Cross-cultural differences in abnormal eating attitudes and body image: A comparison of Arab immigrants and women born in Canada.

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CROSS-CULTURAL DIFFERENCES IN ABNORMAL EATING ATTITUDES AND BODY IMAGE: A COMPARISON OF ARAB IMMIGRANTS AND WOMEN BORN IN CANADA

by

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B.A. McGill University, 1993

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Submitted to the Faculty of Graduate Studies through the Department of Psychology in Partial Fulfillment of the Requirements for the Degree of Master of Arts at the University of Windsor

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ABSTRACT

Previous research indicates that women who immigrate from non-Western countries to Western ones may be at a high risk of developing eating disorders, possibly because they overidentify with Western values (Banks, 1992; Thompson, 1994). Furthermore, the risk of developing an eating disorder tends to increase as the immigrant becomes increasingly acculturated (Pumariega, 1986). The present study examined differences in pathological eating attitudes, body dissatisfaction, and ideal body image, among three groups of women: a group of White Canadian women and two groups of Middle Eastern Arab women who had lived in Canada for varying lengths of time. A total of 37 Arab women (18 recently arrived and 19 more established) and 45 Canadian women completed the Eating Attitudes Test (a measure of pathological eating attitudes), the Body Image Assessment Procedure (a measure of body dissatisfaction and ideal body image), and had their heights and weights measured. The Arab immigrant women also completed the American-International Relations Scale (an acculturation measure). The results indicated that the two Arab groups, who did not differ on acculturation scores, obtained higher scores on a measure of pathological eating attitudes than the indigenous Canadian women, although the two Arab groups did not differ from each other. There was no difference among the three groups on either ideal body size or level of body dissatisfaction. Explanations for these findings and the implications of the present study are discussed.
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Chapter I

Introduction

Until very recently, research on eating disorders has focused on women living in Western countries. Eating disorders were considered exclusive to these countries because the drive to be thin and body image disturbance were understood to stem from values inherent in contemporary Western culture. Associations between eating disorders, body image, and Western values are now being investigated among women in non-Western countries and among those who have immigrated to Western countries. The present investigation was designed to further this research by assessing the effects of acculturation to Western values on the development of pathological eating attitudes and body image disturbance among women who immigrated to Canada from the Middle East. If eating disorders are culture-bound syndromes, pathological eating attitudes and body image disturbance should relate to the degree to which immigrant women have become acculturated to Western society.

The Association between Eating Disorders and Western Values

The importance of beauty to a woman’s acceptance in Western society is widely acknowledged. Women’s magazines are filled with articles intended to help women achieve the beauty they seek. One defining feature of beauty is thinness; a Western woman cannot be beautiful without also being thin. Indeed, weight and body shape are central determinants of a woman’s perception of her own attractiveness (Nagel & Jones, 1992). The obsession in Western society with weight is thought to reflect a culture of
thinness in which not only is slenderness valued, but obesity is highly stigmatized (e.g., Striegel-Moore, Silberstein, & Rodin, 1986; Toro, Castro, Garcia, Perez, & Cuesta, 1989). Although both men and women are pressured to look thin, the social norms are more rigid for women than for men. Concern with one’s appearance and making efforts to enhance and preserve one’s beauty are central features of the female sex role stereotype (Abrams, Allen, & Gray, 1993; Striegel-Moore et al., 1986). Striegel-Moore et al. noted that “weight concerns and dieting are so pervasive among females today that they have become normative” (p. 246). During the 1980s, close to 30 billion dollars were spent on diet foods, programs, and books in the United States, and the number of cosmetic surgeries that were performed nearly doubled between 1981 and 1988 (Bronwell, 1991). One survey found that nearly half of adult American women were actively dieting at the time of the survey (Bronwell, 1991). The notion that women need to lose weight has even been internalized by children. Over 50% of 11- to 17-year-old-girls report feeling dissatisfied with their weight (Childress, Brewerton, Hodges, & Jarrell, 1993; Wardle & Marsland, 1990) and 80% of girls have been on a weight-loss diets before the age of 13 (Striegel-Moore et al., 1986). Even children as young as five or six prefer a thin doll over a fat one (Nagel & Jones, 1992).

Despite the intense pressure on women and the great effort exerted by them to be thin, on average, women under 30 became heavier between 1960 and 1980 (Garner, Garfinkel, Schwartz, & Thompson, 1980). Ironically, the standard for thinness became more extreme during that period. Garner et al. (1980) collected data on Playboy magazine centrefolds and Miss America Pageant contestants and found a gradual but definite decrease in the average weights of these women.
Concurrent with the shift towards a thinner ideal for women has been an increase in the prevalence of the eating disorders anorexia nervosa and bulimia nervosa (Irving, 1990). For example, Willi and Grossmann (1983) found a threefold increase in the incidence of anorexia nervosa in Zurich between 1956 to 1975. Scientific writings about the disorders were uncommon before the 1960s (Hsu, 1990). By contrast, the prevalence of eating disorders today indicates that they are reaching “epidemic” proportions (Dolan, 1991). Estimates of the prevalence rates among women range from 0.7% to 2.1% for anorexia nervosa and 2% to 19% for bulimia nervosa (Hsu, 1990; Giannini & Slaby, 1993). Several authors have proposed that the increasing prevalence of eating disorders may stem from positive cultural values and attitudes associated with slimness (Dolan, 1991; Garner et al., 1980; Pate, Purmariega, Hester, & Garner, 1992). Nasser (1988) claimed that eating disorders can be thought of as “... extensions of culturally acceptable modes of behavior” (p. 185).

Some researchers view dieting behaviours, subclinical forms of eating disorders, and clinical eating disorders as existing on a behavioural continuum, differentiated by quantitative rather than qualitative features. This “continuum hypothesis” was put forth by Nylander in 1971 after he discovered that most of the participants in his study had “felt fat” at some point, and that 10% displayed at least three “anorexic” symptoms (Garner, Olmstead, Polivy, & Garfinkel, 1984). Since that time, research with nonclinical populations has confirmed that many individuals exhibit subclinical forms of eating disorders. Moreover, many “normal dieters” later go on to develop eating disorders, making such individuals important to incorporate into research (Hsu, 1990). Including subclinical cases in one’s research could also have therapeutic value, because
early intervention may be associated with better outcome (Button & Whitehouse, 1981).

Studying subclinical cases provides a better understanding of the "natural history" of eating disorders, allowing for easier identification of etiological factors that could be obscured by psychological and physical complications associated with clinical eating disorders (Patton, 1988). Abnormal eating attitudes may themselves represent subclinical forms of eating disorders; hence, variables associated with them may represent risk factors for clinical populations (Furukawa, 1994). Consequently, a woman who scores above the normal range on measures assessing eating attitudes may be "at risk" for developing a clinical eating disorder (Johnson-Sabine, Wood, Patton, Mann, & Wakeling, 1988).

**Eating Disorders in Non-Western Countries**

As noted, many authors have implicated the values associated with thinness in the etiology of eating disorders. Nonetheless, the identification of thinness with beauty is not a universal phenomenon. In many areas, such as the Middle East, South Asia, and Latin America, the opposite is true. Plumpness rather than thinness is considered attractive and is linked to wealth and prestige (Nasser, 1988; Prince, 1983; Wardle, Bindra, Fairclough, & Westcombe, 1993). Interestingly, the prevalence of eating disorders is much lower (or even non-existent) in cultures that value plumpness than in Western societies.

Research dating from the 1970s supported the view that eating disorders were unique to women living in Western countries (Bryant-Waugh & Lask, 1991). Some researchers even characterized eating disorders as Western culture-bound syndromes (Banks, 1992; DiNicola, 1990; Prince, 1983). Over the past decade, however, the
existence of eating disorders in non-Western countries has become evident. For example, several studies have examined the rates of eating disorders in Asian countries. In a survey of Chinese university students in Hong Kong, 13 of 646 women scored in the clinical range on a test designed to distinguish between those who have eating disorders and those who do not (Lee, 1993). After being interviewed, three women were identified as having a partial syndrome of bulimia nervosa yielding a prevalence rate of 0.46%, which is much lower than the rate among Western women. In the psychiatric unit of a general hospital in Hong Kong, less than 10 cases of anorexia nervosa were treated between 1984 and 1989 (Lee, Chiu, & Chen, 1989). The low rates of eating disorders were likely due to the acceptance of obesity in Chinese culture as well as to the relatively low rates of obesity. Hence, with increasing Westernization, higher incidence rates may be found (Lee et al., 1989). Similarly, there appear to be very low rates of eating disorders in West Malaysia (Goh, Ong, & Subramaniam, 1993). Out of 9000 female admissions to the psychiatric ward in a hospital between 1970 and 1988, only one case of bulimia nervosa was identified and only 15 patients exhibited partial syndromes of anorexia nervosa. Those who were diagnosed tended to come from more affluent backgrounds (Hsu, 1987). Mumford, Whitehouse, and Choudry (1992) reported that out of 369 schoolgirls surveyed in Lahore, Pakistan, only one case of bulimia nervosa and five partial syndromes were identified. Interestingly, girls who were most “Westernized” were at greatest risk.

A survey of 197 eleventh grade Japanese girls reported a similar mean to American students on a test that differentiates between women with and without eating disorders (Mukai, Crago, & Shisslak, 1994). Approximately 35% of the women scored
within the clinical range on this test, a rate much higher than that reported in other non-Western cultures. This finding could be due to the rapid Westernization of Japan as well as to the Japanese cultural tradition of a thin body ideal for women (Mukai et al., 1994). Nonetheless, in an epidemiological survey in Japan, prevalence rates of anorexia nervosa were found to be lower than those in West (Dolan, 1991).

Hooper and Garner (1986) compared rates of disturbed eating among White, Black, and mixed-race schoolgirls in Zimbabwe. Eating disturbances were most prevalent among the White group, rarest among the Black group, with the mixed group falling in between. The researchers attributed the differences to the fact that fatness is more accepted in Black culture. There has also been a case reported of a Black Zimbabwean suffering from anorexia nervosa. The woman was from an upper middle-class background and developed the disorder while studying in England (Buchan & Gregory, 1984).

One study examined rates of disordered eating in Spain. Toro et al. (1989) found that 9.8% of their sample of 12- to 19-year-old female students in Barcelona scored in the clinical range on a test designed to distinguish between women with and without eating disorders. Although this rate is similar to those reported in Western countries, the mean score of the Spanish girls was significantly lower than for a Canadian sample, indicating that Canadian women may be more influenced by the "culture of slenderness" than their Spanish counterparts.

