Acculturation and Disordered Eating: An Exploration of Disordered Eating Practices Across Cultures.

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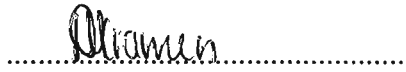
Declaration

I declare that the contents of this thesis, unless otherwise specified, represent my own work.



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ABSTRACT

Research suggests that the eating disorders (anorexia nervosa and bulimia) represent a caricature of the sociocultural values placed on young women to achieve thinness and beauty ideals. Although eating disorders have long been thought to occur only in White, "Western" cultures, more recent research suggests that women from different cultural groups are presenting with unhealthy eating attitudes and behaviours. In South Africa's pluralistic cultural context, the effects of continuous first-hand contact between cultures (acculturation) is an important area of research, especially in light of the hypothesised etiological role of sociocultural factors in eating disorders. The present study aims to address the association between acculturation and disordered eating in a non-clinical sample of nursing students in Pietermaritzburg. Additionally, it aims to contribute to the development of a local acculturation instrument.

The South African Acculturation Scale (SAAS) was developed based on the work of Berry (1976), Berry, Trimble and Olmedo (1986) and Berry (1997). The Individualism-Collectivism (INDCOL) scale (Hui, 1988) and the Eating Disorder Inventory (EDI, Garner & Olmsted, 1984) were included in the questionnaire profile A pilot study was undertaken on 28 students in the health arena, in order to assess the psychometric properties of the assessment instruments. The results of the pilot study yielded adequate reliability co-efficients for the SAAS, although the INDCOL scale yielded unexpectedly inconsistent results.

The formal study adopted a cross-sectional design on a population of 155 nursing students. The sample consisted of 37 Blacks, 33 Whites, 11 Indians and 7 Coloureds between 19 and 28 years of age. Additionally, the sample included 49 Blacks, 3 Whites, 11 Indians and 4 Coloureds greater than, or equal to 29 years of age. The research findings suggest that both Black and White respondents display a propensity towards disordered eating. Black respondents scored higher on measures of the psychological correlates of eating disorders, and Whites scored higher on the attitudinal and behavioural measures of disordered eating. Partial support was obtained for the hypothesis that assimilation and individualist values are correlated to eating disorder pathology. The findings suggest that acculturating young women from diverse cultural and racial backgrounds present with a degree of risk for the development of eating disorders.

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CHAPTER 1:

GENERAL OVERVIEW

1.1 Introduction

This chapter is intended to provide a rationale for the study of disordered eating across cultures, as well as to briefly introduce the concept of acculturation.

Eating disorders (anorexia nervosa and bulimia nervosa as defined in DSM-IV (APA, 1994)) have long been thought to occur only in "Western" cultures. Research suggests that the incidence of disordered eating is increasing in other cultural groups (Abrams, Allen & Gray, 1993; Bulik, 1987; Haynes, 1995; le Grange, Telch & Tibbs, 1998; Winship, 1996). These authors suggest that this increase may in part be due to the internalisation of particular cultural standards and norms which emphasise the importance of thinness and beauty as an integral part of self-concept formation in females.

Research regarding eating disorders has traditionally focused on White female populations (le Grange, Telch & Agras, in press). Dolan (1991) reports that issues of culture, race and ethnicity are often lost in small print, and receive only passing comment. Although this trend seems to be changing, research which considers cultural and ethnic variables is invaluable in the South African context. Consideration of the relative influence and impact of cultural variables in the development of disordered eating may contribute to a better clinical understanding of the manifestation of eating disorders in all population groups, as well as to facilitate intervention programmes which could assist with at risk populations.

In response to reported increases in the incidence of eating disorders across cultures, researchers (both locally and abroad) have more recently focused on the hypothesised consequences of continuous first hand contact between people of different cultures (Bulik, 1987; Furukawa, 1994; Haynes, 1995; Hooper & Garner, 1986; Nasser, 1986; Stuart, 1996; Winship, 1996). The increased incidence of disordered eating has been attributed in part to the incorporation of

"Western/Euro-American" norms and standards of beauty in non-Western societies (Abrams *et al.*, 1993; Pumariega, 1996).

The proliferation of studies intended to "measure" the degree to which "Western" psychological principles apply to members of other cultural groups has stimulated philosophical and ideological debate regarding the extent to which "general/Western" psychological principles can be related to people of other cultures (Shweder, 1990). This debate has in turn led to controversy regarding the legitimacy of disciplines and research findings generated by psychology, and cross-cultural psychology in particular, in the assessment of cross-cultural phenomena. Consideration will be afforded to these ideological and political debates during the latter part of the literature review.

1.2 Research aims

This study aims to explore aspects of disordered eating (in a non-clinical sample of nursing students) across cultures in the South African context. The historical and political circumstances within South Africa's culturally pluralistic society have resulted in continuous first-hand contact between cultures (i.e. the process of acculturation). This investigation aims to consider the association between acculturation and disordered eating, and briefly comment on the ideological and political views embedded in cross-cultural research.

The relevance of the research is underscored by the greater reported incidence of disordered eating across cultures, and the consequent need to understand vulnerabilities and identify at-risk populations. The development of appropriate preventative, educative and intervention resources are imperative in a country which can ill-afford the burden of chronic mental and physical illness, as well as long term psychiatric care. Furthermore, it is the challenge of health professionals to ameliorate the personal suffering of patients (and their communities) with eating disorders, and to understand the cultural context in which they arise with appropriate sensitivity. Furthermore, early intervention in subclinical eating disorders has been found to positively influence treatment outcomes (Button & Whitehouse, 1981). Consequently, the investigation of subclinical cases of disordered eating, as well as the prevalence of unhealthy eating attitudes in the general population, has important clinical and therapeutic implications.

This research has additional implications for the development of other disorders and behaviours arising from acculturative stress, for example, depression and anxiety (Berry, 1988) and suicidal behaviours (Pillay & Wassenaar, 1996; Wassenaar, van der Veen & Pillay, 1998).

CHAPTER 2:

EATING DISORDERS ACROSS CULTURES

2.1 Incidence and prevalence rates

Eating disorders have traditionally been understood as a middle to upper class White female phenomenon (Root, 1990). Anorexia nervosa has been perceived as a "Golden Girl's" disease. It has come to be viewed as an illness which is precipitated by the pursuit of White, Western European ideals of beauty. However, few studies have considered eating disorder symptomatology in so called non-Western, non-European populations (le Grange *et al.*, 1998). Root (1990, p.525) hypothesises that the relative dearth of studies in this area reflects a "convergence of stereotypes" regarding at risk populations, symptomatology, and a contextual basis for the development of eating disorders. Root (1990) points out that the occurrence of eating disorders in American racial minority groups is assumed to be rare.

Dolan (1991) reports that the assumptions and prevailing attitudes within the social systems of clinicians and researchers are implicitly linked to the presentation, description and diagnosis of eating disorders. The ethnocentric[1] assumptions of researchers and clinicians working within the Western medical paradigm may preclude the likelihood of non-White women presenting with eating disorders, hence affecting the rates of diagnosis and referral (Dolan, 1991). Similarly, Dolan (1991) points out that consideration of the political issues affecting service provision to minority groups may also account for the relative lack of clinical and epidemiological information regarding the etiology and form of eating disorders in non-Western populations. Dolan (1991) asserts that consideration of the methodological and sociopolitical difficulties inherent to studies of disordered eating across cultures makes generalisation about the incidence and form of eating disorders in non-White population groups questionable.

In light of the above disclaimers, incidence and prevalence rates referred to in this section are

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[1]The term "ethnicity" refers to socially constructed and shared traditions which are maintained between generations and lead to a sense of group identity (Gabriel, 1999; Nasser, 1997)

largely derived from studies of Western women. DSM-IV (APA, 1994) cites an overall prevalence rate for anorexia nervosa of 0.5% to 1% in adolescent females. The prevalence of bulimia nervosa tends to be more common than anorexia nervosa, with DSM-IV citing prevalence rates from 1% to 3% in adolescent and young adult females (APA, 1994).

In a review of the transcultural aspects of eating disorders, Davis and Yagner (1992) reported findings that support the general perception (Root, 1990) that throughout the last decade, the prevalence and clinical features of eating disorders have largely been limited to the middle to upper class Caucasian females from Westernised countries. Davis and Yagner (1992) report incidence rates for anorexia nervosa in the general Westernised population ranging from 0.37-1.6 per 100 000 of the population annually. Since the disorder appears to be more prevalent in specific subgroups (viz. Westernised, middle to upper class socioeconomic status), the authors report that generalised Western population incidence rates may be misleading. The number of cases from controlled Western samples of at-risk groups place rates of anorexia nervosa at approximately 0.25% to 6.0%. Bulimia nervosa rates range from about 2% to 19% in controlled samples (Davis & Yagner, 1992).

Winship (1996) reports that within the South African context, no prevalence or incidence reports have been conducted with regard to eating disorders. Hence, an investigation of the number of South Africans with eating disorders is an essential area of research (Ziervogel, 1995). The interaction between acculturation and eating disorder symptomatology in a culturally pluralistic society such as South Africa may highlight etiological factors in the development of disordered eating within all population groups in the country.

2.2. Sociocultural risk factors in disordered eating

Hollin, Houston and Kent (1985) assert that the etiology of disordered eating can be understood in the light of a triadic relationship between personal environmental contingencies, sociocultural pressures for thinness, and psychological variables. The authors point out that "fashion cannot 'cause' a clinical disorder. Cultural pressures must be mediated by individual differences in psychological and environmental contingencies to produce differential effects across members of that culture" (Hollin *et al.*, 1985, p. 485).

Similarly, Iancu, Spivak, Ratzoni, Apter and Weizman (1994) report that the sociocultural theory in the development of anorexia nervosa is analogous to the development of alcoholism in populations where alcoholism is prevalent. That is, "the greater the exposure to the potentially damaging agent or condition, the more people will be damaged" (Iancu *et al.*, 1994, p. 35). Thus, exposure to accepted dieting practices and culturally sanctioned slim ideals represent a similar risk for the development of eating disorders (Szmuckler & Tatam, 1984; cited in Iancu *et al.*, 1994). However, other contributory etiological factors should receive consideration, since all women exposed to sociocultural pressures do not develop eating disorders.

Despite this qualification, a number of investigators have demonstrated the etiological relevance of sociocultural factors in the development of eating disorders (Dittmar & Blayney, 1996; Dolan, 1991; Pumariega, 1986). Sociocultural factors are defined as "the norms, standards, or values of a society or culture" (White, 1992, p. 354). Sociocultural factors that place women at risk for eating disorders include: value placed on a thin physique; dieting norms; valued perfectionism; the influence of the media in construing the importance of these values, norms, and standards; and professions which emphasise the importance of thinness (White, 1992).

2.2.1. Cultural discourses: "A thin physique is valuable"

Cultural discourses which emphasise the value of thinness in Western societies have been associated with a preoccupation with weight and shape in women (Becker & Hamburg, 1996; Dittmar & Blayney, 1996; White, 1992). Perusal of popular art across the decades demonstrates that the rounded figure (for example, the Rubenesque nude) has been replaced with a more androgynous, thin body shape (for example, Twiggy in the 1970's represented the body shape ideal of the time). Currently, popular body shapes are represented by models who are oftentimes emaciated, 'waif-like' and thin (for example, Kate Moss reflects the popular body shape of the 1990's).

Becker and Hamburg (1996, p.165) point out that "the interest in and sanctioning of self-cultivation (and hence a self-conscious regulation of body shape) evolved in American culture from the early 1900's when appearance became understood as a window to a person, and the self began to be promoted as an increasingly visual image such that there has been a growing cultural

premium on 'seeming' rather than 'being'". Thus, the body has increasingly become the symbolic projection of a personal image. Through self-cultivation, the body is seen as a commodity through which personal attributes such as self-determination and achievement-oriented behaviour are reflected (Becker & Hamburg, 1996).

Current trends also stress the importance of health and fitness (White, 1992; Wiseman, Gray, Mosimann & Ahrens, 1992). Hence, Westernised women are expected socioculturally to be thin *as well as* athletic and fit. The possible implications of this two-way thinness/health ideal may place an even greater pressure on women today to conform to thinness ideals, in that health and thinness are concurrent requirements, which are not easily concurrently met.

Polivy and Herman (1987) report that the possible explanations for the valuing of thinness are threefold: First, aesthetically, a thin physique is perceived to be more beautiful, and more sexually appealing. Second, implicit personality correlates associated with a thin physique include perceptions of power and health. Third, a slender physique implies that the individual has self-control and mastery over her body. Perhaps an implicit motivation for women to conform to the thin ideal is the stigmatisation of obesity in Western society (Furnham & Alibhai, 1983).

Body cultivation and preoccupation appear to have become culturally sanctioned and legitimated forms of self-presentation and self-promotion. The body is uncritically accepted as a 'malleable image' which is a natural resource (commodity) created and maintained by the individual (Becker & Hamburg, 1996). The illusion of self-making and self-determination is especially credible in Euro-American cultural milieus which stress achievement orientation and the philosophy that the individual is the author of her/his own destiny. 'Authorship' over, and the objectification of one's body implies that the individual is uniquely responsible for her bodily imperfections. The cultural sanctioning of self-cultivation leads to a self-conscious regulation of body shape (Becker & Hamburg, 1996).

2.2.2 Normative discontent and dieting

Dieting is a way of life for many Western women, to the extent that it is likely that dietary restraint is prevalent enough to be considered "normal behaviour" (Dolan & Ford, 1991; Polivy

& Herman, 1987). Although it is well established that dieting does not necessitate an eating disorder, clinical and research findings suggest that dieting is often a precipitant to an eating disorder. The proliferation of popular self-help texts on dieting and slimming (Wiseman *et al.*, 1992) bears testimony to the normative prevalence and acceptance (as well as the financial profitability) of dieting.

Nylander (1971; cited in Polivy & Herman, 1987) proposed a "continuum hypothesis" of disordered eating, based on findings that symptoms of anorexia nervosa and bulimia have been identified in normal dieters. This led to the contention that the eating disorders fall on the endpoint of a continuum of disordered eating, with subclinical forms of disordered eating at the other end of the continuum (Polivy & Herman, 1987). As such, the difference between "normal dieters" and individuals with clinical eating disorders is a matter of severity of weight loss attempts. A discontinuity between "normal dieters" and clinically diagnosed eating disordered patients has been advanced by Crisp (1970), who reports that the normal dieter diets to achieve positive goals such as self-esteem, control and an improved appearance, while an anorexic patient diets presumably to avoid developmental maturation and the associated psychosocial stressors. The continuum hypothesis remains a contentious issue in the literature, although it has been useful in explaining the widespread prevalence of disordered eating attitudes and behaviours in Western population groups.

2.2.3 Discourses of perfection: The superwoman ideal

"The reason why women are more at risk for an eating disorder in a society which stresses perfection is that, as a gender class, women are more concerned about their body image and appearance" (White, 1992, p.356). Women define perfection in terms of perfect body shapes and weights. In addition, research has demonstrated that women are more susceptible to, and are more likely to seek external validation than are men (White, 1992). This sets up a cycle of striving for a thinness ideal (in order to be perfect), expectations of external approval, and confirmation of the expected approval, thus entrenching the illusion that perfectionism is inexorably linked with appearance (Bulik, 1987; White, 1992).

Although the above view is widely accepted as a contributory factor to the development of disordered eating, it espouses a narrow impression of the larger pressures placed on women in Western societies, and it undermines the diversity of potential etiological factors leading to a vulnerability to eating disorders. Western sociocultural values stress the pursuit of perfection in every aspect of life, including one's relationships and vocational work. The culturally sanctioned Western view of the modern woman is one which expects success at work, success at mothering, success in relationships, as well as an 'appropriate' balance between femininity and independence (Montanari, 1998).

2.2.4 The role of the mass media

Garner, Garfinkel, Schwartz, and Thompson (1980) demonstrated the possible etiological role of the mass media in promoting the value of the thinness ideal in an early study which reviewed weight and height data from *Playboy* magazine centrefolds, and Miss America pageants between 1959 and 1978. They noted a 10% decrease in weight for height during this period. Furthermore, they discovered a sixfold increase in the number of dieting articles appearing in six popular women's magazines. In a similar study, Wiseman *et al.* (1992) observed a significant increase in diet-for-loss and exercise articles in six women's magazines between 1959 and 1988, as well as body measurements in *Playboy* magazine centrefolds and Miss America pageants which were 13-19 % below the expected weight for women of that age.

Dittmar and Blayney (1996) investigated young women's self reported eating behaviours and responses to food and non-food television advertisements. They assessed the reactions of thirty-one female undergraduates to eight television advertisements. Advertisements were selected based on two sets of criteria. Firstly, they all featured an attractive female central character between 18 and 25 years of age. Secondly, the selected adverts represented four different categories of consumer products ranging from neutral products (for example, a car) to diet and non-diet food products. Respondents were requested to report emotions associated with each advert, and evaluate the female character in the advert using bipolar scales (scales assessed respondents perceptions with regard to the central protagonist's degree of personal control, success, confidence and independence). Respondents were asked to fill out the Eating Attitudes Test (EAT, Garner & Garfinkel, 1979; in Dittmar & Blayney, 1996) in a 'separate' study.

The results suggest that advertisements featuring food aroused more negative emotions than did non-food advertisements, but only for women who displayed disordered eating and disturbed attitudes towards their body and weight. This finding is supported by the findings of Herman and Polivy (1975, cited in Garner, Garfinkel, Schwartz &Thompson, 1980) who report that dieting or restrained eating has been associated with an increased vulnerability and responsiveness to food-related cues. This suggests that caloric restriction alters the individual's posture toward food, further complicating dieting.

Dittmar and Blayney (1996) report that women with highly disturbed eating behaviours tend to attribute less personal control to a model advertising food products rather than non-food products, hypothesised to represent the projected symbolisation of the viewer's conflict between her appetite and ideal body shape. Dittmar and Blayney (1996) conclude that the differences in emotional reactions between the high scorers on the EAT and the low scorers appear to be due to differential vulnerability to messages depicting a conjunction of eating behaviours and an emphasis on sociocultural norms for thinness. This vulnerability may arise as a result of existing disordered eating attitudes and behaviours, or as a factor which could encourage women towards a greater degree of clinically disordered eating patterns (Dittmar & Blayney, 1996). The small sample size in this investigation limits the generalisability of the research findings. However, the findings highlight the need for further investigations to address sociocultural factors in the etiology and treatment of disordered eating, as well as the possible role of the mass media in ameliorating the epidemic rise in eating disorders (Dittmar & Blayney, 1996).

Becker and Hamburg (1996) hypothesise that vulnerability to the visual media market may complicate the acculturation of immigrant women entering different sociocultural arenas. The heightened risk of immigrant women developing an eating disorder may in part be understood by the fact that the media play an important role in their exposure to local cultural norms and values which may be viewed and internalised uncritically, in the absence of more realistic cultural representations and expectations (Bulik, 1987).

The media play an important role in promoting and routinizing images of thinness as bodily ideals, as well as associating these ideals with status and prestige in order to promote commercial

gain in several industries, ranging from fashion and beauty products, to selling magazines and television programmes (Becker & Hamburg, 1996). There is a correspondence between the target audience for promoting slimming products and practices, and the demographic group at highest risk for developing anorexia nervosa (Toro, Cevera & Perez, 1988; cited in Becker & Hamburg, 1996). However, no causal inferences can be made from this research since the cultural forces supporting anorexia in this group may account for the commercial success from the marketing of slimming and beauty products (Becker & Hamburg, 1996).

There has been uncertainty as to whether the mass media simply reflects or creates pathogenic values, however, it is believed to play a vital role in supporting and normalising attitudes about the self and the body which may enhance the risk of developing an eating disorder (Becker & Hamburg, 1996). The gross oversimplification of the role of the mass media in the development of disordered eating (i.e. dieting in response to powerful messages about the thin body ideal) is "based on reflex assumptions about human motivation and behaviour" (Becker & Hamburg, 1996, p.163) rather than on systematic research. Hence, the importance of deconstructing culturally embedded assumptions about the role of the mass media in disordered eating is vital in order to develop appropriate intervention and preventative measures.

2.2.5 Risky professions

Professions which promote and emphasise the importance of appearance and weight standards as being intrinsically vital to success and achievement in that field (such as models, athletes, dancers and air hostesses) represent populations which are at risk for eating disorders. A greater incidence of disordered eating has been reported in individuals whose professions are related to personal appearance (le Grange, Telch & Noakes, 1994; Montanari, 1998), furthermore, the pathology has been found to manifest after the woman has entered that profession (Garner & Garfinkel, 1980; White, 1992).

2.3 Linking sociocultural factors to so-called low-risk populations

The relative absence of eating disorders in non-Caucasian populations has been well established (see Section 2.1). Although several studies have alluded to the importance of sociocultural factors which have been associated with eating disorders among Caucasian populations in "Western"

societies, a relative dearth of meaningful information regarding eating disorders in other ethnic groups has been reported (Davis & Yagner, 1992; Dolan, 1991).

Abrams *et al.* (1993) report that the low prevalence of eating disorders amongst Black women can be explained by cultural differences in definitions of beauty. Although there is a greater frequency of obesity in Black women than White women in the United States, and both groups report body image dissatisfaction, Black women appear to have lower drives for thinness than White women (Rand & Kuldau, 1990). While Black women may binge and diet to manage their weight, they are unlikely to engage in weight loss behaviours that result in eating disorders such as anorexia nervosa and bulimia nervosa (Abrams *et al.*, 1993).

Many authors, including Boskind, White and White (1983, cited in Abrams *et al.,* 1993) and Chernin, (1981, 1985; cited in Abrams *et al.,* 1993) report that pathological eating attitudes and behaviours are associated with the internalisation of values and standards which stress the importance of thinness and beauty in the formation of the self-concept in women. Research suggests that as Black females attain greater levels of socioeconomic status, and acculturate into "mainstream" Western society, they become more predisposed to developing an eating disorder (Bulik, 1987; Haynes, 1995; Hsu, 1987; Pumariega, 1986; Stuart, 1996; Winship, 1996).

2.3.1 Race as an incidental variable

Several studies have considered ethnicity as an incidental variable and reported related findings (Anderson & Hay, 1985; Crisp, Palmer & Kalucy, 1976; Dolan & Ford, 1991; Gray, Ford & Kelly, 1987; Hui, 1987; Lacey & Dolan, 1988; le Grange, Telch & Tibbs, 1998; Nevo, 1985), however, few studies have focused specifically on the relationship between ethnicity and disordered eating. The racial aspects of disordered eating as an incidental variable are summarised below.

Table 1 Race as an incidental variable

Author(s)	Sample	Main Findings
Crisp, Palmer & Kalucy (1976)	Sampled 9 British schools	Found no non-White anorectics. The prevalence of anorexia nervosa in White girls was found to be 1 in 200
Anderson & Hay (1985)	Compared 8 Black and 120 White patients with anorexia or bulimia with each other and with 21 Black control patients.	Black and White patients with eating disorders demonstrated similar demographic features (except for later age of onset in Blacks) and a similar course of illness. Both racial groups with eating disorders had a significantly greater socioeconomic status (SES) than control patients.
Nevo (1985)	Assessed college women in the USA using diagnostic eating disorder questionnaires. The sample included 505 Whites, 148 Asians and 25 Blacks.	Using DSM III criteria (APA, 1980), 70 (14%) Whites, 5 (2.7%) Asians and 1 Black woman (4%) were classified as bulimic.
Hooper & Garner (1986)	Applied the EDI to 399 Black, White and Mixed race schoolgirls in private schools in Zimbabwe.	Out of 80 high scorers, 12.5 % were Black, 17.5 % were Mixed race, the balance of high scorers were White. A bulimic tendency was observed amongst high-scoring Black and Mixed race groups.
Gray, Ford & Kelly (1987)	Compared attitudes toward food and weight and the prevalence of bulimia in a Black student population (N=507) with the results obtained from a similar study of Caucasian students (Gray & Ford, 1985).	Significantly fewer Black female students than White female students fitted DSM-III (1980) criteria for bulimia. In comparison to Caucasian females, Black students were reported to be less likely to experience a sense of fear and discouragement with regard to weight control. The authors assert that thinness may not be culturally sanctioned, nor as easily internalised by Black students than White students. Socioeconomic status was not found to be a factor in the prevalence of bulimia between the Black and Caucasian samples.

Author(s)	Sample	Main Findings
Hsu (1987)	Reported on 7 case-studies of African American patients with eating disorders, seen in two centres in Pittsburgh.	Identified 3 bulimic patients, 2 anorexic patients, and 2 mixed anorexic/bulimic patients. A family history of alcoholism and/or depression was identified across all cases assessed.
Lacey & Dolan (1988)	Investigated all female patients in south-west London, referred to the Eating Disorders Clinic at St George's Hospital between 1980 and 1985. Five non-White eating disordered patients were compared to White patients presenting during the same time.	Five non-White, normal body weight bulimics were identified. Comparisons with White bulimics in the same catchment area demonstrated clinical similarities, but non-White bulimics tended to give accounts of gross emotional deprivation. Racial identity was reported to be a major problem in all non-White patients, and was a prominent feature of subsequent psychotherapy.
Dolan & Ford (1991)	Assessed binge eating and dietary restraint in a sample of 160 female Arab students and 58 male Arab students.	A significant correlation of binge eating and dietary restraint was found for both genders. Comparison of the sample with Western data suggests that Arab women display significantly lower levels of dietary restraint. Cultural factors were hypothesised to mediate the level of restraint shown.
le Grange, Telch & Tibbs (1998)	Examined the presence and severity of eating disorder pathology in six South African tertiary institutions using the Eating Attitudes Test, and the Bulimic Investigatory Test.	Significantly greater eating disorder psychopathology was demonstrated in Black students than Caucasian, Mixed race, and Asian students. An equal percentage of Black and White subjects scored within the clinical range of disordered eating.
Gabriel (1999)	Retrospectively examined demographic variables in a South African sample (N = 254) of anorexic patients hospitalised between 1987 and1996.	No significant trends were observed with regard to sex, race, age at admission, or socioeconomic status over the 10 year period. A significant decreasing trend in weight and Body Mass Index (BMI) was reported. A significant relationship was found between SES, and subject's weight and BMI respectively.

