Body Image in a Sample of Young Sikh Women

By

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B.Sc., University of Victoria, 1996

A Thesis Submitted in Partial Fulfillment of the
Requirements For the Degree of

MASTER OF ARTS

in the Department of Psychological Foundations in Education

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ABSTRACT

The purpose of this study was to provide some information about body image in a population not previously examined, Sikh women born (or raised for most of their lives) in Canada. The participants consisted of 25 women (ranging in age from 18 to 30) that were recruited from a support group for South Asian women affiliated with a multicultural association located in Victoria, BC, as well as 35 women (also from the same age group) from the University of British Columbia located in Vancouver, BC. All of the participants completed the section of the Figure Rating Scale (FRS; Stunkard, Sorensen, & Schulsinger, 1983) consisting of female silhouettes that range in size from very thin to very heavy. The Victoria participants completed the scale two times, with a period of one year in between. Each participant indicated which figure she believed to be her current figure, which figure she believed to be her ideal figure, her age, and her weight. All of the participants also completed the Body Esteem Scale (BES; Franzoi & Shields, 1984), which consists of 32 body parts and functions that participants are asked to rate on a 5-point Likert scale ranging from 1 (having strong negative feelings) to 5 (having strong positive feelings). Thus, a higher score indicates greater esteem towards the body.

A t-test for dependent means was used to determine whether there was a significant difference between the Victoria participants' perceived current and ideal body shape ratings for the FRS in 1999. With an alpha level of .05, the difference between the means was found to be significant, $t(24) = 4.00$, $p < .05$. Thus, the Victoria participants'

perceived current body shape was significantly larger than their ideal body shape in 1999. A t-test for dependent means was also used to determine whether there was a significant difference between the Victoria participants' perceived current and ideal body shape ratings for the FRS in 2000. With an alpha level of .05, the difference between the means was found to be significant, $t(24) = 9.45$, $p < .05$. Thus, the Victoria participants' perceived current body shape was still significantly larger than their ideal body shape in 2000. As well, a 2-way repeated measures ANOVA was used to determine whether there were age and time trends for the Victoria participants' body shape ratings on the FRS. With an alpha level of .05, the difference among the means was not found to be significant, $F(1, 23) = 2.3$, $p > .05$. Thus, no systematic relationship was found between age group and discrepancy score, for time tested and discrepancy score, or for the combination of age group and time tested. A t-test for dependent means was also used to determine whether there was a significant difference between the Vancouver participants' perceived current and ideal body shape ratings for the FRS. With an alpha level of .05, the difference between the means was found to be significant, $t(34) = 22.13$, $p < .05$. Thus, the Vancouver participants' perceived current body shape was significantly larger than their ideal body shape. A 2-way multivariate ANOVA was also used to determine whether there were age and city trends among all participants' body shape ratings for the FRS, and also body shape scores for the BES. The only statistically significant main effects found were due to the city factor. For the FRS, with an alpha level of .05, $F(2, 55) = 20.81$, $p < .05$, and for the BES, with an alpha level of .05, $F(2, 55) = 6.77$, $p < .05$. Thus, the Vancouver participants had more of a discrepancy between their current and

ideal body shape ratings on the FRS and had lower (therefore more negative) scores on the BES, than did the Victoria participants.

Women with a negative body image who feel they must achieve thinness are at a greater risk for developing eating disorders, and the consequences of having eating disorders are deadly. People need to understand how and why they are being manipulated by the media's ideal of thinness. They should value larger body shapes; doing this could positively impact the psychological well-being of many Western women. Educators and other professionals need to be aware that people from all ethnic groups and socioeconomic backgrounds are vulnerable to eating disorders. Continuing to research the construct of body image in samples from various ethnic groups could lead to the earlier diagnosis, more prompt treatment, and perhaps prevention of eating disorders, as well as decreased morbidity.

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Acknowledgments

I would like to thank my family, friends, peers, and professors for their encouragement and input into the writing of my thesis.

Body Image in a Sample of Young Sikh Women

Chapter 1: Introduction

The Significance of Examining Body Image

Young women in our society are very concerned about their physical appearance, as well as about how others perceive them. This conclusion was drawn from a study conducted by the Canadian Teachers' Federation (1990), in which young females ranging in age from 11 to 19 years were invited to talk about the experience of being young and female in the 1990s. Ninety-seven teachers were recruited to lead the discussion groups, which consisted of 961 females from a variety of ages, socioeconomic backgrounds, cultures, and abilities commenting on their concerns and desires. What the teachers found was that 85% of the participants strongly agreed or agreed that they worry a lot about how they look. Body image ranked ninth on these young women's list of interests and concerns in the participant questionnaire and was chosen by 67% of the respondents. The authors concluded that adults who work with young women, whether in an educational or counselling setting, would benefit from listening to them describe the pressures they face and the contexts in which they live.

In further discussing the results from the Canadian Teachers' Federation's (1990) study, Edwards (1992) noted that for a young woman, body image consists of the picture she has of her body. It also consists of what she believes her body looks like to others. She asserted that the process of socialization makes women aware of the fact that they will be judged by how they look. The mass media, such as magazines, movies, and television programs, continue to promote a thin ideal in women. She mentioned that the average model or actress is approximately 25% leaner than the average woman, and that

infertility and hormonal imbalances are common among these thinner women. However, many young women strive to look like these models or actresses. She also stated that many young women tend to associate slimness with high intelligence and social desirability, and that they also believe being thin and attractive are necessary for interpersonal success. As well, Edwards asserted that research shows that for young women, the pressure of trying to be thin often leads to weight dissatisfaction and an overwhelming fear of obesity. An extreme example of the consequences of these negative thoughts in young women is the commonly noted statistic of approximately one female college student in five developing an eating disorder, some which may result in death (for example, anorexia). Therefore, understanding the concept of body image, particularly among different ethnic groups, would be beneficial for health care professionals in aiding women from a variety of backgrounds to develop more healthy body images.

Description and Significance of This Study

This study involved examining the construct of body image in Sikh women who have lived in Canada for most of their lives, a population not previously researched. The reason why this particular population was chosen is because I come from this ethnic background. I am interested in examining how second generation women from my ethnic background experience the "clash" in values between those from their family's place of origin (India), and those from where they were raised (Canada). Specifically, I wondered how this "clash" in values impacts on their sense of identity. This study focussed specifically on the construct of body image because it was an easily definable part of identity. As well, because I was interested in examining women similar to me in this

study, body image seemed to be a crucial construct to examine because of its importance to a young woman's sense of identity.

Women with a negative body image who feel they must achieve thinness are at a greater risk for developing eating disorders, and the consequences of having eating disorders are deadly. Educators and other professionals need to be aware that people from all ethnic groups and socioeconomic backgrounds are vulnerable to eating disorders. Continuing to research the construct of body image in various ethnic groups could lead to the earlier diagnosis, more prompt treatment, and perhaps prevention of eating disorders, as well as decreased morbidity.

Definitions of Important Terms

Before examining the literature on the influence of gender and ethnicity on body image, some common terms in these studies need to be defined first. The definition of body image used in this study, which was derived from Cok's (1990) study, is "satisfaction with one's body" (p. 409). This definition was chosen because I wished to examine how the women in this study evaluated their bodies. Another term that needs to be defined is gender, and the definition used here is one used by many researchers: women and men as distinct social groups. The term ethnicity must be defined as well, and the definition used in this study comes from Ericksen's (1993) web site: the "aspects of relationships between groups which consider themselves, and are regarded by others, as being culturally distinctive" (on-line).

Although these definitions are important to consider, a word of caution about using them in a negative way must be noted here. In their article, Swendsen and Windsor

(1996) asserted that "the predominant focus on cultural differences avoids consideration of the dimensions of class and gender and seeks to present problems of minority groups as technical problems to be overcome through greater understanding and education" (p.9). Therefore, researchers of ethnic and gender influences on body image (and other constructs) must be cognizant of the fact that their research can contribute to blaming ethnic minorities for their problems due to "cultural differences." This view fails to recognize that structural factors play a primary role in the negative situations experienced by many ethnically diverse people.

Chapter 2: Literature Review

The literature on the influence of ethnicity and gender on body image can generally be divided into two areas: etic studies (studies that compare the behaviour of different ethnic groups), and emic studies (studies that examine the behaviour of one ethnic group in detail) [Brislin, 1993]. It should be noted that whereas the present study used the term ethnicity (as defined earlier) to label the sample of women used in this research, the studies cited in the following literature review used the term culture to label their participants.

Studies Comparing Different Ethnic Groups

Cogan, Bhalla, Sefa-Dedeh, and Rothblum (1996) mentioned that the majority of studies examining cultural differences in body image have found much lower rates of eating disorders and body dissatisfaction among people from other cultures. However, with acculturation into Western societies, these women tend to experience increasingly negative thoughts about their bodies and prefer a thinner figure. The researchers' study involved 349 students in Ghana (165 men and 184 women) and 219 in the United States (83 men and 136 women) filling out a number of questionnaires. Thus, there was a sizable difference in the number of participants between the two countries, especially among the men. As well, the mean ages for the Ghanaian and American samples were 24.6 and 18.6 years, respectively (the researchers found this age difference to be statistically significant). The participants completed a section on demographic information, as well as the following questionnaires: the Weight and Dieting Subscale, which included questions about the participants' weight, height, ideal weight, and dieting

behaviour; the Ideal Body Subscale, 12 figure drawings of women and men that range from extremely anorexic to extremely obese, for which the participants were asked to rate the female or male figure they considered to be the ideal body, and the female or male figure they thought other people would consider to be the ideal body; the Perceived Etiology of Obesity Subscale, a 10-item scale that measures beliefs about the etiology of obesity; the Revised Restraint Scale, a 10-item scale that measured the participants' extent of dieting and their concerns about weight gain; the Weight as Social Interference Subscale, an 8-item scale that measured the extent to which the participants perceived their weight to interfere with social events; three subscales from the Eating Disorder Inventory: the Drive for Thinness Subscale, which consists of 7 items that assessed the participants' preoccupation with weight and dieting, the Bulimia Subscale, which consists of 7 items that measured the participants' binge eating and vomiting behaviour, and the Body Dissatisfaction Subscale, which consists of 9 items that measured the participants' degree of dislike of body parts; and the Stereotypes About the Obese Subscale, which measured whether the participants held weight-related stereotypes. A bonus of their study was that the researchers gave these scales to some Ghanaian students prior to data collection to get feedback about rewording questionnaire items for cross-cultural use, and they then implemented these suggestions. However, the researchers cautioned that there were some missing values on many of the questionnaires; thus, the researchers were not able to delete any cases with missing data. Although the analyses were conducted separately, using the data available for each dependent variable to help correct for this problem, this is another cause for concern in evaluating the study's findings.

Nevertheless, their results indicated that the students in Ghana more often rated larger body sizes as ideal for both males and females, and they also believed that these were more likely to be held as societal ideals than did the American students. The American students were more likely to have dieted than the Ghanaian students (with the American females being the most likely to do so), and the American females scored higher on the restraint, eating disordered behaviour, and experiencing weight as social interference scales. As well, the American sample rated thin people more positively than did the Ghanaians, attributing to them such characteristics as happiness and self-confidence, which the researchers called an example of the physical attractiveness stereotype. In conclusion, the researchers asserted that valuing more diverse body shapes (as did the Ghanaian sample), could positively impact the psychological well-being of those American women who value thin, largely unattainable body shapes.