Finally, disordered eating was examined among Westernized Arab women attending an English university in Egypt (Dolan & Ford, 1991). Their scores on a measure of binge eating did not differ from female American students, with 82% of the
Arab women reporting binge eating at some time. They also did not differ on their level of concern for dieting as compared to a British sample, although they did score significantly lower on a measure of weight fluctuation.

While eating disorders exist outside of Western cultures, the increased incidence in a particular country seems to be related to its increased Westernization. Moreover, it seems that an individual’s risk increases as she personally becomes more exposed to Western values and culture.

**Eating Disorders and Body Image**

In Western cultures, one factor often associated with eating disorders is body image disturbance. Body image is defined as “the inner mental image of one’s body and the sum of one’s emotional attitudes toward that image” (Powers, Schulman, Gleghorn, & Prange, 1987, p. 1456). Body image is conceptualized as consisting of two components (Keeton, Cash, & Brown, 1990). The first component, often called body size distortion, is perceptual, occurring when an individual is unable to assess her size accurately. The second component, usually referred to as body dissatisfaction, is cognitive or attitudinal, occurring when an individual is able to assess her physical size accurately but reacts to her own body with “extreme forms of disparagement” (Cash & Brown, 1987, p. 488). The two components of body image may operate independently or conjointly (Cash & Brown, 1987). Garner and Garfinkel (1981) found a positive correlation between the two components of body image despite the fact that each is thought to measure a different aspect of the construct.
Reports from the 1930s referred to the existence of a negative body image among women with bulimia nervosa (Stunkard, 1990). More recent studies concur with the early reports. For example, a comparison of bulimic women and normal controls found that the bulimic women overestimated their physical size on all measures of overall body size and body parts (except faces) compared to the control group (Powers et al., 1987). They also had significantly more negative, disparaging attitudes as measured by self-report questionnaires and a projective test. Similar results were reported by Williamson, Kelley, Davis, Ruggiero, and Blouin (1985), who compared three groups of women: bulimic, obese, and normal-weight, non-eating disordered. The obese women correctly perceived themselves to be larger than the other women, although they wished to be the size of the normal-weight women. The bulimic women perceived themselves as much larger than the normal-weight women (although the two groups were matched for weight) and wished to be much smaller. The normal-weight women perceived themselves to be approximately the same size as their desired body size.

Body image disturbance is also thought to play an important role in anorexia nervosa (Hsu & Lee, 1993). Indeed, it is one of the criteria required for a diagnosis (American Psychiatric Association, 1994), and there is empirical evidence for the association between body image disturbance and anorexia nervosa (Heilburn & Witt, 1990). For example, Slade (1985) found that 79% of anorexics overestimated their body size on size-estimation procedures.

Researchers have also prospectively examined the role of body image disturbance in the etiology of eating disorders. In one study, a group of almost 200 girls in grades 7 to 10 were tested and then retested after two years (Attie & Brooks-Gunn, 1989). Girls
who felt most negatively about their bodies during the first assessment were most likely to show abnormal eating attitudes at the second assessment. Hence, poor body image may predict the development of pathological eating patterns. In a second study, nearly 1000 girls in grades 7 to 10 were categorized into low, moderate, and high risk groups based on their scores on a measure of eating pathology and their body mass index (BMI) (Attie & Brooks-Gunn, 1989). Body dissatisfaction was revealed to be a good predictor of, and a necessary precursor for, the development of subsequent eating disorders.

The perceptual and the attitudinal components of body image have been linked to bulimia nervosa and anorexia nervosa, and both components have been implicated as risk factors in the development of pathological eating behaviours among Western women. Nonetheless, the association between body image disturbance and eating disturbance may not be a universal phenomenon (Hsu & Lee, 1993). Issues related to shape and weight did not emerge as the predominant motive for food refusal in cases of anorexia nervosa until around 1930. In addition, abdominal pain, not body image disturbance, was found to be the primary motivator among 16 Chinese anorexic patients in Hong Kong (Lee, 1991). Moreover, perceptual distortion was generally not evident; most patients admitted to their emaciated state and did not feel fat. Only about half of the anorexic patients in a Malaysian study had body-image disturbances similar to those found in the West (Goh et al., 1993). In India, “a clear body image disturbance or fear of becoming fat is hardly ever seen” (Khandelwal & Saxena, 1990, p.784). Hence, body image disturbance may not be a central feature of eating disorders; rather, the association between body image disturbance and eating disorders found in Western cultures may be a consequence of the cultural emphasis on slimness.
Eating Disorders among Non-White Women

Until recently, eating disorders were thought to occur exclusively in White women. Hence, the term "Golden Girl's Disease" was used to characterize anorexia nervosa (Root, 1990). Indeed, cases of eating disorders among ethnic minorities living in Western countries were rarely cited in the literature until the 1970s (Dolan, 1991). Over the past two decades, however, eating disorders have been documented among ethnic minority women, although prevalence rates remain relatively low among them. For example, two studies comparing eating behaviours among White and African American female college students in the United States found that the White women scored higher on most subscales of a scale designed to detect clinically relevant cases of eating disorders (Rosen et al., 1991; Rucker & Cash, 1992). Moreover, the White women were less satisfied with their body size (Rucker & Cash, 1992). A third study found that among the African Americans, dieting and body dissatisfaction were positively correlated with weight. Among the White students, disordered eating attitudes and body dissatisfaction were found regardless of actual weight. African Americans who identified with White culture and rejected Black culture were more likely to report pathological eating attitudes (Abrams et al., 1993). However, a study with Caucasian, Asian-American, and African American women found no relationship between degree of assimilation and pathological eating attitudes or body dissatisfaction among either of the ethnic minority groups (Akan & Grilo, 1995). Another study compared White and Asian American college undergraduates and found that the White women were 5.5 times more likely to report eating problems than were the Asian Americans (Lucerno, Hicks, Bramlette, Brassington, & Welter, 1992). Finally, two studies compared White women
with African American and Asian American women. The first found that the White women scored higher on a "problem eating" scale than either the Asian American or the African American women (Nevo, 1985). In the second, White girls were the most concerned with their weight and Black girls the least concerned, while Asian girls scored in between (Wardle & Marsland, 1990).

Several explanations have been advanced to explain why ethnic minorities are at a lower risk of developing eating disorders. Black culture may provide women with a "protection" factor (Hsu, 1987), which accounts for the paucity of cases among African American women. Abrams et al. (1993) reported that Black women who identified with Black culture and rejected White culture were significantly less likely to endorse attitudes and engage in behaviours associated with eating disorders than Black women who accepted the White identity and rejected the Black one. In addition, it may be that in Black culture, other aspects of appearance besides weight are emphasized when defining attractiveness (Harris, 1994; Story, French, Resnick, & Blum, 1995). Among a group of African American adolescents, attractiveness was related to public image and overall attractiveness, rather than to weight (Parker, Nichter, Vuckovic, Sims, & Ritenbaugh, 1995). As well, at least among lower socio-economic status Black women, there seems to be no stigma attached to obesity and therefore no encouragement to lose weight (Allan, Mayo, & Michel, 1993). Moreover, Black women may regard the mass-media images of the ideal body as pertaining only to White women and rely more on peers and family in defining normal weight (Allan et al., 1993; Parker et al., 1995). Consequently, the range of what they consider to be "normal" weight appears to be greater than it is among White women.
Nevertheless, several studies have found higher rates of eating disorders among ethnic minority women than among Whites. Two of these studies included Native American women. Rosen et al. (1988) found that three-quarters of their sample of Native American women were trying to lose weight; most were using potentially harmful techniques, such as fasting, vomiting, or laxatives. A second study of Native American, Hispanic, and White women also found that Native Americans engaged in more disturbed eating behaviours than did the other two groups (Smith & Krejci, 1991). Unexpectedly, there were no significant differences between the Hispanic and White women. No explanations were provided in either study for the high rates of pathological eating behaviours among Native Americans.

Three studies of Asian schoolgirls in England reported relatively high rates of abnormal eating attitudes or eating disorders. One found that the Asian schoolchildren who were Muslim had relatively high scores on a subscale measuring behaviours characteristic of bulimics compared with Hindu Asians or Caucasians (Ahmad, Waller, & Verduyn, 1994b). The researchers hypothesized that abnormal eating patterns among Muslims in Western countries may develop as a consequence of the specific dietary and fasting requirements (during Ramadan) in Islam. They also suggested that intergenerational conflict regarding individual choice may lead the adolescent to experience a loss of personal control which would be exerted in the area of food and weight. Another study also examined prevalence rates of eating disorders among South-Asian and White schoolgirls in Britain (Mumford, Whitehouse, & Platts, 1991). All of the girls had either been born in the UK or had immigrated at a young age. The results revealed a prevalence rate of 0.6% for bulimia nervosa among the White girls and a
prevalence rate of 3.4% among the South-Asians. Surprisingly, those girls who had retained the traditional South-Asian values had higher rates of pathological eating and were more likely to be diagnosed with an eating disorder. Similarly, a third study reported that not only did the Asian girls score significantly higher than their Caucasian peers on a measure of dietary restraint, but the Asian girls who scored highest on dietary restraint had a more traditional orientation as compared to those who scored lowest (Hill & Bhatti, 1995). No difference was found between the two groups on Western orientation. The researchers proposed that the increased risk among the girls with a traditional orientation was due to an internal conflict between traditional and Western values and to elevated levels of intergenerational conflict (Choudry & Mumford, 1992; Mumford, Whitehouse, & Platts, 1991).

**Eating Disorders among Immigrant Women**

Relatively high levels of pathological eating behaviours have also been reported among ethnic minority women who are immigrants. Several case reports have examined young women who immigrated from a non-Western to a Western country. Bryant-Waugh and Lask (1991) reviewed four case studies of Asian children of immigrant families in Britain, all of whom were diagnosed with anorexia nervosa. They proposed that familial conflict stemming from intergenerational cultural differences due to immigration was a factor in the etiology of the eating disorders. For example, in one case a father insisted that his children participate in activities with the Bangladeshi community although the children preferred to participate in more Western activities. In another, an Indian girl expressed distress that her life would be similar to her mother's and her sister-in-law's
whom she saw as having little freedom or respect from their husbands. Individuals who grow up identifying with two different cultures may experience confusion that causes them to be at risk for the development of eating disorders (Bryant-Waugh & Lask, 1991). Bhadrinath (1990) also described two cases of anorexia nervosa among young Muslim women who had immigrated to the UK from Pakistan. He found that both of their conditions worsened during the Muslim fast of Ramadan. During the month of Ramadan, individuals fast from dawn to dusk and eat large meals during darkness. He proposed that an interaction may exist between cultural/religious rituals relating to food and eating disorders. Kope and Sack (1987) examined the cases of three Vietnamese immigrant girls diagnosed with anorexia nervosa. For each girl, the escape from Vietnam to North America had been difficult and the child was separated from her parents. In at least one case there was conflict due to cultural differences; the girl thought her older brother (who was her caretaker) was trying to prevent her from becoming “Americanized” and wanted her to maintain the traditional values. In another case study of a girl with anorexia nervosa whose family had immigrated to Canada, intergenerational conflict between the parents and the daughter related to cultural issues was identified (DiNicola, 1990). In all of these cases, prevalence rates of eating disorders in the countries of origin are low.