Dolan (1991) reports that if inferences about the role of race and culture in the etiology of eating disorders are to be assessed, these constructs need further clarification. Race refers to genetic differences between groups (hence, it is a biologic term). Genetic differences between individuals of different racial groups may biologically predispose or protect them from the development of an eating disorder (Crisp, 1970; Dolan, 1991). However, even if genetically determined differences in, for example, weight and body fat exist between races, Dolan (1991) asserts that reactions and behaviours towards these differences are more important. Hence, it is more likely that individual reactions are determined culturally, and not as a result of genetic make-up (Dolan, 1991; Rucker & Cash, 1991). A discussion of "cross-cultural aspects of eating disorders using broad statements based upon biological racial identifiers is wholly inadequate" (Dolan, 1991, p.75).

2.3.2 Immigrant studies

Western cultural pressures which stress the importance of societal ideals of weight and shape have been well documented (Dolan, 1991; Rucker & Cash, 1991). The following studies (Furnham & Alibhai, 1993; Nasser, 1986; Bulik, 1987) demonstrate changing attitudes and ideals to weight and shape with immigrant status in ethnic groups whose cultural preferences favour plumpness as opposed to thinness. Furukawa (1994) examines aspects of disordered eating in Japanese immigrants whose culture of origin favours thinness. In these studies, the focus is not on race as an incidental variable, but on the etiological effects of relocation to a different culture and the associated social and psychological pressures.

Furnham and Alibhai (1983) undertook an investigation of cross-cultural perceptions of female body shapes. Three groups of 15 females (matched for SES) were asked to rate 12 sketches of naked female shapes ranging in body shape from anorexic to obese. The sample consisted of 15 Kenyan Asian females (who were born in and reside in Kenya), 15 Kenyan Asian British females (who were born in Kenya, but had been resident in Britain for a minimum of 4 years), and 15 White British females who were born in, and reside in Britain.

The results confirmed that Kenyan Asians tend to perceive thinner female shapes more negatively and fatter shapes significantly more positively than a comparable British group. The British

Kenyan respondents tended to have similar perceptions to the British group rather than the Kenyan group. The authors hypothesise that the British Kenyan findings demonstrate that exposure to British values creates an extreme reaction against traditional cultural values regarding desirable body shapes. The extremely anorexic stimulus was negatively rated by all groups as being unattractive, unhappy, insecure, unaffectionate and masculine, suggesting a culturally invariant dislike for extreme anorexic shapes. Borderline anorexic shapes were significantly more positively rated for the Kenyan British and British groups than for the Kenyan Asian group, suggesting that the rating of thinness is a sociocultural phenomenon (Furnham & Alibhai, 1983).

Obese figures were significantly more positively rated for the Kenyan Asian group than for the Kenyan British and British group. A near linear relationship was observed in the latter groups between an increase in obesity and an increase in negative evaluation. The attitudinal changes displayed by the Kenyan Asian group were hypothesised to be a function of exposure to Western societal pressures which stress the importance of a slim, attractive body (Furnham & Alibhai, 1983). Due to the small sample size, generalisation of these findings to "third-world" countries is limited, although the research findings are consistent with previous research findings in Sweden, India and the Phillippines (Furnham & Alibhai, 1983).

Nasser (1986) investigated the prevalence of abnormal eating attitudes among 50 Arab female students in London (with a mean residency in the UK of 3.4 years) and 60 Arab female students attending Cairo university. Respondents were required to complete the Eating Attitudes Test (EAT; Garner & Garfinkel, 1979, cited in Nasser, 1986), as well as an Eating Interview. Twenty-two percent of the London sample and 12% of the Cairo sample scored positively on the EAT, at a cut-off score of 30, indicating that abnormal eating attitudes occur in this non-Western population. Six cases fulfilled the diagnostic criteria for bulimia nervosa in the London sample, while no cases of either anorexia nervosa or bulimia nervosa were found in the Cairo sample.

Respondents from the clinical sample (London) reported a general tendency to overeat during their first year in the UK, attributing their over-eating to loneliness, boredom and cold weather. All six clinical cases admitted to binge-eating and self-induced vomiting (Nasser, 1986). The

Cairo sample reported no bulimic tendencies, and appeared to be unaware of such weight loss behaviours. The authors assert that the London students may have become more achievement oriented and competitive (as a function of exposure to Western cultural values) which has been reported to be a risk factor which is predisposing to anorexia nervosa (Garner & Garfinkel, 1980). Nasser (1986) asserts that the relationship of eating attitudes to Westernisation requires further investigation in Cairo.

Bulik (1987) presents clinical case study data from two Eastern European immigrants to the United States. The findings support those of Nasser (1986) in that individuals in both of the cases presented adopted what they perceived to be the physical criteria for acceptance in America. "Through the media and peers, they learned that appearance, and more specifically an emphasis on exercise, diet, and slenderness, was a means to acceptance in American society" (Bulik, 1987, p.138.) A striking feature reported in both cases is the immigrant's conflict associated with "double messages" in the media, which encourage the consumption of exotic foods on one hand, and the importance of exercise and slimness on the other.

Furukawa (1994) undertook a prospective investigation of 188 Japanese teenage students who had enrolled in a one-year placement with a host family in various countries of the world. Respondents were required to fill out questionnaires pertaining to personality, general health as well as the Eating Disorders Inventory (EDI; Garner, 1991; cited in Furukawa, 1994) at the orientation meeting (time 1), six months after placement with the host family (time 2), and finally, upon their return to Japan.

The results show that the exchange students demonstrated significant weight gain during their stay abroad, despite controls for natural maturational weight gain. No significant changes in the EDI scores for time 1 and time 3 were observed, with the exception of the *Interoceptive Awareness* subscale in female respondents. Despite this finding, a substantial proportion of the cohort reported abnormal eating attitudes during their one-year stay abroad. In order to assess the psychosocial and cultural factors accounting for disturbed eating attitudes, Furukawa (1994) notes that regardless of whether respondents are under acculturative stress, individuals scoring high on neuroticism tended to score higher on the *Drive for Thinness* subscale. Lack of

Interoceptive Awareness and *Interpersonal Distrust* were cross-sectionally and prospectively associated with bulimic behaviours under acculturative stress.

Furukawa (1994) concludes that Japanese adolescents, having already been exposed to sociocultural pressures for thinness, may gain weight under acculturative stress, but they do not display a greater frequency of pathological eating attitudes (regardless of their placement within a "weight-conscious" or non "weight-conscious" culture). Personality and cognitive traits, as well as perceptions of parental rearing practices were found to predict future disordered eating attitudes and behaviours under acculturative stress (Furukawa, 1994).

These research findings are limited by the fact that there was no control group undergoing a stressful change, hence the research is purely descriptive. Furthermore, Furukawa (1994) does not specify the measurement and assessment of acculturation, treating it as an incidental variable. It could be argued that stress alone might have accounted for the tendencies towards pathological eating behaviours displayed by a minority of the students.

2.3.3 Acculturation studies

Abrams *et al.* (1993) undertook a study which is similar in methodology to the current study. A total of 100 Black and 100 White middle to upper-class female students were recruited from an Atlantic state university. Participation required the Black students to identify themselves and both parents as Black and from the United States, similarly, White participants were required to identify themselves and their parents as White and of American descent. The groups were matched for age, height and socioeconomic status. The researchers obtained measures of disordered eating behaviours and attitudes, as well as psychological correlates including self-esteem, depression and anxiety. Cultural assimilation amongst Black respondents was assessed using the Racial Identity Scale for Blacks (RAIS-B; Helms, 1990).

The findings suggest that Black women were less concerned with weight loss, and they demonstrated less effort to achieve a thin body "ideal" than White women. Black female students tended to be heavier than White students, and Black students were found to be less likely to engage in restrictive dieting, binging and purging associated with disordered eating. Abrams *et*

al. (1993) conclude that the results can be understood in light of the fact that Black cultures tend to encourage a greater acceptance of heavier body weights than what many White women find acceptable. Furthermore, the greater acceptance of a range of body weights is based on the different standards of beauty thought to be present in Black society.

Abrams *et al.* (1993) found that in Black college students, weight-loss efforts and body dissatisfaction were positively related to weight. White college students however, were more likely to display disordered eating attitudes regardless of their actual weight. Hence, Black women tend to employ less extreme and more realistic weight loss strategies; in contrast, White women employ weight loss strategies that are a reflection of perceived weight problems.

A stronger relationship between anxiety and dieting attitudes was found for White women than for Black women. The relationship between restrictive dietary practices and binge-purge behaviours has been theorised to be a reflection of women's means of coping with conflict and anxiety about achieving independence. Hence, dieting in Blacks is less likely to result in an eating disorder, since these efforts to be thin may not be linked to the conflicts that White women experience with regard to dependency issues (Abrams *et al.*, 1993).

Black people in the United States are seen as belonging to two cultures (Helms, 1990), the Afro-American culture and the more dominant White culture. Each culture has different levels of acceptability regarding weight and beauty. Abrams *et al.* (1993) postulate that Blacks are therefore differentially influenced by two different cultures. Black women who are rejecting of Black culture and idealise White culture tend to demonstrate dietary restraint, fear of fat, and drive for thinness variables, which have been shown to predispose White women to disordered eating (Abrams *et al.*, 1993).

Pumariega (1996) undertook a correlational and comparative study of eating attitude scores with a rationally derived measure of acculturation, and a measure of SES among Hispanic and White adolescent girls in America. The results suggest that eating attitudes in the anorexic direction demonstrated a linear tendency with increasing acculturation to American culture. The results support the hypothesis that greater conformity to the prevalent (American) culture which

endorses achievement-orientation, emotional autonomy as well as thinness and dietary control, may increase risk and vulnerability in the development of disordered eating pathology (Pumariega, 1986). The study also highlights the importance of cultural attitudes in the prevalence and incidence of disordered eating (outlined by Garner & Garfinkel, 1980). No significant association was found between SES and vulnerability to disordered eating.

The research findings are limited by the fact that a narrow range of acculturation was assessed, as the sample consisted of urban school girls only. Pumariega (1986) suggests that the assessment of a broader range of acculturation (including rural populations which are presumably less acculturated) may demonstrate more significant results.

Haynes (1995) investigated the relationship between body image and culture. A cross sectional design was applied to three groups of young South African women, matched for age (N=60). 20 respondents were White university students, 20 were Black university students, and 20 subjects were Black rural women. The study addressed the problems of a narrow range of acculturation (Pumariega, 1996) by assessing a sample which would demonstrate a potentially broad range of acculturation influences. The author assessed for the degree of Westernisation in the three groups using a rationally derived measure. Body image was assessed using the Body Shape Questionnaire (BSQ), the Image Marking Procedure (IMP) and the Moving Calliper Technique (MCT).

The results demonstrate that significantly greater body image dissatisfaction was reported with Westernisation. The association between the adoption of Western values and body image disturbance was hypothesised to place Black South African women at risk for the development of body shape and weight concerns (Haynes, 1995). The research findings are limited by the fact that the measures of acculturation (defined as degree of Westernisation) were not tested for validity or psychometric properties. Furthermore, the small sample limits the generalisability of the findings.

Winship (1996) investigated the impact of acculturation on the degree of disordered eating attitudes and behaviours in 291 South African university students using the EDI (Garner &

Olmsted, 1984), a rationally derived acculturation measure, as well as the RAIS-B (Helms, 1990). The research findings suggest that while White respondents display particularly high levels of disordered eating, (as compared to the Canadian norms (Garner & Olmsted, 1984)), Black students display levels of disordered eating which are comparable to those of the Canadian sample. This led to the conclusion that Black university students are not immune to the development of eating disorders. Higher Body Mass Index (BMI) scores were positively correlated with *Body Dissatisfaction* in both race groups, suggesting that higher BMI's may predispose female students to the development of disordered eating attitudes and behaviours, especially body dissatisfaction (Winship, 1996).

No significant relationship was observed between acculturation and disordered eating attitudes and behaviours in Black students. This finding is qualified to the extent that the acculturation instruments used were not validated for a South African population. Furthermore, the RAIS-B was found to be a measure of Black consciousness rather than an acculturation process (Winship, 1996).

Stuart (1996) assessed the relationship between acculturation and eating attitudes in Black South African tertiary education students. The results of her investigation reflect a significant relationship between acculturation to a Western culture, (assessed using a rationally derived measure based on language preference, media sources, religion, food and clothing, parent's education, and attitudes towards the traditional African way of life), and unhealthy eating attitudes (assessed using the EAT). Stuart (1996) asserts that despite the differences in racial contexts between South Africa and more Westernised countries, acculturation in Black South African women appears to approximate the predominantly White Western culture, which has been found to predispose individuals to the development of eating disorders, based on its unique sociocultural context. The psychometric properties of the acculturation instrument employed are not reported in Stuart's (1996) paper. However, the scale appears to have face validity. It is limited by its apparent conceptualisation of acculturation as a linear phenomenon, and its *a priori* assumption that the items derived reflect a measure of a particular acculturation dimension.

Kenny and Runyon (1998) assessed the relationship between level of acculturation, cultural beliefs related to physical appearance, and eating disordered symptomatology (assessed using the EDI-2) among 106 college students at a large public university in the United States. The sample consisted of 40 Hispanics, 24 African-Americans, and 42 Caucasians. Respondents completed measures of disordered eating, self-esteem, cultural perceptions of thinness, level of acculturation and degree of body satisfaction.

The findings suggest that disordered eating patterns and body dissatisfaction are not limited to the Anglo-American (Caucasian) population. Kenny and Runyon (1998) report that African-American students were the most dissatisfied with their bodies and endorsed behaviours associated with disordered eating. African-American students scored significantly higher on the EDI-2 than did Hispanic or Caucasian respondents. Furthermore, African-American respondents displayed the largest discrepancy between their ideal weight and their current weight, and tended to be less satisfied with their weight and bodies than were the Hispanic or Caucasian respondents (Kenny & Runyon, 1998).

Body satisfaction, self-esteem, and level of acculturation were significantly related to behaviours associated with disordered eating. Scores on measures of disordered eating increased as individuals abandoned their native cultural values and perceived themselves as fatter, with a concurrent decrease in self-esteem scores (a finding similar to that of Heras and Revilla, 1994) and satisfaction with weight and physical appearance. Kenny and Runyon (1998) assert that the fundamental risk factors for the development of disordered eating arise from a dissatisfaction with one's self and appearance, as well as a belief that others (or the predominant culture) value thinness.

2.3.4 Confounding Variables

2.3.4.1 Socioeconomic status

Measures of SES and disordered eating suggest an inverse relationship between SES and obesity for developed societies, and a positive relationship between the two in developing societies (Sobal & Stunkard, 1989). However, African American women tend to be more obese than White women regardless of SES (Johnson, Heineman & Heiss, 1996; cited in Caldwell *et al.*, in press).

Caldwell *et al.* (in press) point out that SES may be a confounding variable in the study of disordered eating cross-culturally. The authors suggest that cross-cultural studies of the influence of ethnicity on disordered eating may reflect a difference in SES, rather than differences in ethnicity or acculturation levels. It could be hypothesised that women in higher socioeconomic brackets may experience more pressure to be thin than women in lower socioeconomic brackets. In order to address the issue of SES versus ethnicity as a correlational factor in the development of disordered eating, the authors undertook a comparative study of African-American women and White women in higher socioeconomic brackets.

Caldwell *et al.* (in press) assessed subjects who responded to a survey of dieting practices in *Consumer Reports Magazine*, assuming that respondents represented African-American and White women from middle to higher socioeconomic brackets. Body Mass Indices (BMI) were recorded for the respondents, and the Rosenberg Self-Esteem Scale was used to assess Self-Esteem (Rosenberg, 1979; in Caldwell *et al.*, in press). After controlling for BMI, income, and marital status, the authors found that there were no significant differences in body dissatisfaction between Afro-American and White women. This led the authors to conclude that either ethnic differences in the development of disordered eating do not exist, or that earlier studies which have found significant results between the two population groups have confounded race and SES.

Hence, attitudes about body shape and weight appear to be associated with SES rather than ethnicity (a finding supported by Sobal & Stunkard, 1989). Caldwell *et al.* (in press) suggest that social class is a more powerful determinant than ethnicity in body dissatisfaction and African-American women and White women in the upper socioeconomic classes experience equivalent malcontent with regard to their body shape.

These findings are contrary to those of Pumariega (1986), Gray, Ford and Kelly (1987) and Winship (1996) who report that SES was not found to be a significant contributory factor in the prevalence of bulimia nervosa in Black and Caucasian populations. The etiological role of SES remains a contentious issue in the literature.

Caldwell, Brownell and Wilfley's (in press) findings are limited by the fact that the sample was not representative of the general population, and there were many more White respondents than there were African-American respondents. Furthermore, theorists of cross-cultural phenomena might argue that the interface between SES and ethnicity cannot be ignored in acculturating groups. Hence, one could argue that respondents who are of a higher SES may in fact be a more acculturated group, and therefore the authors findings may be a reflection of acculturation phenomena which may have influenced eating patterns. The methodological difficulties inherent to studies across culture are manifold as demonstrated above, which problematises the generalisability of such data to other populations.

2.4 Summary

The prevalence of eating disorders has been widely researched, both in South Africa and abroad. Early findings suggested that high risk populations for the development of eating disorders were limited to Westernised individuals from middle to upper class socioeconomic groups. More recent findings suggest that eating disorders are reaching epidemic proportions (Dolan, 1991), with a steady increase in the prevalence of eating disorders in so called low risk populations.

Research has traditionally focussed on the potential etiological contributions of Western sociocultural norms and ideals of beauty, which stress a thin body shape as being a reflection of beauty, control and success. The hypothesised etiology of sociocultural factors in the development of eating disorders has been supplemented by more recent research approaches which have highlighted the potentially causative role of acculturation and acculturative stress in the development of eating disorders.

The current study aims to compare the prevalence of disordered eating attitudes and behaviours in Black and White nursing populations in Pietermaritzburg, and to further investigate the hypothesised links between acculturation and disordered eating. Chapter three presents relevant literature pertinent to the theory and measurement of acculturation phenomena.

CHAPTER 3

ACCULTURATION: THEORY AND APPLICATIONS

3.1 Introduction

Wilhelm Wundt, widely considered to be the father of modern psychology, recognised two traditions in psychology: *Naturwissenschaften* (the natural sciences tradition) and *Geisteswissenschaften* (the cultural sciences tradition) (Kim & Berry, 1993; Price-Williams, 1979). The experimental approach (reflecting the *Naturwissenchaften* tradition) became the defining feature of general psychology. Wundt pointed out the limitations of the experimental method by highlighting the fact that thinking is heavily conditioned by language, custom and myth (that is; *Volkerpsychologie* meaning cultural/ethnopsychology) (Kim & Berry, 1993). Wundt regarded *Volkerpsychologie* to be the more important branch of psychology and predicted that it would eventually eclipse the experimental method (Kim & Berry, 1993).

In recent years, there has been much debate regarding the relative merits of general psychology as opposed to cross-cultural psychology or cultural psychology. Clark (1987, p.461) articulates the *impasse* between general or mainstream psychology and cross-cultural psychology, asserting that "(M)ainstream and cross-cultural psychologists have shared one salient characteristic: a general disinterest in each other's work". Perhaps it is this perception which reflects the dearth of studies in disordered eating which consider the cultural context of respondents. This is qualified by the tendency of researchers to "borrow" assessment instruments from both traditions where it is deemed appropriate. The eating disorders research cross-culturally is no exception, as almost all of the studies reviewed in chapter 2 employ instruments for the assessment of eating disorder pathology which are largely derived from the *Naturwissenchaften* tradition. The measurement error risks arising out of this practice have been thoroughly articulated (see Littlewood, 1995)

The academic conflict between the *Naturwissenchaften* and *Geisteswissenchaften* tradition is matched only by the theoretical debate within *Volkerpsychologie* regarding cultural definitions, methodologies and theories. This is most obviously demonstrated in the titles of recent

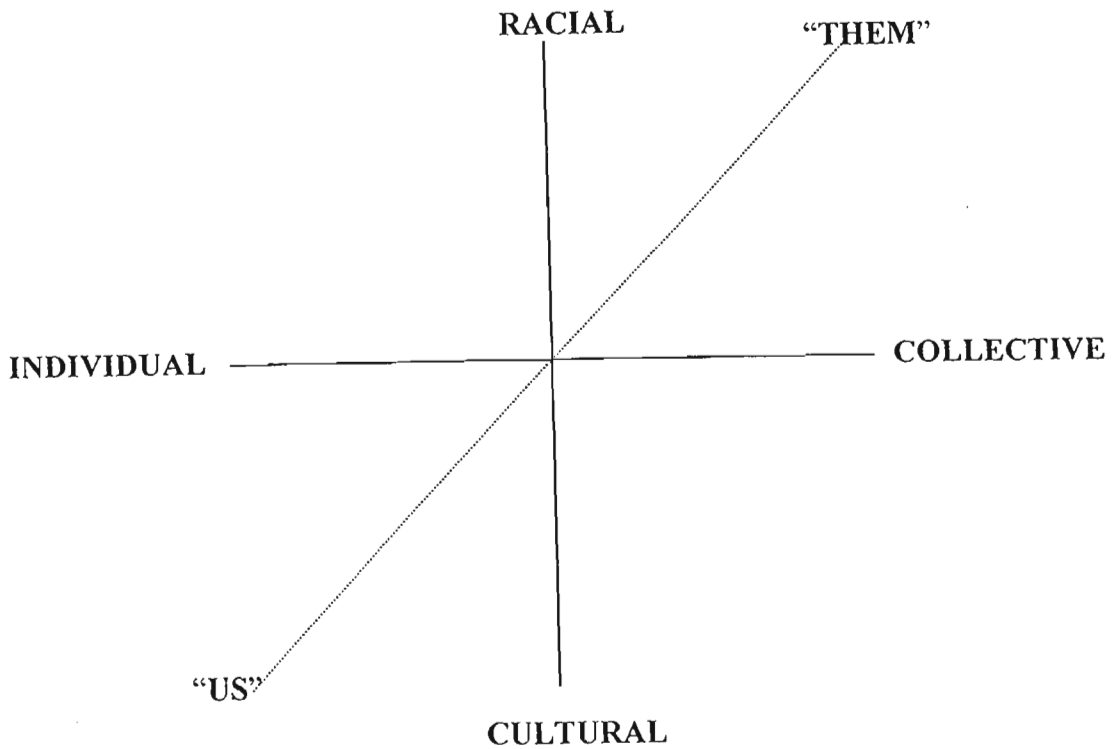
publications addressing cultural phenomena (namely: *Indigenous psychologies* (Kim & Berry, 1993), *Cultural psychology* (Stigler, Shweder & Herdt, 1990), *Applied cross-cultural psychology* (Brislin, 1991), as well as texts exploring *Ethnopsychology),* with each publication reflecting divergent philosophical underpinnings. Ironically, the convergent trend in *Volkerpsychologie* approximates the development of a *universal psychology.*

While it is not within the scope of the current research to articulate the political and theoretical history of research across cultures, it is noteworthy that these differing philosophies are reflected in divergent political, methodological and theoretical approaches to research and practice. The remainder of the review is limited to the instruments and theory relevant to the measurement of cross-cultural phenomena in the current study.

3.2 Race versus culture: Are they equivalent?

Price-Williams (1979) outlines three modes of thought which have influenced the course of study in cross-cultural psychology until the late 1970's. They can be represented as a co-ordinate scheme (Price-Williams, 1979, p. 3).

Figure 1 Modes of thought in cross-cultural psychology



The three axes are orthogonal in nature, and the scheme can be used as an heuristic device which outlines guiding principles operative in cross-cultural phenomena. The scheme consists of an 'individual-collective' axis, and a 'cultural-racial' axis. These axes refer to substantive material. The 'us-them' axis is evaluative in nature.

With reference to the 'cultural-racial' axis, Price-Williams (1979) reports that early theorists of cross-cultural psychology referred to race as being equivalent to culture. The change in nomenclature in the 1940's and 1950's reflected an implicit recognition of their lack of equivalence. Price-Williams (1979) defines race as pertaining to a genetic or phenotypic bodily component, while culture is understood as "the manifold of life style" of a particular people (p.4). The term "racist" (which reflects the intrusion of the evaluative axis) need not be identified with the term "racial". Price-Williams (1979) points out that when racial and cultural factors are considered to be synonymous, or when cultural factors are ignored, conceptual confusion often results.

