Another delimitation was the internet recruitment and completion of surveys. This method has several advantages, including increased participant anonymity, convenience and

accessibility to participants across Canada, and it represents the preferred mode of communication among today's youth (Livingstone, 2008). However, the disadvantage to using online participant recruitment and data completion is the lack of control the researcher has over who actually completes the surveys. Although the research criteria for inclusion in the study were clearly outlined in study advertisements and notices, there was no way for the researcher to ensure that participants actually represented themselves accurately in terms of demographic inclusion variables. This poses a possible threat to the external validity of the research findings. Furthermore, although access to a public computer in an internet café, post secondary institution, or library is widespread today, it is possible that some interested participants of a lower socioeconomic status may have been unable to participate due to lack of access to a computer.

### **Limitations**

The major limitation of this study is the use of self-report measures, which may result in socially desirable responding. The South Asian culture is one that stigmatizes the expression of emotional and psychological issues. The study focused on acculturation and perceived discrimination, and the majority of the psychological distress questionnaires were less stigmatizing (tapping subjective well being, somatic health concerns, and general stress). However, the depression questionnaire (Centre for Epidemiological Studies Depression Scale) has sensitive items tapping various symptoms of depression, including suicidality. It is possible that some participants may have responded in a socially desirable way to some of the more sensitive questions on depression. However, all questionnaires were completed online, in the privacy of participants' own homes, with no face to face contact with the researcher or research assistant. In fact, due to the online nature of the surveys, the researcher/assistant did not require participant names or other identifying information; therefore, participants were afforded more anonymity than would usually be provided in more traditional face to face research studies. The

increased anonymity may have helped to reduce any tendency toward socially desirable responding.

Another limitation of the study is the correlational, single point in time methodology, which precludes causal inferences from being drawn. Despite the use of multivariate, structural equation modelling, one cannot assume any causal relationships among latent variables in the data due to the correlational methodology used. However, it is not possible to randomly assign participants to different acculturation styles and levels of perceived discrimination. Furthermore, the relationships among acculturation, perceived discrimination, and psychological distress are complex and likely reinforce each other in a reciprocal manner over time. This study, while it elucidated important patterns among these variables, is limited by providing a snapshot of a participants' psychological distress at the current time. It is unknown how these interrelationships might change if a longitudinal design had been used.

Finally, despite the fact that a combination of traditional and online recruitment procedures were used, a disproportionately high percentage of the sample was recruited via social networking sites and email list serves (52.70%) compared to more traditional recruitment methods such as notices posted/given out at places of worship, cultural events, or post secondary campuses/cultural clubs (7.70%), or via word of mouth (39.10%). This may limit the representativeness of the current sample to South Asian young adults who are internet savvy or involved in social networking sites/internet list serv groups; however every effort was made to use non internet based recruitment strategies as well. Additionally, Livingstone (2008) points out that today's youth and young adult populations tend to be more comfortable communicating online through social networking sites, blogs, and online forums as a mode of self expression compared to previous generations. Therefore, it was important to include this form of

recruitment in order to reach more young adults and to use a broader method of recruitment than more traditional in person recruitment procedures.

### **Implications for Research and Theory**

The results of the current study contradict the findings of previous research; only the relationship between perceived discrimination and psychological distress was significant for South Asian second generation young adults. The relationship between acculturation and psychological distress was non significant for the overall sample, as well as for males and females separately, and across the three largest religious groups (Hindu, Sikh, and Muslim). This highlights the role of perceived discrimination as a more important predictor of psychological distress in South Asians and suggests important directions for future research and acculturation theory. However, given the correlational nature of this study, causation cannot be inferred; it is also possible that participants who were more psychologically distressed tended to perceive more discrimination.

First, the results of this study indicate that second generation immigrants in Canada are far from immune to perceiving discrimination, despite Canada's pluralist multicultural policy and their immersion in the mainstream culture from a young age. More research from a Canadian perspective should attend to the role of perceived discrimination in immigrant mental health, and investigate potential moderators or mediators of the discrimination-distress link. While some research has already examined variables such as ethnic identity, self esteem, and coping style as mediators and moderators of this link in the United States, it will be important to conduct similar research in a Canadian context to note similarities and differences (Cassidy et al., 2004; Crocker & Major, 1989; Liang et al., 2007).