Furnham and Baguma (1994) noted in their study that there are two opposing views that account for the development of beauty ideals. The first, the biological determinist view, suggests that nature has ensured a division of labour, with males developing physiques for hunting and protection and females developing bodies more appropriate for food gathering and child rearing. The second view holds that there is no cultural definition of beauty inherently more pleasing than others; thus, cultural factors alone account for any differences in preference. The researchers asserted that the results from the majority of studies suggest that beauty norms differ according to culture, and thus, that the second view is more accurate. Their study was similar to Cogan et al.'s (1996) study because it also contrasted the body shape ratings of mainly White and Black

female and male students using male and female figure drawings. The participants consisted of 47 female and only 27 male British university students (96% were White and 4% were Asian), and their mean age was 21.3 years. As well, there were 51 female and 55 male Ugandan university students (all were Black), and their mean age was 22.31 years. The researchers noted the difficulty in establishing the participants' social classes, although the majority appeared to have professional middle-class parents. The participants were shown 24 slides of naked human figures on a blank background, consisting of 12 male and 12 female figures ranging in shape from extremely anorexic to extremely obese. They were also given booklets containing 13 bipolar constructs rated on a 7-point scale (with each scale consisting of two opposites, such as attractive - unattractive), and the students were asked to rate each figure on each of the 13 scales. The researchers mentioned that the results and generalizability of their study were completely dependent upon the stimuli used, as they asserted is the case for all studies. Nevertheless, they mentioned that previous research has demonstrated that these body shape silhouettes are appropriate for cross-cultural use. What the researchers found was that there was a universal preference for midrange body shapes, and that the standard deviation in ratings for the female figures overall was smaller than for the male figures. As well, the healthy - unhealthy rating scale showed the most pervasive cultural difference, even more so than did the more direct rating of attractive - unattractive. Thus, the researchers suggested that the Ugandans did not appear to recognize the health risks of obesity (as did the British sample). Therefore, they asserted that professionals who wish to promote healthy culture-specific eating patterns and physical health in general need to recognize the importance of

people's body shape preferences and perceptions of healthiness.

The aims of Lake, Staiger, and Glowinski's (2000) study were to further examine how eating attitudes and body image are affected by level of ethnic identity in Hong Kong-born women (traditional versus Western accultured), and to examine whether diagnostic instruments used in the diagnosis and assessment of eating disorders are culturally sensitive. They mentioned that the DSM-IV states that a disturbance in the perception of body shape is an essential feature of eating disorders. However, it does make reference to the fact that in non-Western patients, disturbed perception of body image may not be prominent and that expressed motivation for food restriction may not be to lose weight. The authors also cited previous research on the topic of dissatisfaction with body shape in non-Western societies that supports this suggestion. For example, they stated that abdominal discomfort and gastric bloating are commonly cited reasons for food restriction. Thus, they questioned whether the prevailing biomedical definition has been culturally constructed. Their study involved a total sample of 140 female students from two Australian universities, and this sample was divided into two groups. The first group consisted of 98 first-year Psychology students born in Australia, and their mean age was 20.13 years. The second group consisted of only 42 university students who were born in Hong Kong, and their mean age was 23.24 years. Thus, there was a substantial difference in sample sizes between the two groups. This second group was further divided into two subgroups based on Ethnic Identity Scale (EIS; this scale assesses cultural orientation) score: 22 females with lower EIS scores (and therefore who are more Western accultured), and 20 females with higher EIS scores (and therefore who are more

traditional). All the groups completed a demographic questionnaire; the Eating Attitudes Test (EAT); and the Figure Rating Scale (FRS), a continuum of nine female silhouettes ranging from extremely thin to obese. For this scale, the participants were asked to choose the body shape that is their ideal body size and the body shape that represents their current body size. The FRS is similar to the figure drawing scales used in the previously mentioned studies. Their results indicated that there was a significant difference between the Australian and overall Hong Kong-born group on body image (with the Hong Kong-born women reporting minimal body image dissatisfaction compared to their Australian-born counterparts), but no significant difference in attitudes to eating. However, when the Hong Kong-born sample was divided into the traditional and accultured groups based on ethnic identity, the traditional Hong Kong-born women revealed similar body image perceptions and eating attitudes to the Australian-born women. These results indicated that the Hong Kong-born women influenced by Western values were less affected by Western attitudes towards eating and body image than those who are more traditional with respect to their Chinese identity. The authors mentioned that a possible explanation for the Australian-born female group reporting greater body image distortion is that body image may not be a crucial factor contributing to eating disorders in Hong Kong-born women. Their explanation for no significant difference being found in EAT scores was that there may be no global cultural difference between the two groups on this measure, or that the measure they used may not be useful in detecting cultural differences. Thus, they brought into question the cross-cultural validity of the scale.

The purpose of Ogden and Elder's (1998) study was to examine the relationship

between family status, culture, body image, and eating behaviour; they asserted that previous research findings on this topic were inconsistent. The participants consisted of 100 women (25 Asian mothers, 25 Asian daughters, 25 White mothers, and 25 White daughters) living in Britain; thus, each sample size was relatively small. The mean ages of the mothers and daughters were 48.74 and 20.02 years, respectively. However, variability among the mothers' ages was quite extensive; they ranged in age from 39 to 60 years. As well, the Asian participants were from a number of countries (such as India, Pakistan, and Sri Lanka). Thus, their results may not be generalizable because their groups were not homogeneous. However, a benefit of their study was that the daughters were all chosen from a medical school setting to control for any class effects. The procedure consisted of the daughters being given questionnaires for both themselves and their mothers to complete at home during their vacations. Thus, another concern about the validity of their results is whether the researchers truly controlled the procedural conditions. The questionnaires the participants were given examined their cultural group, degree of acculturation, body image, and eating behaviour. Acculturation was determined by the participants' answers to questions concerning which languages they spoke, which cultural groups their friends were from, and what type of music they listened to. If the participants' answers indicated a preference for Asian languages, friends, or music, their scores indicated less acculturation. Thus, this study also examined the concept of acculturation, similar to Lake et al.'s (2000) study. Body image was assessed by the Body Shape Questionnaire and by female silhouettes ranging in size from anorexic to obese (as in the two previously mentioned studies); and eating behaviour was assessed by the Dutch

Eating Behaviour Questionnaire, which measured the participants' degree of restrained eating. The results did not show any matching between the mothers and daughters on the body image or eating behaviour measures, which the researchers noted supports some previous research but contradicts other studies. The mothers reported their present body shapes as being relatively larger, but they also preferred larger body shapes. In terms of cultural group, the White participants reported preferring a thinner ideal body and having greater levels of restrained eating, results that support some previous research but conflict with other studies. However, no relationship was found between acculturation and body image. The White daughters were the most dissatisfied with their bodies and the most concerned about high-calorie foods, followed by the Asian mothers. The group most satisfied with their bodies was the White mothers, with the Asian daughters reporting the least concern for calories. The researchers attempted to explain their results by suggesting that the interaction between family status and cultural group may be related to the role of the media in body image. The White daughters had the greatest body dissatisfaction and caloric concern, and this may reflect their greater exposure to media images of very thin women as role models. Thus, young, White women may be more likely to identify with these young, White models; being older or Asian may serve as a buffer against this influence. However, the researchers asserted that future research is required to explore these suggestions.

Ahmad, Waller, and Verduyn's (1994) study also examined the South Asian population. As they mentioned, it is quite difficult to determine which eating attitudes among different cultures should be considered pathological. For example, responses on

some body image questionnaire items that appear to be pathological by Western standards may simply reflect cultural differences in diet and normal eating behaviours. As well, the researchers mentioned that unhealthy eating attitudes among youth from different cultural groups may be attributable to sociocultural factors, such as intrafamilial conflict and religious influences. Their study examined whether there were gender and religious differences in the eating attitudes of South Asian and White youth living in an industrial town within the United Kingdom; thus, these participants were from a specific class. They used 186 females and 168 males, with the mean age of the females being 14.9 years; therefore, these participants were relatively young, in contrast to the participants mentioned in the previous studies. Among the females, only 15 described themselves as being Hindu, 56 were Muslim, and 115 were White. Thus, the sample sizes for the South Asian groups were quite small. As well, the researchers considered the White group to be relatively homogeneous, an assumption I am not sure is valid to make. For example, these participants may differ in ethnicity (such as being Jewish), which may have an impact on their eating attitudes. The researchers administered the Eating Attitudes Test to the participants, which assessed restrictive attitudes (dieting), food preoccupation and bulimic attitudes (bulimia), and social and practical control over intake (oral control); as well as the Body Satisfaction Scale, which examined dissatisfaction with body shape. All testing took place outside the period of Ramadan so that any effects of fasting on the Muslim participants could be avoided. The results indicated that the females had stronger tendencies toward dieting and were less satisfied with their bodies than were the males. As well, the Muslim participants had more bulimic attitudes than did either the Whites or

Hindus, but were also happier with their bodies. The authors' explanation for why the Muslim participants had more bulimic eating attitudes was that because most Muslims are expected to eat large amounts of food, this eating pattern may help serve other functions (such as the avoidance of criticism). Thus, this would make it more likely that they would use food for non-nutritional purposes at other times. This claim needs to be examined in future research. They also suggested that an explanation for why the Muslim participants were more satisfied with their bodies would be useful to understand because it could serve as a protective mechanism for other populations. Their explanation for this finding was that Muslims may impose less of an ideal body shape on females than do people from other religions. The researchers concluded that because their results showed that cultural factors do play a role in eating attitudes, this type of information could assist in determining the focus of therapeutic work, as well as the prevention and treatment of eating problems.

Ruggiero, Hannover, Mantero, and Papa (2000) asserted in their study that it is very plausible that body image and its disorders are culture-bound phenomena, because the criteria of the attractiveness of the female body in different cultures varies widely. Their study is unique because it compared people from the same cultural background (Italians), but from two different regions of the country: Northern and Southern Italy. The authors believed that the people from these two different regions comprise two different cultures because of their differing belief systems. In Southern Italy, for example, women's roles and social power seem to lie completely within the family. Thus, their social lives are limited because they have less sense of autonomy and fulfillment than do

men. The people of Northern Italy also share some of these ideas and social behaviours, but these beliefs tend to be counterbalanced by a more complex and advanced social life and education for women. Their hypothesis was that the sample of non-clinical high school females coming from a more rural culture in Southern Italy would show less acceptance of the body ideals suggested by the mass media, less fear of fatness, and less body dissatisfaction, when compared to matched females coming from industrialized Northern Italy. The questionnaires that they used in their study include three subscales from the Eating Disorders Inventory: the Drive for Thinness Scale (a 7-item subscale) and the Body Dissatisfaction Scale (a 9-item subscale), which are both used to explore fear of fatness and body dissatisfaction; and the Interoceptive Awareness Scale, a 10-item subscale that measures whether people have feelings of uncertainty when interpreting bodily sensations and emotions. Thus, their study differed from previously mentioned studies because it added a new dimension for body image research on cultural differences to examine. They also used the Internalization Subscale from the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ), and this consists of 8 items that measure the degree of acceptance of the mass media's body ideals. Their study, which was conducted in 1996, consisted of 236 participants from Northern Italy (with their mean age being 17.02 years) and 111 participants from Southern Italy (with their mean age being 17.1 years). Thus, there was a substantial difference in sample sizes between the two regions. What they found was that there was a significant cultural difference between the two Italian towns, with a higher acceptance of media beauty ideals in the Northern town of Monza than in the Southern town of Crotone, and lower interoceptive awareness in

Crotone than in Monza. However, this difference in beauty standards (as measured by the Internalization Subscale of SATAQ) was not accompanied by a significant difference in attitudes toward body and fat (as measured by the Drive for Thinness and Body Dissatisfaction Subscales) between the two cultures. In terms of interoceptive awareness, the authors suggested that their results showed a significant difference in thinking between Northern and Southern Italy's young women: these women's thinking appears to run deeper than simply the degree of influence of the mass media's body ideals. However, they recognized that the subscale itself needs to be further validated (to be more confident that the scale actually does measure this cognitive information), due to its lack of use.