Several studies have also reported that non-Western immigrants to Western countries may be at a higher risk of developing eating disorders than those who remain in the country of origin, immigrants from Western countries, or the indigenous White population. Adolescent girls who immigrated from non-Western countries to Norway were found to have higher rates of pathological eating attitudes than either adolescents
who immigrated from Western countries or their native Norwegian peers (Wichstrom, Skogen, & Oia, 1994). Fichter, Elton, Sourdí, Weyerer, and Koptyael-Illial (as cited in Dolan, 1991) found that Greek girls who immigrated to Germany had higher prevalence rates of eating disorders than did a group who remained in Greece. Nasser (1986) compared a group of Egyptian women attending university in England with a matched sample of Egyptian women studying at a Cairo university. Cases of bulimia nervosa were identified in the London sample but not in the Cairo group. Moreover, 22% of the women in the London group were identified as having abnormal eating attitudes, higher than the rates of approximately 7% that had previously been reported in the literature for White Western women and the rate of 12% found in the Cairo group. In fact, the rates found in the London group were somewhat similar to those reported among dance students (38%) and modelling students (34%), who are considered to be particularly high risk populations. The elevated risk for immigrants seems to be limited to women who have been in the new country for an extended period of time. For example, Japanese girls who went on a one-year exchange to North America or Europe did not report increased rates of pathological eating attitudes (Furukawa, 1994).

Middle Eastern Arabic women are particularly interesting to examine in relation to these issues because thinness is traditionally regarded as socially undesirable in Arabic culture, whereas plumpness is considered to be a symbol of fertility and womanhood (Nasser, 1988). In the Middle East, a thin person is referred to as *da'eef*, which means “weak” (DiNicola, 1990). Thus, in their countries of origin, Middle Eastern Arab women do not experience the pressure that exists in Western culture to be thin. In fact, until recently, Arab media promoted a plumper image, encouraging women to gain weight
(Nasser, 1988). Although there is some evidence that this is changing among college-educated women, the ideal body for Arabic women remains relatively plump; hence, body dissatisfaction is relatively low (Nasser, 1986). For example, a study with women living in Egypt who attended an English-speaking university reported that the perceived current shape of the women did not differ from those of American groups, but the ideal shape among the Arabic women was significantly larger (Ford, Dolan, & Evans, 1990). Hence, they experienced less body dissatisfaction than did the American women.

The increased risk of immigrant women developing eating disorders could stem from several factors. DiNicola (1990) proposed that cases of eating disorders among these women can be thought of as a “culture-change syndrome” rather than a “culture-bound syndrome” that is used to characterize native-born individuals with eating disorders. He proposed that the stresses related to immigration and acculturation may lead to the emergence of eating disorders. Another possible factor is intergenerational cultural conflict and the confusion resulting from the identification with two different cultures (Ahmud, Waller, & Verduyn, 1994a; Bryant-Waugh & Lask, 1991). Thirdly, the dietary requirements and periods of fasting required by Muslims might lead to abnormal eating patterns among members of this religious group who immigrate to Western countries (Ahmad, Waller, Verduyn, 1994b; Bhadrinath, 1990). Fourthly, in order to fit in with the dominant culture, immigrant women may overidentify with Western cultural norms and stereotypes, associating thinness with competency, self-control, success, and beauty (Banks, 1992; Thompson, 1994). Adoption of the majority group standards of weight may also lead to cultural acceptance and social and economic success (Bowen, Tomoyasu, & Cauce, 1991). Moreover, the sociocultural pressure for weight awareness
may be even greater among women who move from a culture relatively unconcerned about achieving a thin body shape (Furukawa, 1994). This pressure may lead women to diet, which is a major precipitant for the onset of eating disorders (Hsu, 1990).

There is some evidence for the hypothesis that immigrants to Western societies overidentify with the values of Western culture. For example, Furnham and Alibhai (1983) assessed the perception of female body shapes in three groups of women: White Britons, Kenyan Asians, and Kenyan Asian immigrants to Britain. Not only did the Kenyan Asian immigrants rate the thinner silhouettes more favourably than did their counterparts in Kenya, but they rated these figures even more extremely than did the White women. For the immigrant women, exposure to British values seemed to create a kind of polarization whereby individuals go to extremes in reacting against their own cultural values (Furnham & Alibhai, 1983). In another study, Darden (1977) proposed that middle-class Black families could be thought of as “Super Americans” due to their overidentification with the traditional middle-class lifestyle and symbols. She suggested that Black families who had recently “immigrated” to the middle class were participating in compensatory behaviours, perhaps because of their “insecurity” with their new status.

**Acculturation**

Despite the possibility that the high risk status of immigrants may be related to their overidentification with Western values, most of the studies reviewed above did not specifically examine the relationship between pathological eating behaviours and level of acculturation. Acculturation is defined as the “...movement from the values and social behaviour of one culture to those of another” (Mavreas, Bebbington, & Der, 1989, p.
233). For the individual, it is the process by which the host culture is accommodated into one's own cultural identity. Attitudes towards acculturation can take four different forms: assimilation (becoming more similar to the dominant group), integration (retaining one's own cultural identity and moving to join the dominant group), separation (self-imposed withdrawal and/or segregation imposed by the dominant group), and marginalization (withdrawal from cultural contact with both groups; Berry, Kim, Power, Young, & Bujaki, 1989).

The association between acculturation and mental health is well established. Historically, immigrant groups in the United States have experienced high levels of behavioural disorder and family disruption, which may stem from the development of intergenerational/acculturation differences within families (Szapocznik, Scopetta, Kurtines, & Aranalde, 1978). As they become more acculturated, members of ethnic minorities tend to adopt the Western view that thinness is a sign of health and happiness (Bowen et al., 1991). For example, as Mexican Americans adopt American group norms, they actually become less obese (Bowen et al., 1991). In addition, as Black women adopt White cultural values, they become more similar to White women in terms of their attitudes about weight. Anderson and Hay (1985) found that middle-class Blacks faced the same strong cultural pressures as White women to be thin and to diet. Because dieting is a risk factor for the development of eating disorders, middle-class Black women are at greater risk for developing an eating disorder than are working class Black women (Hsu, 1990). Pumariega (1986) compared a group of 16- to 18-year-old Hispanic girls in the United States who were already relatively acculturated into American society, to a group of White girls. The average score and the number of people that scored in the
clinical range on a questionnaire assessing pathological eating attitudes were similar for both groups. Moreover, among the Hispanics, acculturation into American society was positively associated with pathological eating attitudes.

**The Present Study**

The purpose of the present investigation was to examine the effect of level of acculturation on the development of pathological eating attitudes and body image disturbance among Arabic women from the Middle East who have immigrated to Canada. Specifically, the study compared pathological eating attitudes and body image dissatisfaction among three groups of women: indigenous Canadian women of European descent (indigenous Canadian group), Arabic women from the Middle East who immigrated to Canada less than four years previously (recent immigrant group), and more established Arabic women from the Middle East who immigrated to Canada four to fifteen years previously (established immigrant group). Levels of acculturation were compared among the two groups of immigrant women. It was expected that the following associations among pathological eating attitudes, body image disturbance, and level of acculturation would be found:

1. The established immigrant women would be more acculturated into Canadian society than recent immigrant women.

2. Consistent with earlier reports, pathological eating attitudes would be lowest among the recent immigrant women, intermediate among the indigenous Canadian women, and highest among the established immigrant women.
3. Consistent with earlier findings, body image dissatisfaction would be lowest among the recent immigrant women, intermediate among the indigenous Canadian women, and highest among the established immigrant women.

4. Pathological eating attitudes and body image dissatisfaction would not be associated among recent immigrant women, but would be positively correlated among established immigrant women and the indigenous Canadian women. The correlations found in the established immigrant group and the indigenous Canadian group would not differ, but they would differ from the correlation in the recent immigrant group.

5. Positive correlations would be found between acculturation to Western society and abnormal eating attitudes in both immigrant groups. These correlations would not be significantly different.

6. Positive correlations would be found between acculturation and body image dissatisfaction in both immigrant groups. These correlations would not be significantly different.

7. The established immigrant women would have the smallest ideal body size, followed by the indigenous Canadian women. The recent immigrant women would have the largest ideal body size.
Chapter II
Method

Participants

Participants were 82 women: 37 Middle Eastern Arabic immigrants and 45 Canadian women of European descent. Inclusion in the sample was limited to women between the ages of 18 and 50 who had never been diagnosed or treated with an eating disorder. All of the indigenous Canadian women were born in Canada. Most had two parents born in Canada (n = 42) while a small minority had one parent who was born in Canada and one who was born in England (n = 3). Among the Middle Eastern women, many had emigrated from Lebanon (n = 15), with smaller numbers from Iraq (n = 5), Egypt (n = 5), Kuwait (n = 4), Syria (n = 3), United Arab Emirates (n = 1), Saudi Arabia (n = 1), Sudan (n = 1), Libya (n =1), and the West Bank (n = 1).

Participants were recruited in Windsor, Toronto, and Vancouver. The Canadian group was recruited from introductory psychology classes at the University of Windsor and from community agencies in Vancouver. The Middle Eastern women were recruited by sending a letter to Middle Eastern (Arabic) students at the University of Windsor, inviting them to participate in the study (see Appendix A). The University of Windsor’s international student advisor also posted information regarding this study and informed international students from the Middle East about the study. In addition, letters were sent to the Arabic, Muslim, and Middle Eastern student groups, inviting interested members to contact the researcher. Arabic women were also recruited through various community agencies that work with immigrant women in Windsor, Toronto, and Vancouver.
Classification of the participants into groups. Based on the number of years the Middle Eastern Arab immigrant women had resided in Canada, a median split was used to divide them into two groups: a recent immigrant group, consisting of 18 women who had lived in Canada for four years or less (range = 2 months to 4 years; $M = 2.0$ years, $SD = 1.4$), and an established group, consisting of 19 women who had resided in Canada between 4.3 and 15 years ($M = 7.1$ years, $SD = 3.1$). The indigenous Canadian group consisted of the women born in Canada ($n = 45$). Table 1 summarizes the age, socioeconomic status (SES) as assessed by the Hollingshead-Redlich Two-Factor Index of Social Position, body mass index (BMI; kg/m²), religion, and marital status of the three groups. The three groups differed significantly in age, $F (2, 79) = 8.01$, $p < .001$, BMI, $F (2, 77) = 4.03$, $p < .02$, marital status, $X^2 (4, N = 81) = 30.45$, $p < .001$, and religion, $X^2 (4, N = 81) = 49.92$, $p < .001$, but not in SES. Planned comparisons revealed that the two Arab immigrant groups were older, $F = -4.02$, $p < .001$, were more likely to be married, $X^2 (2, N = 81) = 29.5$, $p < .001$, and were more likely to be Muslim, $X^2 (2, N = 81) = 49.9$, $p < .001$, than their Canadian counterparts. The two Arabic groups did not differ significantly on any of these variables. The Arabic women were also heavier, $t (77) = -2.79$, $p < .007$. In fact, over half ($n = 20$) of the Arabic women were classified as overweight or obese (BMI of 25 or more; Allen, 1994), while less than a third ($n = 13$) of the indigenous Canadian women were.