The studies outlined in chapter 2 (Table 1) use the terms "White" and "Black" (for example) as incidental variables, assuming that "White" refers to a Western cultural orientation, and "Black" refers to a separate cultural orientation. While it may be true that differences within the two groups are limited relative to between-group cultural differences (Winship, 1996), the use of race as an incidental variable is none-the-less problematic in cross-cultural research.

With reference to the 'racial' component and the 'us-them' axis, Price-Williams (1979) highlights the fact that traditionally, the study of "race" has been imbued with racist overtones. This underscores the importance of consideration of the 'us-them' axis, in that in the history of cultural psychology, evaluative factors have become conceptually and theoretically entangled with substantive factors (Price-Williams, 1979). This entanglement of the evaluative and the substantive has been emphasised in questions of superiority and inferiority where a particular cultural group is understood to be more superior (us) than another cultural group (them) due to 'a lack of genetic endowment' or other 'scientific' evidence. More subtly, and perhaps more relevant to this discussion is the paradigm of the "us" being taken an a yard-stick against which the "other" is measured (Price-Williams, 1979).

Authors such as de Gobineau and Le Bon entrenched the notion of superiority and hierarchy as being central to the study of cultural phenomena, where "the mentality of the races was a neat scheme with the Negroid races at the bottom, the yellow races in the middle, and the white race at the top" (Price-Williams, 1979, p. 7). Much of the early research on cross-cultural phenomena placed a great deal of emphasis on race, with little consideration of cultural factors (Price-Williams, 1979).

3.3 Culture versus Westernisation

"Western" cultures have been defined as a reflection of technology, geography and wealth. Within the South African context, the term "Westernised" as applied to Whites rather than Blacks is problematic in the sense that the country has a political history of oppression and segregation. In South Africa, "non-White" populations were deprived of so-called Western attributes in exclusion policies which limited the degree to which they had control of resources and access to education.

Hence, it could be argued that within the South African context, measures of Westernisation applied to Black populations are possibly a reflection of the degree to which Apartheid and segregation policies are deconstructed, demystified and dismantled.

In addition, Wise (1995; cited in Winship, 1996) reports that the West can no longer be understood in terms of technology, wealth and it's "First-world" status, since these factors have become blurred by wars, migration and economic growth. Several "Eastern" countries are described as "First-world," which implies that the "West" can no longer be understood in these terms (Winship, 1996).

3.4 An alternative to "Westernisation"

In response to the criticisms levelled against the use of the term "Westernisation" as a cultural variable, the researcher employed Hofstede's (1980; cited in Bochner, 1994) Individualism-collectivism dichotomy to assess the cultural values and factors thought to predispose individuals to, or protect them from disordered eating. This approach has been suggested elsewhere (Lazarus, 1997) as an alternative to the stereotyped presentation of a monolithic culture where norms and

values are assumed to be convergent. The following section outlines the theory behind the individualism-collectivism dichotomy.

3.4.1 Individualism-collectivism

The individualism-collectivism dichotomy has been a prominent feature of discussion and research in recent years (Bochner, 1994; Hui, 1988; Hui & Triandis, 1986; Hui & Villareal, 1989; Schwartz, 1990; Triandis, McCusker, Betancourt, Iawo, Leung, Salazar, Setiadi, Sinia, Touzard & Zaleski, 1993). Hofstede (1980; cited in Bochner, 1994) developed a four-dimensional model based on a measurement of work-related values amongst employees of a large computer firm with subsidiaries in 53 different countries. Hofstede derived four dimensions (power- distance; uncertainty-avoidance; individualism-collectivism and masculinity-femininity) which were hypothesised to correspond to cultural values that are instrumental in social arrangements, institutions, customs and practices of any given society (Bochner, 1994). Societies have been found to differ in their position regarding these four dimensions.

For the purposes of this research, the discussion of Hofstede's findings will be limited to the individualism-collectivism dimension which describes interactional forms of the relationship between individuals and the groups to which they belong (Bochner, 1994).

3.4.2 Definitions

The individualism-collectivism dichotomy lies on a continuum, and is said to reflect basic value emphases which function as guides to individual behaviour, and as group ideologies (Schwartz, 1990). At one end of the continuum is individualism and idiocentrism (the personality correlate of individualism) which prioritises personal goals over those of the in-group (Schwartz, 1990). Persons are construed as separate entities, distinguishable from their social milieus (Bochner, 1994). Hence, individualist cultures and idiocentric individuals tend to prioritise values that emphasise autonomy, independence and self-containment. Bochner (1994) describes individualist values as Western.

Waterman (1984; cited in Hui, 1988) defines individualism as the embodiment of the following four psychological principles:

1. A sense of personal identity, an Eriksonian construct which includes knowledge of who one is, and what one's personal goals and values are.
2. Maslow's self-actualisation, a striving to actualise one's personal values and goals and be one's true self.
3. Internal locus of control, the acceptance of personal responsibility for what happens in one's life.
4. Kohlberg's principled (postconventional) moral reasoning, where the individual espouses and acts on universal moral principles that are deemed to be "right".

Collectivism and allocentrism lie on the opposite end of the continuum, here the distinction between the individual and the social milieu is blurred. Individuals regard themselves and others as an extension of the social system to which they are a part (Bochner, 1994). Hence, collectivist cultures prioritise values that serve the in-group by negating personal goals in order to preserve interdependence between individuals, in-group integrity and harmonious relationships (Schwartz, 1990). Allocentric individuals tend to be responsive to the perceived needs of the community, and avoid the expression of emotions that may disrupt interpersonal harmony. Collectivists tend to attribute their own and others' behaviour to situational rather than dispositional factors (Schwartz, 1990).

Hui (1988, p.19) proposes that collectivism is reflected in the following seven categories (based on Hui & Triandis, 1986):

1. Consideration of the consequences of one's decisions and behaviours and the implications of these decisions on others.
2. Sharing material resources.
3. Sharing non-material resources (for example, time).
4. Susceptibility to social influence.
5. Self-presentation and face work.
6. Sharing of outcomes.
7. Feeling of involvement in others' lives.

3.4.3 Hypothesised links with disordered eating.

Becker and Hamburg (1996) argue that core cultural values which endorse achievement-oriented behaviour, self-determination, self-cultivation and the choice between a variety of lifestyles have contributed to the illusion that the body can be moulded and developed to portray personal attributes. The core psychological values of individualism as described by Hui (1988) can be argued to reflect certain of the risk factors and vulnerabilities to disordered eating described by Becker and Hamburg (1996).

The collectivist dimension de-emphasises self-cultivation (for example, a self-conscious regulation of body shape), which could be argued to be a protective factor in the development of disordered eating in collectivist populations. A clinical caveat is necessary at this point. Members of different cultures have been shown to demonstrate a variety of phenomenological differences in the etiology and course of eating disorders. "*Fear of fatness*" has not been shown to be a requisite to pathogenesis in anorexia in countries such as Hong Kong and India (Khandelwal & Saxena; 1990; Lee, Ho & Hsu, 1993; cited in Becker & Hamburg, 1996). Hence phenomenological differences in the presentation of and etiology of eating disorders across culture requires more careful consideration, especially with regard to the hypothesised central etiological role of sociocultural factors.

The individualism-collectivism dichotomy is presented as an alternative to the more conventional and problematic assessments of Westernisation and reflects a dimensional approach to the understanding of cross-cultural phenomenon proposed by Price-Williams (1979) and Lazarus (1997).

3.5 Acculturation

3.5.1 Introduction

Studies assessing general cross-cultural phenomena assume that the populations they are assessing are homogenous. In the South African context, it is likely that members of different cultural groups may not be homogenous (also in terms of their degree of acculturation). Consequently, it is possible that studies assessing, for example, Black populations as compared

to White populations on a particular variable may make over-generalisations if these studies do not control for variable levels of acculturation. Similar (well researched) conclusions have been reached regarding the comparison of Mexican-Americans with Anglo-cultural orientations (Olmedo, Martinez & Martinez, 1978; cited in Franco, 1983). Berry, Trimble and Olmedo (1986) report that the researcher needs to assess the relative acculturative influences on the individual in order to draw appropriate conclusions about the sources of cross-cultural variation in behaviour. To this end, an additional research aim of the current study was to contribute to the development of an acculturation instrument appropriate to the South African context.

The conceptual, methodological and ideological difficulties inherent to the study of acculturation are extensive. In order to address these issues, brief consideration will be afforded to existing conceptual and research approaches to acculturation, followed by an explication of the work of Berry (1976), Berry *et al.* (1986), Berry (1988) and Berry (1997) which is operationalised in the current study.

3.5.2 Definitions

Acculturation is defined by Redfield, Linton and Herskowits (1936, p. 149; cited in Berry, 1997) as a phenomenon which results when groups of individuals of different cultures come into continuous first-hand contact. This precipitates changes in the original cultural patterns of either or both groups. Franco (1983) defines the process of acculturation as the incorporation in the minority culture of values and behaviours of the majority cultural group. Acculturation tends to induce more change in one group than the other (Berry, 1997, p.6), hence it does not manifest practically as a neutral term.

Graves (1967, in Berry 1997) and Dana (1996) distinguish between acculturation as a group-level (or collective) phenomenon and *psychological acculturation*. Acculturation as a collective phenomenon refers to a change in the culture of the group, while psychological acculturation is a change in the psychology of the individual (Berry, 1997). A distinction is made between the two levels of acculturation in order to assess the systematic relationships between these two sets of variables. Furthermore, since individuals participate variably in the general acculturation of their group, theoretical allowances should be made for such differences. While community

changes may be vast, the individual varies greatly in the degree to which he/she participates in these community changes (Furnham & Bochner, 1986; cited in Berry, 1997).

The study of cultural phenomena is further complicated by the variable influences of the culture in which the individual develops (enculturation) as well as the influence of cultures from the outside (acculturation) (Berry *et al.*, 1986).

3.5.2.1 Consequences of acculturation

The following consequences of acculturation in acculturating populations have been identified in the literature:

- Acculturative stress (Berry, 1976; Berry *et al.*, 1986; Berry, 1988; Berry, 1997; Heras & Revilla, 1994).
- Poor self-concept and low self-esteem (Heras & Revilla, 1994).
- Greater susceptibility to anti-social peer pressure (Wall, Power & Arbona, 1993).
- Lowered mental health status, specifically confusion, anxiety and depression (Berry, 1988).
- Heightened psychosomatic symptom levels, identity-confusion, and feelings of alienation (Berry, 1988).
- Reaffirmation of cultural identity in cross-cultural encounters (Kosimizki, 1996).
- Non-fatal suicidal behaviour (Pillay & Wassenaar, 1997; Wassenaar, van der Veen & Pillay, 1998).

3.5.3 The current status of acculturation research.

Researchers of multicultural phenomena predict a radical change in dominant acculturation theories and methodologies, if a greater understanding of acculturation and its impact on individuals lives is to be reached (Azar, 1999). Traditional models (mostly arising from research in the United States) have understood acculturation as a linear phenomenon that posited an acculturation continuum (Dana, 1996; Marin & Gamba, 1996). This "melting-pot" theory assumes that the adoption of values, customs and language of the new culture is accompanied by a decline and loss of the values, customs and language of the initial culture. This theory has been regarded as assimilationist in nature, and it has been widely criticised for its simple linear

assumptions, negating a more circular interaction between cultures.

In response to these criticisms, along with a concurrent realisation of the complexity of the acculturation process, researchers identified a number of different dimensions of change, which when combined, yield multidimensional acculturation scores or indexes (Dana, 1996). Thus, orthogonal models have eclipsed more linear understandings of acculturation phenomena. Such models recognise the possibility of the adoption of values and customs in the new culture, with a concurrent maintenance of values and customs of the old culture. Hence acculturation can be conceptualised as "a long-term, fluid process in which individuals simultaneously move along at least two cultural continua (or dimensions) and whereby individuals learn and/or modify certain aspects of the new culture and of their culture of origin" (Marin & Gamba, 1996, p. 297).

Despite these prescribed conceptual changes, researchers continue to employ a linear perspective in acculturation research (Marin & Gamba, 1996), partly because most of the standard measures of acculturation are linear in nature (Zane, 1999, cited in Azar, 1999). Mak (1999, cited in Azar, 1999) reports that 14 out of the 18 most popularly employed acculturation scales measure acculturation along a continuum, with the culture of origin at one end, and the host culture at the other end. Most available scales measure language proficiency, with few scales assessing cultural values (Azar, 1999). In addition, existing scales tend to explore domains which do not overlap, thus complicating the comparison of acculturation scales (Azar, 1999).

3.5.4 The acculturation process.

Early conceptualisations of acculturation posited a one-way progression towards assimilation in the dominant culture (Lessenger, 1997). These early models alluded to three possible consequences of contact including *acceptance* (accompanied by the loss of the initial culture), *adaptation* (where aspects of both the initial culture and the dominant culture are combined) and *reaction* (characterised by a contra-acculturative response). Later models have largely approximated these early conceptualisations.

Mendoza and Martinez (1981, cited in Lessenger, 1997) developed four typological patterns of acculturation including: *cultural resistance* (where native customs are maintained either actively

or passively, and the adoption of alternative norms are rejected), *cultural shift* (characterised by the replacement of native norms and customs with alternative cultural norms and customs), *cultural incorporation* (the integration of native norms and alternative norms) and *cultural transmutation* (through adaptation of customs from both cultures, a new unique subcultural identity is formed). The work of Berry (1976,1997) approximates the above models, however, it will be discussed separately below.

The acculturation process has been divided into dimensions by several researchers. Padilla (1980, cited in Lessenger, 1997) derived two dimensions of acculturation: *cultural awareness* (demonstrating knowledge of cultural information such as language and food) and *ethnic loyalty* (which refers to an individual's preference of cultural orientation). Szapocznik, Scopetta, Kurtines and Arandale (1978, cited in Lessenger, 1997) distinguished between *behavioural acculturation* (characterised by increased participation in the habits, language and customs of the majority culture) and *value acculturation* (where the values of the majority culture are adopted).

3.5.4.1 Measurement of acculturation

The following acculturation scales illustrate normative work in the field of acculturation across the dimensions listed:

1. The Suinn-Lew Asian Self-Identity Acculturation Scale (Suinn, Lew & Vigil, 1987).
   Language familiarity and usage, cultural heritage, ethnic pride, ethnicity and inter-ethnic distance (based on Padilla, 1980, cited in Suinn, Lew & Vigil, 1987).
2. Language preference, generational status and recency of migration (Rueschenberg & Buriel, 1989)
3. Short Acculturation Scale for Hispanic Youth (SASH-Y) (Barona & Miller, 1994).
   Language use, ethnic loyalty and cultural heritage factors.
4. Bidimensional Acculturation Scale for Hispanics (BAS) (Marin & Gamba, 1996)
   Language usage.
5. Acculturation Rating Scale for Mexican Americans (ARMSA, ARMSAII)(Cuellar, Harris & Jasso, 1980; cited in Dana, 1996)
   Language use and preferences, ethnic identity and classification, cultural heritage and

ethnic behaviours, and ethnic interaction.

6. Language, self definition as an insider and self definition as an outsider (Mainous III, 1989)

Marin and Gamba (1996) assert that the majority of published acculturation scales can be criticised either because they demonstrate acculturation as a unidimensional process (for example, the SASH-Y, Barona & Miller, 1994), or they produce acculturation scores which are unidimensional in nature (for example, the Children's Acculturation Scale (CAS); Franco, 1983 and the ARMSA-II; Cuellar, Harris & Jasso, 1980). Common approaches to the construction of acculturation instruments assume *a priori* that the items derived reflect a measure of a particular acculturation dimension (for example, language use and preference). Marin and Gamba (1996) recommend the use of data reduction techniques (for example factor analysis) to psychometrically derive acculturation scales.

Although most scales display face validity, several scales (for example, Rueschenberg, 1989) include demographic correlates of acculturation into assessment scales (such an length of residency and generational status), with a consequent spurious increase in validity (Marin & Gamba, 1996).

3.6 Berry's model for the assessment of acculturation

The acculturation measurement employed in the current study is based on the theory of Berry, 1976, Berry *et al.,* 1986 and Berry, 1997. In many ways, Berry's framework approximates the theory and measurement proposed by other researchers in the field, reviewed in Section 3.5.4. The model was selected for the current study because it provides a theoretical outline and a practical application for attitudinal measures of acculturation, whilst recognising the multi-dimensionality of the construct. Berry's approach is inherently ethnographic in that it highlights the relevance of consideration of the cultural context in which research is to be undertaken (reviewed in Section 3.6.2.) and provides a model for the assessment of attitudes to acculturation[2].

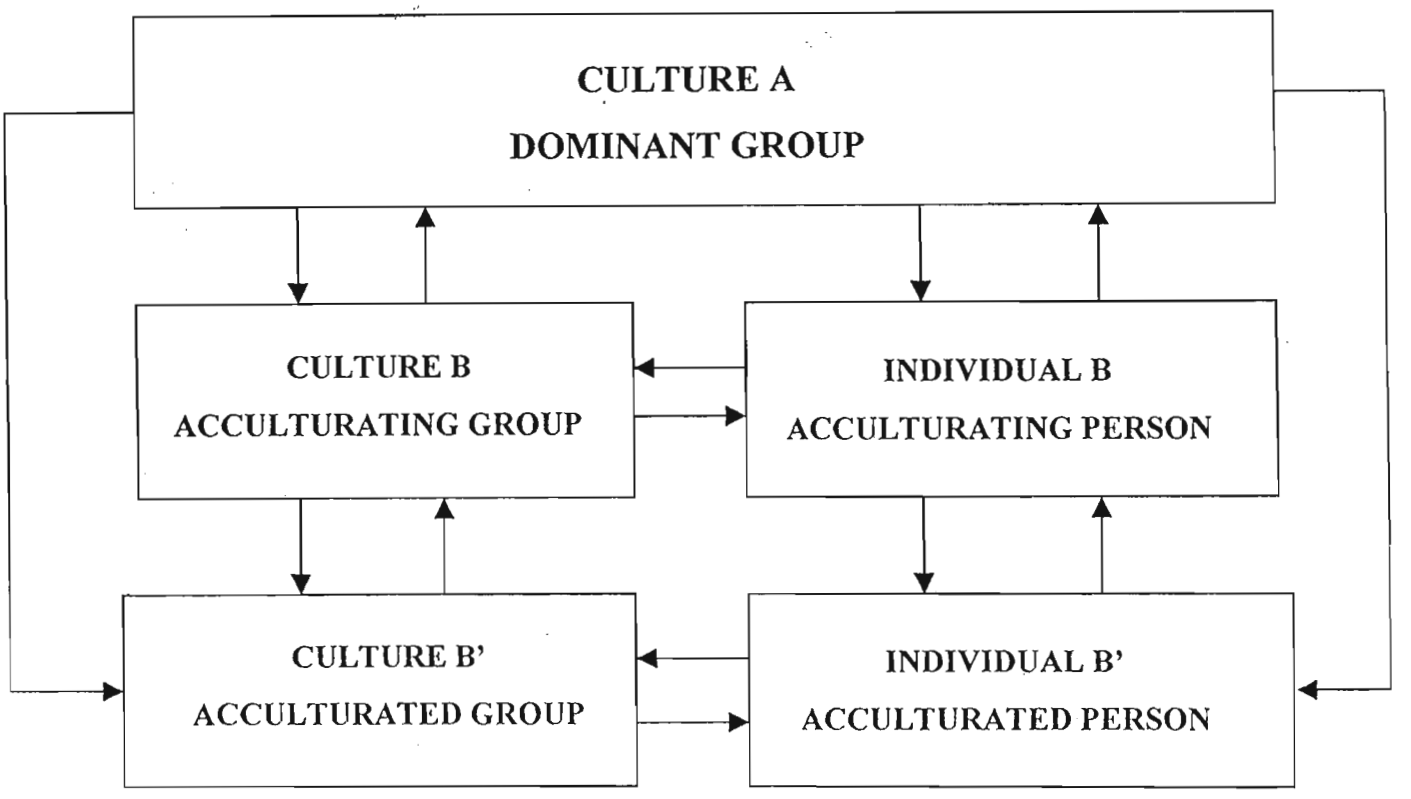
[2] For a more extensive explication of Berry's model of acculturation, see Berry (1997).

3.6.1 The mechanics of acculturation

Berry *et al.* (1986) employ a model for the identification of variables and relationships in acculturation research (based on Cawte, Bianchi & Kiloh, 1968; cited in Berry *et al.*, 1986). This model will be discussed in Section 3.6.1 and contextualised in Section 3.6.1.1.

Figure 2 **Framework for Identifying Variables and Relationships in Acculturation Research**

From Cawte, Bianchi and Kiloh (1968; cited in Berry *et al.*, 1986, p. 293).



The model depicts two cultures in contact (culture A and culture B). Berry *et al.* (1986) report that in principle, the two cultures may influence each other equally, although in practice, it is likely that one culture tends to be dominant. The framework represents culture A as being the dominant group or "donor," while culture B tends to be the acculturating group, or "receptor". Mutual influence between these two cultures is depicted by the feedback arrows between the two contact cultures.

A result of culture contact is that aspects of group B change so that the cultural features of the acculturated group (B') are dissimilar to the original group (B). These changes are hypothesised to occur as long as contact between the two cultures is maintained. With continued contact, culture B will continue to be influenced by both the dominant culture as well as the acculturated group, precipitating further psychological changes.

3.6.1.1 Variables for consideration in acculturation research

Berry *et al.* (1986) point out several variables which require consideration in acculturation research arising from the model above. Each variable will be briefly discussed.

1. Purpose: This refers to the reason why contact has occurred, that is, contact may have occurred because of colonisation, enslavement, trade, evangelization etc. In the South African context, the purpose of contact was initially colonisation and trade. In culture B, it is important to consider whether group contact was voluntary (as in the case of immigrants), or involuntary. In South Africa, contact was involuntary, exploitative and predominantly under duress.

2. Length: The length of culture contact is another important consideration. It refers to the duration, persistence and frequency of culture contact. The duration of culture contact in South Africa has been persistent. It may be argued that in South Africa, acculturative pressures have been building up, and at times, there has been conflict and crisis between cultures largely because of political dominance and discrimination policies by the political majority culture.

3. Permanence: This refers to the occupation intentions of the dominant group. In South Africa, the former political majority group has settled permanently.

4. Population: This variable considers the numbers in the dominant group. Are they a majority, or are they in the minority? This raises an interesting consideration in the South African context. The "dominant" ("non-White") group was historically in the political minority. One may argue that the acculturated group is now in the majority due to political reforms. The feedback influence between the two cultures in contact should hypothetically be influenced by these shifts in acculturating variables. This complicates the measurement of acculturation in the South

African context even further.

5. Policy: This variable considers the influence of policies being exerted on the acculturating group. Similarly, consideration of the policies of the acculturating group towards the dominant culture is also useful. In South Africa, Apartheid policies stressed the segregation of race and culture both implicitly and explicitly, resulting in the White numerical minority maintaining the balance of political power in the country, which precipitated a large *cultural distance* between groups. Horenczyk (1997) asserts that immigrants and sojourner's perceptions of the dominant cultural group, as well as dominant cultural perceptions towards other cultural groups are influential in the resultant cultural adaptation of the minority cultural group. The implicit negative perceptions of the general White political "majority"[3] towards other cultural groups is likely to have negatively affected the acculturation process in "minority" groups.

In order to contextualise the discussion of culture within the South African context, the following relevant section is presented from the post-Apartheid constitution (cited in Nortier & Theron, 1998, p. 230).

Chapter 2 Art 31(1)

> Persons belonging to a cultural religious or linguistic community may not be denied the right, with other members of that community-
>
> a) to enjoy their culture, practise their religion and use their language; and
>
> b) to form, join and maintain cultural, religious and linguistic associations and other organs of society.

While the cultural equivalence policies of the post-Apartheid constitution represent rhetorically ideologically favourable attitudes towards members of different cultural groups, the degree to which social perceptions match this rhetoric is questionable. The ideal of multiculturalism has been presented as a solution to prejudice, intergroup conflict and intolerance. Integration policies (rather than assimilationist policies) are proposed to be the socio-political and psychological tools for forging multiculturalism (Kagitcibasi, 1997). However, Kagitcibasi (1997, p. 44) asserts that:

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[3] The terms "majority" and "minority" refer to the degree of political influence

> While multiculturalism promises, on the one hand, to be culturally enriching, on the other hand it carries the risk of accentuating (cultural) differences. Unless concerted efforts are made to engender an appreciation of these differences, ideally through equal-status interdependent contact opportunities, the increased awareness of intergroup differences may exacerbate the "us-them" type of thinking. Thus, multiculturalism, by itself, is no guarantee of tolerance.

Although a discussion of the merits and failures of multiculturalism is not within the scope of this review, it highlights the complexity of the acculturation process, and suggests that constitutional equality is not equivalent to a social appreciation of equality or cultural integration.

6. Cultural Qualities: The cultural qualities of the dominant group may or may not improve the quality of life of the acculturating group. Berry *et al.* (1986) report that desirable cultural traits in the dominant culture such an medicines and guns in hunting populations will, for example, lead to acculturative changes in the receptor culture more than will nonfunctional culture traits. With reference to culture B, more complex societies may be able to organise their resources to alter the course of acculturation through political and military action.