As Altabe (1998) asserted, her study differed from studies previously done by including multiple cultural groups for comparison, instead of merely having a White versus non-White comparison. Also, her study included measures to assess the multiple dimensions of body image because she felt that questionnaires used in prior studies had focussed either on weight or general appearance, and thus failed to elicit what the specific body image concerns of different cultural groups may be. The participants in her study consisted of college students attending the University of South Florida, and the majority were Psychology students participating in exchange for extra credit points. However, some were also recruited from student organizations consisting of specific cultural groups (for example, the Black Student Union); thus, these students volunteered their time. The sample consisted of 150 male and 185 female students, and the students' mean age was 21 years. Which cultural group they belonged to was determined by questionnaire, and based upon their answers, the participants were placed into either the African, Asian,

White, or Hispanic American groups. However, I questioned whether the Asian category was valid because it may have put such diverse ethnic groups as Chinese, Japanese, and South Asian people into one group. The participants filled out the following questionnaires: the Body Dissatisfaction scale of the Eating Disorders Inventory, a 9-item scale in which the participants indicated the degree of dissatisfaction with several body sites; and the Figure Rating Scale, consisting of 9 silhouettes ranging in size from very thin to very heavy. The participants picked the figures that matched what they felt they looked like, what they thought they looked like, their own ideal, and what they believed to be the cultural ideal. However, I could not determine the difference between the items concerning what the participants felt they looked like and what they thought they looked like. The participants also completed the Body Image Automatic Thoughts Questionnaire, which measured body image thoughts. Besides these quantitative measures, the participants also completed a qualitative measure, the Physical Appearance Discrepancy Questionnaire, for which the participants listed the traits associated with their actual and their ideal physical appearance, as well as their perception of the cultural ideal. These ratings led to the creation of actual - own ideal and actual - cultural ideal discrepancy scores. The participants were also asked to give several self-ratings related to appearance, including their physical attractiveness and the importance of physical appearance, which they were asked to rate on a scale from 1 to 11. What the researcher found was that for weight-related body image, the White and Hispanic groups showed the most disturbance, and the African and Asian groups the least. For general appearance, African Americans had the most positive self-view. However, Asian Americans placed the least importance

on physical appearance. Thus, cultural differences occurred for both weight and non-weight dimensions of body image. As the researcher pointed out, Hispanic Americans' body image has been studied the least; thus, this group needs further study. She also asserted that the variability in results across studies suggests that other factors, such as acculturation, may also play an important role. As well, the qualitative data in the study showed some body image differences among the cultural groups that would have been missed by the quantitative measures. For example, Asian Americans had the highest proportion of individuals who valued light skin colour, African Americans the second highest, and White and Hispanic Americans the least. In conclusion, her study highlighted the importance of studying many cultural groups with multiple measures, rather than simply comparing non-Whites to Whites on weight-related body image.

Field, Colditz, and Peterson (1997) made an interesting comment in their study, asserting that an extreme concern with weight and bulimic behaviours is more common among male youth, and that data on female youth and ethnic minorities are scarce. Despite the majority of studies I have come across whose results conflict with their assertion, the researchers did cite some evidence to support their statement. The purpose of their cross-sectional study was to examine gender and cultural differences in bulimic behaviours among youth. Their study involved 704 male and 621 female students from a large urban high school in the United States, and 413 of these students were eligible for free or reduced-price school lunches. Thus, this study involved a substantially larger number of participants than the studies mentioned previously. However, a few items concerning the sample should be mentioned: that out of 1,815 students, 1,557 chose to

participate; and that among these 1,557 students, 1,325 completed the questionnaires. Thirty-two percent of the students were White, 29% were Black, 16% were Hispanic, and 23% were either Asian, from a mixed-cultural background, or from another culture. Approximately the same number of students in each grade was included in the sample. The questionnaire the researchers used was adapted from the YRBSS questionnaire developed by the Division of Adolescent and School Health of the Centers for Disease Control and Prevention, and consists of questions on weight control methods and dieting, exercising, self-induced vomiting, diet pills, and laxatives. As well, the researchers added a question about smoking to control weight. Their results indicated that although a similar percentage of males and females were overweight, 61% of the girls and 43% of the boys reported trying to lose weight or to maintain their current weight. More females from the Black and Hispanic groups than females from the White group were overweight, and more girls from the Hispanic group than from the White group wanted to lose weight. As well, more males from the Hispanic group than from the White group were found to be overweight. Among both the males and the females, bulimic behaviours were as common in the White group as among the other cultural groups. As well, the students missing some data in their questionnaires were found to more likely have used diet pills and to have reported always being on a diet. Therefore, the researchers asserted that an extreme concern with weight and eating disorders, problems once believed to exist only among middle-to upper-class White girls, are becoming more universal. Nevertheless, they pointed out some limitations in their study, namely that because of its cross-sectional nature, causality cannot be determined. As well, the researchers noted that the low

prevalence of being underweight resulted in their study having insufficient power to assess the association between being underweight, binging, and using vomiting or laxatives to control weight. Also, the researchers stated that the questions used to assess weight control practices (adapted from the YRBSS questionnaire), have not been validated. In conclusion, the researchers asserted that there is a need for further research to determine cultural differences in the interpretation of questions concerning binge eating and weight control behaviours.

To summarize, research examining body image across ethnic groups has shown that in comparison to people from a Western ethnic background, people from non-Western ethnic backgrounds tend to value larger body shapes. In those studies examining ethnic differences within Western countries, the results have been mixed: in some studies, the White samples were more dissatisfied with their body shapes. However, in different studies, other ethnic groups showed greater body image dissatisfaction.

Studies Examining One Ethnic Group

In one of the first studies to examine cultural influences on body image, Lerner, Iwawaki, Chinara, and Sorell (1980) noted that body image attitudes (for example, body attractiveness and effectiveness) were a significant predictor of self-concept and self-esteem, constructs the researchers were interested in examining. The purpose of their study was to provide preliminary information on the self-concept, self-esteem, and body image of 796 Japanese students (50% being female) ranging in educational level from grade 7 to college. The participants filled out two 24-item scales assessing the participants' evaluation of the attractiveness and effectiveness of 24 body sites (for

example, the arms and face); as well as a 16-item scale consisting of bipolar dimensions (for instance, mature - immature and capable - not capable), for which the participants selected the response most accurately reflecting how they felt. The participants' mean scores along the 16 dimensions of this scale were used as an index of self-esteem, and the vector of their responses along the same 16 dimensions was used as an index of self-concept. The results of their study indicated that in contrast to the American studies the researchers had cited, the self-esteem of these Japanese students did show gender differences (in favour of the males). However, they pointed out that because there was no overall difference found in the American samples' self-esteem, there was the possibility that both genders may define themselves in different ways (and therefore have different self-concepts), but still have similar self-esteem scores. As well, in comparison to the American samples, the researchers found that the mean scores for the Japanese sample were consistently lower than those found in the American studies they cited. Thus, these Japanese students had less favourable views of their bodies' attractiveness and effectiveness than did the Americans.

As Lee, Lee, and Rudd (1996) noted in their study, Asian cultures (including the Japanese) have traditionally developed their own conception of beauty. However, due to the influence of Western culture, Asian definitions of beauty have shifted increasingly toward more Western standards of beauty. The researchers also noted that under Confucianism, the role and status of women in Korea had traditionally been defined in terms of the household. However, female Korean students living in the United States may not hold such traditional attitudes. The purpose of their study was to examine body

image, gender role attitudes, and appearance behaviours among Korean women living in the United States. Their study involved interviewing 40 Korean women (20 students and 20 housewives, relatively small sample sizes) living in the United States using 12 questions. Their results indicated that 60% of the participants were dissatisfied with their bodies, especially with their lower body parts, such as the hips and legs (58%). Also, inner beauty (21%) and Western conceptions of beauty, such as thinness and height (20%), were important components of the participants' beauty ideals. Sixty-three percent of the women reported that their beauty ideal had changed since coming to the United States by incorporating more healthy and fit standards. With respect to gender roles, the students held more nontraditional values, whereas the housewives held more traditional attitudes. Their article was quite short; it did not include the possible benefits of their research findings. However, having more knowledge about this particular cultural group could aid in the prevention and treatment of body image dissatisfaction in this population, a problem that may lead to the development of eating disorders.

Cok (1990) mentioned in his study that the concept of body image is important to consider in understanding the psychological and social development of an individual. In his study (and in this one as well) he used a different definition of body image: "the satisfaction with one's body" (p.409). The purpose of his study was to determine the level of body image satisfaction in Turkish students and whether it varied according to such demographic variables as age, gender, early versus late sexual maturation, participation in physical activities, and frequency of exposure to information about body development and appearance in the media. The participants consisted of 269 females and

286 males attending secondary school in Turkey, and they completed the Body Image Satisfaction Questionnaire (a scale similar to that used in the Lerner et al. [1980] study because it consists of a list of 25 body parts). For this measure as well, the participants indicated their satisfaction or dissatisfaction with each body part on a 5-point Likert scale, and their total score was divided by the number of items (25) to obtain a mean score. A second questionnaire developed by the author was designed to obtain the demographic variables referred to earlier. The researcher's results indicated that the males were more satisfied with their bodies than were the females, a result similar to those found in other countries, which he asserted can be attributed to a relatively universal emphasis on women's attractiveness. As well, early-maturing males and late-maturing females had higher levels of body image satisfaction, which the author said could be attributed to a societal emphasis on masculine features (which are more likely found in early-maturing males) and on thinness in women (a feature more likely found in late-maturing females). Also, the researcher found that participants in physical activities were more satisfied with their bodies than were non-participants, a finding that may be explained by the possibility that physical activity can lead to an increased interest in the body and a higher level of body image satisfaction. However, no statistically significant differences were found among the different age or socioeconomic groups. The way in which socioeconomic status was determined, however (by the parents' level of education), might not be the best measure because it may not necessarily reflect the amount of money that the parents earn. The researcher concluded that further research should be conducted on different samples of Turkish adolescents, and also (I may add) on other Turkish people.

Ford, Dolan, and Evans (1990) noted in their study that two of the main features of eating disorders attributed to sociocultural factors are a drive for thinness and dissatisfaction with one's body image. In Western and other industrialized countries, thinness has come to be associated with competency, self-control, success, and beauty, and exposure to Western society can lead to the internalization of Western attitudes towards eating and body shape. Thus, the purpose of their study was to determine whether women exposed to Western views, yet living within their own culture, appraise their bodies similarly to Western women. They conducted a replication of an American study of body shape preference in a group of 218 Arabian students (169 women and 69 men) attending the American University in Cairo, Egypt. Thus, their study involved a substantial difference in size between the two gender groups. The students were given a questionnaire covering the variables of age, gender, citizenship, college year, and religion (socioeconomic status was not included because all students were assumed to be from a higher social class than the general Egyptian population due to the fact that they were attending a fee-paying university). They were also given a sheet of paper containing two rows of female and male human figure drawings, respectively, arranged in size from very thin to very obese. The participants then chose the figure they believed to be their current figure, the figure they believed to be their ideal figure, the figure they believed their husband or wife would want them to have, and the figure they would be most attracted to in their husband or wife. The mean ages for the women and men were 19.5 and 20.0 years, respectively. Eighty percent were Muslim, and the rest were Christian. The researchers found that the women were less satisfied with their current appearance (their

ideal shape was significantly thinner than their current shape), and they felt that their current appearance was less attractive to the opposite gender than the men (who showed no differences on any of the measures). Therefore, the appraisal of body shape in Egypt showed gender differences consistent with the American study of comparison, as well as with the study by Cok (1990). However, although the Arabian women reported a current shape similar to the American women, they had a larger ideal body shape; therefore, there was a smaller discrepancy between these body shape ratings. The researchers noted that their study was not representative of the general Egyptian population in terms of education and social class; both variables could account for the observed body shape preferences. They concluded by mentioning the necessity of conducting a similar study within a more traditional Egyptian population of women and men less exposed to Western culture.