Measures

Demographic information. Participants completed a demographic information form that required them to provide their age, level of education completed, occupation, education level and occupation of either their parents (if not married) or their spouse (if
Table 1
Summary of Descriptive Statistics for Demographic Variables Across Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (N = 82)</th>
<th>Recent Immigrants (n = 18)</th>
<th>Established Immigrants (n = 19)</th>
<th>Indigenous Canadians (n = 45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>26.4 (7.1)</td>
<td>29.4 (7.6)(^a)</td>
<td>29.7 (7.3)(^a)</td>
<td>23.7 (5.7)(^b)</td>
</tr>
<tr>
<td>Mean SES</td>
<td>2.5 (.97)</td>
<td>2.2 (1.1)</td>
<td>2.2 (1.0)</td>
<td>2.7 (.88)</td>
</tr>
<tr>
<td>Mean BMI</td>
<td>24.9 (5.4)</td>
<td>26.2 (6.1)(^a)</td>
<td>26.7 (4.3)(^a)</td>
<td>23.4 (4.9)(^b)</td>
</tr>
<tr>
<td>Ethnic Background</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North American</td>
<td>34.9%</td>
<td>0%</td>
<td>0%</td>
<td>66.6%</td>
</tr>
<tr>
<td>Arabic</td>
<td>42.2%</td>
<td>88.9%</td>
<td>94.7%</td>
<td>0%</td>
</tr>
<tr>
<td>European</td>
<td>14.5%</td>
<td>0%</td>
<td>0%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Other</td>
<td>6.0%</td>
<td>11.1%</td>
<td>5.3%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>43.4%</td>
<td>29.4%(^a)</td>
<td>31.6%(^a)</td>
<td>57.8%(^b)</td>
</tr>
<tr>
<td>Muslim</td>
<td>32.5%</td>
<td>70.6%(^a)</td>
<td>68.4%(^a)</td>
<td>0%(^b)</td>
</tr>
<tr>
<td>Other</td>
<td>21.7</td>
<td>0%(^a)</td>
<td>0%(^a)</td>
<td>40.0%(^b)(^1)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>57.8%</td>
<td>22.2%(^a)</td>
<td>36.8%(^a)</td>
<td>82.2%(^b)</td>
</tr>
<tr>
<td>Married</td>
<td>33.7%</td>
<td>70.6%(^a)</td>
<td>63.2%(^a)</td>
<td>8.9%(^b)</td>
</tr>
<tr>
<td>Other</td>
<td>6.0%</td>
<td>5.6%</td>
<td>0%</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

**Note.** Some columns do not add up to 100% due to missing data. Standard deviations are in parentheses. Different superscripts on the same line indicate that means differ significantly (p < .05).

\(^1\)89% of participants categorized as “other” indicated that they practised no religion.
married), religion, country of origin, and whether they have ever been diagnosed and/or treated with an eating disorder (see Appendix B). They then completed the Eating Attitudes Test (EAT-40) and the Body Image Assessment Procedure (BIAP), and had their height and weight measured. The Arab immigrant women also completed the American-International Relations Scale (AIRS) and answered three open-ended questions regarding their attitudes towards food, their bodies, and the woman they admired most (see Appendix C).

**Eating Attitudes Test (EAT-40).** The EAT-40 is a 40-item self report measure designed to assess abnormal eating attitudes (Garner & Garfinkel, 1979: see Appendix D). Each item is rated on a six-point scale ranging from “always” to “never”. Extreme responses in the anorexic direction are scored as a three, while adjacent alternatives are given two points and one point respectively. No score is given for “nonanorexic” responses. Points are added for a total score out of a possible 120. The EAT-40 was originally validated on two groups of female anorexic patients (Ns = 32 and 33) and two groups of normals (Ns = 34 and 59) and was later found to differentiate between restrictor and bulimic anorexics (Garner, Olmstead, Bohr, & Garfinkel, 1982). In the original validation, total EAT scores were significantly correlated with criterion group membership (r = 0.87, p < 0.001), were good predictors of group membership, and were sensitive to remission (i.e., recovered anorexics scored within the normal range). A cut-off score of 30 correctly identified all the anorexics and 84.9% of the normal controls. Cronbach’s alpha coefficients were 0.79 for the anorexic group and 0.94 for the pooled sample of anorexics and normals. Other researchers have found the EAT-40 to be useful in the identification of bulimia nervosa (Whitehouse & Button, 1988), and it has shown
general convergence in terms of scale intercorrelation and cross-classification with the Eating Disorders Inventory (Raciti & Norcross, 1987). Factor analysis of the EAT-40 revealed three factors (Garner et al., 1982). The Dieting subscale contains items indicating pathological avoidance of fattening food and preoccupation with a thin body (Cronbach’s alpha = 0.90). The Bulimia subscale reflects bulimic tendencies such as binging and purging (Cronbach’s alpha = 0.84). The Oral Control subscale represents the perceived pressure to eat more and a high degree of self-control over eating (Cronbach’s alpha = 0.83). The EAT-40 has reliably identified disturbed eating patterns among nonclinical adult and adolescent samples (Mukai, Crago, & Shisslak, 1994) and has become the most popular and influential instrument in the identification of eating disorders (Raciti & Norcross, 1987).

The EAT-40 has also been used in several studies with Middle Eastern women. Results from a version translated into Arabic found that 55% of those identified as “cases” by the test were true cases; all individuals with eating disorders were correctly identified by the EAT-40, and 89% of those without eating disorders were identified correctly (Nasser, 1994b). Furthermore, the overall results indicated that the EAT-40 is appropriate to use with Middle Eastern populations, and supported the three factors identified by Garner et al. (1979; Nasser, 1994a).

Body Image Assessment Procedure (BIAP). The Body Image Assessment Procedure was developed as a simple and easily administered method of obtaining a woman’s estimate of her current body size and her ideal body size (Williamson et al., 1985; see Appendix E for an example of a card). The individual is presented with nine randomly ordered cards. Each card displays a silhouette ranging in size from very thin to
very obese. The individual is instructed to choose the silhouette that “most accurately depicts your current body size, as you perceive it to be”. The cards are reshuffled and again arranged in a random order. The individual is then instructed to select the silhouette that “most accurately reflects the body size you would most prefer”. Numbers on the backs of the cards are used to determine the current body-size rating (CBS) and the ideal body-size rating (IBS). The self-ideal discrepancy score (CBS minus IBS) is a measure of body dissatisfaction. Test-retest reliability estimates for current estimate and self estimate were reported to be 0.92 and 0.79, respectively (Keeton et al., 1990). The BIAP correlates well with other procedures used to obtain current and ideal body size estimates (Keeton et al., 1990). The body size estimation procedure is also predictive of self-reported attitudes regarding body satisfaction (Williamson, Gleaves, Watkins, & Schlundt, 1993).

American-International Relations Scale (AIRS). The American-International Relations Scale (AIRS) is a 34-item self-report questionnaire designed to measure the acculturation of diverse international groups and to distinguish individuals who have retained their own culture from those who have assimilated into the host culture (Sodowsky & Plake, 1991). It has multiple choice and Likert items ranging from one (indicating a strong affiliation with White American society) to six (indicating a strong affiliation with one’s nationality group). The scores in the middle indicate acceptance of both cultures, suggesting integration or biculturalism (Sodowsky & Plake, 1992). The scale was validated with men and women from Asia, Africa, Latin America, Europe, and Australia. Principal components analysis yielded a three factor solution. Coefficient alphas for the full scale, the Perceived Prejudice factor, the Acculturation factor, and
Language factor are 0.89, 0.88, 0.79, and 0.82, respectively. Subscale intercorrelations range from low to moderate (r = 0.28-0.44).

Although the entire scale was administered, only the second subscale (Acculturation) was used as a measure of acculturation. This subscale consists of 11 items that gather information about group identity, food, entertainment, religion, culture, and preferences for friendships. Lower scores indicate that an individual is more acculturated into Canadian society; higher scores indicate less acculturation.

The AIRS was adapted for use by Canadians rather than Americans by substituting Canada for America where appropriate (see Appendix F).

Procedure

Participants met with the researcher in groups of one to eight. Each group was comprised entirely of either Arabic or indigenous Canadian women. Arabic versions of the consent form and the EAT-40 were available to all the Arabic women, and an interpreter was present, when required, to answer language-related questions. The purpose of the study was explained, confidentiality assured, and the consent form was signed (see Appendix G). In most cases, the participant first filled out the packet of questionnaires. This took the indigenous Canadian women between ten minutes and half an hour and the Middle Eastern women approximately one hour. Because it took the Arabic women longer than expected to fill out the packet, they were instructed to answer the open-ended questions only if they felt them to be relevant to their experiences. Each woman then met individually with the researcher, at which time the BIAP was administered and height and weight measurements were obtained. In some cases, administration of the BIAP and height and weight measurements occurred prior to the
participant filling out the packet of questionnaires. If appropriate, participants received course credit for their participation.
Chapter III

Results

Preliminary Analyses

Reliability analyses were performed on the EAT, the AIRS, and their subscales. Cronbach’s alpha values were 0.77, 0.79, 0.34, and 0.72 for the Dieting subscale, Bulimia subscale, Oral Control subscale, and total EAT score, respectively. Except for the Oral Control subscale, these are similar to those reported previously (Gamer & Garfinkel, 1979) and are within an acceptable range (Kraemer, 1992). Similarly, the AIRS proved to be acceptably reliable, with Cronbach’s alpha values comparable to those reported by Sodowsky and Plake (1992): 0.79, 0.70, 0.65, and 0.82 for the Perceived Prejudice subscale, the Acculturation subscale, the Language Usage subscale, and the AIRS total score respectively.

