

**CROSS-CULTURAL VARIATION IN DISORDERED EATING
ATTITUDES AND BEHAVIOURS: A STUDY OF FEMALE UNIVERSITY
STUDENTS IN KWAZULU-NATAL**

A thesis submitted in partial fulfilment of the requirements for the degree of
Master of Arts (Clinical Psychology) in the Department of Psychology at the
University of Natal, Pietermaritzburg.

Jacqueline Ruth Winship

February 1996

ABSTRACT

There is a paucity of South African data concerning the cross-cultural incidence of attitudes and behaviours associated with eating disorders. Research in this area has recognised that acculturation to a Western value system appears to have a pathogenic impact on the prevalence of disordered eating among non-Western ethnic groups. This study aimed to explore the relationship between acculturation and disordered eating, and to compare the level of disordered eating (as measured by the Eating Disorders Inventory [EDI]) among black and white female university students in KwaZulu-Natal. The roles of Body Mass Index (BMI) and socioeconomic status were also examined.

The sample consisted of one hundred and twenty-two white female undergraduate students from the University of Natal (Pietermaritzburg), fifteen black female undergraduate students from the University of Natal (Pietermaritzburg), and one hundred and fifty-four black female undergraduate students from the University of Zululand. It was found that although black subjects obtained significantly higher scores on the *Drive for Thinness* subscale of the EDI, white subjects obtained significantly higher scores on a combination of the three subscales designated to assess disordered eating attitudes and behaviours. Black subjects obtained significantly higher BMI scores than white subjects, and BMI was positively correlated with *Body Dissatisfaction* in both groups, and with *Drive for Thinness* in the white group only. No relationship was found between socioeconomic status and disordered eating. Similarly, no relationship was found between acculturation and disordered eating. This latter result is partly a function of problems experienced with the measures of acculturation. A comparison of black subjects from the two universities suggests that greater contact with white students is influential in terms of the development of disordered eating.

The above results are discussed in terms of the available literature, and recommendations for future research are made on the basis of the limitations of this study. The data from this study is included in a nation wide cross-cultural study of eating disorders initiated by the Eating Disorders Co-ordinating Committee.

ACKNOWLEDGEMENTS

I would like to extend my thanks to the following for their contribution to this study:

My supervisor, Doug Wassenaar, for his invaluable assistance, direction and support; Professor Steven Piper for the time and patience he gave to assisting me with the statistics; my mother, Joliette Savage, for the many hours she spent assisting with data capture; and my husband, Guy Winship, for keeping my computer on track and providing me with emotional and financial support.

DECLARATION

I declare that this dissertation is my own original work. All other sources of reference have been acknowledged.

TABLE OF CONTENTS

	Pages
CHAPTER ONE : INTRODUCTION	1
1.1. Disordered Eating in Western Culture	1
1.2. Rationale for a Cross-Cultural Study	2
CHAPTER TWO : LITERATURE REVIEW	5
2.1. Historical Development of Eating Disorders	5
2.2. Current Status of Eating Disorders	6
2.2.1. Incidence and Prevalence Rates	6
2.2.2. Gender Bias	7
2.2.3. High Risk Groups	8
✕ 2.3. An Eating Disorder Continuum: Subclinical Cases	9
✕ 2.4. Theoretical Approaches to Eating Disorders	11
2.4.1. The Classical Psychoanalytic Perspective	11
2.4.2. Object Relations Theory	12
2.4.3. Cognitive-Behavioural Approaches	13
2.4.4. Family Systems Theory	14
2.4.5. Feminist Theory	14
2.4.5.1. The role of prescribed femininity	15
2.4.5.2. Neediness and dependency	16
2.4.5.3. Separation-individuation and identity conflicts	17
2.4.5.4. The sociological critique	18
2.4.5.5. Future considerations	19
✕ 2.6. Cross-Cultural Research	20
2.6.1. The Concept of Culture	20
2.6.2. Culture and Eating Disorders	21
2.6.3. Culture and Body Shape	21
2.6.4. Acculturation and Disordered Eating	22
2.6.4.1. Studies in the United States of America	24
2.6.4.2. Studies of Asians in the United Kingdom and Pakistan	26

2.6.4.3. A Zimbabwean study	27
2.6.4.4. South African studies	28
2.6.4.5. Other cross-cultural studies	31
2.7. Summary	32
CHAPTER THREE : METHOD	34
3.1. Aims	34
3.2. Hypotheses	34
3.3. Sample and Subjects	35
3.4. Instruments for Assessment	35
3.4.1. Biographical Questionnaire	35
3.4.2. The Eating Disorders Inventory (EDI)	36
3.4.3. Measures of Acculturation	37
3.4.3.1. The Racial Identity Attitude Scale for Blacks	37
3.4.3.2. Cultural Preference Questionnaire	38
3.4.3.3. Graphical self-rating scale for degrees of Westernisation	39
3.5. Procedure	39
3.6. Analysis of Data	40
3.6.1. EDI Subscales	40
3.6.2. Body Mass Index (BMI)	41
3.6.3. Socioeconomic Status (SES)	42
3.6.4. Acculturation	42
CHAPTER FOUR : RESULTS	44
4.1. The EDI Subscales	45
4.1.1. Mean Subscale Scores	45
4.1.2. Partial Intercorrelations between Subscales	46
4.1.3. Proportional Differences above Cut-Off Points	46
4.1.4. Percentages above Cut-Off Points on More than One Subscale	47
4.1.5. Differences between Average Values	50
4.1.6. University Differences	50
4.2. Body Mass Index (BMI)	52