A valid point that Balogun, Okonofua, and Balogun (1992) made in their study was that there is no information available on how Nigerians view their body. They suggested that perhaps Nigerians experience their body differently from Americans (on whom the majority of studies concerning body image have been conducted) due to the sociocultural differences between the two countries. Thus, the purpose of their study was to provide information on Nigerian university students' attitudes toward their bodies, and to determine whether there were gender differences as well. The 286 participants (the mean ages for the women and men were 20.8 and 24.4 years, respectively) completed the Body Cathexis Scale, which contains four parts: part 1, which consists of rating the satisfaction or dissatisfaction with one's face (for example, hair and eyes); parts 2 and 3,

which consist of rating the extremities (for instance, shoulders and arms) and midtorso (for example, size of abdomen and buttocks); and part 4, which includes other relevant information (such as height and weight). The participants rated each body part on a 5-point Likert scale. The results showed that the students were more satisfied than dissatisfied with their bodies, and that they were the most satisfied with their ears and arms. Surprisingly, the women were more satisfied than the men with their bodies, scoring higher on their ratings for the ears, chest / breast, and size and appearance of sex organs, as well as body weight and general muscle development. Therefore, these results contrast with the results found in Cok's (1990) and Ford et al.'s (1990) studies, as well as the studies that the researchers cited in their article. They speculated that because the Nigerian culture encourages masculinity in men, and that the socially acceptable body shape for men is characterized by a mesomorphic (square body with prominent musculature) frame, it may not be surprising that they found men to be less satisfied with their general muscle development and the size and appearance of their sex organs. The researchers mentioned that the different psychometric instruments available for measuring body image have not been shown to be equal; each instrument may actually be measuring a different aspect of body image (which is a very valid point). As well, they mentioned that in order for their results to gain wider clinical acceptance, further studies need to be conducted among Nigerians of different ages and socioeconomic backgrounds. Nevertheless, the researchers asserted that the findings of their study do provide some baseline information to use in weight loss and rehabilitation programs in Nigeria.

An assertion that Smith, Burlew, and Lundgren (1991) made in their study was

that the failure to use African Americans as participants in research on body image detracts from the generalizability of findings on this topic. Thus, their study attempted to fill this void by investigating the extent to which Black consciousness and self-esteem are associated with satisfaction with physical appearance among African American women. Therefore, this study incorporated the variable of acculturation, unlike the studies previously mentioned. They defined self-esteem as positive or negative feelings a woman has about herself, and Black consciousness as African Americans' pride in themselves and their culture. The participants consisted of 152 African American female students from the University of Cincinnati, and they ranged in age from 17 to 45 years (with their mean age being 20.7 years). The instruments used in the study included the Body-Self Relations Questionnaire, which consists of a list of 24 body parts for which the participants expressed their degree of satisfaction on a 6-point Likert scale. However, the researchers only chose to use the items pertaining to the face. The participants also completed the Developmental Inventory of Black-Consciousness, 84 items that measure a person's level of Black identity development in relation to four descriptive stages of Black consciousness development (the pre-conscious, confrontation, internalization, and integration stages). The participants also filled out the Self-Esteem Scale, which consists of 10 Likert-type items designed to measure the evaluative nature of the self. As well, the researchers obtained demographic information on a separate questionnaire. The material consisted of the Facial Features Picture Chart and Rating Scale, which the researchers created to assess the extent of Black facial features in each participant (based upon her photograph). The scale was used by three independent raters to measure three items

(complexion, nose, and lips), each on a 4-point scale ranging from Black-like features to White-like features. These raters were previously trained with unrelated photos of African American women, and the researchers found interrater agreement to be 80% (a relatively high percentage). The results indicated that satisfaction with overall physical appearance and Black consciousness appeared to have a moderate relationship, but no relationship was found between satisfaction with facial features and Black consciousness. A strong correlation was found between self-esteem and satisfaction with both facial and overall appearance, but self-esteem was not as strongly associated with Black consciousness. However, the researchers did find a relatively strong relationship between Black consciousness and satisfaction with overall physical appearance for the women who possessed more Black facial features than for the women with fewer Black facial features. The researchers concluded that the occurrence of several significant correlations among the variables was promising; however, the correlations for those analyses involving Black consciousness were relatively low. Thus, they asserted the need for further research into the conceptualization and measurement of Black consciousness.

Balentine, Stitt, Bonner, and Clark (1991) mentioned in their study that youth are often concerned with body weight and appearance because of the fear of obesity. Although there is this general preoccupation with weight, the researchers noted that youth do show gender and cultural differences. As they cited from previous studies, Black females and other minorities do not seem to be overly preoccupied with thinness or with losing weight, and Black female adolescents seem to be more realistic in their perception of body weight. However, the researchers stressed against stereotyping having an eating

disorder as a predominately White, upper middle-class phenomenon because this could interfere with the early recognition of these disorders among minorities. The rationale for their study was that because eating disorders seemed to be minimal among Black youth, little research has focussed on this group (and in particular, on the low-income population). Thus, their study identified Black, low-income youth who believed they had anorexia nervosa or bulimia, identified behaviours common to those who thought they had the disorders, and compared their actual and perceived body weight (as well as their methods of dieting). Therefore, their approach to participant selection was different from previously mentioned studies because they selected youth who believed they had an eating disorder. The participants consisted of 1,930 students in Alabama from grades 7 to 12, and low-income status was determined by whether they were eligible for a free or reduced-priced breakfast or lunch at school. The participants completed a 55-item questionnaire that obtained information about self-perceived eating disorders; actual and perceived body weights; methods of dieting; attitudes, feelings, and behaviours related to dieting and food; feelings about themselves; and demographic data. A benefit of the researchers' questionnaire was that they determined (using Fry's Readability Graph) its reading level to be suitable for a grade 7 student; therefore, it was easily readable for the majority of the participants. Their results indicated that the mean age of the students was approximately 14 years (therefore relatively young), and that 12% of the sampled students believed they had an eating disorder (a similar proportion to that found in the overall population). The participants who felt they had an eating disorder also reported having food-related behaviours similar to individuals with eating disorders, and these behaviours

differed significantly from those reported by their peers. An example of this behaviour would be thinking about vomiting to lose weight. As well, gender was more likely to affect food behaviour than was age. Thus, their results concerning gender differences were consistent with those found in Cok's (1990) and Ford et al.'s (1990) studies, but contrasted with Balogun et al's (1992) findings. In conclusion, the researchers noted that while their study did not identify diagnosed cases of anorexia nervosa or bulimia in this sample, the participants' self-reported data indicated that a significant number of Black, low-income youth appear concerned that they may have these disorders. Thus, educators and other professionals should be aware that youth from all cultural groups and socioeconomic backgrounds are vulnerable to eating disorders. Also, because youth are at a greater risk for nutrition-related problems, the researchers asserted that professionals need to be aware of the health-related concerns of students with whom they work. They should also use this information when planning educational, health, and other services for youth.

Gittelsohn et al. (1996) mentioned in their study that many First Nations peoples face obesity-related health problems as a result of acculturative changes in diet and activity. Their study was conducted in the Sandy Lake reservation located in Ontario, and they obtained permission from 72% of its population (729 / 1016 people) to participate. However, the researchers collected their data between the period of July 1993 and March 1995; thus, the possibility of a time effect influencing their results cannot be ruled out. As well, the sample sizes for some of the older groups were quite small, in comparison to the younger groups. The measure consisted of a questionnaire (developed by the researchers)

that included demographic questions, a three-month qualitative food frequency, and a health beliefs and knowledge section, for which the participants were asked to agree or disagree with a series of statements about food, health, obesity, and the causes of diabetes). Education was determined by the level of schooling each participant reported finishing. The participants were also given a scale consisting of 9 female and male figures ranging in shape from very thin to very obese, and they were asked to identify the body shapes they felt matched their current shape, their ideal shape, and the most healthy male and female body shapes. Thus, they completed a scale similar to that used in Ford et al.'s (1990) study. The researchers noted the limitation involved in using White figures for people from other cultures, but they argued that using them would allow for the comparison of results from previous studies using similar figures. They also mentioned the problem of showing adult figures to people between the ages of 10 and 19 years (who are still growing), but they asserted that they interpreted the results from this age group cautiously. Language was used as a measure of acculturation; points were added to the participants' scores if they indicated that they could speak, read, or write English, and each response received one point. Thus, a higher positive score indicated greater linguistic acculturation. Their results indicated that overall, only 16% of the sample was satisfied with their current body shape. Although Sandy Lake males perceived their current body shape to be larger, their desired future body shape was similar to that found in studies involving American male college students. While Sandy Lake females appeared to be somewhat affected by the Western ideal of a thinner body figure, their ideal figure was still larger than that reported by females in American studies. Thus, the authors

asserted that there seemed to be a higher level of acculturation among the males than among the females in this sample. In conclusion, they asserted that community-based studies of body image could be useful in developing health interventions to prevent obesity-related diseases (such as diabetes and cardiovascular disease) in specific populations.

To summarize, the studies examining body image in a single ethnic group showed conflicting results. Some studies displayed gender differences similar to the majority of studies (with females being less satisfied with their body shape), but other studies showed that females were more satisfied with their bodies than were males. As well, for those researchers who compared their findings to studies involving White samples, the conclusions were mixed. Some concluded that other ethnic groups scored in a similar fashion to the White groups, whereas different studies showed differences in body image ratings across ethnic groups.

Research Questions and Hypotheses

Thus, although there are some conflicting results, most of the literature on the topic of body image supports the idea that gender and ethnicity do exert an influence on this construct. The purpose of this study was to examine body image specifically in South Asians, because I wondered whether body image dissatisfaction (which is linked to the onset of eating disorders) was present in this population. Although two studies mentioned in the literature review examined this population, this study varied because it examined South Asians living in Canada (it contrasted the scores of South Asian women living in Victoria with those living in Vancouver). As well, this study looked at a specific group of

South Asians (those who practice the Sikh religion), in order to keep the participants as homogeneous as possible. The study also focussed on women between the ages of 18 and 30 because eating disorders are most common in this age group (Moe, 1991). Therefore, the purpose of this study was to examine body image in a sample of young Sikh women living in Canada. Specifically, the following questions were considered:

1. Was there a difference between these Sikh women's perceived current and ideal body shape in either city?

2. Was there a change in the Victoria women's body shape ratings due to time (after a period of one year)?

3. Was there an age trend in these women's body shape ratings in either city?

4. Was there a significant difference between the women's body shape ratings from both cities?

5. Was there a significant difference between the women's body parts and functions ratings from both cities?

6. Was there an age trend in these women's body parts and functions ratings in either city?

Based on the studies examined earlier, the hypotheses for this study were:

1. that there would be a statistically significant difference between the women's perceived current and ideal body shapes in both cities.

2. that there would be no change in the Victoria women's body shape ratings due to time.

3. that with increasing age, the women from both cities would show less discrepancy

between the two body shape ratings.

4. that there would be no significant difference between the women's body shape ratings from both cities.

5. that there would be no significant difference between the women's body part and function ratings from both cities.

6. that with increasing age, the women from both cities would rate their body parts and functions more positively.

The reasons for these hypotheses are as follows: for hypothesis 1, because most of the studies cited earlier had similar results of women being dissatisfied with their current body shapes and wanting an ideal body shape they do not have, this group of South Asian women would have that result as well. For hypothesis 2, one year seemed to be a relatively short period of time for the Victoria women to have a better sense of identity, and therefore more congruence between their current and ideal body shapes. For hypotheses 3 and 6, perhaps the older women would feel more comfortable with their body shapes, parts, and functions because they have a more definite sense of identity than do the younger women. For hypotheses 4 and 5, I did not think that there would be a difference in the ratings between the Victoria and Vancouver women because there was no reason for the women to be markedly different (and therefore have different body shape, part, and function ratings).

Chapter 3: Method

Participants

The participants consisted of 60 Sikh female volunteers ranging in age from 18 to 30, with a mean age of 24.1 years and mean weight of 46.33 kg. They were recruited from two locations: a support group for South Asian women affiliated with a multicultural association located in Victoria, BC; and from the University of British Columbia (UBC) in Vancouver, BC. It was assumed that because all of the participants come from this particular ethnic and religious background, they have similar traditions and experiences.