Second, Berry's (2003) propositions that perceived discrimination would moderate the acculturation-distress relationship were not borne out in this study, which was the first empirical

investigation of Berry's theoretical proposal of the potential role of perceived discrimination. While more research using larger sample sizes and different ethnic minority groups will be needed to confirm this preliminary finding, further revision to Berry's (2003) model will be required if this pattern is replicated in additional studies. Along these lines, future research examining the relationship between acculturation and psychological distress should attempt to operationalize these constructs similarly using measures with good psychometric properties to allow facility in comparing results across studies. While Berry has developed a theory of acculturation, good measures of this construct will also need to follow if the field is to continue growing and contributing to increased knowledge and understanding of this process.

Second, the interrelationships among acculturation, perceived discrimination, and psychological adaptation should be clearly delineated using path diagrams to assist in increased precision in research designed for psychological model testing. Berry's model of acculturation is a group relations model based on two societies in contact, which has made it difficult to use this framework for the purposes of examining psychological phenomena such as acculturation, perceived discrimination, and psychological distress, which occur on the level of the individual. Path models may therefore be helpful in translating Berry's model onto an individual level. Furthermore, the possibility that acculturation moderates the relationship between discrimination and psychological distress should also be explored in future research to provide initial directions for revision to Berry's acculturation model.

Finally, post hoc analyses demonstrated emerging differences among how the variables were related among Sikhs, Hindus, and Muslims. Future research should examine these relationships more systematically among South Asians of varying religions to note similarities and differences in how the constructs operate across religious groups. It is possible that combining all South Asians together into one sample may obscure important differences. Given

the results of the current study, it will be especially important to target Sikhs and Muslims for follow up studies as participants from these religious groups reported more difficulty than Hindu participants and may be at greater risk for psychological problems.

### **Implications for Counselling Practice**

The results of the study indicate important suggestions for counsellors who work with culturally diverse clients, particularly second generation South Asian young adults. Sue et al. (2008) noted that most Caucasian Americans perceive racial discrimination to be on the decline and that ethnic minorities are generally free of racism. These authors also stated that Caucasian Americans tend to believe they are personally free of racial bias (Sue et al.). However, the results of the current study noted that even second generation South Asians, who were born/raised in Canada from a young age, perceived varying degrees of racial discrimination. These findings are even more salient when one considers their familiarity with the dominant Euro Canadian culture given their generational status and the Canadian context, which is often viewed as a model of cultural pluralism (Berry, 2003).

Within a therapeutic context, South Asians who present for counselling may be struggling to cope effectively with overt discrimination or subtle racial micro aggressions, despite the fact that they are second generation and have been immersed in the dominant Canadian culture for most or all of their lives. Given the extensive literature on ethnic identity development and acculturation conflicts among second generation immigrant youth (Abouguendia & Noels, 2001), it may be common to assume that second generation South Asians' emotional well being is attributable to these concerns. Counsellors may overlook the potential for these clients to be struggling with incidents of discrimination (particularly more covert micro aggressions) because they appear acculturated to the mainstream culture. In other cases, counsellors may believe that Canada is a successful model of cultural pluralism and that

incidents of racism and discrimination are few, thereby neglecting to ask about these issues. As stated earlier, the prevalence of negative cultural stereotypes of South Asians makes these individuals' internal feelings of connection to the dominant Canadian culture less relevant than their racial appearance (Goto et al., 2007).

The current study's results noted that, across males and females, and particularly for Muslims, perceived discrimination was the only significant predictor of psychological distress. The preponderance of subtle racial microaggressions mentioned earlier in the chapter (Sue et al., 2007) are outside the perpetrator's conscious awareness and usually include culturally insensitive, rude, or demeaning comments or invalidate the person as a racial/cultural being (Sue et al.). Sue et al. also contend that racial microaggressions are potentially more harmful psychologically than overt racism because they require a significant amount of the victim's cognitive resources to make sense of the incident.

Counsellors working with second generation South Asians should actively ask South Asians about their experiences with racism or cultural stereotyping so that young adults feel free to discuss this issue. While it should not be automatically assumed that all South Asians have experienced high levels of discrimination, counsellors should not be reticent in asking questions about clients' experiences with racism as part of an initial intake/assessment process. To not do so would represent another form of a racial microaggression by subtly invalidating the client's racial experiences as a cultural being (Sue et al., 2007).

Before counsellors begin to work with ethnic minority clients, it is critical that they engage in self reflection about their own culture-bound worldviews, values, beliefs, and assumptions (Sue et al., 2007). In relation to South Asian clients, counsellors must examine the ways in which cultural stereotypes and racism have played a role in constructing their ideas of South Asian cultural beliefs and practices. Feminist and social justice counselling researchers

have also highlighted that counsellors should reflect on how culturally stereotyped sexist notions have informed their conceptualization of South Asian men and women (Patel, 2008). If counsellors have not clearly reflected on their own cultural stereotypes and worldview, they may fail to fully appreciate South Asians' choices to adhere to aspects of their traditional heritage culture.