4.2.1. Differences between Average Values	52
4.2.2. Relationships between BMI and Disordered Eating	52
4.2.3. University Differences	53
4.3. Socioeconomic Status (SES)	54
4.3.1. SES and Race	54
4.3.2. SES and Disordered Eating	54
4.3.3. SES and BMI	54
4.3.4. SES and University Differences	54
4.4. Acculturation	55
4.4.1. Correlations between the Three Questionnaires	55
4.4.2. The RIAS-B Subscales	55
4.4.3. Relationship between Acculturation and Disordered Eating	55
CHAPTER FIVE : DISCUSSION	58
5.1. Comparison of Black and White Students	58
5.1.1. The EDI Subscales	58
5.1.1.1. An analysis of the first three subscales	58
5.1.1.2. An analysis of subscales measuring psychological variables	61
5.1.2. Body Mass Index (BMI)	62
5.1.3. Socioeconomic Status (SES)	63
5.2. Comparison of Black Students According to University	64
5.2.1. The EDI Subscales	64
5.2.2. Body Mass Index (BMI)	65
5.2.3. Socioeconomic Status (SES)	65
5.3. Comparison of Black Students According to Acculturation	65
5.3.1. The Measures of Acculturation	65
5.3.2. Relationship to Disordered Eating Attitudes and Behaviours	66
5.4. Conclusion	67
5.4.1. Summary	67
5.4.2. Implications of this Study	68
5.4.3. Limitations of this Study	68

5.4.4. Recommendations for Future Research	69
REFERENCES	71
APPENDICES	80

CHAPTER ONE

INTRODUCTION

This introductory chapter aims to provide a context and rationale for the study of cross-cultural variation in disordered eating attitudes and behaviours among female university students.

1.1. DISORDERED EATING IN WESTERN CULTURE

The psychological significance of eating has long been recognised in the Western world (as defined in section 2.6.1.). For women especially, for intrapsychic as well as socio-cultural reasons, eating has a significance over and above the physiological importance of food (Chernin, 1985; Lawrence, 1987; Orbach, 1978). There seems to be an increasing preoccupation with the preparation, consumption and symbolic meaning of food for women in the Western world, and a plethora of diet books on the market pay tribute to the fact that food and eating issues are of paramount importance to the women of this culture. Women's magazines and conversations are littered with references to the subject, and slimming organisations have greatly profited from this preoccupation with food control. This phenomenon is thought to be largely a reflection of Western society's current preference for slimness (which tends to be equated with competency, self-control, success and beauty [Geach, 1995]), the image of the ideal woman as popularised by the media (Shefer, 1986), and apparent role conflicts with which the modern woman is faced (Lewis & Blair, 1993).

Eating attitudes and ideal body shapes have changed over time in accordance with social norms, and George (1992, p.28) points out that

The relationship between women and their bodies has been a

complex one throughout history. Women's bodies have served as a reflection of their attitudes and desires and as a reflection of the norms, values and beliefs of differing societies through the ages.

However, the explanation that women are pre-occupied with food and eating issues solely because of a desire to be a socially acceptable shape and size does not fully address the complexity of women's attitudes to food and eating. Links have therefore been made between eating attitudes and a range of intrapsychic phenomena. Feminist authors in particular have explored the psycho-social significance of eating and body image issues for women, and Orbach (in Lawrence, 1987, p.7) posits that

Eating problems ... are integral to so many women's lives that they are almost the normal experience ... the more women I encounter the more I realise how central women's relationships to food are in the development and shape of their psycho-social existence.

The rationale for this research project must thus partly be seen against the background of the psychological importance accorded to food and eating issues in Western women's lives, and the high prevalence of disordered eating attitudes and behaviours found among this group (Dolan, 1991; Nevo, 1985).

1.2. RATIONALE FOR A CROSS-CULTURAL STUDY

The meteoric rise in the incidence of anorexia nervosa and bulimia nervosa in the Western world over the last few decades (Dolan, 1991; George, 1992) has stimulated research interest in this field. Eating disorders have traditionally been viewed as endemic to Western culture, and hence the bulk of this research has focused almost exclusively on the Western woman's experience. Eating disorders have been thought to be rare in Africa and the developing world, and while there

is evidence to suggest that this is changing (Swartz & Sheward, 1995) and increasing attention is being paid to the existence of disordered eating in other cultural groups (Abrams, Allen & Grey, 1993; Choudry & Mumford, 1992; Chun, Mitchell, Li et al., 1992; Dolan, 1991; Gray, Ford & Kelly, 1987; Grey, 1995; Hooper & Garner, 1986; Nevo, 1985; Raich, Rosen, Deus et al., 1992; Rucker & Cash, 1992; Silber, 1986; Szabo & Hollands, 1995), there remains a paucity of research in this field, particularly in South Africa (Swartz & Sheward, 1995). This appears problematic in the South African multi-cultural context where it is pertinent to extend examinations of disordered eating beyond the Westernised Eurocentric experience referred to above, and to hypothesise about the link between cultural background and risk for eating disorders.

A number of research studies (*inter alia* Furukawa, 1994; Hooper & Garner, 1986; Mumford, Whitehouse & Choudry, 1992; Pumariega, 1986) have found that the incidence of disordered eating attitudes and body image among women of other cultures rises along with increased contact with Western culture and the internalisation of Western cultural norms and values (i.e. the process of acculturation). In the South African context, these findings are supported in recent studies by Grey (1995), Haynes (1995) and Stuart (1996), and by clinical data which indicates that increasing numbers of black women are presenting for treatment at eating disorder clinics in this country (Ziervogel, 1995).