To reduce the extreme skewness on the EAT subscales and total score, scores were transformed: square root transformations for the Diet and Oral Control subscales and logarithmic transformations for the Bulimia subscale and total EAT score.

Primary Analyses

The purpose of this study was to compare a group of recently arrived Middle Eastern Arabic immigrant women with a group of more established Middle Eastern Arabic immigrant women and a group of indigenous Canadian women on pathological eating attitudes and body image. Group means for the acculturation scores and the dependent variables are found in Appendix H.
One assumption of this design was that the two immigrant groups would differ on level of acculturation as measured by the Acculturation subscale of the AIRS. When differences between the two groups were assessed with an independent-samples t test, however, the two groups did not differ on level of acculturation, \( t(34) = 1.41, p > .15 \). In fact, the number of years participants had resided in Canada was not correlated with either the Acculturation subscale score, \( r(36) = -.104, p > .50 \), or overall AIRS score, \( r(37) = -.083, p > .60 \). Thus, all analyses of differences due to level of acculturation were repeated substituting years of residence in Canada for acculturation scores. In addition, because the two Arabic immigrant groups did not differ on acculturation scores, they were combined for some analyses to form one immigrant group.

The second hypothesis predicted that the recently arrived group would score lowest on the EAT, the more established group would score highest, with the indigenous Canadian group scoring in between them. A one-way analysis of covariance (ANCOVA) was used to test for group differences on the EAT total score. Covariates for age and BMI were included because these variables differed across groups and are thought to be related to pathological eating attitudes. As summarized in Table 2, EAT scores varied significantly across groups, \( F(2, 75) = 4.63, p < .01 \). Planned orthogonal contrasts revealed that while the two Arabic immigrant groups differed from the indigenous Canadian group, \( F(1, 79) = 12.18, p < .001 \), they did not differ from each other \( F(1, 79) = .017, p > .90 \). Hence, observed patterns of pathological eating attitudes differed from those that were predicted. A post-hoc independent samples t-test
Table 2

Analysis of Covariance for Pathological Eating Attitudes (EAT total score)

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>.498</td>
<td>2</td>
<td>.249</td>
<td>4.63</td>
<td>.01</td>
</tr>
<tr>
<td>Age (covariate)</td>
<td>.022</td>
<td>1</td>
<td>.022</td>
<td>.42</td>
<td>.52</td>
</tr>
<tr>
<td>BMI (covariate)</td>
<td>.025</td>
<td>1</td>
<td>.025</td>
<td>.46</td>
<td>.50</td>
</tr>
<tr>
<td>error</td>
<td>4.04</td>
<td>75</td>
<td>.054</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
was used to test for differences in total EAT score between Muslim and Christian Arab women. No significant difference was found, $t(35) = .39, p > .70$.

Mean EAT scores were 17.0 for the Arab women and 11.6 for the indigenous Canadian women. These scores were compared to the mean of 11.9 obtained by a group of British college-aged women using independent samples $t$-tests (Hetherington & Burnett, 1994). While no difference was found between the Canadian and the British women, $t(94) = .29, p > .50$, the Arab women scored significantly higher than the British women, $t(86) = 4.21, p < .001$. The number of women in the present study who scored in the clinically significant range was small: 6% ($n = 1$) of the recent immigrant group, 11% ($n = 2$) of the more established group, and 2.2% ($n = 1$) of the indigenous Canadian women. Small cell frequencies precluded analysis of group differences in the proportion of women with clinically significant scores.

A similar analysis of covariance (ANCOVA) was performed to assess group differences in body dissatisfaction (see Table 3). No significant differences among groups were found, although the influence of BMI on body dissatisfaction was highly significant, $F(1, 75) = 25.54, p < .001$, indicating that heavier women tended to be more dissatisfied with the size of their bodies. The Arab and Canadian women obtained mean body dissatisfaction scores of 1.7 and 1.2, respectively. These scores were compared with the mean of .92 obtained by a group of American college students using an independent samples $t$-test (Keeton et al., 1990). No significant differences were found, $t(122) = .77, p > .40$, for the indigenous Canadian and American women; $t(111) = 1.31, p > .20$, for the Arab and American women. The mean body dissatisfaction scores
Table 3

Analysis of Covariance for Body Dissatisfaction

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>.596</td>
<td>2</td>
<td>.298</td>
<td>.111</td>
<td>.90</td>
</tr>
<tr>
<td>Age (covariate)</td>
<td>.005</td>
<td>1</td>
<td>.005</td>
<td>.005</td>
<td>.97</td>
</tr>
<tr>
<td>BMI (covariate)</td>
<td>68.48</td>
<td>1</td>
<td>68.48</td>
<td>25.5</td>
<td>.001</td>
</tr>
<tr>
<td>error</td>
<td>201.10</td>
<td>73</td>
<td>2.68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
obtained by the women in the present study do seem higher than the mean of .58 reported for a group of Black college students (Powell & Kahn, 1995).

The fourth hypothesis suggested that body dissatisfaction and pathological eating attitudes would not be associated among recent immigrants but would be positively correlated among established Arab immigrants and indigenous Canadian women. Table 4 reveals that there was no correlation between body dissatisfaction and total EAT score among either of the immigrant Arab groups, although a significant but low correlation was found among indigenous Canadian women. Tests of differences between independent correlations revealed, however, that the magnitude of the association was no different for the indigenous Canadian group than for the Arab immigrant groups. When the analysis was repeated for the combined immigrant groups, a significant correlation was found between body dissatisfaction and the EAT Dieting subscale, $r (35) = .41$, $p < .008$, one-tailed, but not between body dissatisfaction and the EAT Bulimia subscale $r (35) = -.19$, $p > .15$, one-tailed. Significant correlations were found for the indigenous Canadian group between body dissatisfaction and the Dieting subscale, $r (45) = .39$, $p < .004$, one-tailed, and body dissatisfaction and the Bulimia subscale, $r (45) = .25$, $p < .05$, one-tailed.

The next hypothesis suggested that level of acculturation would be positively correlated with abnormal eating attitudes in both immigrant groups. No correlation was found between the score on the Acculturation subscale of the AIRS and EAT total score among either immigrant group (see Table 4). There was also no correlation between length of residence in Canada and EAT total score, $r (18) = -.07$, $p > .40$, one-tailed, for
the recent immigrant group; \( r (19) = -0.18, p > 0.20 \), one-tailed, for the more established immigrant group; \( r (37) = -0.11, p > 0.25 \), one-tailed, for the immigrant groups combined.

Level of acculturation was also expected to be associated with body dissatisfaction. As can be seen in Table 4, there was no correlation between the Acculturation subscale of the AIRS and body dissatisfaction among the recent immigrant group but a significant association was found for the more acculturated group, \( r (16) = 0.50, p < 0.02 \), one-tailed. However, a test of differences between independent correlations found no difference between the two Arabic immigrant groups. Again, the hypothesis that both immigrant groups would show positive correlations between acculturation and body dissatisfaction was not confirmed. Length of time spent in Canada was also unassociated with body dissatisfaction: \( r (18) = -0.21, p > 0.20 \), one-tailed, for the recent immigrant group; \( r (17) = 0.10, p > 0.40 \), one-tailed, for the more established immigrant group; \( r (35) = 0.10, p > 0.29 \), one-tailed, for the combined immigrant groups.

The final hypothesis posited that ideal body size would differ by group. It was proposed that ideal body size would be smallest among the established immigrant group, largest among the recent immigrant group, and intermediate for the indigenous Canadian group. A one-way ANCOVA, with age and BMI as covariates, found no significant differences between the three groups on ideal body size, \( F (2, 75) = 0.246, p > 0.70 \). Again, the data were inconsistent with the predictions. There was also no difference between the groups on current body size, \( F (2, 75) = 0.728, p > 0.40 \), when age and BMI were held constant. Interestingly, even when BMI was removed as a covariate, there was still no difference between the three groups, \( F (2, 75) = 0.680, p > 0.50 \), despite the fact that
### Table 4

**Intercorrelations between Acculturation, Body Dissatisfaction, and Pathological Eating Attitudes by Group**

<table>
<thead>
<tr>
<th>Variable</th>
<th>EAT total score</th>
<th>BD</th>
<th>Acculturation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recent immigrants (n = 18)</strong></td>
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<td><strong>More established immigrants (n = 19)</strong></td>
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<td><strong>Indigenous Canadians (n = 45)</strong></td>
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<td>EAT total score</td>
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<sup>a</sup> Level of acculturation was not measured for the indigenous Canadian group

<sup>b</sup> n = 16

<sup>*</sup> p < .05 (one-tailed)
the Arabic immigrant women were significantly heavier than the indigenous Canadian women. Thus, either the immigrant women were underestimating their true body size or the indigenous Canadian women were overestimating their true body size. Mean ideal body sizes were 4.0 for both the immigrant and indigenous Canadian groups. These means seem closer to means obtained for White female college students (range = 3.44 to 3.74) than the mean of 4.71 reported for Black college students (Keeton et al., 1990; Powell & Kahn, 1995; Williamson, Cubic, & Gleaves, 1993).

Open-Ended Questions

The three open-ended questions answered by the Arabic immigrant women (n = 33) were examined by two individuals to reveal common themes. Inter-rater reliability was 78%. The first question asked respondents whether their attitude towards food had changed since they arrived in Canada. Forty-eight percent of the respondents (n = 18) reported either that nothing had changed or that they continued to eat the same food that they ate in their country of origin. Of those who did report a change in attitude towards food, 47% (n = 7) stated that they ate more “junk” food than they had in their country of origin. Forty percent (n = 6) responded that they either knew more about eating “healthy” food, or that they actually ate more diet foods. One of these women reported that “I am now more aware about what I eat. I cut on some fat I don’t eat junk food because I know when I get big when I am on street people will say look ‘fat cow’ [sic].” Two respondents reported that the timing or number of meals had changed and two reported that they now ate when they were bored or depressed. One respondent reported
that she had always known about eating "healthy," and one that the foods she was accustomed to eating were unavailable in Canada.

The second question asked respondents about changes in their feelings towards their bodies and the way they looked since arriving in Canada. Sixty percent (n = 19) of the respondents reported no change in how they felt about their looks. Of those who did report a change, 50% (n = 7) wrote that they had in fact gained weight since arriving in Canada. One woman responded that "I feel that I am overweight and ugly... I am surprised at my low ability to control my food habits and diet routine...". Twenty-one percent (n = 3) reported a concern about being overweight or a desire to be thinner. One of these women wrote that "...the idea of becoming overweight began to become a nightmare since I came to Canada. They have occured [sic] due to media, peer pressure and eating style (rich with calories)." Fourteen percent (n = 2) indicated that they had always been conscious about their weight. One person responded that she now exercised more, while one reported feeling good that she had not gained weight since arriving in Canada.