If South Asian young adults do verbalize that they are struggling with racial discrimination in session, then counsellors can assist them by helping the client make sense of overt and covert racial microaggressions. This might include using a cognitive restructuring exercise in which client and counselor jointly explore the evidence for and against attributing the event in question to racism versus some other benign explanation. This type of exercise would help resolve the extended cognitive rumination and emotional confusion that tends to occur when individuals have difficulty making clear attributions to racism, as is the case with microaggressions (Sue et al., 2008). If the result of the cognitive exercise is that a microaggression has indeed occurred, the client may learn to see racism as the problem, and not identify themselves as being the problem (White, 2002). Given that the best indicator of psychological distress in the current study was depression, it becomes even more salient for counsellors to help buffer against internalizing tendencies in response to overt discrimination and covert racial microaggressions.

Once counsellors have helped clients gain clarity over experiences of racism, they should jointly explore with the client the impacts of these events on their sense of self worth, ethnic identity, and psychological functioning, along with impacts of racism on their career, educational, and social contexts (Sue & Sue, 2008). Counsellors can facilitate this type of exploration by helping clients engage in reflection and emotionally process the impacts of racism

in their lives so that the tendency to overlook racial microaggressions can be broken (Sue & Sue).

Cognitive behavioural, solution focused, and narrative therapies, with their emphasis on cognitive reframing and re authoring personal narratives, would also be effective approaches to facilitate adequate coping. For example, counsellors can help South Asian clients to locate their personal strengths in coping with perceived discrimination or to see the situation from a more positive, growth promoting perspective (White, 2002). Examples of useful cognitive reframing activities are cognitive-behavioural style cost/benefit analyses, focusing on solutions to the problem, exploring the client's personal strengths for coping with discrimination, and looking for times when they have not perceived discriminatory treatment (White).

Taken even further, Sue and Sue (2008) recommend that therapists adopt a systems and social justice stance in working with clients who have been discriminated against by advocating for clients until they feel empowered to do this on their own. Sue and Sue argue that, due to the fact that racism is an external systemic problem, counsellors must go beyond their conventional training of locating presenting problems within the client to how to help the client feel empowered in their environment. This may involve starting support groups for ethnic minority clients who have been victims of racism, attending anti racism community events, helping clients to establish links with other South Asian cultural organizations, or even taking action against systemic racism in the client's employment or educational environment (Holcomb-McCoy & Mitchell, 2007). Finally, counsellors can work with South Asians to help them explore the strengths of their ethnic group, in terms of the beliefs, values, and practices they find to be positive (Holcomb-McCoy & Mitchell). This may help to build a strong sense of pride and ethnic identity to help buffer against the negative effects of racial discrimination (Branscombe et al., 1999).

## CHAPTER VI

### CONCLUSIONS

This study was the first of its kind to empirically test the hypothesized associations between acculturation, perceived discrimination, and psychological distress proposed by Berry's (2003) theory of acculturation. Although this theory proposed that perceived discrimination moderates the relationship between acculturation preferences and psychological distress in immigrants, the current study did not find any statistical support for this. Instead, a moderate relationship was found between perceived discrimination and psychological distress in the absence of any direct association between acculturation and psychological distress, for both South Asian males and females. These results were even more salient in light of the fact that a second generation young adult sample was used, suggesting that the core conflict was related to racial discrimination and not acculturation. This finding suggests important implications for theory; Berry's model of acculturation may need to be revised if additional research replicates the findings of the current study.

No support for Padilla and Perez's (2003) social cognition model of acculturation was found either; these authors had also proposed that acculturation strategies were linked to perceived discrimination, but did not specify any implications of this to psychological adjustment, which has been a shortcoming of the theory. Another limitation of Padilla and Perez's model has been the lack of focus on precisely specified relationships among acculturation and social stigma using path diagrams, which has made it difficult for researchers to use their model as a guiding framework for acculturation research. The results from the current study did not find any significant interaction of acculturation with perceived discrimination, and therefore no support was found for Padilla and Perez's social cognition model.