The need for South African data concerning the cross-cultural incidence of eating disorders has been recognised by the National Eating Disorders Co-ordinating Committee (NEDCC) who have initiated a nation-wide study (Wassenaar, in process). The latter focuses on women at university campuses across the country. These women appear to represent a high risk group for disordered eating (see section 2.2.3.). The NEDCC sample also allows for the investigation of the relationship between acculturation and disordered eating. The data collected for this dissertation forms part of the data used for the NEDCC study, and aims to complement this study through a detailed focus on one particular segment of the

wider sample (i.e. black and white women at university in KwaZulu-Natal). It is hoped that the outcome of this study will contribute to the national study's objective to inform primary prevention and treatment plans for eating disorders in South Africa.

CHAPTER TWO

LITERATURE REVIEW

This chapter will provide an overview and discussion of the relevant literature and research in order to contextualise the aims and results of this study.

2.1. HISTORICAL DEVELOPMENT OF EATING DISORDERS

Disordered eating attitudes and behaviours are not exclusively a modern phenomenon. A medical case report from 1694 describes a young woman suffering from symptoms reminiscent of anorexia nervosa, and in 1874 the symptoms of self-starvation were first given the name "anorexia" by Sir William Gull (Yates, 1989). Further cases with anorexic-like symptoms are described in late nineteenth century French, Russian and British medical reports, but it was only in the early twentieth century that eating disorders as psychological phenomena began to attract the attention of psychoanalysts. (Both Freud and Abraham [Abraham, 1949] made the link between strong libidinal impulses and either feelings of hunger [which do not belong to the normal need for nourishment], neurotic vomiting, or food refusal.)

Bulimia nervosa has a similarly lengthy history (Stein & Laakso, 1988), with the Greek physician Galen terming the disease "bulimis" ("the great hunger") in the second century A.D. (Yates, 1989, p. 814). Aspects of bulimic behaviour are also found in descriptions of ancient Roman "vomitaria" (Thompson, 1993). However, bulimia nervosa was not recognised as a clinical entity until it was described in the 1970s by Sir Gerald Russell (Stein & Laakso, 1988).

Since the end of the Second World War, the documented incidence of food and body image difficulties has increased dramatically (Lewis & Blair, 1993). The most common explanations for this include the burgeoning role conflict which women of this era were experiencing, increased media attention given to the disorder, and

more accurate diagnosis by health professionals. It is essentially in the last three decades, however, that there has been a marked increase in the incidence of eating disorders (see section 2.2.1.), and this has been accompanied by an upsurge in clinical interest and research in this field. Attempts have been made to isolate the etiology of eating disorders, and to refine diagnoses of anorexia nervosa and bulimia nervosa. (See Appendix A for DSM-IV diagnostic criteria for anorexia nervosa and bulimia nervosa [APA, 1994].) In recent years there has been a shift in focus towards cross-cultural research which seeks to establish whether eating disorders are culture bound syndromes, and to assess the risk for the development of eating disorders among acculturating groups.

2.2. CURRENT STATUS OF EATING DISORDERS

2.2.1. Incidence and Prevalence Rates

As noted above, the incidence of eating disorders has increased dramatically in the last thirty years, to the point where they are described as reaching epidemic proportions (Dolan, 1991). Incidence rates (i.e. the number of new cases in the population per year) and prevalence rates (i.e. the number of cases in a population at a certain time) cited in this section refer mainly to studies of Western women, as this group has been the focus of most existing epidemiological research.

Anorexia nervosa is said to be one of the most common psychological disorders affecting females between the ages of twelve and twenty-five years in the middle to upper classes of the Western world (George, 1992). Le Grange and Ziervogel (1995) cite an increase in the incidence of anorexia nervosa from a figure of 0.3 cases per 100 000 in the 1960s, to figures approaching 4 cases per 100 000 in more recent estimates. Incidence and prevalence studies in different populations have reported a range of results; however DSM-IV (APA, 1994) cites an overall prevalence of 0.5% - 1% for adolescent females.

Bulimia nervosa is thought to be even more common than anorexia, with DSM-IV citing statistics ranging from 1% - 3% of adolescent and young adult females (APA, 1994). Hoek (1995) cites that the prevalence of anorexia nervosa is 0.3% whereas the prevalence of bulimia nervosa is around 1%. The incidence of bulimia in primary care in the Dutch population was found to be 11 per 100 000 per year during 1985 to 1989 (Hoek, 1995, p. 504). Hoek points out that primary care incidence can only serve as a minimum estimate of the incidence in the community as a whole. He reports that "the one year prevalence rates in the community are 370 for anorexia nervosa and 1500 for bulimia nervosa per 100 000 of young females" (p. 505 - 506).

No incidence or prevalence studies have been conducted in South Africa (Swartz & Sheward, 1995), and le Grange and Ziervogel (1995) note that the need to establish the number of South Africans with eating disorders is pressing. They go on to report that "Our clinical experience in the last couple of years has shown that numerous South Africans from all communities are at risk" (p. 477). This is supported by contemporary research (see section 2.6.4.4.).

2.2.2. Gender Bias

Research indicates that women are fifteen to twenty times more likely to be affected by anorexia nervosa than are men (George, 1992) and that in clinical samples only five to ten percent of eating disorder patients are male (Hoek, 1995). The rate of bulimia nervosa in males is estimated to be approximately one tenth of that in females (DSM-IV, APA, 1994). One explanation is that traditional masculine identity does not require men to conform to a particularly slender ideal which necessitates strict control of food intake (Striegel-Moore, Silberstein & Rodin, 1986; Thomas, 1987), and there is less emphasis on slimness for males in the media. Secondly, because of sexual inequality, men are often not under the same pressure to make sure that their bodies are objects of pleasure for women. And thirdly, men are more often empowered with direct forms of expression for feelings of anger or rebellion, which are often subverted by women through their relationship to food.