The third question asked about the woman most admired by the respondent and what was most admired about her. Fifty-five percent (n = 17) of participants did not respond to this question. Many of the other women did not provide a reason for their choice. Sixty-four percent (n = 9) of those who responded chose a female relative as the woman they most admired. Thirty-six percent (n = 5) reported that they admired strong, confident women who achieved their goals, while 25% (n = 4) reported that looks influenced their choice. Two women responded that they admired women who cared for
their families. One woman stated that she admired women from different cultural
groups.

It is also interesting to examine the responses of a woman who was excluded
from the quantitative analyses because she had previously been treated for an eating
disorder. To the first question she reported, among other things, that “upon first arriving I
rarely liked to eat. I went by the Canada nutrition pyramid - did not realize that it was
only 1200 cal/day.” To the second question she reported that “At first I thought that
people would only talk to me if I was super thin... started losing weight out of loneliness,
need for acceptance.” To the third she responded that “...during my eating disorder
period I admired my friends who could go for days on a couple of carrots...I felt that I
was childish in not being able to completely restrict myself like my ‘popular friends’ and
those extremely successful models like Linda and Cindy.”
Chapter IV
Discussion

The purpose of this study was to compare two groups of Arab immigrant women who differed in degree of acculturation to Canadian society with a group of Canadian women. When the Arabic women were divided into two groups based on their length of residence in Canada, however, no difference in their acculturation scores was found.

There are several possible explanations for the lack of difference in acculturation scores between the two Arabic groups. One is the fact that the division was performed based on their length of residence in Canada. One study reported that among immigrants to Canada whose first language was not English, length of residence was less important in determining level of acculturation than age of arrival or education (Goldlust & Richmond, 1975). The independence of length of residence in Canada and level of acculturation was confirmed in this study. This is at odds with American studies, which tend to find a positive linear association between acculturation and length of residence in the United States (Sodowsky & Plake, 1992; Szapocznik et al., 1978).

The null finding may also stem from measurement error. The American-International Relations Scale is a relatively new scale that had not previously been used with women from the Middle East or with those unassociated with a university and had only been used to measure acculturation to American society. Thus, the scale may not be a valid measure for this particular sample. Moreover, the AIRS is based on a linear model of acculturation, which views acculturation as a movement away from the traditional culture towards the host culture (Sayegh & Lasry, 1993). The linear model fits
with the melting pot approach embraced by Americans, which encourages immigrants to give up their own culture in order to participate as equals within American society (Kelner & Kallen, 1974; Meleis, 1991). By contrast, the Canadian approach is better characterized by a bidimensional model. This model is based on the policy of multiculturalism, which encourages immigrants to maintain their ethnic identities while integrating into Canadian culture (Berry, 1984). Thus, acculturation in Canada is not a movement away from one’s traditional culture towards the host culture. One study found that only 8% of Lebanese immigrants to Canada had adopted such a linear mode (Sayegh & Lasry, 1993). Many had chosen the integration approach, in which the traditional culture is maintained while adopting the host culture. Therefore, studies of acculturation in Canada should use measures based on bidimensional models, not linear ones.

Indeed, it is difficult to determine how acculturated the Arabic women really were. Their mean of 41.94 on the Acculturation subscale of the AIRS is closer to the means of the international students (41.53) and non-immigrant scholars (41.29), than to the mean of the permanent U.S. residents (36.90), indicating a lower level of acculturation than American citizens (Sodowsky & Plake, 1992). However, the women were required to have a working knowledge of English in order to participate in the study. It is likely, then, that this group of women would have been exposed to more Western ideas and values, and hence be more Westernized, than women who did not know English. The women seemed to have internalized Western values of weight and body shape such that their mean ideal body size (4.00) was virtually identical to the mean chosen by the indigenous Canadian women (4.04). Furthermore, many of them expressed concern about their current weight and body shape in the qualitative section.
The observed independence of ideal body size and length of residence in Canada suggests that Western values for female weight and body shape are rapidly internalized by immigrant women.

The major finding of this study is that the Arab immigrant women scored higher on their level of pathological eating attitudes than did indigenous Canadian women. This result is consistent with a study that found that adolescent immigrants to Norway from non-Western countries scored higher on a measure of pathological eating attitudes than their native peers (Wichstrom et al., 1994). This finding is also consistent with another study with Arab immigrants that found higher rates of pathological eating attitudes and eating disorders among the university-aged immigrants as compared to the non-immigrant British population (Nasser, 1986). The current study extends the findings of past research by demonstrating that similar to young Arab immigrant women, older Arab immigrant women also have higher rates of pathological eating attitudes than White indigenous women and may be at a higher risk of developing eating disorders. This finding is important because, generally, women over age 30 are no longer considered to be a high risk group (Toro et al., 1989).

The mean EAT scores obtained by the Arab immigrant women and the Canadian women were also compared to those obtained by White college-age students in another study. No difference was found between the level of pathological eating attitudes of the college students and the Canadian women in the present sample, despite the general assumption that college students are a particularly high risk group (Hart & Ollendick, 1985). Moreover, the fact that the Arabic women scored significantly higher than the college-aged students on pathological eating attitudes, despite being older, emphasizes
the potential risk among Arab immigrant women of developing an eating disorder. The rates of 8% of the Arabic immigrant women and 2% of the indigenous Canadian women who scored in the clinical range are similar to those reported in other studies of White women in Western countries (Garner & Garfinkel, 1979; King, 1989), although substantially less than the 22% reported among Arabic immigrants in Britain (Nasser, 1986).

It has been proposed that the high level of pathological eating attitudes found among immigrants are a consequence of their overidentification with Western values (Banks, 1992; Thompson, 1994). The pattern of results found in this study provides no support for this explanation. There was no difference between the three groups on their ideal body size or level of body dissatisfaction, indicating that although the Arab immigrant women did identify with the prescribed values of beauty for women, they did not seem to overidentify with them.

Several other explanations for the higher level of pathological eating attitudes may be postulated. One relates to religious customs. For Muslims, dietary restrictions are imposed and fasting is required as a method of purifying the soul and becoming closer to God (Timimi, 1995). Therefore, food restriction may provide an appropriate way to purify oneself. Ahmad et al. (1994b) and Bhadrinath (1990) proposed that this association between food and Islam might lead to the development of abnormal eating patterns for Muslim women in Western cultures. In light of this, a post hoc-analysis was performed to compare the EAT total scores of Christian and Muslim Arab women. Although the results were non-significant, the mean for the Muslim Arab women was slightly higher than for the Christian Arab women (17.05 compared with 16.91). These
results may have been non-significant due to the small sample size, particularly among the Christian Arabs ($n = 11$). Therefore, future studies should again compare Arabic women of different faiths (e.g. Muslims and Christians) on level of pathological eating attitudes. In addition, degree of observance to Islam among participants should be assessed to test the hypothesized association between Islam and the development of abnormal eating patterns.

Because Muslims may have a unique relationship with food compared with members of other religious groups, the responses of the Arabic women to the EAT may reflect a normal cultural attitude towards food rather than pathological eating behaviours. Although high scorers on the EAT were not interviewed in this study, Nasser (1986) found a direct relationship between scoring in the clinical range on the EAT and the presence of diagnosable eating disorders, lending some support to the notion that higher scorers are indeed at higher risk.

Another possible explanation for the higher level of pathological eating attitudes of the Arab women is the fact that their higher scores on the EAT were due, to a large degree, to their higher scores on the EAT Dieting subscale. In the open-ended questions, many of the women reported that they had gained weight since arriving in Canada. Often, weight gain was associated with a change in diet, specifically, consuming less healthy food. It is possible that the change in dietary habits and the consequent weight gain, combined with the emphasis placed in Western cultures on thinness, leads immigrant Arab women to diet more, which then places them at risk of developing an eating disorder (Hsu, 1990).
It is also possible that the reported weight gain is, in fact, only a perceived weight gain. After arriving in Canada, the Arab women may become aware that they are heavier than many Canadian women. Concurrently, they are bombarded with media images that equate beauty with slenderness. Consequently, their weight, which may have been acceptable in their country of origin, is viewed as too heavy by Canadian standards. This may also lead to dieting, which would place them at risk of developing an eating disorder. Future studies could assess whether a true weight gain does occur among non-Western immigrant women, or whether immigrant women’s perception of their weight and size changes after encountering Western ideals.

As indicated, the ideal body size endorsed by the three groups did not differ. There seemed to be no difference between the means of the women in the present study and those previously reported for White college-aged women, despite the fact that they were, on average, older than college age. Therefore, the body size most desired by women does not seem to change with age. Interestingly, the women in this study seemed to report a smaller ideal body size than Black college students in the United States. This suggests that, unlike American Black women, the immigrant Arab women adopted the White ideal for beauty.

There was also no difference between the three groups on their level of body dissatisfaction, nor did the women in the present study differ from a group of White college-aged students on level of body dissatisfaction. Again, the prevalent notion that young women in university have the highest level of body dissatisfaction is not supported by the findings of this study. The women in this study seemed to report more body
dissatisfaction than a sample of Black college students, possibly due to the smaller ideal body size chosen by the women in the present study.

No difference in body dissatisfaction was found between the indigenous Canadian and the Arabic immigrant women. Both groups chose a similar silhouette as their current body size, despite the fact that the Arab immigrant women were heavier. This indicates that either the indigenous Canadian women overestimated their weight, or the Arab women underestimated theirs. It is impossible to determine from this study which alternative is correct. If the Arab women underestimated their body size and consequently had a lower level of body dissatisfaction than would be expected given their true size, this might be a protective factor against development of an eating disorder, despite their higher levels of pathological eating attitudes. A similar conclusion was reached in a study with Asian Muslim schoolchildren who showed higher levels of pathological eating attitudes than Caucasian children, but less body dissatisfaction (Ahmad et al., 1994b). The authors proposed that the greater body satisfaction expressed by the Muslim children may have emerged because criticism about body shape may be less acceptable in the Muslim community and body shape may be less noticed due to the conservative style of traditional Muslim clothing. Future research could examine the accuracy with which Arab immigrant women estimate their body size to determine whether body distortion (underestimating true body size) may be a protective factor.

There were also hypotheses made regarding the association between acculturation, pathological eating attitudes, and body dissatisfaction. Contrary to the predictions, there was no association between acculturation scores and abnormal eating attitudes among the Arabic immigrant women. There was also no association between
acculturation scores and body dissatisfaction among women in the recently immigrated group, though a positive association was found in the more established group. Because the validity of the acculturation scale is suspect, however, it is important to examine these associations replacing acculturation scores by length of residence in Canada. After doing so, the apparent association between length of residence and body dissatisfaction disappeared.