Both Berry's (2003) and Padilla and Perez's (2003) acculturation models will require further investigation in light of the current study's findings. While both models have broadened the way acculturation has historically been viewed, much work remains to be done. Both authors have presented interesting conceptual theories containing complex constructs that are not easily operationalized for research purposes. Berry's model remains focused on interactions at a group level as opposed to individual level, and is centered around multicultural ideologies of nations in relation to acculturation. Regarding Padilla and Perez's model of acculturation, they have situated acculturation within a social cognitive framework, thereby broadening the conceptualization of the acculturation process and bringing into focus other relevant factors that impact acculturation strategies from social cognition. However, Padilla and Perez's model faces a similar challenge to that of Berry's, in that their theory is also currently highly conceptual. It also lacks adequate measures to measure their constructs of interest.

It is likely that the difficulty in operationalizing the latent constructs of acculturation, perceived discrimination, and psychological distress has contributed to the inconsistent findings across studies. Future researchers conducting research in this area will look to theory to guide their use of appropriate measures to operationalize these constructs. Unfortunately, there is no consistency in measures from one study to another, even those utilizing the same theoretical framework. Berry's own studies have used different measures of acculturation and psychological distress which has further contributed to the difficulties with operationalizing the constructs of interest in his theory. As for Padilla and Perez's model, they have situated the acculturation process within a social cognitive framework and thereby presented a more complex model. However, it is currently less amenable to empirical testing due to the lack of specificity in how the different social cognitive factors interrelate with each other.

Overall, both acculturation models would benefit from using path diagrams to clearly specify how they propose acculturation, perceived discrimination, and psychological distress to relate to each other, as well as develop measures that operationalize the constructs accurately and contain good psychometric properties. Future research should then use the same measures to assist with comparability of findings across studies. The state of research in acculturation cannot hope to advance itself until it is known if the same things are being measured across studies.

The results of this study also highlighted the fact that counsellors should be open to South Asian young adults' experiences of perceiving racial discrimination. Increased open dialogue about experiences of discrimination in both therapeutic and research contexts in Canada will result in more progress as citizens and academics in the effort to "make the invisible, visible" (Sue & Sue, 2008).

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## APPENDIX A



Department of Educational and Counselling Psychology,  
and Special Education  
Faculty of Education, 2125 Main Mall  
Vancouver, B.C. V6T 1Z4

## **PARTICIPANTS NEEDED FOR SURVEY ON SOUTH ASIANS AND DISCRIMINATION**

We are looking for South Asian young adults to complete a survey package on experiences of discrimination. There will also be some questions on cultural adjustment and emotional well-being along with some basic demographic information. The study will take approximately 30 minutes and is completed online.

If you are:

- of South Asian descent between the ages of 18 and 25,
- born in Canada or arrived in Canada before the age of 5, as well as currently residing in Canada, and
- with both parents born in a South Asian country, you are invited to participate in this study.

You will also have the option of entering a draw to win one of 10 GAP gift cards valued at \$25 each.

If you are interested, please visit the survey website at [www.surveymonkey.com](http://www.surveymonkey.com).

If you have any questions, please contact the researcher

## APPENDIX B



Department of Educational and Counselling Psychology,  
and Special Education  
Faculty of Education, 2125 Main Mall  
Vancouver, B.C. V6T 1Z4

### Cultural Adjustment, Discrimination, and South Asians Survey

We are conducting a research project examining the impact of discrimination on South Asian young adults' cultural adjustment in Canada. The results of this study will help to better understand the cultural experiences of South Asian youth and add to the limited research on this ethnic group.

If you are of South Asian descent between the ages of 18 and 25, born in Canada or arrived before the age of 5 and currently reside in Canada, with both parents born in a South Asian country, you are invited to participate in this study.

If you choose to participate or know someone who might, feel free to pass this message along, and thank you in advance. The survey should take about 30 minutes of your time to complete, and you will have the chance to be entered in a draw to win one of 10 GAP gift cards worth \$25 each. The survey consists of questions about cultural adjustment, discrimination, emotional well-being, and demographics.

If you are interested in participating in this study, you can access the survey at the following web address:

[https://www.surveymonkey.com/s.aspx?sm=ILNC3OS9A\\_2fReF\\_2fSPWOLygw\\_3d\\_3d](https://www.surveymonkey.com/s.aspx?sm=ILNC3OS9A_2fReF_2fSPWOLygw_3d_3d)

If you have any questions or concerns regarding this study, please contact:

Aneesa Shariff, M.Ed  
Department of Educational & Counselling Psychology, & Special Education  
University of British Columbia

or

Dr. Beth Haverkamp, Ph.D.  
Department of Educational & Counselling Psychology, & Special Education  
University of British Columbia

## APPENDIX C

### Consent Form

#### Cultural Adjustment, Discrimination, and South Asians

**Principal Investigator:**

Dr. Beth Haverkamp, Department of Educational and Counselling Psychology, and Special Education, (604) 822-5354.