However media pressure on men to obtain a perfect physique seems to be increasing, and men in the nineties are increasingly having their traditional roles challenged. It is possible that these changes could render men more vulnerable to eating disorders in the future, and it is noteworthy in this regard that Grey (1995) found a significantly high level of binge eating among black male students.

2.2.3. High Risk Groups

Within Western culture, certain subgroups of women appear to be at greater risk for the development of eating disorders. A century ago, Fenwick noted that anorexia nervosa was more common "in the wealthier classes of society than amongst those who have to procure their bread by daily labour" (cited in Garner & Garfinkel, 1980, p. 647). A number of research studies have supported this opinion that the highest prevalence rates for anorexia nervosa are found in the upper socio-economic classes (see Andersen & Hay, 1985). However, these findings have recently been challenged, and Hoek (1995, p.501) suggests that

the social class bias might be connected with the structures and norms of the health care system. In European countries like the Netherlands, with a rather generous state health insurance system, class differences seem to have less impact on the presentation and recognition of eating disorders.

In support of the above, Pumariega (1986) found no relationship between higher socioeconomic status and vulnerability for eating disorders, and Rand and Kuldau (1992) found that bulimic behaviours in the general population were more common among women of lower socioeconomic status. In South Africa, Ziervogel (1995) reports that many of the Muslim, Indian Coloured and Black women presenting at eating disorder clinics are from working class families, and Geach (1995) found no relationship between socioeconomic status and disordered eating behaviour among university residence women in South Africa.

Ballet dancers and models are thought to represent high risk groups for eating disorders (Garner & Garfinkel, 1980; Hoek, 1995; Yates, 1990) and le Grange, Tibbs and Noakes (1993) report a prevalence of 4.1% of anorexia nervosa cases among a group of female university ballet students. These research subjects could be considered to be in a doubly high risk category, as college/university women have been found to score particularly highly on measures of disordered eating attitudes and behaviours, especially those involving bingeing and purging (Pyle, Halverson, Neuman & Mitchell, 1986; Nevo, 1985; Rand & Kuldau, 1992). Bulimia nervosa is thus thought to be particularly common among female university students (Fairburn & Beglin, 1990; Schlesior-Stropp, 1984) and Pyle et al. (1986) report a threefold increase in bulimia nervosa amongst this group between 1980 and 1983.

2.3. AN EATING DISORDER CONTINUUM: SUBCLINICAL CASES

Polivy and Herman (1987) raise the possibility of a continuum of eating pathology, with eating disorders being situated at the extreme end of this. In substantiation of this, they argue that societally normal eating may not be normal or appropriate by physiological standards: normal eating exhibits many of the features of eating disorders and may therefore also be regarded as disordered or pathological. Polivy and Herman claim that it is normal for individuals in Western society to be concerned about their weight, and that normal eating now requires periods of dieting, explaining this in terms of society's preference for slimness. However, they draw attention to the argument that the normal dieter and the anorexic pursue dieting for very different purposes, with the eating disordered person using weight control as a means of establishing autonomy and competence.

Mitchell and Eckert (1987), in their study of the scope and significance of eating disorders, appear to corroborate Polivy and Herman's claims concerning the pathology of normal eating. They suggest that a prospective study should be undertaken which encompasses patients with diagnosed eating disorders, those

with subsyndromal eating problems, and individuals with normal eating patterns, to determine what level of eating pathology should be of concern.

A 1984 study by Garner, Olmstead, Polivy and Garfinkel (cited in Polivy & Herman, 1987) points to the fact that although there is no simple continuum of eating pathology, eating disordered patients and weight preoccupied dieters do share some pathological behaviours and attitudes: drive for thinness; concern with dieting, weight and appearance; binge eating; and dissatisfaction with one's body. However, they argue that ego deficits and perceptual disturbances are confined to those persons suffering from clinically diagnosed eating disorders.

Lawrence (1987, p.12) articulates the more radical belief, shared by many feminist theorists, that *all* women experience difficulties with eating issues, and that therefore distinct categories of "normal" or "disordered" eating do not exist:

The writers of this book begin with the assumption that eating disorders and food related problems are problems for all women. Some women produce very severe and even life-threatening symptoms around food, but most of us merely spend our lives feeling troubled and uneasy about our bodies and the amount of food we eat. The woman who eats in an unselfconscious way, without worries about putting on weight, is an unusual woman indeed. Even she will probably have had periods in her life when she has been unable to meet her physical needs in such a straightforward way.

This idea is taken up within a South African context by Bear (1990) and Shefer (1986). Bear cites prevalence studies which have found that behaviours and attitudes associated with eating disorders are not alien to the experience of the average woman, and Shefer challenges the mainstream assumption that eating disorders are abnormalities apart from the normal, asserting that all women are subjected to the same sociocultural forces. In her prevalence study of attitudes and

behaviours associated with anorexia nervosa and bulimia nervosa among undergraduate female students, Shefer found that many of these attitudes and behaviours were common among "normal" women. The following are cited by Shefer (ibid. p. 267) as examples of these shared attitudes:

- Guilt about eating - even "normal" eating.
- Preoccupation with food and diet.
- Concern about control over food intake (strongly associated with control over one's life).
- "Good" and "bad" splits concerning food.
- Ambivalence towards food - experienced as both emotionally nurturing and threatening.
- The idea that there is a strong and immediate correlation between eating and body shape.

The above supports Hooper's contention (personal communication cited in Geach, 1995) that eating disturbance occurs on a continuum of severity, and highlights the possibility that there may be a significant number of subclinical cases in which the degree of disordered eating does not meet the full criteria for anorexia nervosa or bulimia nervosa.