The 25 women from the support group in Victoria (with a mean age of 24.8 years and mean weight of 45.8 kg) discuss issues that are important to them, and most of these issues are related to the concept of identity. Thus, the main focus of this support group matched the research topic for this study, body image (which is a specific component of identity). Although these women are heterogeneous in terms of religion (there are Muslim, Hindu, Sikh, Christian, and atheist members), only the Sikh women were included in this study in order to keep the participants as homogeneous as possible. As well, a large age range was used so that all the Sikh women from the support group could be included in the study, and also so that any age trends in the data could be examined. All of these women were either born in Canada or immigrated to Canada as toddlers. From my experiences with them, I know that all of these women are fluent in both written and spoken English. However, there is some variability concerning whether the participants are fluent in Punjabi. For instance, some can only understand Punjabi, whereas others can both speak and understand it. However, none are able to write

Punjabi, although some have been trying to learn. Thus, it appears that these women are quite accultured into Canadian society. As well, all of these women completed secondary school and are either attending a post-secondary institution or working. Also, based upon my knowledge about these women's families, all appear to be from either an upper middle-class or an upper-class background. However, as with language and education, this was not something asked directly. Thus, there are some limitations to this study concerning the participants that were chosen. First of all, I helped to organize and was part of this support group (and therefore know the participants on a personal level). Second of all, this group is a sample of convenience, a group of women already existing in the community. Thus, all of these women may share an undeterminable common variable that caused them to join this support group (such as being more educated, coming from a higher socioeconomic background, or having more liberal-minded parents), and which subsequently influenced the results of this study.

Thirty-five Sikh women (with a mean age of 23.6 years and mean weight of 46.7 kg) attending UBC were also included in this study, and they were recruited via flyers (see Appendix A) placed around campus. In order to match the women from Vancouver to the women from Victoria as closely as possible, the flyer specifically indicated that the study was looking for Sikh women between the ages of 18 and 30. As well, the flyer indicated that the study was looking for participants that were either born in Canada or immigrated here at a young age. In terms of language, because students from UBC were being recruited, it was assumed that they would all be fluent in English. For Punjabi, however, I found (after contacting each participant) that none of them could write

Punjabi, which was also the case for the Victoria group. Their ability to speak Punjabi also varied greatly, as it did with the Victoria group as well. I also inquired about socioeconomic status, and found that all of the potential participants were either from upper-middle class or upper-class families. Thus, the group from Vancouver was reasonably well-matched to the group from Victoria. However, because the participants from Victoria were from a support group, and because the participants from Vancouver were recruited individually, there could be some undeterminable factor present in the Victoria women that makes them different from the Vancouver women. Therefore, because this study looked at two very specific groups of young Sikh women, the results cannot be generalized to the larger South Asian female population.

Materials

The Figure Rating Scale (FRS; Stunkard et al., 1983) was used in this study because of my familiarity with it (it was used in three of the studies reviewed earlier: Altabe, 1998; Gittelsohn et al., 1996; and Lake et al., 2000), and because it is commonly used in similar research studies, thus appearing to be well-validated and having high test-retest reliability (Lake et al., 2000). Using the scale in this study would be an easy way to measure subjective perceptions of body image, body image ideals, and therefore an estimation of dissatisfaction with current body image. The scale consists of a set of nine female and a set of nine male silhouettes ranging in size from very thin (1) to very heavy (9). For this study, only the female figures were utilized. Although the drawback of using White figures for other ethnic groups was raised by Gittelsohn et al. (1996), they asserted that using these figures benefits researchers because it allows a comparison of their

results to those found in other studies (which was a purpose of this study). As well, previous research using a similar scale (Furnham & Baguma, 1994) has shown that these types of figures are appropriate for cross-cultural use. Nevertheless, the generalizabilty of these findings are dependent upon the stimuli used, something that is true for all studies (Furnham & Baguma, 1994).

The Body Esteem Scale (BES; Franzoi & Shields, 1984) was also used in this study, and it consists of 32 body parts and functions that participants are asked to rate on a 5-point Likert scale ranging from 1 (have strong negative feelings) to 5 (have strong positive feelings). Thus, a higher score indicates greater esteem towards the body. Some examples of body parts and functions from the scale include appetite, waist, and body build. This scale was chosen because it was derived from the Body Cathexis Scale, which was used in Balogun et al.'s (1992) study. This scale seemed ideal to use because of the number of body parts and functions it includes. However, the scale had been modified by Franzoi and Shields (1984) because they found that there were gender differences in the scale's structure. Thus, the BES was constructed from 23 Body Cathexis Scale items, and 9 new items reflecting the gender differences were added as well. Their scale for the females consists of three subscales: sexual attractiveness, weight concern, and physical condition. For the purposes of this study, only the global scores of the participants were examined, and not their scores for different parts of the body. In terms of reliability, the BES has shown adequate internal consistency, with alpha reliability coefficients ranging from .78 for the sexual attractiveness subscale, .87 for the weight concern subscale, and .82 for the physical condition subscale. In terms of validity, convergent validity was

demonstrated in that the BES subscales are moderately correlated with the Rosenberg Self-Esteem Scale (with the correlations ranging from .21 to .40). Discriminant validity was also demonstrated in that anorexic women scored higher on the BES weight concern factor than did non-anorexic women.

Besides using the FRS and BES, a flyer was also created to display on the UBC campus, in order to recruit potential participants. Two participant consent forms were also created for the women from Victoria and from Vancouver (see Appendix B and Appendix C) to summarize the purpose of this study for potential participants, to outline details of participant confidentiality, and also to obtain their written permission to participate.

Procedure

This study consisted of three phases of data collection. For the first phase, written permission was obtained to use the FRS from its creators (Stunkard et al., 1983; see Appendix D) in January 1999. After receiving the authors' permission, written permission was then obtained from the University of Victoria Human Research Ethics Committee to conduct the study (see Appendix E). After this was obtained in March 1999, the South Asian women's support group in Victoria was approached to let its members know about this study. All of the Sikh women in the group chose to participate, so mutually convenient times were then made for each woman to participate in the study (in a university classroom). I collected the data because that was easiest, and also because the participants probably would feel more comfortable with someone they knew. The procedure consisted of each woman reading a brief description of the purpose of and participant confidentiality in the study (from the participant consent form), and then

agreeing to participate by signing it. Each woman was then given a copy of the FRS, which consisted of a sheet of paper containing a row of nine female figure drawings arranged in order from very thin to very obese figures. Instructions asking each participant to indicate which figure she believed to be her current figure and which figure she believed to be her ideal figure were written on the paper, and each participant was asked to circle the appropriate figure for each question. Thus, the discrepancy between the participants' current and ideal figures indicated their degree of dissatisfaction with their body shape. Each participant was also asked to note her age (in years). After each woman completed the scale, she was verbally informed of the content of the study, and she was asked if there were any questions. Each participant was then offered a copy of the study after its completion. In total, each woman needed approximately 15 minutes to participate in the first phase of this study.

For the second phase of this study, permission was obtained via electronic mail to use the BES from its creators (Franzoi & Shields, 1984; see Appendix F). This occurred in February 2000. After receiving their permission, the original participants from the previous year were then asked to participate again in this study. They all agreed, and the procedure from the first phase of the study was basically followed again. But this time, they completed both the FRS and the BES, and also indicated their weight. The participants were asked to fill out another consent form that informed them of the purpose and confidentiality of this study, and they then agreed to participate by signing it. The BES consists of a list of 32 body parts and functions (for example, appetite, waist, and body build), and written instructions were included on the scale, asking the participants to

indicate for each body part or function the rating that indicates how they feel about it (ranging from 1, having strong negative feelings, to 5, having strong positive feelings). The Likert scores were summed across all items to yield a total score, with higher scores indicating greater esteem for one's body. After the participants completed the consent forms and both scales, they were then debriefed about the background of the study, and they were also asked if they had any questions about the study. Again, each participant was offered a copy of this study after its completion. It took approximately 35 minutes of each woman's time to participate in this phase of the study.

The third phase of this study consisted of putting up flyers around UBC's campus, which invited Sikh women between the ages of 18 and 30 to participate in this study. This occurred in June 2000. Upon receiving phone calls from interested women, they were asked about their background (what religion they follow, how long they had been in Canada, how well they knew English and Punjabi, and their socioeconomic status) in order to see if they would match with the sample of Victoria women. In total, 35 women from Vancouver were found that share similar characteristics to the Victoria participants. Each woman came to a classroom at UBC, and they filled out the participant consent forms, the FRS, the BES, and also indicated their weight. The same procedure for this phase as that which was followed during the second phase was used. However, each participant was asked to indicate their age on the FRS as well. Again, it took approximately 35 minutes of each woman's time to participate in this phase of the study.

Design

This study was a correlational design because the independent variables consisted

only of measured variables. For both the Victoria and Vancouver samples, the question asked was whether there was a systematic relationship between the participants' perceived current and ideal body shape ratings on the FRS. Another question asked was whether there was a systematic relationship between the Victoria participants' FRS scores when they initially participated in the study, and when they participated in the study again (after a period of one year). Another question was whether there were statistically significant differences among both the Victoria and Vancouver women for these ratings due to age. Thus, for this question, the independent variable was age (operationally defined in years), and the dependent variable was the difference score for the two body shape ratings (operationally defined as the perceived current body shape rating minus the ideal body shape rating).

For the BES, the question asked concerning both the Victoria and Vancouver samples was whether there were age differences among the participants. Thus, for this question, the independent variable was age, and the dependent variable was the total score on the scale.

In comparing the two samples, the question asked was whether there was a statistically significant difference on the FRS between the Victoria and Vancouver participants. Another question asked was whether there was a statistically significant difference on the BES between the Victoria and Vancouver women. Also, another question was whether there were statistically significant differences between the Victoria and Vancouver women for these ratings due to age. Thus, for these questions, the independent variables were age and city (operationally defined as either Victoria or

Vancouver), and the dependent variables were the FRS difference score for the two body shape ratings (operationally defined as the perceived current body shape rating minus the ideal body shape rating), and total BES score.

Chapter 4: Results

Victoria Participants

All tests run were 2-tailed and alpha levels were set at .05, because of the lack of research evidence to support this study's hypotheses. As mentioned previously, the mean age of all of the participants was 24.1 years, and their mean weight was 46.33 kg. The differences in age and in weight between the two groups of women were small and therefore not significant. A t-test for dependent means was used to determine whether there was a significant difference between the Victoria participants' perceived current and ideal body shape ratings for the Figure Rating Scale in 1999. Table 1 presents the means and standard deviations of the participants' current and ideal body shape ratings. With an alpha level of .05, the difference between the means was found to be significant, $t(24) = 4.00$, $p < .05$ (see Appendix G for the results of the t-test for dependent means for this sample). Thus, the Victoria participants' perceived current body shape was significantly larger than their ideal body shape, although this result needs to be interpreted cautiously because of the small number of Victoria participants in this study.

A t-test for dependent means was also used to determine whether there was a significant difference between the Victoria participants' perceived current and ideal body shape ratings for the Figure Rating Scale in 2000. Table 2 presents the means and standard deviations of the participants' current and ideal body shape ratings. With an alpha level of .05, the difference between the means was found to be significant, $t(24) = 9.45$, $p < .05$ (see Appendix H for these results). Thus, the Victoria participants' perceived current body shape was still significantly larger than their ideal body shape in

Table 1

Means and Standard Deviations For the Victoria Participants' Perceived Current and Ideal Body Image Ratings in 1999

Body Image	Mean	Standard Deviation
Current	3.4	.5
Ideal	2.6	1.04

Table 2

Means and Standard Deviations For the Victoria Participants' Perceived Current and Ideal Body Image Ratings in 2000

Body Image	Mean	Standard Deviation
Current	3.6	.5
Ideal	2.52	.96

2000.