There are several possible explanations to account for these findings. As indicated previously, it is possible that neither the acculturation scale nor length of residence in Canada were accurate measures of acculturation. Therefore, this study may not have examined the associations between acculturation and pathological eating attitudes and body dissatisfaction. The few previous studies that have investigated the associations between acculturation and pathological eating attitudes and body dissatisfaction in the United States have yielded mixed results, with one study finding a positive association (Abrams et al., 1993) and one finding no association (Akan & Grilo, 1995). Thus, the results of this study are not entirely inconsistent with the literature.

This study also examined the association between body dissatisfaction and abnormal eating attitudes. Because the two immigrant groups were equally acculturated to Canadian society, it was not possible to test the hypothesis that abnormal eating attitudes and body dissatisfaction are associated only in Westernized women. However, the results did confirm that both among the indigenous Canadian and the relatively acculturated immigrant women, pathological eating attitudes and body dissatisfaction were associated. This finding is consistent with other studies that find body dissatisfaction to be associated with development of disordered eating attitudes and the

Limitations

Several possible limitations of the present study should be addressed. The first one is a problem that plagues many cross-cultural studies: using questionnaires standardized with and intended for Western samples with non-Western ones. King and Bhugra (1989) argued that cultural misunderstandings and misinterpretations may influence the results of such studies, even when translated versions of the questionnaires are used. For example, in their study with schoolgirls from North India, there was no similarity between the factors that they found within the EAT and the ones reported by Garner et al. (1982). While linguistic misunderstandings were certainly possible here, most of the Arabic women in this study spoke English quite well, all were given a translated version of the EAT, there was often an interpreter present, and they were encouraged to ask for clarification of terms that they did not understand. Although a factor analysis was precluded because of the small number of participants, another study with Arabic women identified factors similar to those previously found with Western populations (Nasser, 1994b).

Lipson and Meleis (1989) indicated that there may be specific problems when conducting research with Middle Eastern immigrants, such as the accuracy of data and respondents' distrust of research. They suggested that the distrust stems from the connections in some Middle Eastern countries between universities, the government, and public agencies. Also, participants applying for visas or citizenship might be wary of
activities they feel could jeopardize their chances of success. Indeed, several potential participants declined to participate in this study, although their reasons are not known. The Arabic immigrant women also asked many more questions regarding the privacy of their responses than did the Canadian women. The accuracy of the data might be questionable because individuals from the Middle East often present a “public self” according to what they see as acceptable to divulge or what they think is expected of them. In this study, however, this did not seem to be the case as the Arabic immigrant women reported higher levels of pathological eating attitudes than did the indigenous Canadian women.

Another limitation of this study was its power. This was particularly a problem for the Arabic immigrant group, where the number of participants was smaller than that required to detect even large effects (Cohen, 1992). Therefore, some of the nonsignificant findings may have been a result of the lack of power in the study. In addition, because of the small sample size, factor analyses of the EAT or the AIRS could not be computed to ensure cross-cultural equivalency (Olmedo, 1979).

A final limitation of this study is that not all of the immigrant women completed the questionnaires in the same order. Because of the small number of Arabic immigrant participants and the difficulty in recruiting them, accommodations were made for participants who had to fill out the questionnaires after meeting with the researcher. Unfortunately, the identity of these participants was not recorded and therefore their results could not be compared with the rest of the sample.
Recommendations for Future Research

In addition to those previously mentioned, several directions for future research can be identified based on the results of the present study. The first is that the results of this study should be replicated with a larger sample size. Increasing the power of the study may reveal significant differences between groups not found in the present study and would allow for factor analyses of questionnaires to ensure cross-cultural validity. Future research should also identify a more appropriate measure of acculturation, one based on a bidimensional model of acculturation.

Generalizability of these results should also be increased by replicating this study with immigrants from other ethnic groups. Thus far, research in this area has focused only on Arab and South-Asian women. Therefore, it is imperative that these issues be examined among immigrants from other ethnic groups, such as Asians, Africans, and women from the Caribbean, to determine whether the results of this and other studies generalize to all immigrant women. Furthermore, such studies may help clarify the reason for the higher levels of pathological eating attitudes reported by immigrant women. If women from some immigrant groups are identified as having higher rates of pathological eating attitudes than the indigenous population, while women from other groups are not, this may indicate directions for investigations of causal factors.

The use of longitudinal research methods would be another way to develop a causal model. Identifying the causes of higher rates of pathological eating attitudes may assist in the development of appropriate preventative programs for immigrants.

Finally, future studies could use a younger sample comprised of adolescents or university students, as women in these age groups are considered at highest risk of
developing eating disorders. Moreover, such studies could examine the issue of intergenerational conflict in immigrant families as a factor in the development of eating disorders among immigrant women.

Concluding Remarks

The results of this study confirm and extend earlier research which reported that women who immigrate from non-Western cultures to Western ones may be at a higher risk of developing pathological eating patterns than the indigenous White population. These results contrast with the prevalent notion that White women are the group at highest risk of developing eating disorders. Indeed, the Arab immigrant women in this study seemed to have internalized the Western beauty ideal and were endorsing attitudes and engaging in behaviours that may put them at risk of developing eating disorders. The findings of this study highlight the need for greater attention and awareness to the attitudes and behaviours of immigrant women regarding their weight, body shape, and eating patterns. The potential negative effects that these attitudes and behaviours could have on immigrant women’s lives indicates that continued research in this area is imperative.
References


Appendix A

Letter to Participants

My name is Iris Sharir. I am a graduate student in the Psychology Department at the University of Windsor. I am writing to invite you to participate in a research project investigating attitudes towards food, eating, and your body.

Participation in the study involves filling out questionnaires on attitudes about eating and food, attitudes towards Canadian and Middle Eastern culture, and attitudes towards your physical appearance. Height and weight measurements will also be taken. All the information is strictly confidential, and your name will never appear on any of the forms you fill out. These tasks should take less than half an hour. Participants will meet in small groups at the University of Windsor and you will be reimbursed for your travel costs.

Individuals eligible to participate in the study are women age 18-30 who were born in Egypt, Lebanon, Syria, or Jordan, and have lived in Canada for less than five years.

If you are interested in participating in this study, please return the pre-paid card that is enclosed. If you would like more information about this study, I can be contacted at 253-4232, extension 2217.

Thank you for your time, and I look forward to hearing from you soon.

Sincerely,

Iris Sharir
Appendix B

Background Information

Age: ________

Marital Status: Single ________ Married ________ Other ________

Place of Birth: ______________

Where else have you lived? ______________ What years? ______________

Size of city/town you grew up in: _______________________

Length of residence in Canada: ______________ (please indicate if in months or years)

Ethnic Background: North American ___ Arabic ___ European ___ Other ___

What is your highest level of Education Completed: ______________ Grade/Year

Your Occupation: ______________________

If married: Highest level of education spouse has completed: ______________ Grade/Year

Spouse’s occupation: ______________________

If not married: Highest level of education mother has completed: _______ Grade/Year

Highest level of education father has completed: _______ Grade/Year

Mother’s occupation: ______________________

Father’s occupation: ______________________

What is your religion? ______________________

Have you ever been diagnosed and/or treated with an eating disorder? Yes ____ No ____
Appendix C

Please answer the following questions:

1. Have your attitudes towards food changed since you've moved to Canada? If they have, what do you feel has changed?

2. Have your feelings about your body and the way you look changed since you moved to Canada? If they have, in what way are they different? Why do you think that these changes have occurred?

3. What woman do you most admire? What do you admire most about her? What woman did you admire most before you came to Canada and what did you admire most about her?
Appendix D

Eating Attitudes Test

Please place an (X) under the column which applies best to each of the numbered statements. ALL of the results will be kept strictly confidential. Most of the questions directly relate to food and eating, although other types of questions have been included. Please answer each question carefully. Thank you.

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1. Like eating with other people.
2. Prepare foods for others but do not eat what I cook.
3. Become anxious prior to eating.
4. Am terrified of being overweight.
5. Avoid eating when I am hungry.
6. Find myself preoccupied with food.
7. Have gone on eating binges where I feel that I may not be able to stop.
8. Cut my food into small pieces.
9. Aware of the calorie content of foods that I eat.
10. Particularly avoid foods with high carbohydrate content (i.e. bread, potatoes, rice, etc.)
11. Feel bloated after meals.
12. Feel that others would prefer if I ate more.
13. Vomit after I have eaten.
14. Feel extremely guilty after eating.
15. Am preoccupied by a desire to be thinner.
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<td>16.</td>
<td>Exercise strenuously to burn off calories.</td>
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<td>17.</td>
<td>Weigh myself several times a day.</td>
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<td>18.</td>
<td>Like my clothes to fit tightly.</td>
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<td>20.</td>
<td>Wake up early in the morning.</td>
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<td>Eat the same foods day after day.</td>
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<td>22.</td>
<td>Think about burning up calories when I exercise.</td>
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<td>23.</td>
<td>Have regular menstrual periods.</td>
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<td>24.</td>
<td>Other people think I am too thin.</td>
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<td>25.</td>
<td>Am preoccupied with the thought of having fat on my body.</td>
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<td>26.</td>
<td>Take longer than others to eat my meals.</td>
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<tr>
<td>27.</td>
<td>Enjoy eating at restaurants.</td>
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<td>28.</td>
<td>Take laxatives.</td>
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<td>29.</td>
<td>Avoid foods with sugar in them.</td>
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<td>30.</td>
<td>Eat diet food.</td>
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<td>31.</td>
<td>Feel that food controls my life.</td>
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<td>32.</td>
<td>Display self-control around food.</td>
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<tr>
<td>33.</td>
<td>Feel that others pressure me to eat.</td>
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<td>34.</td>
<td>Give too much time and thought to food.</td>
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<td>35.</td>
<td>Suffer from constipation.</td>
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<td>36.</td>
<td>Feel uncomfortable after eating sweets.</td>
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<tr>
<td>37.</td>
<td>Engage in dieting behaviour.</td>
<td></td>
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<tr>
<td>Always</td>
<td>Very Often</td>
<td>Often</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>Never</td>
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</tbody>
</table>

38. Like my stomach to be empty.
39. Enjoy trying new rich foods.
40. Have the impulse to vomit after meals.

① The 'X' represents the most 'symptomatic' response and would receive a score of 3 points.
Appendix E

Body Image Assessment Procedure (Card 5)
Appendix F

American-International Relations Scale

**Instructions:** Please check the appropriate blank. Check only one blank per question—the one that you think describes you best.