2.4. THEORETICAL APPROACHES TO EATING DISORDERS

2.4.1. The Classical Psychoanalytic Perspective

Psychoanalytic theory has illuminated the psychological significance of eating more than any other theoretical approach through its examination of the fact that food and eating express and symbolise the psychodynamics of our earliest relationships. Classical psychoanalysis posits that eating is a psychologically significant activity because of its connection with early oral-libidinal instincts and fantasies. This is explained in terms of the psychological importance which Freud claimed for orality

in the psychosexual development of a child.

The oral phase, in which the lips and mouth are the main erogenous zones, creates the link between the satisfaction of the hunger drive and the satisfaction of the libido. The oral gratification associated with the sucking in of nourishment forms the prototype for later love relationships (Nagera, 1990). Freud divided the oral phase into two sub-stages. The first of these involves only unambivalent oral incorporation, while the second, characterised by the emergence of biting, becomes oral-sadistic. In both sub-stages, the infant experiences any frustrations during feeding, or withdrawal of the breast, as a rejection, and hence punishment for its sexual sucking action. The infant copes with the pain of weaning by using displacement (a thumb or dummy is sucked in place of the breast) and the oral stage becomes auto-erotic (and thus detached from its nutritive function). However, often the forms of displacement used are socially prohibited as the child grows older, and thus all humans have to deal with an excess of oral sex drive energy (Nagera, 1990).

With this focus on the link between oral and libidinal issues, psychoanalytic theory has traditionally viewed eating as symbolic of sexual behaviour and has believed anorexia nervosa to represent a rejection of femininity and a fear of oral impregnation (Boskind-Lodahl, 1981; George, 1992; Birksted-Breen, 1989). Bulimia nervosa, on the other hand, was explained as an over-identification with femininity, and a desire for pregnancy (Boskind-Lodahl, 1981).

2.4.2. Object Relations Theory

In contemporary psychoanalysis, this link between early oral activity and the psychological significance of eating in later life, has been complexified. Object relations theory in particular focuses on the relational context of feeding and the unconscious phantasies accompanying this activity. This theory shifts away from the classical psychoanalytic drive/structure model to a relational/structure model (Greenberg and Mitchell, 1983) and emphasises the importance of early

interpersonal interaction for psychological development. The infant's first experience of the world is through the oral activity of feeding at the mother's breast. As a result of the phantasies which object relations theorists believe accompany this activity, eating becomes the prototypical mode of incorporating, in phantasy, good and bad aspects of relationships with significant others. The object relations thus internalised significantly structure the person's internal world in terms of oral phantasies of introjection and projection.

Object relations theory provides a coherent theoretical framework within which to study the psychological significance of food and eating. This perspective, while essentially psychodynamic, also takes socio-cultural factors into account. Men and women in Western culture tend to relate differently to food, and the appropriation of object relations theory by feminist authors offers an explanation for why women in particular relate to food at such a profoundly psychological level. These authors identify certain issues underlying women's psychic interaction with food and eating. In brief, these include emotional neediness and dependency fostered by the complexity of the mother-daughter relationship, the constraints of femininity, internalised pressure to suppress anger, and the link between food and sexual and emotional appetites.

These feminist perspectives will be expanded on in section 2.4.5. below.

2.4.3. Cognitive-Behavioural Approaches

Cognitive-behavioural approaches to anorexia nervosa gained popularity in the 1970s, with a behavioural focus on the phobic nature of the anorexic's relationship to food and eating, and a cognitive focus on irrational beliefs about the meaning of food, and maladaptive perceptions of body weight (George, 1992). Garfinkel and Garner (1982) point out that the anorexic experiences both a phobic fear of fat and a sense of pleasure and self-control associated with weight loss; thus unlike that of other phobics, anorexic avoidance behaviour is maintained by both positive *and* negative reinforcement. Garfinkel and Garner cite several distorted maladaptive

assumptions (e.g. one should strive for perfection, fat is disgusting, weight gain means one is bad or out of control) which are thought to underlie the anorexic's behaviour. They point out that although these are individual cognitions, they are also partly a product of societal and familial philosophies. The latter suggests that anorexia nervosa is multidetermined, and that individual, family and social factors all play a role in its etiology.

Bulimia nervosa appears to be similarly multidetermined. Cognitive-behavioural theory makes an important contribution to explanations of the maintenance of the disorder. Similar maladaptive cognitions as found in anorexics may underlie bulimia nervosa, but the bulimic typically engages in binges, which leave her/him feeling guilty and out of control. The ensuing purging behaviour relieves these feelings and this relief acts as a positive reinforcer.

2.4.4. Family Systems Theory

The family as a system has been used by theorists such as Minuchin, Rosman and Baker (1978) and Selvini-Palazolli (cited in Minuchin et al., 1978) to explain the dynamics of anorexia nervosa, on the basis of the argument that special conditions within the nuclear family allow for the development and perpetuation of the disorder. Minuchin et al. identify five characteristics of the anorexic family: enmeshment, overprotectiveness, rigidity, conflict avoidance, and child in the role of parental conflict defuser. They see the emergence of anorexia nervosa as a maladaptive attempt to achieve autonomous control and to hold the family together. Thus from this perspective it is imperative that the whole family system be the focus of treatment for an anorexic child or adolescent.