**Co-Investigator:**

Aneesa Shariff, PhD Student, Department of Educational and Counselling Psychology, and Special Education, (604) 822-6371.

This research is being conducted in partial fulfillment of the co-investigator's doctor of philosophy degree, which will be submitted as a doctoral thesis.

**Sponsor:**

This research is being funded by a grant to the co-investigator from the Social Sciences and Humanities Research Council of Canada.

**Purpose:**

The purpose of this research is to learn about South Asians' experiences of discrimination in Canada. As part of the study, you will also be asked to answer some questions about your cultural adjustment in Canada, cultural identity, and emotional well-being.

**Study Procedure:**

If you choose to participate, you will be asked to complete the enclosed questionnaire package, which consists of seven short surveys and a demographic information form. The entire questionnaire package should take approximately 30 minutes to complete.

**Potential Risks:**

A potential risk of completing this questionnaire package is minor psychological discomfort as you think about your experiences of discrimination and your emotional well-being. Please remember that your participation is completely voluntary and that you can discontinue participation at any time by closing your web browser. If you do experience any discomfort during or after completing the survey and would like to talk

to someone about this, please see the list of resources posted on the website. Also, feel free to contact the researchers if you have any concerns.

**Potential Benefits:**

This research will help us to better understand South Asian young adults' experiences of discrimination in Canada. The results of this study may be used to develop more effective counselling techniques for counsellors working with clients who are experiencing difficulties due to experiences of discrimination.

**Confidentiality:**

Your identity will be kept strictly confidential. All data will be identified only by a code number and will be stored on the secure website server by code number until the data is entered onto the co-investigator's computer. You will not be asked to provide your name or any personal information at any time while completing the survey. If you would like to be entered in the draw to win a gift card, you will be asked to provide a current email address to contact you if you win the draw. The contact list for the draw will be stored on the secure website server which is password protected. Only the principal and co-investigator will have access to the data and contact list for the draw. Participants will not be identified by name in any reports of the completed study, and the results will be reported only for the overall group.

Please note that the online survey is hosted by a websurvey company located in the United States and as such, is subject to U.S. laws.

Websurvey company servers routinely record incoming IP addresses of the computer that you use to access the survey, but no connection is made between your data and your computer's IP address. If you choose to participate in the study, you understand that your responses will be stored and potentially accessed in the United States. The U.S. Patriot Act allows authorities access to the records of internet service providers. The security and privacy policy for the websurvey company can be found at the following link: [http://www.surveymonkey.com/Monkey\\_Privacy.aspx](http://www.surveymonkey.com/Monkey_Privacy.aspx)

**Remuneration/Compensation:**

All potential participants will be given the option to enter a draw to win one of 10 gift cards to the GAP worth \$25 each to thank individuals for their time and any inconvenience caused to them.

**Contact for Information about the Study:**

If you have any questions or concerns about this research, you may contact Dr. Beth Haverkamp or Aneesa Shariff. If you are interested in receiving a general summary of the results of this research, please contact either of the above named researchers. We will send you a summary sheet of our overall results as soon as this information is available.

**Contact for Concerns about Rights of Research Subjects:**

If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822-8598 or if long distance, e-mail to [RSIL@ors.ubc.ca](mailto:RSIL@ors.ubc.ca)

**Consent:**

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without any negative consequences. **If the questionnaire is completed, it will be assumed that consent has been given.** Please print a copy of this consent form for your own records.

APPENDIX D  
**DEMOGRAPHICS FORM**

Age: \_\_\_\_\_

Sex:

- 1 Male
- 2 Female

Marital Status:

- 1 Married
- 2 Divorced/Separated
- 3 Widowed
- 4 Single

Were you born in Canada?

- 1 Yes
- 2 No

If you were not born in Canada, did you arrive in Canada before the age of 5 years?

- 1 Yes
- 2 No

Do you currently reside in Canada?

- 1 Yes
- 2 No

Please indicate your geographic location (city/province) in Canada:

\_\_\_\_\_

Which South Asian country are you/your family from?

- 1 India
- 2 Pakistan
- 3 Fiji
- 4 Sri Lanka
- 5 Other (please specify: \_\_\_\_\_)

Did your parents arrive in Canada directly from a South Asian country?