As well, a 2-way repeated measures ANOVA was used to determine whether there were age and time trends for the Victoria participants' body shape ratings on the Figure Rating Scale. Specifically, each participant was placed into either an 18 to 24 years age group or a 25 to 30 years age group, depending upon her age (15 women ended up being in the first group, and 10 in the second group). The mean age of the women was 24.8 years; thus, it seemed reasonable to divide the women into two groups according to this mean age. The formation of these age groups was arbitrary, yet one of the purposes of this study was to contrast the ratings of the women in their early twenties from those in their late twenties. A discrepancy score for each participant was calculated in the following manner. For example, if a participant in the 18 to 24 years age group had a perceived current body shape rating of 3 and an ideal body shape rating of 4, her overall score was computed by subtracting 4 from 3 (which comes to -1). This method was used for each participant in each age group. Table 3 presents the descriptive statistics for the Victoria participants' discrepancy scores by age group and time tested. With an alpha level of .05, the difference among the means was not found to be significant, $F(1, 23) = 2.3$, $p > .05$ (see Appendix I for the results of the 2-way repeated measures ANOVA for this sample). Thus, no systematic relationship was found between age group and discrepancy score, for time tested and discrepancy score, or for the combination of age group and time tested. However, these results need to be interpreted cautiously because of the small number of Victoria participants in the study.

Vancouver Participants

Table 3

Descriptive Statistics For the Victoria Participants' Figure Rating Scale Difference Scores By Age and Across Time

Time	Age	Mean	Standard Deviation	N
1999	Younger	.67	1.29	15
	Older	1.0	0	10
	Total	.8	1.0	25
2000	Younger	.87	1.06	15
	Older	1.0	0	10
	Total	.92	.81	25

A t-test for dependent means was also used to determine whether there was a significant difference between the Vancouver participants' perceived current and ideal body shape ratings for the Figure Rating Scale. Table 4 presents the means and standard deviations of these participants' current and ideal body shape ratings. With an alpha level of .05, the difference between the means was found to be significant, $t(34) = 22.13$, $p < .05$ (see Appendix J for the results of the t-test for dependent means for this sample). Thus, the Vancouver participants' perceived current body shape was significantly larger than their ideal body shape.

Comparison of Victoria and Vancouver Participants

A 2-way multivariate ANOVA was also used to determine whether there were age and city trends among all participants' body shape ratings for the Figure Rating Scale (FRS), and also body shape scores for the Body Esteem Scale (BES). As mentioned previously, each participant was placed either into an 18 to 24 years age group or a 25 to 30 years age group, depending upon her age. For the Victoria participants, 15 women were placed in the younger age group and 10 in the older age group; for the Vancouver participants, 20 women were placed in the younger age group and 15 in the older age group. A discrepancy score for the FRS of each participant was calculated in the following manner. For example, if a participant in the 18 to 24 years age group had a perceived current body shape of 3 and an ideal body shape of 4, her overall score was computed by subtracting 4 from 3 (which comes to -1). The Victoria participants' discrepancy scores for the year 2000 were used for this analysis because, as previously mentioned, no significant difference was found between their 1999 and 2000 scores. As

Table 4

Means and Standard Deviations For the Vancouver Participants' Perceived Current and Ideal Body Image Ratings

Body Image	Mean	Standard Deviation
Current	3.43	.50
Ideal	1.71	.46

well, the participants were also grouped according to the city they reside in. Table 5 presents the descriptive statistics for the participants' FRS discrepancy scores and Body Esteem Scale (BES) scores by age group and by city. With an alpha level of .05, the difference among the means was found to be significant, $\underline{F}(2, 55) = 427.72$, $\underline{p} < .05$ (see Appendix K for the results of the 2-way multivariate ANOVA for these samples). Examining the results of the between-subjects effects shows that the only statistically significant main effects found were due to the city factor. For the FRS, with an alpha level of .05, $\underline{F}(2, 55) = 20.81$, $\underline{p} < .05$. For the BES, with an alpha level of .05, $\underline{F}(2, 55) = 6.77$, $\underline{p} < .05$. Thus, only the main effect of city was found to be statistically significant: the Vancouver participants had more of a discrepancy between their current and ideal body shape ratings on the FRS and had lower scores on the BES, than did the Victoria participants. The age factor, as well as the interaction of the age and city factors, did not have a statistically significant effect on the FRS and BES scores of the participants.

Table 5

Descriptive Statistics For the Victoria and Vancouver Participants' Figure Rating Scale Difference Scores and Body Esteem Scale Scores By Age

Test	Age	City	Mean	Standard Deviation	N
Figure Rating Scale	Younger	Victoria	.87	1.06	15
		Vancouver	1.75	.44	20
		Total	1.37	.88	35
	Older	Victoria	1.0	0	10
		Vancouver	1.67	.49	15
		Total	1.4	.5	25
	Total	Victoria	.92	.81	25
		Vancouver	1.71	.46	35
		Total	1.38	.74	60
Body Esteem Scale	Younger	Victoria	94.47	30.26	15
		Vancouver	88.2	31.35	20
		Total	90.89	30.60	35
	Older	Victoria	116.8	30.93	10
		Vancouver	82.87	22.45	15
		Total	96.44	30.67	25

Table 5 continued

Test	Age	City	Mean	Standard Deviation	N
	Total	Victoria	103.4	31.9	25
		Vancouver	85.91	27.64	35
		Total	93.2	30.49	60

Chapter 5: Discussion

Summary and Comparison of Results

The purpose of this study was to examine body image in young Sikh women living in Canada. To summarize, the results of this study were mixed: the findings support only the first two hypotheses, but not the other four. The first hypothesis, based upon previous research in body image, was that there would be a significant difference between all of the women's perceived current and ideal body shape ratings. The results turned out just that way: both groups of women had a significantly larger perceived current than ideal body shape. The second hypothesis was that there would be no change in the Victoria women's body shape ratings over time, and this also turned out to be the case.

The third hypothesis was that with increasing age, the women from both cities would show less discrepancy between the two body shape ratings. Although there was no research to support the formation of this hypothesis, perhaps the older women would feel more comfortable with their body shapes because they have a more definite sense of identity than do the younger women. This did not turn out to be the case: no significant difference was found between the two age groups from either city. The fourth and fifth hypotheses were that there would be no significant difference between the women's body shape and body part and function ratings between both cities. I did not think that there would be a difference in the ratings between the Victoria and Vancouver women because there was no reason to believe that the women would be markedly different (and therefore have different body shape, part, and function ratings). However, the results show that the

Vancouver women had a significantly larger difference between their current and ideal body shape ratings, as well as significantly more negative body part and function ratings, than did the Victoria women. This result was surprising (that their ratings were markedly different); maybe these two cities have different cultures, an idea that is similar to what Ruggiero et al. (2000) proposed in their study (which compared two Italian cities). Perhaps the participants from these two cities have different standards in beauty. It should be mentioned that there was not a significant difference in weight between the participants from the two cities; therefore, that factor did not play a role in the results. The last hypothesis, which was that with increasing age, the women from both cities would rate their body parts and functions more positively, was also not supported by this study's results. Again, I thought that the older women would feel more comfortable with their body parts and functions because they would probably have a better sense of identity than do the younger women (and therefore would be happier with their bodies). Perhaps the two age groups were too close in age for there to be any significant difference in scores between the participants.

The results of this study support the research findings found in most studies, but contrast with the results of a few studies examined in this paper. For example, this study's results, that these women were not satisfied with their body image, are similar to the results found in most of the studies cited concerning Coloured women (Lee et al.'s [1996] study of Korean women; Lerner et al.'s [1980] study of Japanese students; Cok's [1990] study of Turkish women; Ford et al.'s [1990] study of Arabian women; Balentine et al.'s [1991] study of Black students; Gittelsohn et al.'s [1996] study of Aboriginal people; and

Field et al.'s [1997] study including Hispanic women). As well, the results of this study support the results found in studies involving samples of White women (Cogan et al., 1996; Ogden & Elder, 1998; and Altabe, 1998) and studies examining a number of ethnic groups (Ahmad et al., 1994), in which the women were dissatisfied with their bodies. However, this study's results contrast with Balogun et al.'s (1992) study, which found that Nigerian women were generally satisfied with their body image. This study's results of there being no difference in ratings due to age were also similar to Cok's (1990) results. Nevertheless, all of these comparisons need to be interpreted with caution because whereas this study simply examined a group of women from one ethnic group in detail, the cited studies involved a comparison of genders, of ethnic groups, or of both.

Although this difficulty exists, it is useful to compare the results of this study to those involving South Asian participants (Ahmad et al., 1994; and Ogden & Elder, 1998). In Ogden and Elder's (1998) study, the South Asian daughters reported the least concern for calories, and the researchers speculated that being South Asian may serve as a buffer against the influence of exposure to media images of thin and young White models. Although this may be the case, South Asian women may also have thin and young South Asian models and actresses to attempt to relate to within the Hindi movie industry (usually referred to as "Bollywood"). From my experience of having watched both older and newer Hindi movies, I have noticed that the movies tend to have thinner South Asian actresses now; therefore, the Hindi entertainment industry has also been influenced by the Western ideal of thin being beautiful. In Ahmad et al.'s (1994) study, the young females had greater tendencies toward dieting and were less satisfied with their bodies than were

the young males, and this result of being unhappy with their body image is a similar one to that found in this study.

Importance and Implications of This Study

The concept of body image (defined as "the satisfaction with one's body" [Cok, 1990, p. 409]) is very important to young women, especially in considering how others perceive them (Canadian Teachers' Federation, 1990). Western women demonstrate concern for their body image by spending billions of dollars trying to improve their heath, bodies, and appearance (Smith et al., 1991). This concern for beauty exists across ethnic groups. However, because of the influence of Western culture, Asian definitions of beauty have shifted increasingly toward more Western standards of beauty (Lee et al., 1996). Because many women are not able to achieve these societal ideals of thinness, body dissatisfaction and dieting have become statistically normative behaviour (Balentine et al., 1991). Unfortunately, the concept of thinness has taken on many positive meanings (such as competency, self-control, success, and beauty), so there are many reasons for wanting to be thin (Ford et al., 1990). Whereas thin body forms are idealized, obese forms are often associated with negative characteristics, and obese people often face discrimination (Furnham & Baguma, 1994). Thus, the concept of thinness as being beautiful is deeply entrenched within our society.

Socialization pressures convey to young women that they will be judged according to the way they look (Edwards, 1992). Many of these messages are conveyed through the mass media, which include movies, television, newspapers, magazines, books, and radio. Considering the example of television, people on average watch

four hours per day (Moe, 1991). In examining the significance of this, an interesting statistic to note is that by high school, students on average will have watched about 15,000 hours of television in their life, whereas they will have spent only 11,000 hours in school (Moe, 1991). Thus, the influence of television, along with other media, is significant. Another example of how there has been a shift to a thinner ideal body shape for Western women in the media is that Miss America contestants and Playboy centerfolds have become thinner over the past two decades. As well, the number of diet articles and advertisements about being thin and staying in shape have increased 70% over the past 10 years, and women's magazines contain more of these articles and advertisements than do men's magazines (Moe, 1991). Also, on television programs, female characters tend to be slimmer than male characters, and thin people are accepted and admired, whereas obese people are often ridiculed (Moe, 1991). Thus, there are many benefits for achieving thinness. However, thin women do not represent the majority in this society; the average woman has become quite a few kilograms heavier, not thinner (Moe, 1991).

Because the participants of this study scored in a similar fashion to White women (not being satisfied with their bodies), it is possible to suggest that these specific women may be acculturized into Western society. Thus, how much of an impact the Sikh religion itself has on their body image is hard to determine. It would have been interesting to examine how important the construct of body image is to the participants of this study, as well as to note what stereotypes concerning being thin they believe in. However, this study simply examined the participants' ratings of body shapes and body parts; interviews

to probe into these other attitudes would contribute greatly to the literature on this topic. Also, examining how both Western and ethnic socialization processes affected the participants of this study would have also been interesting to make note of.