2.4.5. Feminist Theory

Individuals and families do not exist in a vacuum and the influence of sociocultural factors have been addressed by feminist theorists (e.g. Chernin, 1985; Lawrence, 1987 and Orbach, 1978), who have contextualised eating disorders within the important sociopolitical aspects of Western patriarchal culture. While there is

much diversity within the feminist paradigm, these authors have three central explanatory themes in common: (1) a demonstration of the pressure on women to assume control over their bodies as they lack power in many other areas, (2) a focus on women's relationship with culturally prescribed femininity in the context of a male dominated society, and (3) a consideration of the influence of early interactional patterns which encourage women to suppress their needs.

As indicated in section 2.4.2. the feminist authors working in this area are broadly situated within the hermeneutic framework of object relations theory. This theory's social and relational view of psychological development allows for an analysis of the unconscious determinants of eating problems within the context of women's position in a patriarchal society. In contrast to traditional psychiatric explanations, this perspective serves to largely depathologise women with eating problems and to point instead to the pathology of the society in which these women are struggling to find an identity for themselves.

2.4.5.1. The role of prescribed femininity

Focusing specifically on anorexia nervosa, bulimia nervosa, and a combination of the two, "bulimarexia", Boskind-Lodahl (1981) was one of the first feminist writers to address the issue of women and food in terms of social dynamics. Boskind-Lodahl rejected the classical psychoanalytic assumption that anorexia involved a rejection of femininity and a fear of oral impregnation, and located it rather within an overidentification with the socially defined feminine ideal. She therefore explained the bodily emaciation which often results from these eating disorders as being a caricature of the ideal feminine type, which was a reflection of women's desperate desire to conform to a shape which would be good enough to please a man.

Orbach (1978), drawing on her clinical experience, extended this merger of social and psychodynamics to encompass women other than anorexics, exploring what is being expressed in the desire to be fat or thin, and in the wish to feed or starve

oneself. However, unlike Boskind-Lodahl, Orbach saw both the anorexic and the compulsive eater as rejecting prescribed femininity by distorting the "natural" shape of the body (ibid., p.165). This rejection is explained by Orbach in terms of the powerlessness and sense of invisibility which accompanies accepted conceptions of femininity. Women with eating problems are thus viewed by Orbach as quasi-heroines who challenge traditional patriarchal social dynamics by rejecting prescribed femininity.

Shefer (1986), in her study of South African women with eating and body problems, favours this view over Boskind-Lodahl's theory of overidentification. Shefer's findings indicate that women with eating problems reflect behaviours and attitudes associated with breaking the rules of the feminine ideal, rather than adhering too strictly to its prescriptions. However, Shefer challenges Orbach on certain issues. She points out that Orbach depathologises eating problems but still idealises thinness as the ideal "natural" state. She also accuses Orbach of setting up new stereotypes for women in the process of challenging current ones:

Swartz (1983) similarly criticises Orbach for the divide she places between culture and nature, and for the implication that anorexia nervosa is the psychologically natural response to a sexist culture. Swartz believes that Orbach and Boskind-Lodahl both run the risk of sanctioning anorexic-like behaviour, and may thereby unintentionally encourage this dangerous behaviour by implying that it is both a normal and a desirable response to societal pressure.

2.4.5.2. Neediness and dependency

The above notwithstanding, the link which Orbach (1978) makes between food and emotional needs is an important one for theorists working in the area of women and eating problems. Orbach (ibid. p. 21) examines the powerfully contradictory messages about food and eating that inform women from an early age:

It is good for others, but bad for the woman herself; healthy for others,

*harmful to the women herself; full of love and nurturance for others,
full of self-indulgence to herself.*

These contradictory messages are part of a socialisation process in which women are taught to suppress "unfeminine" needy feelings. These feelings then emerge in the form of a conflict in the realm of food and eating. Orbach locates this thesis within the social context into which female babies are born and the complexity of the mother-daughter relationship, in which the daughter learns to suppress her own needs while fulfilling those of others in her environment, and in terms of which the daughter is unable to achieve an autonomous sense of self.

2.4.5.3. Separation-individuation and identity conflicts

It is the feelings of guilt concerning infantile memories of having, in phantasy, destroyed and drained the mother during feeding that underlie the identity crisis which Chernin (1985) believes is at the root of women's troubling relationship with food. This guilt is particularly strongly evoked at times when the daughter struggles to separate from the mother and establish her own identity and selfhood by taking up opportunities for fulfilment which the mother never had. Chernin contends that this guilt is partly alleviated by the denial of food, as eating remains an act of aggression against the mother (cited in Macsween, 1993).

Like Chernin, Lawrence (1987) believes that problems which women have with food and eating are meaningful expressions of women's inner psychic reality. She argues that women develop eating difficulties in response to demands to suppress socially unacceptable feelings and needs, and that for women this is therefore an adaptive response. Lawrence also supports Chernin in that she sees identity conflicts as fundamental to eating problems. She believes that these conflicts revolve around women's ability and needs to achieve success or autonomy and their desire to be loved and accepted in a society which gives only qualified reward for the former.

Through her clinical experience with anorexics, Lawrence (ibid.) was moved to posit that educational achievement (or the striving for autonomy and independence which often accompanies this) is a predisposing factor in the development of anorexia nervosa. Prescribed femininity in white Western society gives only limited sanction to academic achievement for women. Lawrence posits that women who achieve academically therefore feel "unwomanly" and experience their sexual identity as problematic because they believe their achievement makes them somehow "unfeminine". She contends that certain of these women become anorexic in trying too hard to conform to the prescribed thinness of the feminine ideal in order to compensate for their lack of conformity in the academic sphere. But the anorexic's emaciated body goes further than conforming to a body image. It is a symbol of the denial of her own needs and her ability to establish a form of control over the conflicts and confusions she is experiencing in relation to her own identity and concomitant shaky sense of self. Thus Lawrence corroborates part of Chernin's (1985) thesis concerning the sense of power which women experience in the realm of food: in patriarchal society women are not able to establish a sense of social control, and hence turn to control of food and the body which are experienced as the limited areas of female power. Similarly, Lewis and Blair (1993, p.111) write:

For the adolescent and young adult female entering this state of apparent role conflict, retreat into the arena of food consumption, one of the few opportunities for experiencing control, may appear to be an attractive solution. Indeed dietary chaos can stand as a metaphor for the individual's sociopsychological distress.