- 1 Yes
- 2 No (If no, please specify which country they were in prior to settling in Canada \_\_\_\_\_)

What is your religion?

- 1 Hindu
- 2 Sikh
- 3 Muslim
- 4 Christian
- 5 No religion
- 6 Other (please specify: \_\_\_\_\_)

How many years of school did you finish?

- 1 Elementary school
- 2 Partial High School
- 3 High School graduate
- 4 College/trade school
- 5 Partial university
- 6 University graduate
- 7 Graduate/professional school

Job Status:

- 1 Working full time
- 2 Working part time
- 3 Unemployed
- 4 Full time student

Do you currently live with family and/or relatives?

- 1 Yes
- 2 No

Number of people residing in your household (including yourself):

- 1 One
- 2 Two
- 3 Three
- 4 Four
- 5 Five
- 6 More than five

How did you learn about this study?

- 1 Internet list serv or email announcement
- 2 Facebook or internet news group
- 3 Newspaper advertisement
- 4 Notice posted in community centre/ post secondary campus
- 5 Cultural club on campus
- 6 Word of mouth
- 7 Other (Please specify: \_\_\_\_\_)

## APPENDIX E

Table A1

*Factor Loadings for the Vancouver Index of Acculturation*

Items	Loadings	
	Factor 1	Factor 2
VIA 13 It is important for me to maintain or develop the practices of my heritage person	.792	
VIA1 I often participate in heritage cultural traditions	.737	
VIA 15 I believe in the values of my heritage culture	.730	
VIA 3 I would be willing to marry a person from my heritage culture	.707	
VIA 5 I enjoy social activities with people from the same heritage culture as myself	.701	
VIA 11 I often behave in ways that are typical of my heritage culture	.689	
VIA 9 I enjoy entertainment from my heritage culture	.649	
VIA 19 I am interested in having friends from my heritage culture	.612	
VIA 7 I am comfortable working with people of the same heritage culture as myself	.592	
VIA 17 I enjoy typical jokes and humour of my heritage culture	.418	
VIA 6 I enjoy social activities with typical North American people		.763
VIA 12 I often behave in ways that are typically North American		.761
VIA8 I am comfortable working with typical North American people		.709
VIA 10 I enjoy North American entertainment		.665
VIA 2 I often participate in mainstream North American cultural traditions		.655
VIA 18 I enjoy typical North American jokes and humour		.650
VIA 14 It is important for me to maintain or develop North American cultural practices		.608
VIA 16 I believe in mainstream North American values		.587
VIA 20 I am interested in having North American friends		.563
VIA4 I would be willing to marry a North American person		.560

Table A2

*Factor Loadings for General Ethnic Discrimination Scale*

Items	Loadings
	Factor 1
GEDS13a How often in the past year have you been really angry about something racist that was done to you	.829
GEDS5a How often in the past year have you been treated unfairly by strangers	.783
GEDS11a How often in the past year have people misunderstood your motives/intentions	.773
GEDS15a How often in the past year have you been called a racist name	.765
GEDS8a How often in the past year have you been treated unfairly by people in institutions	.750
GEDS18a How different in the past year would your life be now if you had not been treated in a racist and unfair way	.746
GEDS6a How often in the past year have you been treated unfairly by people in helping jobs	.744
GEDS12a How often in the past year did you want to tell someone off for being racist, but you didn't say anything	.743
GEDS3a How often in the past year have you been treated unfairly by co-workers/fellow students/colleagues	.742
GEDS16a How often in the past year have you gotten into a fight about something racist	.733
GEDS9a How often in the past year have you been treated unfairly by friends	.730
GEDS7a How often in the past year have you been treated unfairly by neighbours	.726
GEDS4a How often in the past year have you been treated unfairly by people in service jobs	.716
GEDS17a How often in the past year have you been made fun of/picked on/pushed/shoved/hit/threatened	.713
GEDS10a How often in the past year have you been accused/suspected of doing something wrong	.710
GEDS1a How often in the past year have you been treated unfairly by teachers/professors	.697
GEDS2a How often in the past year have you been treated unfairly by employers/bosses/supervisors	.642
GEDS14a How often in the past year have you been forced to take steps about something racist that was done to you	.569