1. The language(s) I speak well is/are
   ___ 1. English only
   ___ 2. Mostly English, some my first language (mother tongue)
   ___ 3. English and my first language equally well
   ___ 4. Mostly my first language, some English
   ___ 5. My first language only

2. When I am with people from my country I speak
   ___ 1. English only
   ___ 2. Mostly English, some my first language/national language
   ___ 3. English and my first language/national language equally
   ___ 4. Mostly my first language/national language, some English
   ___ 5. My first language/national language only

3. Friends with whom I am close are
   ___ 1. Canadians only
   ___ 2. Mostly Canadians, some people from my country
   ___ 3. Canadians and people from my country equally
   ___ 4. Mostly people from my country, some Canadians
   ___ 5. People from my country only

4. When I think my ideas and images best operate
   ___ 1. In English only
   ___ 2. Mostly in English, some in my first language
   ___ 3. In English and my first language equally well
   ___ 4. Mostly in my first language, some in English
   ___ 5. In my first language only

5. People I trust and turn to when I need help are
   ___ 1. Canadians only
   ___ 2. Mostly Canadians, some my family
   ___ 3. Canadians and my family equally
   ___ 4. Mostly my family, some Canadians
   ___ 5. My family only
6. I like to eat
   ______ 1. Only Canadian food
   ______ 2. Mostly Canadian food, some of my country’s (or region’s) food
   ______ 3. Canadian and my country’s (or region’s) food equally
   ______ 4. Mostly my country’s (or region’s) food, some Canadian food
   ______ 5. Only my country’s (or region’s) food

7. I believe my group identity to be related
   ______ 1. Only to Canadian society
   ______ 2. Mostly to Canadian society and some to the country/state I come from
   ______ 3. To Canadian society and to my country/state equally
   ______ 4. Mostly to the country/state I come from, some to Canadian society
   ______ 5. Only to the country/state I come from

8. I believe myself to be an individual
   ______ 1. With many similarities to Canadians
   ______ 2. With some similarities to Canadians
   ______ 3. Equally similar to Canadians and to people from my country
   ______ 4. With some similarities to people from my country
   ______ 5. With many similarities to people from my country

Instructions: Mark each of the following statements according to how much you agree or disagree with it. There is no right or wrong answer. The best answer is your personal opinion. Please express what you actually believe to be true rather than what you wish were true. If you do not have a definite opinion about a statement, choose a degree of agreement or disagreement (from 6 agree strongly to 1 disagree strongly) that comes closest to what you think. Please respond to every statement. The numbers 6, 5, 4, 3, 2, and 1 stand for the following:
   6: Agree strongly
   5: Agree
   4: Tend to agree
   3: Tend to disagree
   2: Disagree
   1: Strongly disagree

9. Canadians try to fit me into the stereotypes that they have about my nationality group.

10. I find Canadians overly concerned about their personal needs.

11. I find that when I am with a group of Canadians, the Canadians almost always talk with each other and ignore me.

12. If / when I don’t dress in Canadian fashions, Canadians think I am odd, backward, or not to be taken seriously.
6: Agree strongly
5: Agree
4: Tend to agree
3: Tend to disagree
2: Disagree
1: Strongly disagree

13. Canadian institutions (e.g., universities, government agencies) are trying to place official or unofficial restrictions on me or people from my country from gaining admission into educational, work, or professional areas in which my nationality group has achieved visible numbers and success.

14. I resent that I am often overlooked for recognition (e.g. an award for academic achievement), special projects, hiring, or promotion.

15. No matter how adjusted to Canadian ways I may be, I will always be seen as a “foreigner” by Canadians.

16. If I did not have some family members, relatives, or some friends from my country of origin who are living in Canada (or where I live in Canada), I would feel isolated.

17. My physical appearance does not match the standards that Canadians have about good looks.

18. I believe Canadians are only interested in me on the surface level (e.g., my national style of dress or when I came to this country).

19. I prefer Canadian music, films, dances, and entertainment to those of my country of origin.

20. Canadians think that I come from a country which has strange, primitive customs.

21. Canadians don’t care to know about my religion, culture, national history, values, or life style.

22. I have more Canadian friends than friends among people from my country of origin.

23. I believe I will never fully understand how to function successfully in the Canadian bureaucracy or “system” (educational, governmental, professional, or business operations).
6: Agree strongly
5: Agree
4: Tend to agree
3: Tend to disagree
2: Disagree
1: Strongly disagree

24. I adhere strictly to my religion and cultural values.

25. I feel that I am not fully accepted in organizations (e.g. private social clubs or physical fitness clubs) which have a majority of Canadian members.

26. Canadians are too assertive and verbal for my liking.

27. I celebrate Canadian religious or social festivals more than I celebrate my country's religious or social festivals.

28. I believe that the best way to appear less "different" than Canadians is to become like Canadian society and people.

29. I seek the friendship and support of people from my country in the city/town I am living.

30. The Canadians I study or work with feel threatened by my strengths and successes (e.g. hard work and professional/academic progress).

31. In my study or work environment I follow Canadian ways and standards, but at home I follow many customs of my country of origin.

32. Canadians believe that my foreign accent, or non-fluent English, or lack knowledge of Canadian expressions, is a sign of ignorance.

33. I believe it is more proper to marry someone from one's own nationality group than to marry a Canadian.

34. I am rarely invited to the homes or parties of my Canadian classmates, colleagues, or neighbours.
Appendix G

Consent Form

You are invited to participate in the study titled “Cross-Cultural Differences in Abnormal Eating Attitudes and Body Image.” The purpose of this study is to compare the eating attitudes and body image of Canadian women with those of Middle Eastern women who have lived in Canada for varying lengths of time. If you choose to participate in this study, you will be asked to fill a questionnaire examining your attitudes about eating and food and answer questions about your attitude towards your physical appearance. If you are agreeable, height and weight measurements will also be taken. Your involvement should take less than half an hour, and there are no foreseeable risks involved.

You participation in this study is completely voluntary, and you may refuse to answer any questions or completely withdraw from the study at any time with no penalty. All information is strictly confidential, and your name will never appear on any of the information you fill out. This study has been reviewed by the Ethics Committee of the Psychology Department. If you have any ethical concerns about this study, please contact Sylvia Voelker, the Ethics Committee Chairperson at 253-4232 extension 2249.

If you have any other questions or concerns about the study, please feel free to contact us before, during, or after participation at:

Iris Sharir  Jim Porter, Ph.D.
Psychology Department  Committee Chair
University of Windsor  Department of Psychology
Phone: 253-4232 (extension 2217)  University of Windsor
Phone: 253-4232 (extension 7012)

If you agree to participate in this study, please sign below.

Print Name ____________________________

Signature ____________________________  Date _________________

Place your initials here acknowledging receipt of a copy of this consent form. ______

If you would like to receive a copy of the results of this study, please write your mailing address in the space provided below. Results will be available in the fall of 1996.

__________________________________________________________________________
**Consent Form**

You are invited to participate in the study titled “Cross-Cultural Differences in Abnormal Eating Attitudes and Body Image.” The purpose of this study is to compare the eating attitudes and body image of Canadian women with those of Middle Eastern women who have lived in Canada for varying lengths of time. If you choose to participate in this study, you will be asked to fill out two questionnaires. One will examine your attitudes about eating and food and the other asks questions about your feelings and attitudes towards Canadian and Middle Eastern culture. The third task involves assessing your attitude towards your physical appearance. If you agree, height and weight measurements will also be taken. Your involvement should take less than half an hour, and there are no foreseeable risks involved.

You participation in this study is completely voluntary, and you may refuse to answer any questions or completely withdraw from the study at any time with no penalty. All information is strictly confidential, and your name will never appear on any of the information you fill out. This study has been reviewed by the Ethics Committee of the Psychology Department. If you have any ethical concerns about this study, please contact Sylvia Voelker, the Ethics Committee Chairperson at 253-4232 extension 2249.

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Print Name ____________________________

Signature ____________________________ Date ______________

Place your initials here acknowledging receipt of a copy of this consent form. ______

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Appendix H

Means and Standard Deviations of Dependent Variables Across Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (N = 82)</th>
<th>Recent Immigrants (n = 18)</th>
<th>Established Immigrants (n = 19)</th>
<th>Indigenous Canadians (n = 45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean EAT score</td>
<td>14.0 (8.0)</td>
<td>16.9 (7.7)(^a)</td>
<td>17.1 (9.0)(^a)</td>
<td>11.6 (7.0)(^b)</td>
</tr>
<tr>
<td>Mean Diet score</td>
<td>5.4 (5.3)</td>
<td>6.8 (5.1)</td>
<td>7.7 (6.6)</td>
<td>3.9 (4.4)</td>
</tr>
<tr>
<td>Mean Bulimia score</td>
<td>.60 (1.8)</td>
<td>.78 (1.3)</td>
<td>.65 (1.0)</td>
<td>.51 (2.2)</td>
</tr>
<tr>
<td>Mean CBS</td>
<td>5.4 (1.8)</td>
<td>5.3 (1.9)</td>
<td>5.9 (1.8)</td>
<td>5.2 (1.7)</td>
</tr>
<tr>
<td>Mean IBS</td>
<td>4.0 (1.2)</td>
<td>3.9 (1.4)</td>
<td>4.1 (1.8)</td>
<td>4.0 (1.2)</td>
</tr>
<tr>
<td>Mean BD score</td>
<td>1.4 (1.9)</td>
<td>1.4 (1.4)</td>
<td>1.8 (2.2)</td>
<td>1.2 (1.9)</td>
</tr>
<tr>
<td>Mean ACC score</td>
<td>43.6 (7.4)</td>
<td>40.3 (6.8)</td>
<td></td>
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</table>

Note. Standard deviations are in parentheses. Different superscripts indicate that means differ significantly (p < .05). EAT = Eating Attitudes Test; Diet = Dieting subscale of the EAT; Bulimia = Bulimia subscale of the EAT; CBS = Current Body Size on Body Image Assessment Procedure; IBS = Ideal Body Size on Body Image Assessment Procedure; BD = Body Dissatisfaction; ACC = Acculturation subscale of the American-International Relations Scale.
VITA AUCTORIS

Iris Sharir was born on October 27, 1971 in Israel. She moved to Canada in August, 1976. In June, 1989, she graduated from Ross Sheppard Composite High School in Edmonton, Alberta. She continued her studies at McGill University, Montreal, Quebec, where she graduated with a Bachelor of Arts degree (honours psychology) in May, 1993. Since September, 1994, she has been registered in the doctoral programme in adult clinical psychology at the University of Windsor.