In summary, the cultural variables and relationships in acculturative research appear to cross the boundaries of psychology, anthropology and politics. The history of Apartheid, as well as the move towards democracy in the country cannot be ignored in such a study, although the multidisciplinary nature of acculturative variables makes a methodologically "pure" study of acculturation extremely difficult.

At the level of the acculturating individual (B, see Figure 2), are certain characteristic psychological phenomena. Although these phenomena are not clearly understood, early acculturation studies (Berry, 1970; and Hallowell, 1955; cited in Berry *et al.*, 1986) found that individual values such as independence and egalitarianism in a hunter-gatherer society made it difficult for these people to accept the authority of a dominant cultural group, hence, the process of acculturation appears to be more uneven among nomads than it does among sedentary groups. Cultural-level phenomena, such as those described above, vary across the individual's age, sex, family placement and personal capabilities. "The crucial point is that not every person in the acculturating group will necessarily enter into the acculturation process in the same way or to the

same degree" (Berry *et al.*, 1986, p. 296).

The acculturated group B' has undergone changes, and continues to change as a result of culture contact. Although acculturated group phenomenon have been extensively researched, a brief list of considerations for the acculturated group are presented by Berry *et al.* (1986).

1. Political: This refers to a change in political characteristics as a result of acculturation. Some examples include the loss of independence and the development of new authority systems as a result of acculturation.

2. Economic: This refers to the distribution of wealth in the acculturated group. It considers the changes in the economic status of the members of the acculturated group.

3. Demographic: The demography of the acculturated group may change in terms of population size, urban/rural distribution, age/sex distribution and regional distribution.

4. Cultural: This component refers to changes in the acculturated group of modes of dress, schooling, transportation, housing, and forms of social relations. The relationship of acculturated norms to previous norms may merge or conflict.

At the level of the individual B', Berry *et al.* (1986) stress two points: Firstly, it is likely that there will be individual differences which the individual brings to the acculturation process; secondly, each member in the acculturating group will not necessarily participate in the process to the same extent. Hence, in acculturative research, general characterisations of acculturation phenomena are less important than are individual variations within the sample of people who are taken as a representation of the group undergoing acculturation. Thus, individual acculturation does not fit into a "pure" package for assessment, and tends to occur unevenly.

3.6.2 The assessment of acculturation

Berry *et al.* (1986) propose a framework which is based on the finding that in culturally pluralistic societies, both individuals and groups confront two essential questions (Berry *et al.*, 1986, p. 306):

1. Is it considered to be of value to maintain one's cultural identity and characteristics? That is, the maintenance and development of cultural distinctiveness.
2. Is it considered to be of value to maintain relationships with other groups? That is, the desirability to maintain inter-ethnic contact.

When these questions are considered on a scale from positive to negative, a fourfold model is generated (Berry *et al.*, 1986).

Figure 4 **Four Strategies of Acculturation**

Source: Berry *et al.* (1986, p. 306)

QUESTION 1

Is it considered to be of value to maintain cultural identity and characteristics?

QUESTION 2

Is it considered to be of value to maintain relationships with other groups?

	YES	**NO**
YES	**Integration**	**Assimilation**
NO	**Separation**	**Marginalisation**

Each cell in this model represents an acculturation option for a member of a pluralistic society. If the answer to question 1 is "no," and question 2 is "yes," *assimilation* results. That is, the individual in culture contact tends to want to fit in with the dominant culture in society. If the individual undergoing culture contact responds positively to both question 1 and 2, then the individual tends towards *integration*. This suggests that the cultural identity and integrity of the group is maintained (indicating a reaction to acculturation) yet there is also a move to join with the larger society.

Segregation occurs if the dominant group controls the social situation and decides to exclude

certain minority groups. When the non-dominant group controls the social situation, *separation* may result. This group chooses to maintain it's own traditional culture and exclude itself from participation in the larger society. Consequently, the group exposed to culture contact remains relatively independent and separate. *Marginalisation* occurs when the answer to both questions is "no". Berry (1988, p. 102) defines marginalisation as being "characterised by striking out against the larger society and by feelings of alienation, loss of identity and what has been termed acculturative stress ... groups lose cultural and psychological contact with their traditional culture and the larger society (either by exclusion or withdrawal)".

The above model can operate at three distinct levels (Berry, 1988, p. 103):

1. At the level of the dominant culture, policies can encourage assimilation, integration, segregation/separation and marginalisation.
2. At the level of the acculturating groups, that is, communication of the acculturating group to the larger society.
3. At the level of individuals, that is, attitudes towards the four modes of acculturation resulting in individual choices of the most desirable mode of acculturation.

Four assessment scales (assimilation, rejection/separation, integration and marginalisation) are developed by selecting several topics which are relevant to the dynamics of the acculturating group. Four statements are then generated using informants or individuals familiar with acculturation phenomena. These statements are then rated and sorted by judges according to the classification described above. The scale can then be administered using a Lickert scale response, alternatively, participants can indicate their preference for one particular statement. By summing across the topics in each alternative, four scores can be computed. Berry *et al.* (1986) report that reliability can be enhanced by item selection. Ideally, validity can be assessed by checking respondents' scores against behavioural measures.

This framework provides the researcher with a theoretical understanding of acculturation, as well as various assessment recommendations. It has intuitive appeal because it avoids the use of politically loaded terminology such an "Westernisation" and "modernisation" (although in an earlier publication, Berry (1976) refers to values placed on 'maintaining cultural identity and

traditions' as being a reflection of modernity). The model has further appeal in that it allows the researcher to direct her attention to the assessment of specific acculturation variables (e.g. acculturative stress and attitudes towards acculturation) while still allowing for consideration and an understanding of the role of larger political forces at work in society.

3.6.3 Critique of Berry's acculturation framework

While several researchers have highlighted the theoretical relevance and comprehensive presentation of acculturation proposed by Berry (for example, Schonpflug, 1997; Pick, 1997 and Ward, 1997), it has been widely criticised. Horenczyk (1997) reports that Berry's framework assumes that immigrants and sojourners develop acculturation attitudes with reference to a single monolithic majority society, thus ignoring the social complexity of many modern societies. Lazarus (1997) argues that cultural psychologists (Berry included) treat *culture* as a monolithic concept, assuming that individuals and societies developing in that culture subscribe to the same values and beliefs. It is likely that in the South African context, members of different cultural groups may be acculturating to, and adopting the norms of their particular subgroup of society. Therefore, using Berry's framework, a monolithic view of the majority culture precludes a *real* understanding of the mechanics of the majority culture. Within the culturally pluralistic South African context, the very definition of the dominant culture is problematic.

Lazarus (1997, pp. 39-40) argues that Berry's framework represents a metatheory rather than a theory of acculturation "(I)t is about how we should think about and do research on relocation, not about the specifics of the relocation process". This lament is echoed by Pick (1997, p.51) who asserts that the test of Berry's framework lies in "its degree of applicability" in the study of acculturation phenomena. Furthermore, Pick (1997) points out that Berry's framework is limited by the concrete nature of the proposed functional relationships between its parts. As such, the framework is inflexible to the inevitable variation inherent to acculturating individuals and societies.

3.7 Summary

Chapter three addressed the conceptual and methodological difficulties inherent to the assessment of acculturation. Individualism-collectivism was identified as an alternative to traditional measures of "Westernisation". A rationale was presented for the assessment of degrees of acculturation across culture.

The latter part of chapter 3 reviewed existing theory and approaches to the measurement of acculturation, highlighting Berry's (1976, 1988, 1997) framework for the assessment of acculturation, which is employed in the current study.

Arising from this review, an additional aim of this research is to contribute to the development of a South African acculturation measure, so as to assess the hypothesised association of acculturation phenomenon with the development of disordered eating attitudes and behaviours.

CHAPTER 4

METHODOLOGY

4.1 Introduction

This chapter presents the proposed aims and hypotheses examined in the current study. The remainder of the chapter is divided into two parts, namely, the pilot study and the formal study. The development of the instruments used in the study will be outlined and described, and their reliability and validity arising from the pilot investigation will also be discussed. The latter part of this chapter will explore the nature of the sample, as well as the procedures followed during the investigation and the statistical analyses applied to the data.

4.2 Aims and Hypotheses

The aim of this investigation is to assess the prevalence of disordered eating attitudes and behaviours amongst Black and White nursing students in Pietermaritzburg, and to consider the relationship between acculturation and cultural values, (the quasi independent variables), and disordered eating (the dependent variable). In the culturally pluralistic South African context, consideration of acculturative influences and consequences have received widespread comment, although specific instruments for the measurement of acculturation pertinent to South Africa have been found to be relatively unreliable, and theoretically under-researched. Therefore, the development of an appropriate South African acculturation instrument became a major additional research aim, which was addressed in the pilot investigation. While longitudinal assessments have been reported to best reflect acculturation phenomena, a longitudinal study was not possible due to time constraints. As an alternative, a cross-sectional design was employed to assess differing degrees of acculturation in the sample (as suggested by Dolan, 1991 and van de Vijver & Leung, 1997).

Differences in respondents tendencies towards cultural assimilation, integration and rejection (assessed using the South African Acculturation Scale) are hypothesised within and between White and Black subjects. Significant linear presentations of acculturation strategies are not expected between White and Black respondents, as acculturation is theoretically an orthogonal

phenomenon (Marin & Gamba, 1996). Assimilation, integration and rejection scores will be computed for each respondent, allowing the researcher to obtain a measure of each respondents reaction to acculturation phenomena.

The following hypotheses, generated from the literature review, were formulated in order to address the research aims outlined above.

Hypothesis 1: There will be a significant difference in the degree of disordered eating attitudes, behaviours and psychological correlates (assessed using the Eating Disorders Inventory (Garner & Olmsted, 1984)) in Black and White female respondents.

1a: White respondents will display significantly greater disordered eating attitudes and behaviours than Black respondents.

2a: Black respondents will display significantly lower eating disordered attitudes and behaviours than White respondents.

Hypothesis 2: There is a significant difference in the degree of disordered eating between respondents with high scores in assimilation, as compared to high scores in integration and rejection.

2a: Respondents in all population groups demonstrating high assimilation scores will display tendencies towards disordered eating.

2b: Respondents in all population groups demonstrating high integration scores and rejection scores will display less of a tendency towards disordered eating.

Hypothesis 3: A significant difference is hypothesised in the degree of collectivism versus individualism (assessed using the Individualism-Collectivism (INDCOL) Scale (Hui, 1988)) between White and Black population groups.

3a: Individualism scores obtained by White respondents will be significantly higher than those obtained by Black respondents.

3b: Collectivism scores obtained by Black respondents will be significantly

higher than those obtained by White respondents.

Hypothesis 4: There will be significant differences in the degree of disordered eating for high scorers in individualism versus collectivism.

4a. Respondents with high scores in individualism will demonstrate a greater tendency towards disordered eating than high scorers in collectivism.

4b: Respondents with high scores in collectivism will demonstrate less of a tendency towards disordered eating than high scorers in individualism.

4.3 The pilot investigation

4.3.1 Introduction

Since the researcher was unable to identify an appropriate acculturation instrument for the South African context, a local questionnaire was constructed (the South African Acculturation Scale), and a relatively well-known international scale (the INDCOL scale (Hui, 1988)) was included in the initial pilot questionnaire (see Appendix A: Cultural attitudes part 1 and part 2). To the author's knowledge, no local psychometric properties for the INDCOL scale are available.

A pilot study was undertaken in order to assess the psychometric properties of the two cultural scales (the South African Acculturation Scale (SAAS) and the INDCOL scale) proposed for the formal study. Twenty-eight students in the health arena completed the questionnaire, which consisted of demographic information, the Eating Disorders Inventory (Garner & Olmsted, 1984), the SAAS and the INDCOL scale (Hui, 1988).

A short evaluation questionnaire was included in order to assess the degree to which respondents felt the cultural questions to be appropriate to their understanding of culture. Subjects were asked to indicate questions which seemed inappropriate or ambiguous, and to provide general feedback and suggestions as to how the questionnaire could be improved upon. What follows is a brief description of the development of the acculturation questionnaire.

4.3.2 Development of a South African Acculturation Scale (SAAS)

A South African Acculturation Scale was developed by the author in order to assess the degree of acculturation demonstrated by the sample (see Appendix A: Cultural attitudes, part 1). The twenty-two item self-report questionnaire consisted of three subscales assessing respondents' tendencies towards cultural assimilation, integration and rejection, as proposed by Berry (1976,1997) and Berry *et al.* (1986). Measures of marginalisation (deculturation) were excluded from the scale based on Berry's (1976, p. 180) observation: "since both common sense and pilot work indicated that such an outcome was not to be chosen by anyone".

In constructing the scale, the researcher considered an early scale assessing acculturation attitudes of American Indians in Canada (Berry, 1976) which employed the acculturation strategies outlined by Berry (1976, 1997). Although the scale was potentially adaptable to the South African context, the researcher found the tone of the items to be ethically inappropriate. Because of the history of Apartheid, it was likely that respondents would find several items in the scale offensive (for example, "The fact that Canada has only developed since the arrival of the whites clearly shows that the Indians must follow the example of the whites if they themselves are to make progress" (Berry, 1976, p. 180)). Appropriate items were selected and adapted from Berry's (1976) acculturation scale, as well as the RAIS-B scale (Helms, 1990).

Questions were rationally derived and tapped respondents' perceptions regarding the maintenance and development of cultural distinctiveness, as well as the desirability of maintaining inter-ethnic contact (Berry *et al.*, 1986). The initial scale was assessed by two independent psychologists, in terms of the suitability of the questions to the subscales indicated above. The possibility of a confounding response bias in the questionnaire is acknowledged, especially in light of the political changes which have occurred in the country, resulting in an expectation of high integration scores across the races.

4.3.3 Administration and scoring

The acculturation scale was completed individually by each respondent. Respondents were required to tick the appropriate response to each question. Questions were scored according to a five-point Lickert scale (Strongly Agree = 5; Agree = 4; Neutral = 3; Disagree = 2 and Strongly

Disagree = 1). Eight *Assimilation* questions tapped respondents' desires to maintain relationships with other cultural groups in the absence of maintaining own-group characteristics. Seven *Integration* questions tapped respondents' desires to maintain their own cultural identity and relationships with other cultural groups. Seven *Rejection* questions tapped respondents' desires to maintain their own cultural identity, in the absence of maintaining relationships with other cultural groups.

4.3.4 Psychometric properties of the SAAS

The results of the pilot study yielded acceptable reliability findings for cross-cultural research. The *Assimilation* subscale demonstrated an alpha co-efficient of .64 and the *Integration* subscale yielded an alpha of .70. The *Rejection* subscale was found to be the least reliable, with an alpha of .53.The scale was amended with the removal of two questions which were negatively influencing the alpha values.

Inherent to acculturation research is the criterion problem in determining the validity of the scale. Since there is no absolute or true measure of acculturation, and behavioural correlates of "acculturated" behaviour are difficult to determine, a tenuous measure of construct validity was attempted using the evaluation questionnaire. Approximately 89% of respondents reported that the questionnaire items were applicable to their understanding of culture. One respondent reported that question 9 (of the SAAS) was difficult to understand because she was unfamiliar with the cultures of America and Europe. One respondent felt that the language used in some of the questions was too complicated. Generally, respondents appeared to be satisfied with the SAAS. Psychometrically, it was found to be adequate and it was included in the formal investigation with minor amendments.

4.3.5 The Individualism-Collectivism (INDCOL) Scale

4.3.5.1 Description

The INDCOL scale (Hui, 1988) consists of 63 items dealing with respondents' values in six collectivities (spouse; parents; kin; neighbour; friends and co-workers). The scale is intended to assess individualism versus collectivism in the above collectivities.

4.3.5.2 Administration and scoring

Respondents were required to tick the appropriate response on a five-point Lickert scale (Strongly Agree = 5; Agree = 4; Neutral = 3; Disagree = 2; Strongly Disagree = 1). Four *Spouse* items, five *Parent* items, four *Kin* items; four *Neighbour* items, four *Friend* items and four *Co-worker* items are scored in a positive direction, the rest of the items are scored in a negative direction (as suggested by Hui, 1988). The researcher omitted two items from the original questionnaire format which she felt to be inappropriate to the South African context.

A *General Collectivism Index* (GCI) is computed by summing across the subscale scores. Collectivism scores can be computed separately for each of the six subscales, allowing the researcher to assess collectivist values in particular relationships and settings. Since the scale is bi-dimensional in nature, high collectivism scores for each subscale are associated with low individualism scores, and low collectivism scores are associated with high individualism scores.

4.3.5.3 Psychometric properties

The INDCOL scale is fairly well researched abroad, demonstrating alpha co-efficients within the range of .6 (Hui, 1988). Lower reliability co-efficients (.4) have been reported for the *Spouse* subscale in university populations, which is argued to reflect students' relative inexperience with marriage, or lack of direct knowledge about marriage (Hui, 1988). The INDCOL scale has been found to display discriminant validity (Hui, 1988) and construct validity (Triandis, Leung, Villareal & Clack, 1985; cited in Hui, 1988).

The findings of the pilot study contradicted those of Hui (1988). The reliability of the first four scales ranged between .4 and .6, with the last two scales (*Friends* and *Co-workers*) yielding alpha co-efficients of .2 and -.04 respectively. Significant amendments were made to the INDCOL scale, with the removal of several items which were negatively influencing alpha values. Due to the poor alpha co-efficient, the *Co-workers* subscale was omitted from the questionnaire profile for the formal study. Approximately 82% of respondents felt that the INDCOL scale was appropriate to their definition of culture, although several respondents expressed dissatisfaction with questions assessing extended collectivities (for example, *Neighbour, Kin* and *Friend* collectivities). The researcher felt that this was perhaps a reflection of individualist orientations,

hence it could be expected that such respondents would find these questions irrelevant. Generally, respondents reported that several of the items in the INDCOL scale were ambiguous and difficult to understand. Several of these questions were amended or omitted for the formal investigation.

4.4 The formal investigation

4.4.1 Sample and subjects

Subjects were drawn from two local nursing colleges. This sample was hypothesised to reflect a culturally pluralistic population group demonstrating variable levels of cultural contact, and hailing from both rural and urban settings. It was selected in preference to a university population, as several researchers have assessed eating disordered pathology in university settings (Haynes, 1995; le Grange, Christy & Telch, 1998; Stuart, 1996; Winship, 1995).

Although the initial research focus was on female students between the ages of 19 and 28, the sample included data on older students (ranging from 29 to 55 years of age). It was decided to include the older subjects in a separate statistical analysis. Thirty-three White students, 37 Black students, 11 Indian students and 7 Coloured students between the ages of 19 and 28 participated in the study. The older student population comprised of 49 Black students, 11 Indian students, 3 White students and 4 Coloured students between the ages of 29 and 55. Due to the low numbers of Indian and Coloured students, only general statistical analyses (mean scores and correlations) were completed on this data.

Participation in the study was voluntary. The research focus was described as pertaining to women's eating attitudes and behaviours across cultures. Informed consent was obtained from respondents before administering the questionnaire.

4.4.2 Sample selection

Permission was sought from the appropriate administrative authorities in order to conduct research in two local nursing colleges. In the first nursing college, the researcher approached students at their monthly meeting requesting volunteers who were prepared to participate in research. Approximately 130 students volunteered, and questionnaires were distributed

accordingly. The questionnaires were to be returned at a specified date, where (voluntary) weight and height measurements were obtained by an assistant at the college. Seventy-one respondents returned the questionnaire, indicating a response rate of approximately 55%.

Permission to conduct research in the second nursing college was obtained from the principal, and the researcher was allocated one hour on two occasions in order to administer questionnaires and obtain weight and height measurements. All of the respondents approached agreed to complete the questionnaire. The researcher was also able to facilitate informal discussions regarding cultural perceptions of eating and desirable body shapes, and debriefed respondents accordingly.

4.5 Instruments for assessment

4.5.1 Biographical questionnaire

A biographical questionnaire was included in the assessment profile in order to obtain personal, familial and demographic data for each respondent (see Appendix B). In addition, respondents were required to estimate their current weight, and state whether or not they had been treated for an eating disorder. A Body Mass Index was calculated for each respondent. For ease of administration, respondents' actual weight and height measurements were recorded upon completion of the questionnaire. A measure of socioeconomic status was obtained using a nine point scale rating parents' profession which was later collapsed into the categories 'skilled', "unskilled" and "deceased or unknown". In order to establish rural/urban orientation, respondents were required to indicate whether they had resided in a rural or urban orientation for the first 10 years of their life (as suggested by Chavez *et al.*, 1997).

4.5.2 The Eating Disorder Inventory (EDI)

4.5.2.1 Description

The EDI is a 64 item self-report measure designed to assess psychological and behavioural traits common to anorexia nervosa and bulimia (Garner & Olmsted, 1984). The authors suggest that the EDI is suitable as a screening and research tool, and as such, it is appropriate for use in non-clinical populations as an indication of those respondents who are likely to be preoccupied with their weight (Garner & Olmsted, 1984) thus presenting with vulnerabilities towards the

development of eating disorders. The scale appears in Appendix A and Appendix B.

The EDI consists of the following eight subscales assessing:

- Drive for Thinness (DFT)
- Bulimia (BUL)
- Body Dissatisfaction (BD)
- Ineffectiveness (IN)
- Perfectionism (PER)
- Interpersonal Distrust (ID)
- Interoceptive Awareness (IA)
- Maturity Fears (MF)

4.5.2.2 Administration and scoring

The EDI can be administered both individually and in group settings, although it is preferable for the researcher to be present in order to clarify items and answer questions (Garner & Olmsted, 1984). The EDI consists of six-point forced choice items which are rated as "always", "usually", "often", "sometimes", "rarely" or "never".

Depending on the keyed direction of the item, the extreme "anorexic" response ("always" or "never") scores 3, the adjacent response 2, and the next response 1. Choices opposite to the most extreme score receive no score (Garner & Olmsted, 1984).

4.5.2.3 Psychometric properties

The EDI has demonstrated adequate reliability and validity in female North American college students (Garner & Olmsted, 1984). Lachenicht (1996) describes a survey on 528 female South African students using the EDI. Data was collected from several South African sources and compared with Hooper and Garner's (1986) findings in a Zimbabwean study of disordered eating in White, Black and Mixed race schoolgirls. Higher overall scores on most of the scales in the Southern African sample than the normative American sample were noted (Lachenicht, 1996). The findings of the pilot study demonstrated an adequate internal reliability with alpha values in the region of .8 to .9 for all of the subscales.

Although the cross-cultural validity of the EDI has not been formally established in Southern Africa, it has been extensively used in research and clinical practice. Hooper and Garner (1986) suggest that the EDI is suitable for the subclinical detection of eating disorders in Southern Africa.

4.5.3 The South African Acculturation Scale

The amended South African Acculturation Scale (see Appendix B: Cultural attitudes, part 1) was administered to respondents in the formal investigation (see Section 4.3.2). Due to the omission of two items from the *Rejection* subscale, scores on this scale were weighted in order to allow for equivalent comparisons with the other subscales, hence total scores for each of the subscales were divided by the number of items in that scale.

4.5.4 The Individualism-Collectivism Scale

The amended INDCOL scale (described in Section 4.3.5) was administered in the formal investigation. See Appendix B (Cultural attitudes, part 2) for the amended scale.

4.6 Procedure

A brief description of the research was presented to respondents, after which they were asked to participate in the study. Confidentiality of the respondents was ensured since they were not required to supply their names. Respondents were then asked to fill out as much of the questionnaire as possible. With permission, actual weight and height measurements were assessed upon completion of the questionnaire. Several respondents indicated their reluctance to supply weight and height measurements. Questionnaires from these respondents were accepted without the above measures. Weight and height measurements were assessed in a private room in order to limit embarrassment, and to ensure confidentiality. The researcher was able to facilitate informal discussions upon completion of the questionnaire in one of the colleges approached. During this time, feedback was invited from respondents, and general perceptions regarding female body shapes across culture were discussed.

4.7 Data Analysis

4.7.1 Psychometric properties of the assessment instruments

In order to establish the psychometric properties of the assessment instruments, internal reliabilities were conducted on the EDI, the SAAS and the INDCOL scale. The conceptual organisation of the SAAS and the INDCOL scale was assessed using factor analysis.

4.7.2 The EDI subscales

Hypothesis 1 was assessed using the following statistical procedures. Scores for each of the EDI subscales were computed for each respondent. Mean scores and standard deviations were calculated separately for each ethnic group. One-way ANOVAS were conducted in order to assess ethnic differences in disordered eating. Post-hoc Least Significance Difference (LSD) multiple comparisons tests were conducted on the data to establish where the variance lay. High scorers on the EDI were established by comparison with Hooper and Garner's (1986) suggested cut-off scores (in Geach 1995; cited in Winship, 1996) and expressed as percentages. Indian and Coloured respondents were omitted from this analysis, due to the small sample sizes. High scorers were established separately in Black and White respondents between 19 and 28 years of age, and Black respondents 29 years and older.

4.7.3 The SAAS

Hypothesis 2 was assessed using the following statistical analysis. In order to establish ethnic differences in acculturation strategies and cultural values, one-way ANOVAS were conducted on the data. Least Significance Difference tests were employed in order to establish where the variance lay.

The association between disordered eating and acculturation strategies in the entire sample was assessed using Pearson Product-Moment correlations across ethnic groups. Separate correlations were undertaken for Black and White subjects between 19 and 28 years of age.