2.4.5.4. The sociological critique

Macsween (1993) recognises the value of the object relations perspectives of Chernin, Lawrence and Orbach, particularly with reference to explaining anorexia nervosa in terms of issues of control, boundaries, guilt and rituals. She is critical, however, of the limitations of constructing feminist explanations without a fully

sociological perspective.

Macsween (ibid.) goes on to argue that women cannot attain a socially valued self since in patriarchal culture this self is in fact masculine. Thus she sees anorexia nervosa as a struggle between the ideologies of individualism and femininity rather than as a struggle with selfhood. From the sociological perspective, selfhood is not reliant on "good-enough mothering"; rather it is completely denied to women as a possibility by patriarchal social relations which construct selfhood in masculine terms. Thus it is felt that the object relations focus on the mother-daughter dyad serves to "psychologise and domesticate what is essentially a social and political conflict" (ibid., p. 63). The sociological feminists therefore consider an analysis of the macrodynamics of social power relations to be of greater use in explaining eating problems than analyses of the psychodynamics of internal object relations.

2.4.5.5. Future considerations

Feminist approaches have played a valuable role in providing a social context within which to understand the psychodynamics of eating problems, and in liberating women from a discourse of individual pathology with respect to their eating behaviour. However, it is crucial that feminists in the nineties continually re-evaluate earlier theory and expand their knowledge of eating problems in terms of contemporary research. One area which seems particularly pertinent is that of cross-cultural research regarding women and eating. The approaches outlined above all refer only to Westernised European and American women. Yet if women are universally oppressed, why is it that only Western women overtly exhibit such distressing symptoms around food and eating? In order to address this apparent anomaly, feminists are challenged to re-evaluate and extend their examinations beyond the Westernised Eurocentric experience referred to above, and to hypothesize about the link between cultural background and women's attitudes to food and eating.

2.6. CROSS-CULTURAL RESEARCH

2.6.1. The Concept of Culture

Culture is defined as

The shared creativities of a group of people, including language, values, experiences, symbols, tools, cognitive styles in learning and problem solving, social rules, etcetera. (Hilliard, 1983 cited in Peters, 1994)

Culture differs from race in that it is learned, rather than innate. In this study, and in others reviewed below, the terms "black" and "white" are used to describe two different cultures, with "white" being assumed to be synonymous with Western culture, and "black" with another single culture. In truth the terms refer to different race groups, but not to two distinct, monolithic cultures. In defense of this over-generalisation, it is probable that the cultural differences within the two groups are small relative to the cultural differences between the two groups.

The use of the term "Western" to describe culture is similarly problematic. Wise (1995) points out that the West can no longer be defined in terms of technology, geography or wealth, as these indicators have blurred over "a century of wars, migration and economic growth" (p. 60). Many "Eastern" countries are now "first world" in orientation, and hence "Western" cannot easily claim this as a defining attribute.

While acknowledging the above complexities, this study uses the term "Western" to describe a set of values and norms which originated in Europe and North America, particularly those related to body shape and size, eating attitudes and behaviour, and an achievement orientation.

2.6.2. Culture and Eating Disorders

While the prevalence and etiology of eating disorders among Western women has long been a major focus for research (Ford, 1992), it is only in recent years that the prevalence of eating disorders among non-Western cultures has been explored. Cross-cultural studies have historically indicated a lower prevalence of disordered eating attitudes and behaviours among non-Western women, particularly those living in a non-Western country (Chun, Mitchell & Yew, 1992; Hooper & Garner, 1980; Mumford, Whitehouse & Choudry, 1992). Their research has made an important etiological link between culture and disordered eating attitudes and behaviour, and Raich, Rosen and Deus (1992) argue for the salience of cross-cultural research in formulating hypotheses about the social and cultural factors which contribute to the etiology of eating disorders:

The importance of these factors can be tested by examining the rate of eating disorders in populations which differ in customs regarding food, standards for physical beauty, family values, social roles for women, economic status, etc. (p. 64)

2.6.3. Culture and Body Shape

It is generally acknowledged that body shape ideals are socially constructed (Dolan, 1991; Nasser, 1988; Rucker & Cash, 1992), and Ford, Dolan and Evans (1990, p. 502) posit that

Cross-cultural studies indicate that the drive for thinness or the stigma of fatness is not universal. Until recent times, in non-Western countries, plumpness has been considered attractive and can be associated with fertility and caring ... In some cultures obesity has been considered a secondary sex characteristic ... and in some African cultures young girls are sent to fattening houses prior to marriage ... Whilst many non-Western societies show a positive relationship between body weight and socio-economic class, the

inverse relationship is found in Western societies...

In Western society, slimness is upheld as the ideal body shape, and Staffieri (1972, cited in Nagel & Jones, 1992, p. 109) points to the diverse connotations attached to obesity and slimness in Western culture:

The Western media provides many examples of the cultural role-stereotyping of slim and obese persons: lazy, sloppy and dirty are associated with obesity; beauty, friendly and intelligent are associated with slimness.