Table A2 Continued

*Factor Loadings for General Ethnic Discrimination Scale*

Item	Loadings Factor 2
GEDS3b How often in your life have you been treated unfairly by co-workers/fellow students/colleagues	.838
GEDS13b How often in your entire life have you been really angry about something racist that was done to you	.828
GEDS5b How often in your entire life have you been treated unfairly by strangers	.822
GEDS11b How often in your life have people misunderstood your motives/intentions	.809
GEDS8b How often in your life have you been treated unfairly by people in institutions	.805
GEDS18b How different in your life would your life be now if you had not been treated in a racist and unfair way	.788
GEDS16b How often in your life have you gotten into a fight about something racist	.766
GEDS2b How often in your life have you been treated unfairly by teachers/professors	.754
GEDS10b How often in your life have you been treated accused/suspected of doing something wrong	.751
GEDS15b How often in your life have you been called a racist name	.745
GEDS6b How often in your entire life have you been treated unfairly by people in helping jobs	.745
GEDS4b How often in your life have you been treated unfairly by people in service jobs	.743
GEDS7b How often in your entire life have you been treated unfairly by neighbours	.741
GEDS1b How often in your entire life have you been treated unfairly by employers/bosses/supervisors	.735
GEDS17b How often in your life have you been made fun of/picked on/pushed/shoved/hit/threatened	.733
GEDS12b How often in your life did you want to tell someone off for being racist, but you didn't say anything	.730
GEDS9b How often in your life have you been treated unfairly by friends	.729
GEDS14b How often in your life have you been forced to take steps about something racist that was done to you	.605

Table A3

*Factor Loadings for Center for Epidemiological Studies Depression Scale*

	Loadings	
	Factor 1	Factor 2
CESD18 I felt sad	.844	
CESD6 I felt depressed	.825	
CESD20 I could not get "going"	.780	
CESD3 I felt that I could not shake off the blues even with the help of my family or friends	.776	
CESD10 I felt fearful	.752	
CESD17 I had crying spells	.744	
CESD14 I felt lonely	.742	
CESD9 I thought my life had been a failure	.714	
CESD19 I felt that people disliked me	.703	
CESD1 I was bothered by things that don't usually bother me.	.676	
CESD5 I had trouble keeping my mind on what I was doing	.643	
CESD13 I talked less than usual	.622	
CESD15 People were unfriendly	.604	
CESD11 My sleep was restless	.586	
CESD7 I felt everything I did was an effort	.553	
CESD2 I did not feel like eating; my appetite was poor	.537	
CESD8 I felt hopeful about the future		.709
CESD12 I was happy		.644
CESD4 I felt that I was just as good as other people		.628
CESD16 I enjoyed life		.568

Table A4

*Factor Loadings for Cohen Hoberman Inventory of Physical Symptoms Scale*

Item	Loadings
	Factor 1
CHIPS20 Felt weak all over	.790
CHIPS27 Severe aches and pains	.759
CHIPS25 Muscle tension or soreness	.745
CHIPS26 Muscle cramps	.737
CHIPS18 Shortness of breath when not exercising or working hard	.733
CHIPS5 Dizziness	.731
CHIPS16 Heart pounding or racing	.726
CHIPS7 Faintness	.725
CHIPS14 Hot or cold spells	.716
CHIPS21 Pains in heart or chest	.707
CHIPS22 Feeling low in energy	.692
CHIPS19 Numbness or tingling in parts of your body	.682
CHIPS15 Trembling	.665
CHIPS13 Stomach pain (e.g., cramps)	.660
CHIPS24 Blurred vision	.654
CHIPS8 Constant fatigue	.646
CHIPS9 Headache	.633
CHIPS4 Constipation	.612
CHIPS3 Back pain	.601
CHIPS31 Pulled (strained) muscles	.591
CHIPS6 Diarrhoea	.587
CHIPS23 Stuffy head or nose	.576
CHIPS32 Pulled (strained) ligaments	.575
CHIPS1 Sleep problems	.571
CHIPS10 Migraine headache	.563
CHIPS11 Nausea and/or vomiting	.554
CHIPS17 Poor appetite	.546
CHIPS2 Weight change	.544
CHIPS33 Cold or cough	.516
CHIPS28 Acne	.497
CHIPS29 Bruises	.484
CHIPS12 Acid stomach or indigestion	.446
CHIPS30 Nosebleed	.375

Table A5

*Factor Loadings for Multigroup Ethnic Identity Measure Revised*

Items	Loadings
	Factor 1
MEIMR4 I have often done things that will help me understand my ethnic background better	.864
MEIMR2 I have a strong sense of belonging to my own ethnic group	.826
MEIMR3 I understand pretty well what my ethnic group membership means to me	.826
MEIMR6 I feel a strong attachment towards my own ethnic group	.814
MEIMR5 I have often talked to other people in order to learn more about my ethnic group	.808
MEIMR11 I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs	.746