4.7.4 The INDCOL scale

Hypotheses 3 and 4 respectively were addressed using one-way ANOVAS and LSD tests, as well as Pearson Product-Moment Correlations.

CHAPTER 5

RESULTS

5.1 Introduction

The results obtained in the investigation will be presented in the current chapter. Biographic characteristics of the sample will be outlined, followed by the psychometric properties of the instruments used in the study. A statistical analysis of data conducted in service of the hypotheses will then be presented. Due to the limited sample size of Indian and Coloured respondents, only general statistical analysis will be presented on these ethnic groups. Cultural differences between Black and White respondents will be more thoroughly reported. Additional findings and confounding variables will be presented in the latter part of the chapter.

5.2 Biographic Information

Table 2 Race and age

	Black	Indian	White	Coloured
Frequencies: race (N=155)	86	22	36	12
race (n=88)	37	11	33	7
race (n=67)	49	11	3	4
Mean age (SD): years(n=155)	31.29 (7.25)	30.95 (10.26)	22.19 (4.11)	26.09 (6.66)
Mean age (SD): years (n=87)	24.44 (2.83)	21.64 (2.11)	21.15 (2.06)	21.57 (2.44)
Mean age (SD): years (n=68)	36.22 (5.11)	40.27 (5.06)	33.67 (3.51)	34.00 (2.16)

Key: Where N=155, the entire sample is presented.

Where n=88, respondents between the ages of 19 and 28 are presented.

Where n=67, respondents twenty-nine years and over are presented.

"SD" = standard deviation.

Additional sample characteristics for the entire sample are tabulated below.

Table 3 Additional sample characteristics (N = 155)

	Black	Indian	White	Coloured	Percent
Marital status: Married	20	11	3	2	23.22%
Divorced	2	1	1	2	3.87%
Single	61	10	32	7	70.97%
Widowed	3	-	-	-	.19%
No. Children: 0	33	10	32	4	50.97%
1	25	-	1	4	19.35%
2	13	7	3	2	16.13%
3	9	4	-	1	9.03%
4+	6	1	-	-	4.52%
Origin: Urban	30	17	30	6	53.55%
Rural	56	5	6	5	46.45%
Religion: African Traditions	13	-	-	-	8.39%
Christianity	71	11	34	11	81.94%
Hinduism	-	11	-	-	7.10%
Non-religious	2	-	1	-	1.94%
Other	-	-	1	-	.65%
Years of study:(#=18) 1	28	3	6	-	27%
2	28	8	10	2	35.04%
3	11	2	3	-	11.68%
4	4	4	12	4	17.52%
5+	4	2	4	2	8.76%
Number of sisters: 0	13	5	9	3	19.35%
1	23	4	15	2	28.39%
2	21	9	8	3	26.45%
3+	29	4	4	3	25.81%
Number of Brothers: 0	13	1	12	2	18.06%
1	20	10	14	-	28.39%
2	27	7	7	4	29.03%

	Black	Indian	White	Coloured	Percent
3+	26	4	3	5	24.52%
Father's Occupation: skilled	10	5	26	4	31.13%
unskilled	10	1	-	-	9.57%
(#=40) deceased/unknown	36	9	9	5	51.30%
Mother's Occupation: skilled	8	5	25	5	31.62%
unskilled	8	-	-	1	6.62%
(#=19) deceased/unknown	57	13	9	5	61.76%
Eating Disorder (#=1): yes	6	-	2	1	5.84%
no	79	22	34	10	94.16%
Body Mass Index	27.46	24.74	23.60	23.54	-

Key: "#" = cases missing.

Note: Due to inaccurate weight measurements at one of the nursing colleges assessed, no statistical analysis was conducted on weight estimates.

5.3 Psychometric properties of the assessment instruments

5.3.1 Reliability of the EDI

The EDI demonstrated an acceptable internal reliability, with alpha co-efficients ranging from .5 to .8. Alpha co-efficients for each subscale are presented below.

Table 4 Reliability of the EDI

Subscale	Alpha co-efficient	Subscale	Alpha co-efficient
Drive for Thinness	.7284	**Perfectionism**	.8021
Bulimia	.7146	**Interpersonal Distrust**	.5839
Body Dissatisfaction	.8360	**Interoceptive Awareness**	.6892
Ineffectiveness	.7462	**Maturity Fears**	.6458

5.3.2 The SAAS

In order to establish the psychometric properties of the South African Acculturation Scale,

internal reliabilities and factor analyses were conducted on the data (N=155).

5.3.2.1 Reliability

The South African Acculturation Scale demonstrated an acceptable internal reliability. Alpha coefficients for each subscale are listed below:

Assimilation: **Alpha = .6572**

Integration: **Alpha = .7012**

Rejection: **Alpha = .5617**

5.3.2.2 Factor analysis

A principal components factor analysis of the South African Acculturation Scale was undertaken in order to establish its conceptual organisation. Inspection of the eigenvalues resulted in the selection of three factors with eigenvalues of 1.5 or more. Factor one accounted for 19% of the total variance. All three factors accounted for 39.58% of the total variance.

Table 5 Factor analysis of the SAAS (prior to rotation)

Factor	Eigenvalue	% of variance	Cumulative %
1	3.800	19.00	19.00
2	2.574	12.869	31.869
3	1.543	7.714	39.583

Table 6 SAAS items and factor loadings

Factor	SAAS items and factor loadings							
Factor 1	15 I (.78)	16 I (.70)	8 I (.62)	18 I (.58)	13 A (.53)	5 I (.32)	14 R (-.58)	
Factor 2	10 R (.66)	1 R (.64)	5 I (.51)	12 R (.422)	14 R (.31)	2 A (-.38)	3 A (-.48)	4 I (-.54)
Factor 3	20 A (.68)	6 A (.63)	19 A (.54)	11 A (.53)	17 A (.51)	2 A (.49)	7 A (.45)	

Extraction method: Principal component analysis.

Rotation method: Varimax with Kaiser normalization.

Key: Factor loadings appear in brackets.

"I" = *Integration* items

"R" = *Rejection* items

"A" = *Assimilation* items

For written items, see Appendix B (Cultural Attitudes, part 1).

Factor loadings approximate the designated subscales, with clusters for 5 of the 7 *Integration* items, 4 of the 5 *Rejection* items and 7 out of 8 *Assimilation* items. This suggests that to some degree, the author's conceptualisation of acculturation strategies was adequately reflected in the organisation of the scale.

5.3.3 The INDCOL scale

In order to establish the appropriateness of the INDCOL scale within the South African context, internal reliabilities and a factor analysis were undertaken on the data (N=155). Additionally, the researcher sought to establish the source of inconsistencies demonstrated by the INDCOL scale.

5.3.3.1 Reliability of the INDCOL scale

The reliability of the INDCOL scale was found to be questionable based on the findings below.

Table 7 Reliability

Subscale	Alpha co-efficient	Subscale	Alpha co-efficient
Spouse	.1599	**Neighbour**	.5006
Parent	.6139	**Friend**	.5692
Kin	.4411		

5.3.3.2 Factor analysis

A principal component analysis of the INDCOL Scale, followed by varimax rotation, yielded the selection of five factors with an eigenvalue of two or more. All five factors accounted for 34.3% of the variance, with factor one accounting for 11.4% of the variance.

Table 8 Factor analysis of the INDCOL scale (prior to rotation)

Factor	Eigenvalue	% of variance	Cumulative %
1	4.894	11.381	11.381
2	2.907	6.761	18.142
3	2.707	6.295	24.437
4	2.216	5.155	29.592
5	2.016	4.689	34.281

Table 9 INDCOL scale items and factor loadings

	INDCOL Items and factor loadings									
Factor 1#	18 (.76)	16 (.76)	17 (.56)	38 (.51)	42 (.51)	37 (.50)	10 (.50)	14 (.47)	22 (.42)	33 (.39)
Factor 2	29 (.66)	25 (.51)	23 (.50)	28 (.48)	26 (.47)	43 (.44)	3 (.44)	12 (.43)	9 (.32)	41 (.30)
Factor 3	34 (.70)	32 (.69)	40 (.56)	39 (.52)	35 (.46)	37 (.40)	33 (.33)			
Factor 4	27 (.66)	20 (.63)	7 (.57)	22 (.41)	21 (.34)	30 (.33)	24 (.30)			
Factor 5	5 (.41)	4 (.40)	6 (.39)	8 (.33)	12 (-.32)	13 (-.33)	15 (-.34)	2 (-.34)	40 (-.36)	3 (-.46)

Extraction method: Principal component analysis.

Rotation method: Varimax with Kaiser normalization.

Key: #=Factor loadings below .39 have been excluded.

Factor loadings appear in brackets, see Appendix B (Cultural attitudes, part 2) for written items.

Since the written items appear sequentially with subscales, the *Spouse* subscale should demonstrate factor loadings for items 1 to 8; *Parent* factor loadings should cluster around items 9 to 22; *Kin* should cluster around items 23 to 30; *Neighbour* should cluster around items 31 to

38; and *Friend* should demonstrate clusters around items 38 to 43. Due to the variable clusters of factor loadings, items in the INDCOL scale appear to have little meaningful conceptual organisation. This may be a reflection of the fact that the INDCOL scale is assessing different constructs for members of different ethnic groups. The psychometric properties of the INDCOL scale appear to be poor, hence, the validity and generalisability of the INDCOL scale within the context of this study is questionable.

5.4 Analysis of the assessment instruments

5.4.1 The Eating Disorder Inventory by race

One-way ANOVAS were conducted in order to assess ethnic differences in disordered eating (see Appendix C for ANOVA results). The scores are presented by race and subscale of the EDI, only younger population groups were assessed (n = 88). Due to the small sample size of Indian and Coloured respondents, results in these ethnic groups should be treated with caution. In order to establish where the variance lay, post-hoc Least Significance Difference (LSD) multiple comparisons tests were conducted on the data.

Table 10 Drive for Thinness (DFT)

Group	Black	White	Indian	Coloured	Mean Score (SD)
Black	-		*		6.44 (5.12)
White		-			5.08 (5.56)
Indian			-		3.91 (4.34)
Coloured				-	3.91 (3.73)

LSD multiple comparisons tests revealed that Black respondents scored significantly higher on DFT than Indian respondents $p < .05$.

Table 11 Bulimia (BUL)

Group	White	Black	Indian	Coloured	Mean Score (SD)
White	-			*	2.17 (3.10)
Black		-			1.61 (2.34)
Indian			-		1.13 (2.49)
Coloured				-	.18 (.40)

White respondents were found to score significantly higher on BUL than Coloureds $p < .05$.

Table 12 Body Dissatisfaction (BD)

Group	White	Indian	Black	Coloured	Mean Score (SD)
White	-	*	*	*	12.53 (7.07)
Indian		-			9.00 (7.99)
Black			-		6.66 (5.69)
Coloured				-	5.60 (5.80)

White respondents scored significantly higher on BD than Blacks ($p < .0001$); Indians ($p < .05$) and Coloureds ($p < .01$)

Table 13 Ineffectiveness (IN)

Group	Black	White	Coloured	Indian	Mean Score (SD)
Black	-	*		*	4.25 (3.95)
White		-			2.74 (3.65)
Coloured			-		2.00 (1.55)
Indian				-	1.95 (2.96)

Blacks scored significantly higher on IN than Indians ($p < .05$) and Whites ($p < .05$).

Table 14 Interpersonal Distrust (ID)

Group	Black	Indian	Coloured	White	Mean Score (SD)
Black	-			*	4.83 (2.85)
Indian		-			4.00 (4.22)
Coloured			-		3.36 (2.38)
White				-	3.15 (3.44)

Black respondents scored significantly higher on ID than Whites ($p < .05$).

Table 15 Perfectionism (PER)

Group	Black	Coloured	Indian	White	Mean Score (SD)
Black	-		*	*	9.81 (4.87)
Coloured		-		*	9.90 (5.04)
Indian			-		6.36 (4.53)
White				-	5.38 (4.70)

Black respondents scored significantly higher on PER than Indians ($p < .01$) and Whites ($p < .0001$). Coloured respondents scored significantly higher on PER than Whites ($p < .01$).

Table 16 Interoceptive Awareness (IA)

Group	Black	Coloured	Indian	White	Mean Score (SD)
Black	-			*	4.99 (4.08)
Coloured		-			3.80 (3.22)
Indian			-		3.68 (4.55)
White				-	2.94 (4.11)

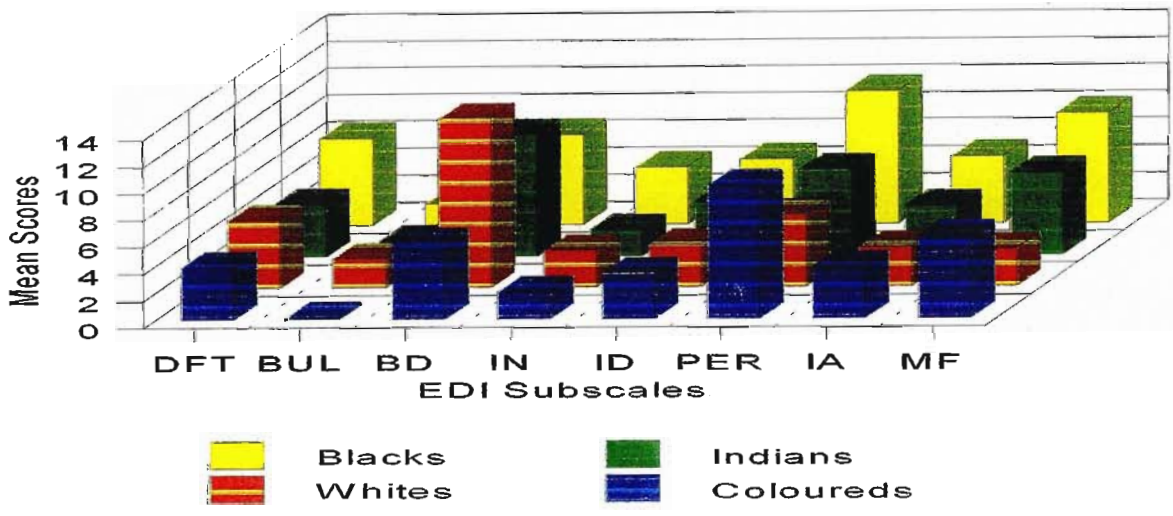
Black respondents scored significantly higher on IA than Whites ($p < .05$).

Table 17 **Maturity Fears (MF)**

Group	Black	Indian	Coloured	White	Mean Score (SD)
Black	-	*	*	*	8.09 (4.69)
Indian		-			6.09 (5.67)
Coloured			-		6.09 (3.83)
White				-	2.78 (2.28)

Black respondents scored significantly higher on MF than Whites ($p < .0001$); Indians ($p < .01$) and Coloureds ($p < .05$).

Figure 5 **Mean EDI scores by race**



5.4.2 High scorers on the EDI

In order to assess the degree of eating pathology in the sample, high scorers on the EDI were established using the cut-off scores prescribed by Hooper and Garner (1986) for each subscale. Frequencies of high scorers for each subscale were obtained using cross-tabulation. In order to control for the possible confounding effect of age, the sample was divided according to age, with Black and White respondents between the ages of 19 and 28 determined separately from Black students who were greater than or equal to 29 years of age. Indian, Coloured and older White respondents were excluded from this analysis due to the small sample size. For comparative

purposes, the Canadian sample mean scores for anorexia nervosa (N = 129) are presented in bold.

Table 18 Percentages of high scorers on the EDI

	% Blacks 19 to 28 n = 37	% Whites 19 to 28 n = 33	% Blacks 29 years + n = 49	Cut Off Scores	Canadian sample means (N = 129)
Drive for Thinness	13.8	9.1	10.5	≥ **15**	**15.2**
Bulimia	17.2	18.2	12.3	≥ **4**	**4.0**
Body Dissatisfaction	13.8	39.4	8.8	≥ **14**	**15.0**
Ineffectiveness	10.3	9.1	7.0	≥ **10**	**13.9**
Interpersonal Distrust	58.6	30.3	43.9	≥ **5**	**7.4**
Perfectionism	62.1	24.2	56.1	≥ **8**	**10.0**
Interoceptive Awareness	6.9	6.1	14.0	≥ **10**	**12.0**
Maturity Fears	58.6	18.2	73.7	≥ **5**	**6.0**

Table 18 illustrates that younger White and Black high scorers on the EDI display similar profiles, with the exception of *Body Dissatisfaction, Interpersonal Distrust, Perfectionism* and *Maturity Fears.* Higher scores for *Body Dissatisfaction* were evidenced in Whites than Blacks, with Blacks scoring greater percentages above cut-off than Whites on the latter subscales assessing the psychological correlates of unhealthy eating. Older Black respondents displayed marked elevations on the *Maturity Fears* subscale

5.5 Acculturation by race

One-way ANOVAS were conducted in order to assess ethnic differences in acculturation strategies. See Appendix C for statistical results. Only the younger populations were assessed in this section (n = 88).

Table 19 Assimilation

Group	Black	Indian	White	Coloured	Mean Score (SD)
Black	-				2.94 (.63)
Indian		-			2.67 (.63)
White			-		2.81 (.42)
Coloured				-	2.68 (.58)

No significant between group differences were observed for *Assimilation* strategies to acculturation.

Table 20 Integration

Group	Black	Indian	White	Coloured	Mean Score (SD)
Black	-		*		3.87 (.51)
Indian		-	*		3.89 (.63)
White			-	*	3.50 (.51)
Coloured				-	3.94 (.52)

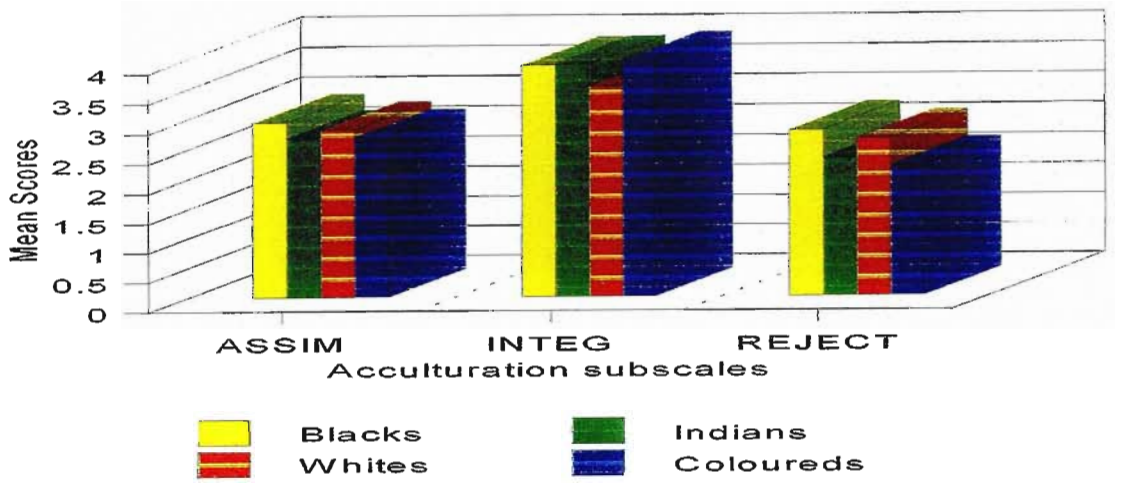
Whites displayed significantly lower *Integraton* scores than Blacks ($p < .01$), Indians ($p < .01$) and Coloureds ($p < .05$).

Table 21 Rejection

Group	Black	Indian	White	Coloured	Mean Score (SD)
Black	-	*		*	2.78 (.55)
Indian		-			2.31 (.69)
White			-	*	2.63 (.67)
Coloured				-	2.18 (.81)

Blacks scored significantly higher on *Rejection* than Indians ($p < .01$) and Coloureds ($p < .01$). Whites scored significanlty higher on *Rejection* than Coloureds ($p < .01$).

Figure 6 **The SAAS by race**



5.6 The Individualism-Collectivism scale by race

Table 22 **Mean scores and standard deviations for the INDCOL scale**

	Black	Indian	White	Coloured	Mean Score (SD)
Spouse					
Black	-				2.90 (.48)
Indian		-	*		2.78 (.40)
White			-		3.09 (.46)
Coloured				-	2.81 (.47)
Parent					
Black	-	*	*	*	3.15 (.37)
Indian		-			3.62 (.42)
White			-		3.61 (.48)
Coloured				-	3.48 (.43)
Kin					
Black	-				3.19 (.45)

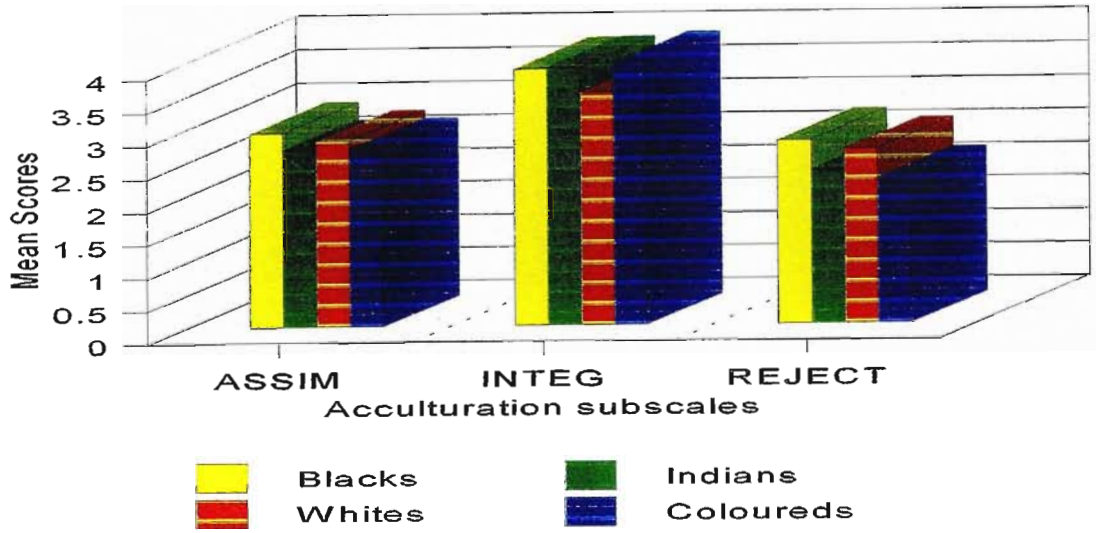
	Black	Indian	White	Coloured	Mean Score (SD)
Indian		-	*	*	2.82 (.51)
White			-		3.21 (.53)
Coloured				-	3.22 (.40)
Neighbour					
Black	-		*		2.98 (.48)
Indian		-			3.03 (.69)
White			-		3.22 (.54)
Coloured				-	3.25 (.59)
Friend					
Black	-		*		3.20 (.60)
Indian		-			3.42 (.57)
White			-		3.61 (.58)
Coloured				-	3.44 (.62)
GCI					
Black	-	*	*	*	3.09 (.25)
Indian		-			3.19 (.27)
White			-		3.38 (.27)
Coloured				-	3.26 (.30)

Note: Only the younger population groups were assessed (n = 88), see Appendix C for statistical results.

Least Significance Difference tests indicated that Whites scored significantly higher on *Spouse* collectivism than Indians ($p < .05$). Indians ($p < .0001$), Whites ($p < .0001$) and Coloureds ($p < .05$) scored significantly higher on *Parent* collectivism than Blacks. Whites ($p < .01$) and Coloureds ($p < .05$) were found to score significantly higher on *Kin* collectivism than Indians. On both *Neighbour* collectivism and *Friend* collectivism, Whites scored significantly higher than Blacks ($p < .05$ and $p < .01$ respectively). On the *General Collectivism Index*, Whites demonstrated significantly higher scores than Blacks ($p < .0001$) and Indians ($p < .05$). Coloureds

scored significantly higher on the *General Collectivism Index* than Blacks ($p < .05$).

Figure 7 INDCOL subscales by race



5.7 Correlations

In order to assess the association between disordered eating and acculturation strategies, Pearson Product-Moment correlations were undertaken across ethnic groups. R Values are presented below.

Table 23 EDI by acculturation

	Assimilation	Integration	Rejection
Drive for Thinness	.091 (ns)	.053 (ns)	.108 (ns)
Bulimia	.334 ***	.066 (ns)	.156 (ns)
Body Dissatisfaction	.147 (ns)	.040 (ns)	.049 (ns)
Ineffectiveness	.288 **	.133 (ns)	.128 (ns)
Interpersonal Distrust	.180 *	-.030 (ns)	.224 **
Perfectionism	.101 (ns)	.145 (ns)	.045 (ns)
Interoceptive Awareness	.237 **	.144 (ns)	.257 **
Maturity Fears	.276 **	.167 *	.102 (ns)

Key: * = $p < .05$

** = $p < .01$

*** = $p < .0001$

ns = not significant

Note: Tabulated data represents the entire population (N = 155)

The *Assimilation* strategy correlated significantly positively for five of the eight EDI subscales. *Integration* strategies correlated siginficantly positively for one of the EDI subscales, and *Rejection* strategies correlated significantly positively for two of the EDI subscales.

5.7.1 Correlations for Black and White respondents between 19 and 28 years of age

Correlations for the younger White and Black respondents were conducted in order to assess the association between acculturation strategies and eating disordered attitudes and behaviours in younger Black and White respondents, and to control for the confounding effects of age.