Eating disorders are a major health concern for women (Cogan et al., 1996). The two major features of eating disorders are a drive for thinness and dissatisfaction with body image, and these can be attributed to sociocultural factors (Ford et al., 1990). Thus, women with a negative body image who feel they must achieve thinness are at a greater risk for developing eating disorders. The two major eating disorders are anorexia nervosa (a group of thoughts and behaviours that include a fear of getting fat, refusal to maintain a body weight that is the minimum for the person's age and height, disturbance of body image, and cessation of menstrual periods for at least three consecutive cycles) and bulimia (the person binges by eating a large amount of food in a short time, feels that she or he cannot stop even if she or he wants to, and feels guilty and depressed after the binge) [Moe, 1991]. The consequences of having eating disorders, especially with anorexia, are deadly. People with anorexia may suffer from an irregular heartbeat, weakened gums, and dental caries, and approximately 10% will die from starvation (Moe, 1991). For people with bulimia, vomiting can rid the body of substances it needs, can damage the teeth and esophagus, and may cause swollen salivary glands; ultimately, the person may die of heart complications (Moe, 1991). Unfortunately, only one-third of people suffering from these eating disorders recover completely; about one-third get somewhat better, and the remaining one-third do not get any better (Moe, 1991).

So, what can be done to prevent and treat negative body image, as well as the

eating disorders that can develop from it? First of all, the reader is referred to two excellent resources cited in this study that discuss eating disorders. The first is The National Eating Disorder Information Centre's (1998) web page; it can be accessed at the following address: http://www.nedic.on.ca/default.html. They state that they are "a Toronto-based, non-profit organization established in 1985 to provide information and resources on eating disorders and weight preoccupation" (on-line). The second resource cited in this study because of its information on eating disorders is Moe's (1991) book, Coping With Eating Disorders. Anyone who would like to get further information about eating disorders should consult these excellent resources.

Fortunately, cultural body image can be molded (Furnham & Baguma, 1994). Thus, people need to understand how and why they are being manipulated by the media's ideal of thinness. Dieting and fitness are large industries, and they want people's business; by recognizing this, people can start to take control of their lives (Moe, 1991). Self-worth should not be tied so much to how a person looks. As well, people should value larger body shapes; doing this can positively impact the psychological well being of many Western women (Cogan et al., 1996). For people who have eating disorders, therapy (whether it be individual, group, or family) can be helpful. If necessary, medication and hospitalization are other alternatives. Educators and other professionals need to be aware that people from all ethnic groups and socioeconomic backgrounds are vulnerable to eating disorders (Balentine et al, 1991). As well, continuing to research the construct of body image in various ethnic groups could lead to the earlier diagnosis, more prompt treatment, and perhaps prevention of eating disorders, as well as decreased

morbidity (Balentine et al., 1991).

Study Limitations and Suggestions For Future Research

Before elaborating on this study's limitations and suggestions for future research, it is important to mention the study's strengths and benefits. This study was longitudinal in nature; therefore, it was able to examine the effect of time on body shape ratings in the Victoria participants (although no effect was found). The variable of time was not examined in any of the studies cited earlier. As well, age differences were examined in this study (although again, no significant differences were found). For the scales used in this study, choosing to use the Figure Rating Scale was beneficial because it has been commonly used in other studies (and therefore is well validated and has high test-retest reliability; Lake et al., 2000). As well, because this scale was used two times in the study, this demonstrated the scale's construct reliability and validity, as well as test-retest reliability. For the Body Esteem Scale, Franzoi and Shields (1984) have demonstrated its reliability through internal consistency ratings, and its validity through convergent and discriminant ratings. Construct validity was demonstrated in this study by using both of these scales. Although these strengths of the study are important to consider, the main benefit of this study was that it contributed information about body image in a specific population not previously examined, Sikh women between the ages of 18 and 30 living in Canada. Having information about this population's body image is important because women with a negative body image who feel they must achieve thinness are at a greater risk for developing eating disorders, and the consequences of having eating disorders are deadly.

Although this research is important because of this reason, the results of this study need to be interpreted cautiously for a number of reasons. First of all (as stated previously), this study involved examining a specific sample, Sikh women between the ages of 18 and 30 living in Canada. Thus, the results of this study cannot be generalized to other South Asian women. For example, this study examined only Sikh women; future research should examine other religious groups (such as Muslims and Hindus), because their eating behaviours differ. As well, this study examined only women; future research should also examine South Asian men in order to provide baseline data on how they perceive their bodies, because they also experience some pressure in trying to achieve muscular bodies. Besides the examination of gender, another related construct to examine is gender role, in order to see how this influences body image (as Lee et al. [1996] did in their study). Also, this study examined women from a certain age group; future studies should look at South Asian people of different ages, such as young adolescents or those from older age groups. This study examined women who were either born in Canada or who immigrated here as toddlers. Future research should examine other groups, such as those who have recently immigrated to Canada, or perhaps researchers could compare a group of South Asians living in Canada to a group living in India (or other countries with large South Asian populations, such as Kenya and Singapore) Thus, they would also be investigating the effect of acculturation into western societies. As well, the unexpected result of having differences in scores between the women from different cities needs to be researched further, either by replicating this study or by comparing women from other Canadian cities.

Besides these characteristics of the participants themselves, the limitations involved in using the pre-existing group from Victoria also need to be mentioned. This South Asian women's support group was used mainly because of its convenience, and because of its pre-existence, other variables may have contributed to the results of this study. For example, these women may differ from other Sikh women in their age group because they may be more educated, be more accultured, come from a higher socioeconomic background, or have more liberal-minded parents. As well, I personally know all of these women; therefore, this research was not done in a completely objective way. However, the research procedure was the same for all participants, and the results of the study did not have to be interpreted because the data analysis was computational. Because the women from Victoria were from this pre-existing group, they may have differed significantly from the Vancouver women (who were recruited individually). However, the Vancouver women were matched as closely as possible (according to age, religion, class, language, and either being born or raised in Canada) to the Victoria women. Nevertheless, the results of this study need to be interpreted cautiously because the Victoria participants may differ in an undeterminable way from the Vancouver participants.

Another factor to consider in the interpretation of the results found in this study are the materials used. Furnham and Baguma (1994) mentioned that the results of a study are completely dependent upon the stimuli used. Despite this drawback, the Figure Rating Scale was very useful because of its simplicity in measurement; asking the participants to make ratings of female figures seemed to be an excellent way to measure body image.

Other studies have used similar scales, so a comparison of results across studies was possible (Furnham & Baguma, 1994). Also, the problem of using a scale consisting of White figures for people from other ethnic groups has already been mentioned (Gittelsohn et al., 1996). However, they asserted that using these figures would allow for a more meaningful comparison of results across studies (and across ethnic groups). Nevertheless, future researchers examining ethnic differences in body image should attempt to create scales designed for the particular ethnic groups they wish to examine. Also, concerning completing the Figure Rating Scale itself, there is always the possibility of an order effect: the participants may have scored a certain way because they rated their perceived current body shape first, followed by their ideal body shape. However, this seemed to be the most logical way to complete the scale (to make the perceived current rating first and the ideal rating second, because the ideal body shape rating should be determined by an appraisal of the perceived current rating). There is also the possibility of an order effect in filling out both scales. The participants may have scored a certain way because they filled out the Figure Rating Scale first, followed by the Body Esteem Scale. Another thing to consider about completing the scales is the possibility of a test effect: the participants may have anticipated what this study was about and thus responded in a certain way. Also, the women may have rated the two body shapes for the Figure Rating Scale in a specific way. Perhaps they were more likely to choose the body shapes more toward the middle (as opposed to the ones at the ends), and thus may not have answered accurately. However, what was being measured was these women's perceptions of what they look like, and these do not necessarily have to be accurate. As well, future

researchers should use different measures, such as qualitative methods (for example, interviewing), or a combination of both (as in the case of Altabe, 1998) in order to study components of body image other than those concerning weight and general appearance. For example, Altabe (1998) included other relevant components, such as skin colour and breast size, which garnered some variability in scores among the different ethnic groups.

The limitations involved in the data analysis and choice of design also need to be mentioned. Only 25 participants were from Victoria; thus, the assumption of having at least 30 participants in this study in order for the data analysis to be valid was violated. However, some other studies cited also used a small number of participants, and this violation does not make their findings any less important. The results simply need to be interpreted with some caution. Also, there was a difference in sample sizes between the two cities. As well, the age groupings (18 to 24 years and 25 to 30 years) used were arbitrary. However, this research involved comparing any age trends in the body shape ratings of younger versus older Sikh women, and this age seemed to be a reasonable age (the mean age of the Victoria participants, 24.8 years) to determine the two age groupings. Nevertheless, whether this arbitrary age was suitable for the Vancouver participants is debatable. Finally, which scores used for the Victoria participants on the Figure Rating Scale may have influenced the results. For the comparison between the Victoria and Vancouver participants, the Victoria participants' 2000 scores were used (not their 1999 ones). This was a good decision to make in order to avoid the possibility of an age effect (because the Vancouver participants' scores were from 2000), and because there was not a significant difference between the Victoria participants' Figure

Rating Scale scores from 1999 and from 2000.

As well as the suggestions already made for other researchers of body image to examine, future research must investigate how to improve body image in women. This issue is of the utmost importance because negative body image is linked to poor self-esteem, and this combination is a major factor in eating disorders (Moe, 1991). This society unfairly places a strong emphasis on physical attractiveness in women, and this sexism must be tackled so that women do not feel that they must achieve a thin, unattainable ideal for many in order to be considered acceptable. If mental and physical health care professionals simply aid women (and men, to a lesser degree) in achieving more realistic and healthy body images, eating disorders can be prevented and treated.

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Appendix A: Vancouver Participants' Recruitment Flyer

Body Image in a Sample of Young Sikh Women

Hi, my name is Randip Prihar, and I am a graduate student in the Learning and Development Program at the University of Victoria. I am conducting a study that is investigating the relationship between gender, ethnicity, and body image in young Sikh women who were born or immigrated early in life to Canada (and between the ages of 18 and 30). The benefit of this research is that it will provide some knowledge about young Sikh women's body image, which would aid counsellors and doctors in better understanding this population. Thus, understanding young Sikh women's conception of body image could prevent health problems, as well as show how to deal with existing health problems in this population.

Participation in this study is completely voluntary, and if you do choose to participate, you can withdraw from the study at any time. Full confidentiality will be given to all subjects participating in the study. The materials used in this study consist of two body image scales, and the total amount of time you would need to invest in order to participate in this study would be approximately 35 minutes.

If you are interested in participating in this study, or have any questions or concerns, please feel free to contact me at 216-6970. Thank you for your interest and assistance!

Sincerely,

Randip Prihar

Appendix B: Victoria Participants' Consent Form

Participant Consent Form: Body Image in a Sample of Young Sikh Women

Hi, my name is Randip Prihar, and I am a graduate student in the Learning and Development Program at the University of Victoria. The purpose of this study is to investigate the relationship between gender, ethnicity, and body image in young women between the ages of 18 and 30. The benefit of this research is that it will provide some knowledge about young Sikh women's body image, which would aid counsellors and doctors in better understanding this population. Negative body image is linked to decreased self-esteem and to eating disorders, which in turn are linked to an individual's mental and physical health, respectively. Thus, understanding young Sikh women's conception of body image could prevent health problems, as well as show how to deal with existing health problems in this population. Participation in this study is completely voluntary, so there will be no negative consequences for you if you choose not to participate. If you do choose to participate, you can withdraw from the study at any time, and if you do decide to withdraw, any data collected up to that point will be destroyed immediately.

The material used in this study will consist of a scale on body image. After completing this scale, you will then be given feedback on what the study is about. You do not need to identify yourself on the scale in any way; the only information you will need to provide is your age. The total amount of time you'll need to invest in order to participate in this study will be approximately 15 minutes. Because the topic of body image can be a sensitive issue, some participants may feel uncomfortable answering the questions on the scale.