Table A6

*Factor Loadings for Perceived Stress Scale-10*

Items	Loadings
	Factor 1
PSS10 How often have you felt difficulties were piling up so high that you could not overcome them?	.803
PSS2 How often have you felt that you were unable to control the important things in your life?	.793
PSS3 How often have you felt nervous and "stressed"?	.772
PSS9 How often have you been angered because of things that were outside of your control?	.731
PSS1 How often have you been upset because of something that happened unexpectedly?	.731
PSS8 How often have you felt that you were on top of things?	.707
PSS5 How often have you felt that things were going your way?	.696
PSS6 How often have you found that you could not cope with all the things that you had to do?	.687
PSS4 How often have you felt confident about your ability to handle your personal problems?	.637
PSS7 How often have you been able to control irritations in your life?	.637

Table A7

*Factor Loadings for Satisfaction with Life Scale*

Items	Loadings
	Factor 1
SWLS3 I am satisfied with my life.	.916
SWLS1 In most ways my life is close to my ideal.	.880
SWLS4 So far I have gotten the important things I want in life.	.864
SWLS2 The conditions of my life are excellent.	.853
SWLS5 If I could live my life over, I would change almost nothing.	.757

## APPENDIX F



The University of British Columbia  
Office of Research Services  
**Behavioural Research Ethics Board**  
Suite 102, 6190 Agronomy Road, Vancouver,  
B.C. V6T 1Z3

## CERTIFICATE OF APPROVAL - MINIMAL RISK

<b>PRINCIPAL INVESTIGATOR:</b> Beth E. Haverkamp	<b>INSTITUTION / DEPARTMENT:</b> UBC/Education/Educational & Counselling Psychology, and Special Education	<b>UBC BREB NUMBER:</b> H08-03107
<b>INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:</b>		
<b>Institution</b>	<b>Site</b>	
N/A	N/A	
<b>Other locations where the research will be conducted:</b> Participants will be recruited, with permission, through notices posted at religious places of worship, community centres, post secondary campuses, through South Asian cultural clubs on university/college campuses, and newspaper ads in local South Asian newspapers. Participants will be recruited both locally in Vancouver and nationally across Canada. Internet recruitment strategies will also be used (i.e., sending emails to personal contacts and South Asian list servs, groups, or e news letters). Participants will complete the anonymous questionnaires on the internet by logging onto a secure server to complete the measures.		
<b>CO-INVESTIGATOR(S):</b> Aneesa Shariff		
<b>SPONSORING AGENCIES:</b> Social Sciences and Humanities Research Council of Canada (SSHRC) - "Acculturation, Experiences of Racism, and Psychological Adjustment among South Asian Adults"		
<b>PROJECT TITLE:</b> Cultural Adjustment, Discrimination, and South Asians		

**CERTIFICATE EXPIRY DATE: January 27, 2010**

<b>DOCUMENTS INCLUDED IN THIS APPROVAL:</b>	<b>DATE APPROVED:</b> January 27, 2009	
<b>Document Name</b>	<b>Version</b>	<b>Date</b>
<b>Advertisements:</b>		
Email Recruitment Notice	N/A	December 23, 2008
Recruitment Notice/Ad	N/A	December 23, 2008
<b>Questionnaire, Questionnaire Cover Letter, Tests:</b>		
Cover Letter	N/A	December 23, 2008
Center for Epidemiological Studies Depression Scale	N/A	December 23, 2008
General Ethnic Discrimination Scale	N/A	December 23, 2008
Demographics Form	N/A	December 23, 2008
Perceived Stress Scale-10	N/A	December 23, 2008
Vancouver Index of Acculturation	N/A	December 23, 2008
Multigroup Ethnic Identity Measure	N/A	December 23, 2008
Resource List	N/A	December 23, 2008
Cohen Hoberman Inventory of Physical Symptoms	N/A	December 23, 2008
Satisfaction with Life Scale	N/A	December 23, 2008
<b>Other:</b> The questionnaires and consent forms will be uploaded to a study website to be hosted by www.surveymonkey.com. This website has not yet been created since the study has not yet received ethical approval to proceed. Once approved, the website will be created on www.surveymonkey.com.		

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

*Approval is issued on behalf of the Behavioural Research Ethics Board  
and signed electronically by one of the following:*

*Names erased as per Faculty of Graduate Studies' guidelines*

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