Table 24 EDI by acculturation in younger respondents

	Assimilation	Integration	Rejection	Race
Drive for Thinness	-.208	-.183	-.345	White
	.143	**.154**	**.149**	**Black**
Bulimia	.225	.002	.189	White
	.465 **	**.316**	**-.030**	**Black**
Body Dissatisfaction	.196	.079	.259	White
	.091	**.139**	**.088**	**Black**
Ineffectiveness	.313	.150	.365	White
	.373*	**.194**	**.112**	**Black**
Interpersonal Distrust	.327	.099	.327	White
	-.163	**-.286**	**.251**	**Black**
Perfectionism	.155	-.058	-.339	White
	.105	**.118**	**.146**	**Black**
Interoceptive	.137	.027	*.424* *	White
Awareness	**.349**	**.230**	**.028**	**Black**
Maturity Fears	.282	-.073	.327	White
	.133	**.318**	**-.241**	**Black**

Key: * = $p < .05$

** = $p < .01$

Note: White respondents between the ages of 19 and 28 (n = 33) are presented in the first row. Black respondents between the ages of 19 and 28 (n = 37) are presented in bold. Significant findings are in italics.

Assimilation strategies demonstrated significant positive correlations for *Bulimia* and *Ineffectiveness* in Black respondents between the ages of 19 and 28 years. *Rejection* demonstrated a significant positive correlation for *Interoceptive Awareness* in younger White respondents.

Table 25 Individualism-collectivism by EDI subscales in younger respondents

	Spouse	Parent	Kin	Neighbour	Friend	GCI
Drive for	.122	-.101	.317	.210	.184	.245
Thinness	**.048**	***-.462***	***-.426***	**.179**	**-.263**	***-.352***
Bulimia	-.298	-.030	-.184	*-.407**	-.261	*-.414**
	-.086	***-.418****	**-.310**	**.250**	**-.278**	**-.312**
Body	.031	-.027	-.165	.107	.056	.003
Dissatisfaction	**.176**	**-.169**	**-.202**	**.029**	**-.095**	**-.114**
Ineffective-	*.497**	-.351	*-.422**	-.335	*-.545***	*-.488**
ness	**-.127**	***-.398****	***-.392****	**.254**	**-.326**	**-.349**
Interpersonal	.-.012	-.055	-.151	-.366	-.353	-.348
Distrust	**.050**	***-.465****	***-.434****	**.025**	***-.477****	***-.447****
Perfectionism	*.503**	*-.495**	.116	-.069	-.039	-.096
	.171	***-.426****	**-.218**	**.082**	**-.149**	**-.240**
Interoceptive	.346	-.349	*-.454**	*-.386**	*-.471**	*-.510***
Awareness	**-.253**	**-.252**	**-.076**	***.453****	**-.071**	**-.097**
Maturity	*.077*	-.360	-.307	-.126	*-.099*	*-.337*
Fears	**-.028**	**-.070**	**-.109**	**.221**	**.192**	**.035**

Key: * = p < .05

** = p < .01

Note: Depending on missing scores, n = 33 younger White respondents and n = 37 younger Black respondents.White respondents between the ages of 19 and 28 are presented in the first row. Black respondents in the same age group are presented in bold. Significant results are in italics.

Spouse collectivism demonstrated significant positive correlations for *Perfectionism* and *Ineffectiveness* in White respondents. *Parent* collectivism was significantly negatively correlated with *Perfectionism* in White respondents, and significantly negatively correlated for *Drive for Thinness, Bulimia, Ineffectiveness, Perfectionism* and *Interpersonal Distrust* in Black

respondents. *Kin* collectivism was negatively correlated with *Interoceptive Awareness* and *Ineffectiveness* in White respondents, and *Drive for Thinness, Interpersonal Distrust* and *Ineffectiveness* in Black respondents. *Neighbour* collectivism demonstrated a significant negative correlation with *Bulimia* in Whites, and a significant positive correlation with *Interoceptive Awareness* in Black respondents. *Friend* collectivism was significantly negatively correlated to *Interoceptive Awareness* and *Ineffectiveness* in Whites, and to *Interpersonal Distrust* in Black respondents. The *General Collectivism Index* demonstrated significant negative correlations for *Bulimia, Ineffectiveness* and *Interoceptive Awareness* in Whites, and *Drive for Thinness* and *Interpersonal Distrust* in Blacks.

5.8 Additional Findings

5.8.1 Older Black respondents (29 years of age and older).

Pearson Product Moment Correlations were conducted on older Black respondents (n = 49) to assess eating pathology, acculturation and cultural values in this group. *Assimilation* was found to correlate (positively) for *Bulimia* ($r = .478$; $p < .01$), *Interpersonal Distrust* ($r = .320$; $p < .05$) and *Body Dissatisfaction* ($r = .367$; $p < .01$). *Rejection* correlated significantly positively with *Bulimia* ($r = .472$; $p < .01$), *Interpersonal Distrust* ($r = .414$; $p < .01$) and *Interoceptive Awareness* ($r = .347$; $p < .05$). The older Black group obtained more significant correlations with *Assimilation* and the EDI subscales than the younger Black group.

On the INDCOL scale, *Friend* collectivism demonstrated significant negative correlations with *Bulimia* ($r = -.382$; $p < .01$) and *Interpersonal Distrust* ($r = -.398$; $p < .01$). Significant negative correlations for *Interpersonal Distrust* ($r = -.319$; $p < .05$) were observed for the *General Collectivism Index.* On the INDCOL scale, older Black respondents yielded fewer significant correlations with collectivism and the EDI subscales than the younger Black group.

5.8.2 Urban/Rural orientation

In order to assess the association between the EDI; SAAS and the INDCOL scale across rural/urban orientation, correlations were conducted separately for rural and urban respondents.

Table 26 Acculturation by EDI subscales in rural versus urban orientations

	Assimilation	Integration	Rejection
Drive for Thinness	-.119	.136	*-.288**
	.156	**.047**	***.314****
Bulimia	*.297**	.012	*.312**
	.371*	**.177**	**.108**
Body Dissatisfaction	.179	-.006	.108
	.194	**.065**	**.086**
Ineffectiveness	.112	.126	.229
	.418*	**.242**	**.109**
Perfectionism	-.101	.211	-.245
	.116	**.084**	**.205**
Interpersonal Distrust	*.287**	-.005	*.272**
	.136	**-.108**	***.401****
Interoceptive Awareness	.106	.126	.259
	.318*	**.238**	***.292****
Maturity Fears	.048	.194	.077
	.400*	**.251**	**.212**

Key: * = $p < .05$

** = $p < .01$

Note: Rural subjects (n = 72) are presented in the first row. Urban subjects (n = 83) are presented in bold. Significant findings are in italics.

Assimilation correlated significantly (positively) for *Bulimia* and *Interpersonal Distrust* in rural respondents. In rural respondents, *Rejection* demonstrated positive correlations for *Bulimia* and *Interpersonal Distrust,* and significant negative correlations for *Drive for Thinness*. Urban respondents attained the following significant positive correlations for *Assimilation: Bulimia, Ineffectiveness, Interoceptive Awareness* and *Maturity Fears. Rejection* correlated significantly (positively) with *Drive for Thinness*, *Interpersonal Distrust* and *Interoceptive Awareness.*

Table 27 The INDCOL scale by EDI subscales in rural versus urban orientations

For the purpose of brevity, only the *General Collectivism Index* subscale of the INDCOL will be presented.

	General Collectivism Index
Drive for Thinness	.085
	-.274*
Bulimia	*-.269**
	-.221
Body Dissatisfaction	.237
	-.025
Ineffectiveness	-.196
	-.386*
Perfectionism	.073
	-.377*
Interpersonal Distrust	*-.364**
	-.449**
Interoceptive Awareness	-.131
	-.270*
Maturity Fears	-.188
	-.327*

Key: * = $p < .05$

** = $p < .01$

*** = $p < .0001$

Note: Rural respondents (n = 72) are presented in the first row. Urban respondents (n = 83) are presented in bold.

On the *General Collectivism Index*, significant negative correlations were observed for *Bulimia* and *Interpersonal Distrust* in rural respondents. For urban respondents, the following negative correlations emerged with general collectivism: *Drive for Thinness, Perfectionism, Interpersonal*

Distrust, Interoceptive Awareness, Maturity Fears and *Ineffectiveness.*

5.9 Summary

In summary, the essential findings suggest that Hypothesis 1 was partially supported by the research findings. While both Black and White respondents tended to display propensities towards disordered eating, Whites scored higher, on average, on the first three subscales of the EDI (which assess eating disordered behaviours and attitudes). Black respondents, on average, scored higher on the subscales measuring the psychological correlates thought to be associated with the development of eating disorders (Garner & Olmsted, 1984). The expectation that Black respondents would score higher on collectivism than Whites (Hypothesis 2) was not supported by the findings. The results of the investigation provide partial support for the hypothesis that assimilation and individualist values are correlated with greater eating disorder pathology, as outlined in Hypothesis 3 and Hypothesis 4 (see Chapter 4, Section 4.2). These results will be discussed more thoroughly in the next chapter.

CHAPTER 6

DISCUSSION

6.1 Introduction

This chapter presents the psychometric properties of the assessment instruments, followed by a discussion of the results as they pertain to the hypotheses. In addition, the current research will be compared to similar research in Southern Africa and abroad. Limitations of the research will be discussed, followed by relevant theoretical and clinical implications, as well as suggestions for future research in the field.

6.2 Psychometric properties of the assessment instruments

6.2.1 The EDI

Whilst the EDI has received fairly extensive research in South Africa (Lachenicht, 1996; Winship, 1996), no local norms exist for this instrument. The internal reliability of the instrument, whilst acceptable, is considerably more variable in the South African context than abroad (see Section 5.3.1). The cross-cultural applicability of this instrument to South African populations has not been researched, hence, it could be argued that the EDI may measure different constructs in different cultural groups within South Africa. Additional local research is required to establish the validity of the EDI within the South African context.

6.2.2 The SAAS

The SAAS demonstrated an acceptable internal reliability for cross-cultural research, and its conceptual organisation was found to be appropriate (see Section 5.3.2). However, since the scale's construction was largely rationally derived, items were assumed *a priori* to measure a given acculturative dimension. The scale does not contextualise acculturative choices, nor does it consider the "embeddedness of the individual within the context of the family within the context of the culture" (Barona & Miller, 1994, p.156) Consideration of these factors qualifies the interpretation of these findings.

The scale does, however, represent a local acculturation measure, and may offer information to researchers and clinicians regarding the conceptualisation and significance of acculturative phenomena within South Africa.

6.2.3 The INDCOL scale

The internal reliability of the INDCOL scale, as well as its' conceptual organisation were disappointing (see Section 5.3.3). Research findings regarding the INDCOL scale should be observed with caution, as the instrument's applicability to the South African context is limited. This finding does, however, raise an interesting research question regarding the incongruencies in cultural values within the South African context, as opposed to cultural values abroad. While cultural values represent a useful research approach to understanding psychopathology within a culturally pluralistic society, the conceptualisation and measurement of cultural values in a multidimensional context requires further clarification.

6.3 Central findings

6.3.1 The EDI subscale mean scores

Although the EDI does not specifically diagnose clinical eating disorders, it provides an indication of the degree of disordered eating prevalent in the sample. In order to make a definitive diagnosis of anorexia nervosa and bulimia nervosa, follow-up interviews would be necessary. The current study has employed the EDI as a means of assessing high risk populations for the development of eating disorders, with the first three subscales of the EDI reflecting a measure of behavioural and symptomatic patterns of unhealthy eating (Cooper, Cooper & Fairburn, 1985; Eberly & Eberly, 1985); and the last five subscales providing a measure of the psychological risk factors thought to be associated with a vulnerability to the development of disordered eating attitudes and behaviours.

6.3.1.1 Disordered eating attitudes and behaviours

On average, mean scores on *Drive for Thinness* in Black respondents were greater than scores for White respondents, although the difference was not found to be statistically significant (see Table 10) This finding is supported by other South African findings (Geach, 1995; cited in Winship, 1996; Winship, 1996), Winship (1996) observed that Black females scored significantly

higher than Whites on *Drive for Thinness*. These findings serve to challenge the contention that Black females inherently value a larger body shape, and as such are less vulnerable to the development of eating disorders. It is acknowledged, however, that the sample assessed may reflect a highly acculturated group (due to their involvement in tertiary education). Hence, the adoption of sociocultural norms for thinness in acculturated groups of individuals may account for the elevated mean scores on the EDI in the Black population assessed. Thus, these findings may not be true of the general Black population, specifically in those populations which place cultural value on larger body shapes.

The finding that White female respondents generally demonstrate high scores on the *Bulimia* subscale as compared to other ethnic groups is supported by several researchers (Nevo,1985; Rand & Kuldau, 1992; Winship,1996). Means for *Bulimia* in Whites (Table 11) were higher than for Blacks in the current study (although the difference was not statistically significant), and White means were higher than the Canadian sample means for *Bulimia* in White population groups (Garner & Olmsted, 1984). Mean scores for Black respondents on *Bulimia* were marginally lower than for the Canadian sample. This provides further evidence for Winship's (1996) observation that while Whites represent high risk groups for the development of bulimic behaviours, South African Blacks students display similar bulimic tendencies to respondents in other Westernised countries.

Body Dissatisfaction means for Blacks and Whites were marginally lower than those of Winship (1996). Whites scored significantly higher on *Body Dissatisfaction* than Blacks in the current study (Table 12), and White mean scores were greater than Canadian sample means for this subscale. Black respondents generally demonstrated more favourable body image attitudes than Whites, a finding supported by Rucker and Cash (1992) and Winship (1996). This implies that a more favourable body image in Black respondents may serve as a protective factor to the development of eating disorders in these populations.

6.3.1.2 Subscales measuring psychological variables

Analysis of variance and Least Significance Difference tests established that Black respondents scored significantly higher than Whites on the following subscales: *Ineffectiveness, Interpersonal*

Distrust, Perfectionism, Interoceptive Awareness and *Maturity Fears* (see Tables 13-17). These findings suggest that Blacks demonstrate a psychological vulnerability towards the development of disordered eating attitudes and behaviours, and are as such not invulnerable to the development of eating disorders. Consideration of the findings that Blacks scored higher on *Drive for Thinness* than the Canadian sample (Garner & Olmsted, 1984) and higher than White respondents (in the current study) on all five of the remaining EDI scales (assessing the psychological correlates of disordered eating), provides further support for the view that Black respondents represent a high risk group for the development of eating disorders. Similar findings and conclusions were drawn by Winship (1996) on a comparable sample.

Several researchers have hypothesised a link between acculturative phenomenon and associated disordered eating attitudes and behaviours (Furukawa, 1994; Haynes, 1995; Hooper & Garner, 1986; Wilfley *et al.*, 1996; Winship, 1996) as well as a general propensity to psychopathology (Berry *et al.*, 1986) in acculturating populations. Acculturative stress arising from the political change in South Africa, coupled with the internalisation of cultural standards and norms which emphasise thinness and beauty as an integral part of self-concept formation in females, has been proposed as an explanation for the increase in disordered eating in cultural groups which have traditionally displayed little propensity towards disordered eating. It could be argued therefore that the elevated scores on the EDI subscales assessing the psychological aspects of disordered eating in Black respondents may present an initial psychosocial predisposition to disordered eating behaviours and attitudes in Blacks.

6.3.2 Comparative studies: High scorers on the EDI subscales

High scorers on the EDI (assessed using the cut-off points cited in Winship, 1996) indicate high risk attitudes and behaviours commonly associated with eating disorders or subclinical eating disorders. High scorers on the EDI (expressed as percentages) approximate the Southern African findings of Hooper and Garner (1986), Lachenicht (1996) and Winship (1996). Comparative proportions above cut-off points are tabulated below, followed by a discussion of the research findings.

Table 28 Southern African studies: Percentages of high scorers on the EDI subscales

Race	DFT	BUL	BD	IN	ID	PER	IA	MF
Z Black (H & G)	40	70	40	40	70	50	70	90
SA Black (W)	19.3	13.7	22.2	2.0	38.0	76.5	6.0	63.9
SA Black (L)	19.8	10.1	9.7	17.5	25.7	49.2	24.2	62.23
SA Black (#)	*13.8*	*17.2*	*13.8*	*10.3*	*58.6*	*62.1*	*6.9*	*58.6*
Z White (H & G)	57	68	59	30	30	30	43	48
SA White (W)	14.2	22.3	47.5	14.0	26.7	23.5	7.6	16.7
SA White (L)	15.4	15.7	21.6	18.7	21.7	11.6	20.3	18.1
SA White (#)	*9.1*	*18.2*	*39.4*	*9.1*	*30.3*	*24.2*	*6.1*	*18.2*
Older SA Blacks(#)	*10.5*	*12.3*	*8.8*	*43.7*	*7.0*	*56.1*	*14.0*	*73.7*

Key: The scores presented are on or above the 90th percentile (norms were established for female North American college students N = 770 (Garner and Olmsted, 1984)). See page 54 for EDI subscale key.

(H & G) = Hooper and Garner (1986), N = 399 Zimbabwean schoolgirls (Mixed race schoolgirls are not presented)

Z = Zimbabwean

(W) = Winship (1996), N = 291 Black and White university students

SA = South African

(L) = Lachenicht (1996), N = 528 university students, Indian respondents are not represented (Note: 271 respondents in this survey were also analysed by Winship, 1996)

(#) = The current study, n = 119 Black and White female nursing students (in italics)

6.3.2.1 Disordered eating attitudes and behaviours

The *Drive for Thinness* and *Body Dissatisfaction* subscales assess weight preoccupation (Garner & Olmsted, 1984). Percentages on *Drive for Thinness* in the current study were lower for Blacks and Whites than for Hooper and Garner (1984), Lachenicht (1996) and Winship (1996). However, high scorers on *Drive for Thinness* were marginally higher for Blacks in the current study than Whites (a finding similar to Lachenicht (1996) and Winship (1996)). *Body Dissatisfaction* in the current sample was lower for Blacks in all three comparative studies

(Hooper & Garner (1986), Lachenicht (1996) and Winship (1996)). Whites demonstrated relatively higher *Body Dissatisfaction* in the current study than the findings of Lachenicht (1996), but lower than those of Hooper and Garner (1986) and Winship (1996). Thus, *Drive for Thinness* percentages above cut-off are marginally higher in Blacks than Whites for all samples, with *Body Dissatisfaction* higher in Whites than Blacks for all samples. These findings could be explained in terms of the hypothesis that Black respondents employ weight loss strategies which are more appropriate to their perceived body size, while White respondents display marked dissatisfation with their body shape (evidenced by elevated *Body Dissatisfaction* percentages) which is disproportional to actual weight loss attempts (evidenced by significantly lower *Drive for Thinness* percentages).

Whites demonstrated only marginally higher percentages above cut-off on *Bulimia* than Black students in the current study. This finding contradicts those of Lachenicht (1996) and Winship (1996) where Whites scored considerably higher on *Bulimia* than Blacks.

The South African findings challenge Hooper and Garner's (1986, p.166) assertion that "eating disturbance[s] may exist on a 'cultural continuum'" with the disorder more prominent and evolved in White groups than Black groups. Evidence contradicting this assertion is demonstrated in the finding that Black students tend to display consistently higher cut-off percentages on *Drive for Thinness* than Whites in all of the South African studies reviewed, and Black and White scores for *Bulmia* do not differ significantly.

6.3.2.2 Psychological variables: Percentages above cut-off

Hooper and Garner (1986) report that Black Zimbabwean respondents demonstrated higher cut-off percentages on all of the psychological subscales than White Zimbabwean respondents. This pattern is reproduced in both of the South African studies reviewed above, including the current study. Zimbabwean percentages however, tend to be much higher than South African equivalents (Lachenicht, 1996). This may be explained by the fact that the Zimbabwean study assessed schoolgirls at an age which may place them at greater risk for the development of disordered eating attitudes and behaviours than the relatively older students assessed by Lachenicht (1996), Winship (1996) and the current author.

Ineffectiveness percentages for White and Black respondents in the current study were fairly similar (a finding which is contrary to Hooper and Garner (1986), and Winship (1996)). A greater percentage of Whites and Blacks in the current study scored above the cut-off point for *Interpersonal Distrust* than for Winship (1996), with Whites generally scoring lower on *Interpersonal Distrust* than Blacks. Hooper and Garner (1986, p. 163) report that high scorers on *Interpersonal Distrust* indicate "a reluctance to form close relationships as well as a sense of alienation".

This finding may be associated with the juxtaposition of former Apartheid policies of segregation and disempowerment in "non-White" populations with more recent post-Apartheid policies of equality with regard to race and cultural expression.The overt discourse disseminated in the policy of Apartheid was one of inequality and subjugation in "non-White" populations, followed by more recent discourses of equality between the races. It is likely that these incongruent discourses have contributed significantly to perceptions of threat to racial identity and culture-specific values, resulting in inevitable stress and wariness in acculturating populations. Hence, the straddling of disempowering discourses and empowering discourses may account for the elevated *Interpersonal Distrust* scores especially in Blacks, but also in Whites. It is interesting to observe that compared to Lachenicht (1996) and Winship (1996), the current study reflects an increase in *Interpersonal Distrust* percentages for both White and Black population groups. This suggests that acculturation is not a unidimensional phenomenon and it affects both Black and White population groups.

Elevated *Perfectionism* percentages are observed for Black students in all four of the studies compared, reflecting "excessive personal expectations for superior achievement" (Hooper & Garner, 1986, p. 163) in Blacks. Winship (1996, p.61) asserts that this finding could be explained by the possibility that high perfectionism percentages may be an artefact of high achievement (associated with perfectionism) in Black women who achieved admission to tertiary institutions "given the social, political and educational restraints present during the Apartheid years".

Generally, high scorers on the EDI in South Africa display similar profiles. Marked dissimilarities exist between the South African data and the Zimbabwean data in terms of White

females, with South African Whites displaying a relatively different profile to the Zimbabwean data (Lachenicht, 1996). South African and Zimbabwean Blacks, however, show some similarities (Lachenicht, 1996) in the presentation of disordered eating attitudes and behaviours, as well as the psychological correlates of disordered eating

6.3.3 Older Black respondents (29 years and older)

The EDI was originally normed on young adult women (Garner & Olmsted, 1984), and with the exception of the work of Wilfley, Schreiber, Pike, Striegel-Moore, Wright and Rodin (1996) the author is unaware of EDI research and norms for older women. For this reason, the older Black respondents will be compared with the work of Wilfley *et al.* (1996) and the comparative South African studies outlined in the previous section.

Older Black women display marginally lower scores than younger Black women on most of the EDI scales, with the exception of *Ineffectiveness, Interoceptive Awareness* and *Maturity Fears*, a similar finding to that of Wilfley *et al.* (1996). Garner and Olmsted (1984, p.5) report that *Ineffectiveness* is characterised by "feelings of general inadequacy, insecurity, worthlessness, and the feeling of not being in control of one's life". Elevated *Ineffectiveness* scores are possibly a reflection of the educational institution selected, where the majority of respondents were engaged in their first year of tertiary education, after a relatively long break from study.

The elevated *Maturity Fears* subscale is associated with a "wish to retreat to the security of the pre-adolescent years because of the overwhelming demands of adulthood" (Garner & Olmsted, 1984, p. 5). In older respondents, it is likely that elevations on the *Maturity Fears* subscale are an artefact of confronting middle age and old age. Alternatively, Wilfley *et al.* (1996) propose that the *Maturity Fears* subscale is developmentally inappropriate for use with a middle-aged female sample, due to poor coefficients of internal consistency.

Approximately nine percent of older women scored above the cut-off for *Body Dissatisfaction,* which is lower than the findings of Wilfley *et al.* (1996) who report that 34% of middle-aged Black women assessed scored above the cut-off for *Body Dissatisfaction.* Higher cut-off percentages for this subscale were expected (in the current study) for older respondents,

especially in light of age-related weight gain associated with pregnancy and developmental changes in body composition (such as menopause). However, the research data is supportive of Uys and Wassenaar's (1995) observation that body dissatisfaction decreases with age.

Of interest is the finding that older Black women scored considerably lower on *Interpersonal Distrust* than younger Blacks and Whites. This finding could be considered a protective factor in the development of disordered eating for older Black populations. Alternatively, it could be hypothesised that this population group would have been less empowered to actively participate in the acculturation process because of Apartheid policies stressing segregation, resulting in a relatively greater sense of perceived cultural integrity. Maturational gains may also account for the lower scores on *Interpersonal Distrust* in older Black respondents.

6.3.4 Additional findings: Indian and Coloured respondents

Due to the small number of Indian and Coloured respondents, only mean scores will be considered in the discussion. Accordingly, the following findings should be interpreted with caution. The relative dearth of information on these populations regarding eating disorder pathlogy justified their inclusion in the current study despite the small sample size.

Indian and Coloured respondents' mean scores on the EDI fell below those of White and Black respondents on the following subscales: *Drive for Thinness; Bulimia; Body Dissatisfaction* and *Ineffectiveness.* Hence, it could be argued that Indian and Coloured respondents tend to display relatively lower disordered eating behaviours and attitudes (assessed using the first three subscales of the EDI). However, mean scores for Indian and Coloured respondents on the subscales measuring psychological variables associated with disordered eating tended to fall between White and Black respondents' mean scores with the exception of the *Ineffectiveness* subscale.