Full confidentiality will be given to all subjects participating in this study. No one will record her name on the scale, and each participant will be given a code number. After the data collection is completed, the data will be locked in a cabinet that only I will have access to. The signed consent forms will be kept separately from the data, thus ensuring against your identification. After this study is completed, the data will be destroyed. If you have any questions or concerns regarding this study, please feel free to contact me at 216-6970. If you would like to speak to my graduate supervisor, Dr. Brian Harvey, his phone number is 721-7856. Thank you for your interest and assistance!

Sincerely,
Randip Prihar

Participant's Consent: I consent to participating in this study.

Signature: Telephone Number: Date:

Appendix C: Vancouver Participants' Consent Form

Participant Consent Form: Body Image in a Sample of Young Sikh Women

Hi, my name is Randip Prihar, and I am a graduate student in the Learning and Development Program at the University of Victoria. The purpose of this study is to investigate the relationship between gender, ethnicity, and body image in young women between the ages of 18 and 30. The benefit of this research is that it will provide some knowledge about young Sikh women's body image, which would aid counsellors and doctors in better understanding this population. Negative body image is linked to decreased self-esteem and to eating disorders, which in turn are linked to an individual's mental and physical health, respectively. Thus, understanding young Sikh women's conception of body image could prevent health problems, as well as show how to deal with existing health problems in this population. Participation in this study is completely voluntary, so there will be no negative consequences for you if you choose not to participate. If you do choose to participate, you can withdraw from the study at any time, and if you do decide to withdraw, any data collected up to that point will be destroyed immediately.

The materials used in this study consist of two scales on body image. After completing these scales, you will then be given feedback on what the study is about. You do not need to identify yourself on the scales in any way; the only information you will need to provide is your age and weight. The total amount of time you'll need to invest in order to participate in this study will be approximately 35 minutes. Because the topic of body image can be a sensitive issue, some participants may feel uncomfortable answering the questions on the scales.

Full confidentiality will be given to all subjects participating in this study. No one will record her name on the scales, and each participant will be given a code number. After the data collection is completed, the data will be locked in a cabinet that only I will have access to. The signed consent forms will be kept separately from the data, thus ensuring against your identification. After this study is completed, the data will be destroyed. If you have any questions or concerns regarding this study, please feel free to contact me at 216-6970. If you would like to speak to my graduate supervisor, Dr. Brian Harvey, his phone number is (250) 721-7856. Thank you for your interest and assistance!

Sincerely,
Randip Prihar

Participant's Consent: I consent to participating in this study.

Signature: Telephone Number: Date:

Appendix D: Written Permission to Use the Figure Rating Scale

940 Royal Oak Drive
Victoria, BC
V8X 3T4
Canada

January 14, 1999

RE: PERMISSION TO USE YOUR FIGURE RATING SCALE (1983)

Dear Dr. Stunkard,

I am a graduate student in the Learning and Development (Educational Psychology) Program at the University of Victoria, located in Victoria, BC, Canada. Currently I am working on my M. A. thesis proposal, and the topic I wish to examine is the concept of body image. Specifically, I wish to examine both cultural and gender differences in body image. I will be looking at a group of South Asian women in my study, ranging in age from late adolescence to early adulthood. I would like to administer to them your Figure Rating Scale (1983) and measure their current perceived body image, as well as their ideal body image, and see whether these 2 measurements differ significantly. So, I am asking you for permission to use your scale, and I would also like to have a copy of it. If you could mail it to the above address, I would greatly appreciate it. Thank you for your time, and if you would like, I can send you a copy of my thesis when jt is completed (during the summer of 1999).

Yours Sincerely,

[redacted]

Randip Prihar

Permission granted subject to appropriate citation

Good luck on your thesis. Please send me a copy

[redacted]

Appendix E: Written Permission to Undertake the Study

University of Victoria
Human Research Ethics Committee

CERTIFICATE OF APPROVAL

Principal Investigators	Department/School	Supervisor
Randip Prihar **Graduate Student**	**PFED**	**Dr. Brian Harvey**

Co-investigator(s):
N/A

Title: Body Image in Young South Asian Women

Project No.	Start Date	End Date	Approval Date
098-99	**17 Mar 99**	**31 Jul 99**	**17 Mar 1999**

Certification

This is to certify that the University of Victoria Ethics Review Committee on Research and Other Activities Involving Human Subjects has examined the research proposal and concludes that, in all respects, the proposed research meets appropriate standards of ethics as outlined by the University of Victoria Research Regulations Involving Human Subjects.

[redacted]

J. Howard Brunt,
Associate Vice-President, Research

This Certificate of Approval is valid for the above term provided there is no change in the procedures. Extensions/minor amendments may be granted upon receipt of "Request for Continuing Review or Amendment of an Approved Project" form.

Office of Vice President Research
Room 424, Business & Economics Building
P.O. Box 1700,
Victoria, BC V8W 2Y2

Tel: (250)721-7968
Fax: (250)721-8960
Email: lalleman@uvic.ca

Appendix F: Written Permission to Use the Body Esteem Scale

Date: Sat, 08 Feb 2000 07:42:00 PDT [Show full headers]
To: khargosh@excite.com
From: "Stephen Franzoi" <Stephen.Franzoi@marquette.edu> [Add to Address Book]
Subject: Re: Body Esteem Scale

Dear Randip,

Thanks for your interest in my scale. You can receive a copy of the BES and scoring instructions at the following website:
www.atkinson.yorku.ca/~psyctest/bodest.htm

Take care,
Steve

At 02:31 PM 7/5/00 -0700, you wrote:
>
>Hi, Dr. Franzoi, my name is Randip Prihar, and I'm a Master's student at the
>University of Victoria in British Columbia, Canada. I'm interested in using
>your Body Esteem Scale for my thesis, for which I'll be examining body image
>in a group of young Indian women living in Canada. So, I'd like to get your
>permission to use the questionnaire. I already have a copy of the
>questionnaire from a Psychological Testing manual, as well as some
>reliability and validity information about the scale. I'd also like to get
>some information as to how to score the questionnaire, and anything else you
>feel I should know. Thank you for your time; I really appreciate it!
>
>Sincerely, Randip 8-)
>
>
>Please make note of the following website:
>http://www.thehungersite.com. Anyone can donate
>food for free just by visiting this website
>(the sponsors of the website pay for the food).
>A person can make one donation per day, so visit
>this website and help make a difference.
>
>_____
>Say Bye to Slow Internet!
>http://www.home.com/xinbox/signup.html

Appendix G: Results of the Paired Samples t-Test for the Victoria Participants' Figure Rating Scores in 1999

Paired Samples Statistics

Pair 1	Mean	N	Standard Deviation	Standard Error Mean
Current	3.4	25	.5	.1
Ideal	2.6	25	1.0408	.2082

Paired Samples Test

	Paired Differences					t
	Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		
				Lower	Upper	
Pair 1 Current - Ideal	.8	1.0	.2	.3872	1.2128	4.000

Paired Samples Test continued

	df	Sig. (2-tailed)
Pair 1 Current - Ideal	24	.001

Appendix H: Results of the Paired Samples t-Test for the Victoria Participants' Figure Rating Scores in 2000

Paired Samples Statistics

Pair 1	Mean	N	Standard Deviation	Standard Error Mean
Current	3.6	25	.5	.1
Ideal	2.52	25	.9626	.1925

Paired Samples Test

	Paired Differences					t
	Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		
				Lower	Upper	
Pair 1 Current - Ideal	1.08	.5715	.1143	.8441	1.3159	9.448

Paired Samples Test continued

	df	Sig. (2-tailed)
Pair 1 Current - Ideal	24	.001

Appendix I: Results of the 2-Way ANOVA For the Victoria Participants' Figure Rating Scale Difference Scores By Age and Across Time

Within-Subjects Factors

Time	Dependent Variable
1	Vict1999
2	Vict2000

Between-Subjects Factors

Age	N
1 (younger)	15
2 (older)	10

Multivariate Tests

Effect	Test	Value	F	Hypothesis df	Error df	Sig.
Time	Pillai's Trace	.091	2.300	1.000	23.000	.143
	Wilks' Lambda	.909	2.300	1.000	23.000	.143
	Hotelling's Trace	.100	2.300	1.000	23.000	.143
	Roy's Largest Root	.100	2.300	1.000	23.000	.143
Time * Age	Pillai's Trace	.091	2.300	1.000	23.000	.143

Multivariate Tests continued

Effect	Test	Value	F	Hypothesis df	Error df	Sig.
	Wilks' Lambda	.909	2.300	1.000	23.000	.143
	Hotelling's Trace	.100	2.300	1.000	23.000	.143
	Roy's Largest Root	.100	2.300	1.000	23.000	.143

Computed using alpha = .05

Appendix J: Results of the Paired Samples t-Test for the Vancouver Participants' Figure Rating Scores

Paired Samples Statistics

Pair 1	Mean	N	Standard Deviation	Standard Error Mean
Current	3.4286	35	.5021	8.487E-02
Ideal	1.7143	35	.4583	7.748E-02

Paired Samples Test

	Paired Differences					t
	Mean	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		
				Lower	Upper	
Pair 1 Current - Ideal	1.7143	.4583	7.748E-02	1.5568	1.8717	22.127

Paired Samples Test continued

	df	Sig. (2-tailed)
Pair 1 Current - Ideal	34	.000

Appendix K: Results of the 2-Way ANOVA for the Victoria and Vancouver Participants' Figure Rating Scale Difference Scores and Body Esteem Scale Scores by Age

Between-Subjects Factors

		N
Age	1 (younger)	35
	2 (older)	25
City	1 (Victoria)	25
	2 (Vancouver)	35

Multivariate Tests

Effect	Test	Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.940	427.719	2.000	55.000	.000
	Wilks' Lambda	.060	427.719	2.000	55.000	.000
	Hotelling's Trace	15.553	427.719	2.000	55.000	.000
	Roy's Largest Root	15.553	427.719	2.000	55.000	.000
Age	Pillai's Trace	.022	.609	2.000	55.000	.547
	Wilks' Lambda	.978	.609	2.000	55.000	.547
	Hotelling's Trace	.022	.609	2.000	55.000	.547

Multivariate Tests continued

Effect	Test	Value	F	Hypothesis df	Error df	Sig.
	Roy's Largest Root	.022	.609	2.000	55.000	.547
City	Pillai's Trace	.326	13.308	2.000	55.000	.000
	Wilks' Lambda	.674	13.308	2.000	55.000	.000
	Hotelling's Trace	.484	13.308	2.000	55.000	.000
	Roy's Largest Root	.484	13.308	2.000	55.000	.000
Age * City	Pillai's Trace	.061	1.799	2.000	55.000	.175
	Wilks' Lambda	.939	1.799	2.000	55.000	.175
	Hotelling's Trace	.065	1.799	2.000	55.000	.175
	Roy's Largest Root	.065	1.799	2.000	55.000	.175

Computed using alpha = .05

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.

Tests of Between-Subjects Effects continued

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Age	FRS	8.824E-03	1	8.824E-03	.022	.884
	BES	1020.000	1	1020.000	1.211	.276
City	FRS	8.479	1	8.479	20.811	.000
	BES	5703.671	1	5703.671	6.773	.012
Age * City	FRS	.166	1	.166	.407	.526
	BES	2701.569	1	2701.569	3.208	.079
Error	FRS	22.817	56	.407		
	BES	47156.267	56	842.076		
Total	FRS	147.000	60			
	BES	576026.000	60			
Corrected Total	FRS	32.183	59			
	BES	54851.600	59			

Computed using alpha = .05

VITA

Surname: Prihar Given Names: Randip Kaur

Place of Birth: Terrace, British Columbia, Canada

Educational Institutions Attended:

University of Victoria 1993 to 2000

Degrees Awarded:

B. Sc. (First Class Major) University of Victoria 1996

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Title of Thesis:

Body Image in a Sample of Young Sikh Women

Autho[redacted]

Randip Kaur Prihar