This implies that whilst Indian and Coloured populations may not display disordered eating behaviours and attitudes to the same extent as White and Black populations, they nonetheless present with psychological correlates which are within the range of White and Black populations, and as such represent at risk populations for the development of eating disorders. Lower mean

scores on eating disorder symptomatology in Indian and Coloured populations may be explained in terms of the finding that the expression of psychological and acculturative stress in these populations is via suicidal behaviours, rather than eating disorders (Pillay & Wassenaar, 1997; Wassenaar, van der Veen & Pillay, 1998). Alternatively, lower mean scores on the EDI in Indians and Coloureds may be an artefact of the small sample size.

6.3.5 Future directions for the EDI in South Africa

Perhaps a useful area of future research regarding the EDI is the development of profiles for high risk groups across cultures, as well as clinical interviews to establish the validity of the EDI in determining subclinical cases of anorexia nervosa and bulimia nervosa in the Southern African context. A methodological caveat is necessary in considering whether or not high scores on the EDI measure the same thing in Black and White groups. This is a methodological difficulty inherent in importing "Western" validated instruments to populations of different cultures. In a similar vein, the need for further validation of the EDI on local Southern African populations is highlighted by Hooper and Garner (1986).

6.3.6 The SAAS subscales

The SAAS was administered in order to assess the degree of homogeneity within the sample with regard to the choice of acculturation strategies (as suggested by Olmedo, Martinez & Martinez, 1978; cited in Franco, 1983). No significant differences were observed across culture for the assimilation strategy, suggesting a degree of homogeneity within the sample regarding the choice of assimilation strategies to acculturation. Whites displayed significantly lower *Integration* scores than Blacks, Indians and Coloureds.

A *Rejection* strategy of acculturation was favoured primarily by Blacks and Whites. No significant linear trends emerged on the acculturation scale (as described in Section 4.2). This finding was expected in light of other research which suggests that individuals differ in the degree to which they participate in acculturation phenomenon (Berry *et al.*, 1986). Individuals within groups and between groups are likely to select a particular strategy to acculturation individually suited to them. Of greater importance to the current study is the degree to which particular strategies of acculturation correlate with eating disorder pathology.

6.3.6.1 Relationship to disordered eating behaviours and attitudes

Correlations for the SAAS and the EDI subscales in the entire sample (N=155) demonstrated significant positive correlations for assimilation in five of the eight EDI subscales (see Table 23). This finding provides support for Hypothesis 3. However, when the correlations were repeated for younger White and Black respondents (Table 24), significant correlations were found for only two of the EDI subscales. This finding may be explained statistically by the reduced numbers in the younger Black and White sample; alternatively, Indians, Coloureds and older Black respondents may account for the majority of eating pathology for the assimilation strategy of acculturation.

Thus, Hypothesis 3 received partial support in the sense that assimilation strategies were generally associated with eating disordered attitudes and behaviours, although this correlation was found to be much weaker for younger White and Black respondents. Several researchers have reported significant associations between acculturation and disordered eating (Pumariega, 1986; Stuart, 1996; Haynes, 1996). Direct comparisons between these studies and the current study are complicated by the use of different instruments for the measurement of acculturation. Winship (1996) observed no significant relationship between acculturation and disordered eating, although this finding is qualified by her assertion that the measures of acculturation employed were problematic.

It is interesting to observe that *Assimilation* did not correlate with *Drive for Thinness*, or *Body Dissatisfaction* on the EDI (Table 23). This result is unexpected if one considers the hypothesised role of sociocultural factors in the development of eating disorder pathology, as well as the hypothesised links between acculturation and general psychopathology (Berry *et al.*, 1986). *Drive for Thinness* and *Body Dissatisfaction* should hypothetically demonstrate an association with acculturation due to the internalisation of "Western" bodily ideals, or the preservation of traditional norms for beauty (in which case a negative correlation should be observed). Winship (1996) speculates that acculturative stress arising from assimilation may manifest initially in the psychological aspects of disordered eating, with a later evolution to the more obvious forms of disordered eating (demonstrated by elevated *Drive for Thinness* and *Body Dissatisfaction* scores). Longitudinal research assessing the course of eating disorder pathology in acculturating groups

would be valuable in clarifying this assertion.

In younger White respondents, *Drive for Thinness* correlated negatively with all of the acculturation subscales (Table 24). This was an unexpected finding in the sense that *Rejection* in Whites should hypothetically correlate positively with *Drive for Thinness,* if one assumes that the majority of Whites in South Africa can be described as following a "Western" culture, wich stresses sociocultural norms for thinness and beauty. This finding is inexplicable without further research. However, it is qualified by the possibility that the SAAS is measuring different constructs for Whites than for Blacks. Younger Blacks demonstrated positive correlations between *Drive for Thinness* in all of the SAAS subscales, providing further anecdotal support for the assertion that Black populations are demonstrating increasing predispositions to the development of disordered eating attitudes and behaviours with acculturation.

For younger Black respondents, *Bulimia* scores were significantly positively correlated with *Assimilation.* This may be a reflection of the adoption of "Western" norms for thinness and beauty espoused by the media, juxtaposed on a traditional cultural system which places value on larger body shapes. *Rejection* correlated negatively (although not significantly) with *Bulimia* in younger Blacks, which may be a function of sustained traditional cultural discourses around beauty which place value on larger body shapes in Blacks, and act as protective mechanisms to the development of disordered eating in this population.

Ineffectiveness was significantly positively correlated with *Assimilation* for Blacks and non-significantly positively correlated for Whites. This finding provides further support for the hypothesis that assimilation strategies are associated with a greater degree of psychological conflict than integration strategies. This has been proposed elsewhere (Berry *et al.*, 1986; Hooper & Garner, 1986; Furnham & Alibhai, 1993).

Generally, assimilation strategies appear to be associated with the greatest eating disordered behaviours and attitudes (Table 23), followed by rejection and integration strategies respectively. Closer investigation of disordered eating tendencies in younger Whites and Blacks, however, reveals only a weak relationship between assimilation and disordered eating tendencies (Table

24), with a great deal of variation between the SAAS subscales, and no consistent pattern for eating pathology emerging for assimilation strategies. Hence, Hypothesis 3 received only partial support, and requires further investigation. Qualitative research and observation of behavioural correlates to acculturation strategies, and eating attitudes and behaviours may further elucidate the association between acculturation and disordered eating attitudes and behaviours.

6.3.6.2 Additional Findings: Indian and Coloured respondents

Assimilation and *Integration* means for Coloured and Indian students were within the same range as for Whites and Blacks (Table 19 and Table 20). Indians and Coloureds fell below the means for Whites and Blacks regarding *Rejection* strategies. Theoretically, this implies that the latter populations are relatively less attached to the maintainance of historic cultural discourses than White and Black populations.

6.3.7 The INDCOL subscales

Hypothesis 2 was not supported by the research findings. Whites were found to score significantly higher on collectivism than Blacks on the majority of collectivism scales. This unexpected finding implies that Blacks tend to espouse more individualist views than Whites, prioritising values that emphasise autonomy, independence and self-containment.This finding contradicts South African studies of self-concept in Black populations which suggest that generally, the Black sense of self is defined and maintained within the community. Mkhize (1999) points out that the traditional African worldview is characterised by communal life and personhood, rather than self-contained individualism, which is characteristic of "Western" societies. The failure of the INDCOL scale to depict the communal worldview in Black respondents may be a reflection of the bi-dimensionality of the scale. Dialogical conceptualisations of self-understanding in African societies have been proposed to more accurately reflect the traditional African worldview (Mkhize, 1999).

Since the appropriateness of the INDCOL scale has not been established within the South African context, these findings may reflect the psychometric difficulties associated with the application of the INDCOL scale to South Africa. That is, the INDCOL scale may be measuring different constructs for Whites than for Blacks. In addition, the author subsequently established that

similar results were obtained for Black and White university students in a previous study, with Whites scoring higher on collectivism than Blacks (N. Mkhize, personal communication, December, 1999). It is possible that the Black sample assessed may have adopted the achievement-orientation characteristic of so called "Western" populations, especially in light of the fact that all respondents were engaged in tertiary education, which is widely considered to be reflective of the adoption of "Western" values. However, the variable reliability findings emerging from both the pilot study and the formal study, along with the relatively poor conceptual organisation of the scale (reflected by the factor analysis), suggest that the INDCOL scale findings should be interpreted with caution.

Taken literally, these results suggest that Blacks who espouse individualist values are at a greater risk for the development of eating disorder pathology, through the endorsement of achievement-orientated behaviours, self-determination and self-cultivation (Becker & Hamburg, 1996). Collectivism in Whites should hypothetically act as a protective factor to the development of eating disorders, however, it is possible that the cultural etiology of eating disorders for Whites and Blacks is different.

6.3.7.1 Relationship to disordered eating

For younger White respondents, the General Collectivism index of the INDCOL scale demonstrated significant negative correlations for *Bulimia, Interoceptive Awareness* and *Ineffectiveness*. This implies that for White respondents, individualist scores were associated with eating disorder pathology. These findings provide weak support for Hypothesis 4.

Similarly, for younger Black respondents, the General Collectivism Index demonstrated significant negative correlations for *Drive for Thinness* and *Interpersonal Distrust*. This implies that in Black respondents, (as with White respondents), individualist scores were associated with eating disordered attitudes and behaviours which place Blacks at risk for the development of eating disorders. Of interest is the negative correlation between *Drive for Thinness* and general collectivism in Blacks. Individualist achievement-oriented behaviour may play a greater part in the development of eating disordered behaviours in Blacks than in Whites. Whites displayed a non-significant positive correlation between general collectivism and *Drive for Thinness*, which

suggests that the cultural etiology of disordered eating behaviours in Whites and Blacks may be different.

Within the INDCOL correlation table (Table 25) several inconsistencies arose between White and Black respondents, demonstrated by considerable differences in r values. Notably, large discrepancies arose between *Neighbour* collectivism and several of the EDI scales (including *Bulimia, Interpersonal Distrust, Interoceptive Awareness, Maturity Fears* and *Ineffectiveness*). These inconsistencies may reflect psychometric weaknesses inherent in the INDCOL scale, alternatively they may be a reflection of the hypothesis that values associated with eating disorders are different for Whites and Blacks.

6.3.7.2 Additional findings: Indian and Coloured respondents

On the *General Collectivism Index*, Indian and Coloured respondents generally fell between Blacks (lowest on collectivism) and Whites (highest on collectivism). Although a direct statistical association between cultural values and eating disorder pathology in these populations was not directly assessed due to the small sample size, it could be argued than Indian and Coloured respondents' cultural values represent protective factors in the development of eating disorder pathology. That is, these populations are generally less attached to individualist, achievement oriented values which have been found to be predisposing factors to the development of eating disorders (Becker & Hamburg, 1996).

6.3.8 Urban versus rural orientation

6.3.8.1 SAAS by EDI subscales

Although it is acknowledged that urban versus rural orientation is insufficient as an indicator of acculturation phenomena, it was felt that urban/rural orientation may account for some of the research discrepancies outlined earlier.

Urban respondents displayed significant positive correlations for *Assimilation* on four of the eight EDI subscales (Table 26). *Rejection* correlated significantly positively for three of the EDI subscales. These findings are supported by previous research findings which suggest that *Assimilation* and *Rejection* strategies for acculturation are generally associated with the greatest

degree of psychopathology (Berry *et al.*, 1986; Berry, 1997). Significant positive correlations were demonstrated for *Assimilation, Bulimia* and *Interpersonal Distrust* in rural respondents. Significant negative correlations were observed for *Rejection* and *Drive for Thinness* in rural respondents. Since demographically, Blacks represent the greatest rural proportion of the sample, it could be hypothesised that rural Blacks may identify more with historical discourses around body shapes which emphasise the beauty of larger bodies, a view presented by Haynes (1995). More research is required to explore this hypothesis. In general, urban orientation appears to be associated with a greater risk for eating disorder pathology. While this finding is subject to several confounding variables, it nonetheless elucidates target populations for preventative measures and education policies regarding disordered eating.

6.3.8.2 INDCOL scales by EDI subscales

Cultural values which stress individualist achievement orientations, are associated with greater risk for the development of disordered eating behaviours and attitudes in urban repondents. This finding is evidenced by negative correlations between general collectivism and six of the EDI subscales in urban respondents (Table 27), as opposed to two EDI subscales in rural respondents. This finding implies that individualist values, as well as urban orientations, may place individuals at a greater risk for the development of eating disorders. It is interesting to note that both rural and urban respondents demonstrated significant negative correlations with general collectivism and *Interpersonal Distrust*. This may be a reflection of a general sense of insecurity within South Africa, given the recent sociopolitical reforms. Indian and Coloured respondents generally fell between Blacks (lowest on collectivism) and Whites (highest on collectivism)

6.4 Limitations of the study

6.4.1 The sample

The generalisability of the current study is limited by the relatively small and variable sample size. Whilst the sample could be argued to represent a cross-section of the local nursing colleges in Pietermaritzburg, within the sample, Indian and Coloured respondents are not representative of these groups because of the small sample size. In addition, the author was unable to obtain a group of older White respondents so as to compare older White and Black respondents in terms of acculturation, cultural values and disordered eating. Furthermore, the sample assesses students

within a tertiary setting, and as such does not address eating disorder psychopathology in the general South African population.

6.4.2 Confounding variables

6.4.2.1 Body Mass Index (BMI)

The possible confounding effect of Body Mass Index was not directly assessed in the current study. This has been found to play a mediating role in the severity of body image disturbances in Black populations (Wilfley, Schreiber, Pike, Striegel Moore, Wright & Rodin, 1996; Caldwell, Brownell & Wilfley, in press). Winship (1996) observed that in Black and White university students, higher (rather than lower) BMI's correlated positively with *Body Dissatisfaction* on the EDI. Failure to assess the role of Body Mass Index in the current study represents a limitation of the study.

6.4.2.2 Socioeconomic status

Due to the failure of measurement of socioeconomic status (as evidenced by a large proportion of respondents falling into the "other" category (see Table 3)), no direct assessment of the association between socioeconomic status and disordered eating attitudes was undertaken. In addition, older Black respondents are likely to be finacially dependent either on themselves, or their spouses, rather than on their parents, hence this measure of socioeconomic status was inappropriate. While several studies have noted an association between higher socioeconomic status and eating disorder pathology (Anderson & Hay, 1985; Gabriel, 1999; Garner & Garfinkel, 1980), other studies have found no association between disordered eating and socioeconomic status (Pumariega, 1986; Rand & Kuldau, 1992; Winship, 1996; Ziervogel, 1995).

6.5 Theoretical and clinical implications

The current study supports previous South African findings (Haynes, 1995; le Grange *et al.*, 1998; Stuart, 1996; Winship, 1996) which suggest that eating disorders are not limited to White populations. Hence, preventative and educative interventions should be aimed at all cultural persuasions within the South African context. Research, including the present study, increasingly debunks the myth that only Whites 'qualify' for a diagnosis of anorexia nervosa or bulimia nervosa (Dolan, 1991). Clinicians should therefore consider these diagnoses in "non-White"

populations as readily as in White populations.

Theoretically, the current research highlights the methodological difficulties inherent to acculturation research. While the importance of acculturation phenomena in psychopathology has been acknowledged, instruments for its' assessment require more rigorous investigation. Well validated instruments from abroad cannot be imported to the South African context, and more local research is required to establish whether such instruments are appropriate for use across cultures in South Africa.

Generally, however, the current study has established a link between acculturation phenomena, (more specifically between assimilation and rejection strategies), and a predisposition to eating disorder pathology. It could be argued that assimilationist and rejection strategies may predispose individuals to other kinds of psychopathology, including depression, anxiety and suicidal behaviours. More longitudinal research is required to understand the links between acculturation and psychopathology.

While the current study cannot comment on the specific cause of greater eating disorder pathology in individuals who choose assimilationist and rejection strategies to acculturation, it could be hypothesised either that acculturative stress is higher in these two strategies, (as opposed to integrationist strategies), or, that as individuals acculturate to "Western" ideals and standards of beauty, they become more vulnerable to the development of eating disorders. It is likely that the etiology of eating disorders in acculturating groups and individuals incorporates both of these factors.

CHAPTER 7

CONCLUSIONS

7.1 Summary of research findings

The current study has addressed the association between acculturation, cultural values and disordered eating. The research findings, qualified by the limitations of the assessment instruments allow the following conclusions to be drawn.

Young women from diverse cultural and racial backgrounds in South Africa present with a degree of risk for the development of eating disorders. More specifically, findings indicate that Black and White students demonstrate elevations on many of the EDI subscales. This serves to debunk the myth that eating disorders and disordered eating attitudes and behaviours occur only in upper to middle class White populations.

Partial support was obtained for the hypothesis that acculturation phenomena are associated with eating disorders. Specifically, assimilation and rejection strategies appear to place individuals at the greatest risk for disordered eating attitudes and behaviours. Hence, integration strategies may serve as protective factors to the development of eating disorders. Although causation was not directly examined, it is likely that acculturative stress and the adoption of achievement-orientated values accounts for the greater degree of risk for eating disorders in individuals who choose assimilation and rejection strategies of acculturation.

Individualism-collectivism, while theoretically appealing as a measure of cultural values and disordered eating, was found to be inappropriate for use with the current sample due to the poor psychometric properties of the INDCOL scale. Whites demonstrated higher collectivism scores than Blacks, Indians and Coloureds, which is a surprising finding when one considers the collective self which is so prevalent in Black culture. Interestingly, despite the psychometric difficulties inherent in the INDCOL scale, a consistent inverse association was observed between low collectivism (hence high individualism) and eating disorder pathology. This provides partial support for hypothesis 4.

Together, these results provide partial support for the contention that acculturation phenomenon are associated with disordered eating attitudes and behaviours (Haynes, 1995; Furnham & Alibhai, 1993; Stuart, 1996; Winship, 1996). Similarly, achievement orientated values tend to be associated with disordered eating attitudes and behaviours.

7.2 Recommendations for future research

The validation of assessment instruments for use across cultures in South Africa remains an essential area for future research, enabling a greater degree of reliability and generalisability of research findings. Furthermore, research investigating the relationship between acculturation and general psychopathology (using standardised acculturation instruments) is suggested in order to allow for comparisons across cultural groups and general psychopathology, and in so doing eastablish the etiological links between acculturative phenomena and psychopathology.

Perhaps the limitations of the SAAS can be overcome by developing an acculturation measure which is more rooted in a qualitative research approach. Teasing out cultural definitions within the individual, familial and social context may contribute positively to the development of a meaningful and reliable acculturation instrument. While the development of a generic acculturation instrument for the South African context is far from a reality, ongoing local research and application is perhaps the first step to a greater understanding of acculturation phenomena and the implications for mental health.

Ongoing monitoring of eating disordered attiudes and behaviours is an important area of future research. Establishing whether individuals who exhibit these attitudes and behaviours develop clinical eating disorders using longitudinal research designs may further elucidate predisposing and protective factors. These factors, in turn, could be incorporated into treatment interventions and preventative measures.

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APPENDIX A
Pilot study questionnaire

Patterns of Eating: Research Questionnaire.

Thank-you for participating in this research. This booklet contains questions relating to eating patterns, as well as cultural attitudes. The identification of specific patterns of disordered eating across cultures may have important implications for the development of prevention and intervention programmes in high risk populations.

Please note that as all of the details contained in this questionnaire will be regarded as confidential, you are not required to supply your name. I will require a measure of your weight and height for statistical purposes, this will be recorded upon completion of the questionnaire.

The following information will assist me with the statistical aspects of the research. Please try to answer all of the questions.

1. Date of Birth (dd/mm/yy) [ ]/[ ]/[ ]
2. Age (in years) _____years

3. Gender (tick which applies) [ ] Male
   [ ] Female

4. Marital Status (tick which applies)
   [ ]Married
   [ ]Divorced
   [ ]Single

5. Number of Children (circle one) 0 1 2 3 4 5 6+

6. Please name the town/city in which you were born_____
7. State the duration of your stay in the town/city in which you were born_____
8. During the first 10 years of your life did you live mainly in an urban or rural area? (tick which applies)
   [ ]Urban
   [ ]Rural

9. *Race Group (tick which applies)
   [ ]Black
   [ ]Indian
   [ ]Other (please state)_____
   [ ]White
   [ ]Coloured

*Please Note: References to culture or race may justifiably be regarded as historically offensive. For the purposes of this research however, this information may be useful in identifying particular culture-specific trends and health and illness patterns.

10. Religion (tick appropriate box)

[ ]Islam
[ ]African Traditions and Groups
[ ]Christianity (including Zionism)
[ ]Hinduism (and neo-Hinduisms)
[ ]Other (please state)_____
[ ]Bahai
[ ]Sikhism
[ ]Chinese Traditions
[ ]Judaism
[ ]Non-religious/atheist/agnostic

11. Name of University (tick which applies)

[ ]UNP
[ ]Unizul.
[ ]Other (please state)_____

12. Current Course of Study (tick which applies)

[ ]BA
[ ]BSc
[ ]BComm
[ ]BSocSci
[ ]HDE
[ ]Other (please state)_____

13. Tick Appropriate Box

[ ]Degree
[ ]Diploma

14. Year of Study After Matric (circle one) 1 2 3 4/Honours Masters+

15. Number of: Sisters_____Brothers_____

16. Parents' Ages: Mother_____Father_____

17. Father's Occupation (tick one)

[ ]Administrative
[ ]Own Business
[ ]Educator
[ ]Clerical
[ ]Professional
[ ]Unemployed
[ ]Labourer
[ ]Artisan/Trade
[ ]Other

18. Mother's Occupation (tick one)

[ ]Administrative
[ ]Own Business
[ ]Educator
[ ]Clerical
[ ]Professional
[ ]Unemployed
[ ]Labourer
[ ]Artisan/Trade
[ ]Other

19. Please record your approximate weight (in kilograms)_____kgs.

This is a scale which measures a variety of attitudes, feelings and behaviours. Some of the items relate to food and eating. Others ask you about yourself. THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE COMPLETELY HONEST IN YOUR ANSWERS. RESULTS ARE COMPLETELY CONFIDENTIAL.

Read each question and place an (X) under the column which applies best for you. Please answer each question very carefully. Thank you.

ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
☐	☐	☐	☐	☐	☐	1. I eat sweets and carbohydrates without feeling nervous.
☐	☐	☐	☐	☐	☐	2. I think that my stomach is too big.
☐	☐	☐	☐	☐	☐	3. I wish that I could return to the security of childhood.
☐	☐	☐	☐	☐	☐	4. I eat when I am upset.
☐	☐	☐	☐	☐	☐	5. I stuff myself with food.
☐	☐	☐	☐	☐	☐	6. I wish that I could be younger.
☐	☐	☐	☐	☐	☐	7. I think about dieting.
☐	☐	☐	☐	☐	☐	8. I get frightened when my feelings are too strong.
☐	☐	☐	☐	☐	☐	9. I think that my thighs are too large.
☐	☐	☐	☐	☐	☐	10. I feel ineffective as a person.
☐	☐	☐	☐	☐	☐	11. I feel extremely guilty after over-eating.
☐	☐	☐	☐	☐	☐	12. I think that my stomach is just the right size.
☐	☐	☐	☐	☐	☐	13. Only outstanding performance is good enough in my family.
☐	☐	☐	☐	☐	☐	14. The happiest time in life is when you are a child.
☐	☐	☐	☐	☐	☐	15. I am open about my feelings.
☐	☐	☐	☐	☐	☐	16. I am terrified of gaining weight.
☐	☐	☐	☐	☐	☐	17. I trust others.
☐	☐	☐	☐	☐	☐	18. I feel alone in the world.

ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
☐	☐	☐	☐	☐	☐	19. I feel satisfied with the shape of my body.
☐	☐	☐	☐	☐	☐	20. I feel generally in control of things in my life.
☐	☐	☐	☐	☐	☐	21. I get confused about what emotion I am feeling.
☐	☐	☐	☐	☐	☐	22. I would rather be an adult than a child.
☐	☐	☐	☐	☐	☐	23. I can communicate with others easily.
☐	☐	☐	☐	☐	☐	24. I wish I were someone else.
☐	☐	☐	☐	☐	☐	25. I exaggerate or magnify the importance of weight.
☐	☐	☐	☐	☐	☐	26. I can clearly identify what emotion I am feeling.
☐	☐	☐	☐	☐	☐	27. I feel inadequate.
☐	☐	☐	☐	☐	☐	28. I have gone on eating binges where I have felt that I could not stop.
☐	☐	☐	☐	☐	☐	29. As a child, I tried very hard to avoid disappointing my parents and teachers.
☐	☐	☐	☐	☐	☐	30. I have close relationships.
☐	☐	☐	☐	☐	☐	31. I like the shape of my buttocks.
☐	☐	☐	☐	☐	☐	32. I am preoccupied with the desire to be thinner
☐	☐	☐	☐	☐	☐	33. I don't know what's going on inside me
☐	☐	☐	☐	☐	☐	34. I have trouble expressing my emotions to others.
☐	☐	☐	☐	☐	☐	35. The demands of adulthood are too great.
☐	☐	☐	☐	☐	☐	36. I hate being less than best at things.
☐	☐	☐	☐	☐	☐	37. I feel secure about myself.
☐	☐	☐	☐	☐	☐	38. I think about bingeing (overeating).
☐	☐	☐	☐	☐	☐	39. I feel happy that I am not a child anymore.

ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
☐	☐	☐	☐	☐	☐	40. I get confused as to whether or not I am hungry.
☐	☐	☐	☐	☐	☐	41. I have a low opinion of myself.
☐	☐	☐	☐	☐	☐	42. I feel that I can achieve my standards.
☐	☐	☐	☐	☐	☐	43. My parents have expected excellence of me.
☐	☐	☐	☐	☐	☐	44. I worry that my feeling will get out of control.
☐	☐	☐	☐	☐	☐	45. I think my hips are too big.
☐	☐	☐	☐	☐	☐	46. I eat moderately in front of others and stuff myself when they're gone.
☐	☐	☐	☐	☐	☐	47. I feel bloated after eating a small meal.
☐	☐	☐	☐	☐	☐	48. I feel people are happiest when they are children.
☐	☐	☐	☐	☐	☐	49. If I gain a pound, I worry that I will keep gaining.
☐	☐	☐	☐	☐	☐	50. I feel that I am a worthwhile person.
☐	☐	☐	☐	☐	☐	51. When I am upset, I don't know if I am sad, frightened or angry.
☐	☐	☐	☐	☐	☐	52. I feel that I must do things perfectly or not do them at all.
☐	☐	☐	☐	☐	☐	53. I have thoughts of trying to vomit in order to lose weight.
☐	☐	☐	☐	☐	☐	54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).
☐	☐	☐	☐	☐	☐	55. I think that my thighs are just the right size.
☐	☐	☐	☐	☐	☐	56. I feel empty inside (emotionally).
☐	☐	☐	☐	☐	☐	57. I can talk about personal thoughts or feelings.
☐	☐	☐	☐	☐	☐	58. The best years of your life are when you become an adult.
☐	☐	☐	☐	☐	☐	59. I think my buttocks are too large.

ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
☐	☐	☐	☐	☐	☐	60. I have feelings that I can't quite identify.
☐	☐	☐	☐	☐	☐	61. I eat or drink in secrecy.
☐	☐	☐	☐	☐	☐	62. I think my hips are just the right size.
☐	☐	☐	☐	☐	☐	63. I have extremely high goals.
☐	☐	☐	☐	☐	☐	64. When I am upset, I worry that I will start eating.

Cultural Attitudes: Part 1.

This scale measures a variety of attitudes relating to cultural orientations. References to culture are not intended to be offensive. For the purpose of this research, cultural attitudes may be useful in identifying particular health and illness patterns. The responses are confidential, so please try to answer honestly.

Instructions.

Read each question carefully and **tick** the response which applies best to you.
For example: If you agree with the first question, **tick** [Agree], if you are neutral or cannot decide, **tick** [Neutral], if you disagree strongly, **tick** [Strongly Disagree] etc.

1. **I only engage in the cultural practices of my own cultural group.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

2. **I want to remain attached to the customs of my own cultural group.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

3. **I have often thought of what it would be like to be a member of a different cultural group.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. **I feel comfortable in the presence of members of other cultural groups as well as members of my own cultural group.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

5. **I see South Africa as consisting of a union of several cultural groups.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

6. **I believe that South Africa should remain as traditional as possible.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

7. **I resent the cultural practices of other cultural groups.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

8. **Being a member of my own cultural group is not always a positive experience.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

9. **I believe that South Africa should become more like Europe and America.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

10. **I enjoy engaging in the cultural activities of my own group, as well as those of other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

11. **I have friends who belong to my own cultural group as well as other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

12. **I believe that it is important to mix only with members of my cultural group.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

13. **I envy the cultural practices of cultural groups other than my own.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

14. **The cultural practices of other groups should remain separate from my own cultural practices.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

15. **I would like to have more friends than I do now who are members of other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

16. **I dislike joining in the activities of members of other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

17. **I feel attached to the cultural practices of both my own group and other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

18. **I believe that all cultural groups should engage in shared activities.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

19. **I believe that people of other cultural groups express themselves better than members of my own cultural group.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

20. **I like to wear the clothes of my own cultural group as well as those of other cultures.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

21. **I like to eat the food of other cultural groups more than that of my own traditional culture.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

22. **I prefer to speak the language of other cultural groups more than my own cultural group.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

Part 2

The following scale contains a variety of questions regarding relationships with other people. Read each question carefully and tick the response which applies best to you.

S1. **If a husband is a sports fan, a wife should also cultivate an interest in sports. If the husband is a stock broker, the wife should also be aware of the current market situation.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S2. **A marriage becomes a model for us when the husband loves what the wife loves, and hates what the wife hates.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S3. **Married people should have some time to be alone from each other everyday, undisturbed by their spouse.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S4. **If one is interested in a job about which the spouse is not very enthusiastic, one should apply for it anyway.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S5. **Even if my spouse was of a different religion, there would not be any interpersonal conflict between us.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S6. **It is better for a husband and wife to have their own bank accounts, rather than to have a joint account.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S7. **The decision of where one is to work should be jointly made with one's spouse, if one is married.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S8. **It is desirable that a husband and a wife have their own sets of friends, instead of having only a common set of friends.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P1. **My musical interests are extremely different from my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P2. **In these days parents are too stringent with their kids, stunting the development of initiative.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P3. **When making important decisions, I seldom consider the positive and negative effects my decisions have on my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P4. **Teenagers should listen to their parents' advice on dating.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P5. **It is reasonable for a son or daughter to continue their parents' business.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P6. **I would not share my ideas and newly acquired knowledge with my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P7. **I practice the religion of my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P8. **I would not let my needy mother use the money that I have saved by spending less on myself.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P9. **I would not let my parents use my car (if I had one), whether they are good drivers or not.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P10. **Children should not feel honoured even if their father were highly praised and given an award by a government official for his contribution and service to the community.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P11. **Success and failure in my academic work and career are closely tied to the nurturance provided by my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P12. **Young people should take into consideration their parents' advice when making education/career plans.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P13. **The bigger the family the more problems there are.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P14. **I have never told my parents the number of children I want to have.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P15. **The number of sons my parents would like me to have differs by (tick which applies) [0]; [1]; [2]; [3 or more]; [I don't know] from the number I personally would like to have.**

K1. **I would help, within my means, if a relative told me that he/she is in financial difficulty.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K2. **If I met a person whose last name was the same as mine, I would start wondering whether we were, at least remotely, related by blood.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K3. **Whether one spends an income extravagantly or stingily is of no concern to one's relatives (cousins, uncles)**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K4. **I would not let my cousin use my car (if I had one).**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K5. **When deciding what kind of work to do, I would definitely pay attention to the views of relatives of my generation.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K6. **When deciding what kind of education to have, I would pay absolutely no attention to my uncles' advice.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K7. **Each family has its own problems unique to itself. It does not help to tell relatives about one's problems.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K8. **I can count on my relatives for help if I find myself in any kind of trouble.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N1. **I have never chatted with my neighbours about the political future of this country.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N2. **I am often influenced by the moods of my neighbours.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N3. **My neighbours always tell me interesting stories that have happened around them.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N4. **I am not interested in knowing what my neighbours are really like.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N5. **One need not worry about what the neighbours say about whom one should marry.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N6. **I enjoy meeting and talking to my neighbours everyday.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N7. **In the past, my neighbours have never borrowed anything from me or my family.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N8. **One needs to be careful in talking with neighbours, otherwise others might think you are nosy.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N9. **I don't really know how to befriend my neighbours.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N10. **I feel uneasy when my neighbours do not greet me when we come across each other.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F1. **I would rather struggle through a personal problem by myself than discuss it with my friends.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F2. **If possible, I would like co-owning a car with my close friends, so that it wouldn't be necessary for them to spend much money to buy their own cars.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F3. **I like to live close to my good friends.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F4. **My good friends and I agree on the best places to shop.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F5. **I would pay absolutely no attention to my close friends' views when deciding what kind of work to do.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F6. **To go on a trip with friends makes one less free and mobile. As a result there is less fun.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F7. **It is a personal matter whether I worship money or not. Therefore it is not necessary for my friends to give me advice.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F8. **There are approximately (tick which applies) [0]; [1]; [2]; [3]; [4 or more] of my friends who know how much my family earns each month.**

F9. **On the average, my friends' ideal number of children differs from my own by (tick which applies) [0]; [1]; [2]; [3 or more]; [I don't know my friends' ideal].**

C1. **It is inappropriate for a supervisor to ask subordinates about their personal life (such as where one plans to go for the next holiday).**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C2. **When I am among my colleagues/classmates, I do my own thing without minding about them.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C3. **One needs to return a favour if a colleague/classmate lends a helping hand.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C4. **I have never loaned my camera/coat to any colleagues/classmates.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C5. **We ought to develop the character of independence among students, so that they do not rely on other students' help in their schoolwork.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C6. **A group of people at their workplace was discussing where to eat. A popular choice was a restaurant which had recently opened. However, someone in the group had discovered that the food was unpleasant. Yet the group disregarded this person's objection, and insisted on trying it out. There were only two alternatives for the person who objected: either to go or not to go with the others. In this situation, not going with the others is a better choice.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C7. **There is everything to gain and nothing to lose for classmates to group themselves for study and discussion.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C8. **Classmates' assistance is vital to getting a good mark at school.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C9. **I would help if a colleague at work told me that he/she needed money to pay the rent.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C10. **In most cases, to cooperate with someone whose ability is lower than one's own is not as desirable as doing the thing alone.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

C11. **Do you agree with the proverb "too many cooks spoil the broth"?**

Strongly Agree Agree Neutral Disagree Strongly Disagree

Thank you for completing the questionnaire, when you return it, please ensure that I have recorded your weight and height.

Respondent's Weight_____kgs
Respondent's Height_____cm

I will provide feedback as to the results and findings later in the year.

Thank you for your participation.

Questionnaire Evaluation

1. Please indicate which questions appeared ambiguous, or difficult to understand.

2. Please state in your own words your personal definition of culture.

3. Are the kinds of questions asked in the questionnaire appropriate or relevant to your definition of culture? Please explain your answer.

4. Please state any critical or positive feedback regarding the questionnaire, including any suggestions to improve it.

APPENDIX B

Formal study questionnaire

Patterns of Eating: Research Questionnaire.

Thank-you for participating in this research. This booklet contains questions relating to eating patterns, as well as cultural attitudes. The identification of specific patterns of disordered eating across cultures may have important implications for the development of prevention and intervention programmes in high risk populations.

Please note that as all of the details contained in this questionnaire will be regarded as confidential, you are not required to supply your name. I will require a measure of your weight and height for statistical purposes, this will be recorded upon completion of the questionnaire.

The following information will assist me with the statistical aspects of the research. Please try to answer all of the questions.

1. Date of Birth (dd/mm/yy) [ ]/[ ]/[ ]
2. Age (in years) _____years

3. Gender (tick which applies)
   [ ] Male
   [ ] Female

4. Marital Status (tick which applies)
   [ ]Married
   [ ]Divorced
   [ ]Single
   [ ]Widowed

5. Number of Children (circle one) 0 1 2 3 4 5 6+

6. Please name the town/city in which you were born_____
7. State the duration of your stay in the town/city in which you were born_____

8. During the first 10 years of your life did you live mainly in an urban or rural area? (tick which applies)
   [ ]Urban
   [ ]Rural

9. *Race Group (tick which applies)
   [ ]Black
   [ ]Indian
   [ ]White
   [ ]Coloured
   [ ]Other (please state)_____

Please Note: References to culture or race may justifiably be regarded as historically offensive. For the purposes of this research however, this information may be useful in identifying particular culture-specific trends and health and illness patterns.

10. Religion (tick appropriate box)

[ ]Islam
[ ]African Traditions and Groups
[ ]Christianity (including Zionism)
[ ]Hinduism (and neo-Hinduisms)
[ ]Other (please state)_____

[ ]Bahai
[ ]Sikhism
[ ]Chinese Traditions
[ ]Judaism
[ ]Non-religious/atheist/agnostic

11. Year(s) of Study After Matric (circle one) 1 2 3 4 5+

12. Number of: Sisters_____Brothers_____

13. Parents' Ages: Mother_____Father_____

14. Father's Occupation (tick one)

[ ]Administrative
[ ]Own Business
[ ]Educator
[ ]Clerical
[ ]Professional
[ ]Unemployed
[ ]Labourer
[ ]Artisan/Trade
[ ]Other
[ ]Retired

15. Mother's Occupation (tick one)

[ ]Administrative
[ ]Own Business
[ ]Educator
[ ]Clerical
[ ]Professional
[ ]Unemployed
[ ]Labourer
[ ]Artisan/Trade
[ ]Other
[ ]Retired

16. Please **estimate** your approximate weight (in kilograms)_____kgs.

17. Have you ever been treated for an eating disorder? (tick which applies)

[ ] Yes
[ ] No

This is a scale which measures a variety of attitudes, feelings and behaviours. Some of the items relate to food and eating. Others ask you about yourself. THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE COMPLETELY HONEST IN YOUR ANSWERS. RESULTS ARE COMPLETELY CONFIDENTIAL.

Read each question and place an (X) under the column which applies best for you. Please answer each question very carefully. Thank you.

ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
☐	☐	☐	☐	☐	☐	1. I eat sweets and carbohydrates without feeling nervous.
☐	☐	☐	☐	☐	☐	2. I think that my stomach is too big.
☐	☐	☐	☐	☐	☐	3. I wish that I could return to the security of childhood.
☐	☐	☐	☐	☐	☐	4. I eat when I am upset.
☐	☐	☐	☐	☐	☐	5. I stuff myself with food.
☐	☐	☐	☐	☐	☐	6. I wish that I could be younger.
☐	☐	☐	☐	☐	☐	7. I think about dieting.
☐	☐	☐	☐	☐	☐	8. I get frightened when my feelings are too strong.
☐	☐	☐	☐	☐	☐	9. I think that my thighs are too large.
☐	☐	☐	☐	☐	☐	10. I feel ineffective as a person.
☐	☐	☐	☐	☐	☐	11. I feel extremely guilty after over-eating.
☐	☐	☐	☐	☐	☐	12. I think that my stomach is just the right size.
☐	☐	☐	☐	☐	☐	13. Only outstanding performance is good enough in my family.
☐	☐	☐	☐	☐	☐	14. The happiest time in life is when you are a child.
☐	☐	☐	☐	☐	☐	15. I am open about my feelings.
☐	☐	☐	☐	☐	☐	16. I am terrified of gaining weight.
☐	☐	☐	☐	☐	☐	17. I trust others.
☐	☐	☐	☐	☐	☐	18. I feel alone in the world.
☐	☐	☐	☐	☐	☐	19. I feel satisfied with the shape of my body.
☐	☐	☐	☐	☐	☐	20. I feel generally in control of things in my life.
☐	☐	☐	☐	☐	☐	21. I get confused about what emotion I am feeling.
☐	☐	☐	☐	☐	☐	22. I would rather be an adult than a child.
☐	☐	☐	☐	☐	☐	23. I can communicate with others easily.
☐	☐	☐	☐	☐	☐	24. I wish I were someone else.
☐	☐	☐	☐	☐	☐	25. I exaggerate or magnify the importance of weight.
☐	☐	☐	☐	☐	☐	26. I can clearly identify what emotion I am feeling.
☐	☐	☐	☐	☐	☐	27. I feel inadequate.
☐	☐	☐	☐	☐	☐	28. I have gone on eating binges where I have felt that I could not stop.
☐	☐	☐	☐	☐	☐	29. As a child, I tried very hard to avoid disappointing my parents and teachers.
☐	☐	☐	☐	☐	☐	30. I have close relationships.
☐	☐	☐	☐	☐	☐	31. I like the shape of my buttocks.
☐	☐	☐	☐	☐	☐	32. I am preoccupied with the desire to be thinner
☐	☐	☐	☐	☐	☐	33. I don't know what's going on inside me
☐	☐	☐	☐	☐	☐	34. I have trouble expressing my emotions to others.
☐	☐	☐	☐	☐	☐	35. The demands of adulthood are too great.
☐	☐	☐	☐	☐	☐	36. I hate being less than best at things.
☐	☐	☐	☐	☐	☐	37. I feel secure about myself.
☐	☐	☐	☐	☐	☐	38. I think about bingeing (overeating).
☐	☐	☐	☐	☐	☐	39. I feel happy that I am not a child anymore.

ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
☐	☐	☐	☐	☐	☐	40. I get confused as to whether or not I am hungry.
☐	☐	☐	☐	☐	☐	41. I have a low opinion of myself.
☐	☐	☐	☐	☐	☐	42. I feel that I can achieve my standards.
☐	☐	☐	☐	☐	☐	43. My parents have expected excellence of me.
☐	☐	☐	☐	☐	☐	44. I worry that my feeling will get out of control.
☐	☐	☐	☐	☐	☐	45. I think my hips are too big.
☐	☐	☐	☐	☐	☐	46. I eat moderately in front of others and stuff myself when they're gone.
☐	☐	☐	☐	☐	☐	47. I feel bloated after eating a small meal.
☐	☐	☐	☐	☐	☐	48. I feel people are happiest when they are children.
☐	☐	☐	☐	☐	☐	49. If I gain a pound, I worry that I will keep gaining.
☐	☐	☐	☐	☐	☐	50. I feel that I am a worthwhile person.
☐	☐	☐	☐	☐	☐	51. When I am upset, I don't know if I am sad, frightened or angry.
☐	☐	☐	☐	☐	☐	52. I feel that I must do things perfectly or not do them at all.
☐	☐	☐	☐	☐	☐	53. I have thoughts of trying to vomit in order to lose weight.
☐	☐	☐	☐	☐	☐	54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).
☐	☐	☐	☐	☐	☐	55. I think that my thighs are just the right size.
☐	☐	☐	☐	☐	☐	56. I feel empty inside (emotionally).
☐	☐	☐	☐	☐	☐	57. I can talk about personal thoughts or feelings.
☐	☐	☐	☐	☐	☐	58. The best years of your life are when you become an adult.
☐	☐	☐	☐	☐	☐	59. I think my buttocks are too large.

ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
☐	☐	☐	☐	☐	☐	60. I have feelings that I can't quite identify.
☐	☐	☐	☐	☐	☐	61. I eat or drink in secrecy.
☐	☐	☐	☐	☐	☐	62. I think my hips are just the right size.
☐	☐	☐	☐	☐	☐	63. I have extremely high goals.
☐	☐	☐	☐	☐	☐	64. When I am upset, I worry that I will start eating.

Cultural Attitudes: Part 1

This scale measures a variety of attitudes relating to cultural orientations. References to culture are not intended to be offensive. For the purpose of this research, cultural attitudes may be useful in identifying particular health and illness patterns. The responses are confidential, so please try to answer honestly.

Instructions

Read each question carefully and **tick** the response which applies best to you.
For example: If you agree with the first question, **tick** [Agree], if you are neutral or cannot decide, **tick** [Neutral], if you disagree strongly, **tick** [Strongly Disagree] etc.

1. **I only engage in the cultural practices of my own cultural group.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

2. **I have often thought of what it would be like to be a member of a different cultural group.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

3. **I feel comfortable in the presence of members of other cultural groups as well as members of my own cultural group.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

4. **I see South Africa as consisting of a union of several cultural groups.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

5. **I resent the cultural practices of other cultural groups.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

6. **Being a member of my own cultural group is not always a positive experience.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

7. **I believe that South Africa should become more like Europe and America.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

8. **I enjoy engaging in the cultural activities of my own group, as well as those of other cultural groups.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

9. **I have friends who belong to my own cultural group as well as other cultural groups.**

   Strongly Agree Agree Neutral Disagree Strongly Disagree

10. **I believe that it is important to mix only with members of my cultural group.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

11. **I envy the cultural practices of cultural groups other than my own.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

12. **The cultural practices of other groups should remain separate from my own cultural practices.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

13. **I would like to have more friends than I do now who are members of other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

14. **I dislike joining in the activities of members of other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

15. **I feel attached to the cultural practices of both my own group and other cultural groups.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

16. **I believe that all cultural groups should engage in shared activities.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

17. **I believe that people of other cultural groups express themselves better than members of my own cultural group.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

18. **I like to wear the clothes of my own cultural group as well as those of other cultures.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

19. **I like to eat the food of other cultural groups more than that of my own traditional culture.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

20. **I prefer to speak the language of other cultural groups more than my own cultural group.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

Part 2

The following scale contains a variety of questions regarding relationships with other people. Read each question carefully and **tick** the response which applies best to you.

S1. **If a husband is a sports fan, a wife should also cultivate an interest in sports. If the husband is a stock broker, the wife should also be aware of the current market situation.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S2. **A marriage becomes a model for us when the husband loves what the wife loves, and hates what the wife hates.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S3. **Married people should have some time to be alone from each other everyday, undisturbed by their spouse.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S4. **If one is interested in a job about which the spouse is not very enthusiastic, one should apply for it anyway.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S5. **Even if my spouse was of a different religion, there would not be any interpersonal conflict between us.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S6. **It is better for a husband and wife to have their own bank accounts, rather than to have a joint account.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S7. **The decision of where one is to work should be jointly made with one's spouse, if one is married.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

S8. **It is desirable that a husband and a wife have their own sets of friends, instead of having only a common set of friends.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P1. **My musical interests are extremely different from my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P2. **In these days parents are too stringent with their kids, stunting the development of initiative.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P3. **When making important decisions, I seldom consider the positive and negative effects my decisions have on my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P4. **Teenagers should listen to their parents' advice on dating.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P5. **It is reasonable for a son or daughter to continue their parents' business.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P6. **I would not share my ideas and newly acquired knowledge with my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P7. **I practice the religion of my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P8. **I would not let my needy mother use the money that I have saved by spending less on myself.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P9. **I would not let my parents use my car (if I had one), whether they are good drivers or not.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P10. **Children should not feel honoured even if their father were highly praised and given an award by a government official for his contribution and service to the community.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P11. **Success and failure in my academic work and career are closely tied to the nurturance provided by my parents.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P12. **Young people should take into consideration their parents' advice when making education/career plans.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P13. **The bigger the family the more problems there are.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

P14. **I have never told my parents the number of children I want to have.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K1. **I would help, within my means, if a relative told me that he/she is in financial difficulty.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K2. **If I met a person whose last name was the same as mine, I would start wondering whether we were, at least remotely, related by blood.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K3. **Whether one spends an income extravagantly or stingily is of no concern to one's relatives (cousins, uncles)**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K4. **I would not let my cousin use my car (if I had one).**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K5. **When deciding what kind of work to do, I would definitely pay attention to the views of of relatives of my generation.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K6. **When deciding what kind of education to have, I would pay absolutely no attention to my uncles' advice.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K7. **It does not help to tell relatives about one's problems.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

K8. **I can count on my relatives for help if I find myself in any kind of trouble.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N1. **I am often influenced by the moods of my neighbours.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N2. **My neighbours always tell me interesting stories that have happened around them.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N3. **I am not interested in knowing what my neighbours are really like.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N4. **I enjoy meeting and talking to my neighbours everyday.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N5. **In the past, my neighbours have never borrowed anything from me or my family.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N6. **One needs to be careful in talking with neighbours, otherwise others might think you are nosy.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

N7. **I don't really know how to befriend my neighbours.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F1. **I would rather struggle through a personal problem by myself than discuss it with my friends.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F3. **I like to live close to my good friends.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F4. **My good friends and I agree on the best places to shop.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F5. **I would pay absolutely no attention to my close friends' views when deciding what kind of work to do.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F6. **To go on a trip with friends makes one less free and mobile. As a result there is less fun.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

F7. **It is a personal matter whether I worship money or not. Therefore it is not necessary for my friends to give me advice.**

Strongly Agree Agree Neutral Disagree Strongly Disagree

Thank you for completing the questionnaire, when you return it, please ensure that I have recorded your weight and height.

Respondent's Weight_____kgs
Respondent's Height_____cm

I will provide feedback as to the results and findings later in the year.

Thank you for your participation.

APPENDIX C

Variables	Test	F value	Degrees of Freedom	Significance
Drive for Thinness by race	ANOVA	F = 1.904	df = 3	p = .132
Bulimia by race	ANOVA	F = 1.885	df = 3	p = .136
Body Dissatisfaction by race	ANOVA	F = 6.240	df = 3	p = .001
Ineffectiveness by race	ANOVA	F = 3.647	df = 3	p = .015
Interpersonal Distrust by race	ANOVA	F = 3.175	df = 3	p = .027
Perfectionism by race	ANOVA	F = 8.209	df = 3	p = .000
Interoceptive Awareness by race	ANOVA	F = 2.581	df = 3	p = .057
Maturity Fears by race	ANOVA	F = 15.508	df = 3	p = .000
Assimilation by race	ANOVA	F = 1.681	df = 3	p = .174
Integration by race	ANOVA	F = 4.268	df = 3	p = .006
Rejection by race	ANOVA	F = 5.837	df = 3	p = .001
Spouse by race	ANOVA	F = 2.226	df = 3	p = .088
Parent by race	ANOVA	F = 13.750	df = 3	p = .000
Kin by race	ANOVA	F = 4.358	df = 3	p = .006
Neighbour by race	ANOVA	F = 2.269	df = 3	p = .083
Friend by race	ANOVA	F = 4.519	df = 3	p = .005
General Collectivism by race	ANOVA	F = 9.766	df = 3	p = .000
BMI by race	ANOVA	F = 3.948	df = 3	p = .010