Not only is the ideal Western body shape thin, but this body shape has become increasingly thinner since the 1950s (Garner, Garfinkel, Schwartz & Thompson, 1980), which has necessitated increasingly stringent attempts to attain and maintain a low body weight. It seems likely that the increase in the incidence of eating disorders over this same period of time is not coincidental, and that the over-concern with body weight and shape in Western society has had a pathogenic impact on the development of eating disorders. While it is acknowledged that Western body norms cannot fully account for the etiology of eating disorders, it seems probable that the interplay between these and internal characteristics predispose women to the development of an eating disorder.

In terms of the above, it is necessary to consider the impact which the internalisation of Western norms may have on the body image of women from other cultural groups. It seems probable that this internalisation may significantly increase the risk for eating disorders among acculturating groups.

2.6.4. Acculturation and Disordered Eating

Acculturation is a term which has been defined as culture change that results from continuous, first-hand contact between two distinct cultural groups (Redfield, Linton, & Herskovits, 1936). While originally

proposed as a group level phenomenon, it is now widely recognised as an individual level phenomenon and is termed psychological acculturation (Graves, 1967). At this second level, acculturation refers to changes in an individual (both overt behaviour and covert traits) whose cultural group is collectively experiencing acculturation. It is important to note here that, while mutual changes are implied in the definition, in fact most changes occur in the non-dominant group ... as a result of influence from the dominant group... (Berry, 1987, p. 97 - 98)

Berry and Kim (1988) consider the effect of the above process on the mental health status of individuals. A number of more specific studies have been conducted which have explored the possible link between acculturation (through continuous contact with a Western culture) and risk for the development of eating disorders. These will be discussed below.

The contention that eating disorders are culture bound syndromes, rooted in Western cultural values and conflicts, has been well supported by both research and theory (Nasser, 1988; Prince 1983). Nasser (1988, p. 575) argues that "the symptom pattern of these syndromes is symbolic of notions cherished by the culture and represent extensions of culturally prescribed modes of behaviour". Prince (1983) points out that those non-Western areas in which anorexia is beginning to appear tend to be those which are rapidly Westernising. Root (1990, p. 531) suggests that acculturating groups may have such strong needs for acceptance by the dominant culture that "aspects of their thinking or lifestyle may be an hyperbole of 'Whiteness'". This suggests that acculturating groups may be at an even greater risk for disordered eating in their struggle to conform to Western ideals (Bulik, 1987; Root, 1990). Root posits that

The development of an eating disorder may, in fact, become a vehicle for attempting a resolution of biculturalism, particularly in the face of

negative racial/ethnic stereotypes that reflect a lack of appreciation of beauty that is different than the Western European ideal. (p. 531)

Pumariega (1986) contends that if eating disorders are etiologically linked to Western ideals for thinness and achievement orientation, an association should exist between disordered eating attitudes and acculturation. The research study he conducted with Hispanic females in America supported this hypothesis. A number of other empirical studies have similarly addressed the issue of the link between acculturation, body image and disordered eating. These will be reviewed below.

2.6.4.1. Studies in the United States of America

Black and white college students in the United States have provided a viable population for a number of cross-cultural research projects. Rucker and Cash (1992) examined body image and eating behaviours among African-American and white college women. They found that black females held the more favourable body-image attitudes, while the white females evidenced more frequent eating restraint and subclinical eating dyscontrol. Thus while recognising the high degree of intraracial variation, Rucker and Cash argue that body-image development clearly occurs in a cultural context.

Rucker and Cash's (ibid.) findings corroborate those of an earlier study by Gray, Ford and Kelly (1987) which compared the prevalence of bulimia in a black college population to a study of Caucasian students. They found a lower incidence of bulimia among the black sample, as well as a lesser emphasis on food and weight. There were, however, some signs of preoccupation in this area among the black sample, and Gray et al. hypothesise that the prevalence of bulimia among black students might have been higher if they had studied a sample from a mixed race, rather than an all black college. It was believed that black students in a mixed race college would have had more contact with the mainstream American cultural emphasis on weight control.

In a further study involving North American college women, Abrams, Allen and Gray (1993) administered self-report questionnaires in order to compare disordered eating attitudes and behaviours, psychological adjustment, and ethnic identity. It was found that black college students had less disordered eating attitudes and behaviours than the white students, and that their dieting behaviour was more closely related to actual weight problems. In both groups, however, disordered eating attitudes and behaviours were related to depression, anxiety and low self-esteem (i.e. internal characteristics).

Abrams et al. (ibid.) therefore found support for the hypothesis that behaviours and attitudes related to eating disorders are culture bound. While the cultural ideal for women's body size in Western culture is as low as 13% - 19% below expected weight for age and height (Wiseman, Gray, Mosimann & Ahrens, 1992), Abrams et al. (ibid.) point out that in black culture there is a greater acceptance of heavier body weights and that therefore efforts to lose weight tend to be less extreme. They state:

The etiology of Anorexia Nervosa and Bulimia Nervosa is, in part, attributable to the internalisation of particular cultural values and standards concerning the importance of thinness and beauty as central in the formation of self-concept for females. Therefore certain researchers say that as black women gain greater socioeconomic status and acculturate into mainstream society, they will be more at risk for developing Anorexia Nervosa and Bulimia Nervosa. (p. 50)

In support of the above statement, Abrams et al.'s study found evidence that linked disordered eating and the degree of assimilation to mainstream Western culture. Using the Racial Identity Attitude Scale for Blacks (Helms, 1990), it was established that those black women who scored highest on the "Preencounter" scale (which measures the idealisation of white identity and a rejection of black identity) were those who scored highest on measures of disordered eating attitudes and

behaviours. Abrams et al. (*ibid.*, p. 55) confirmed that these women "are more likely to demonstrate dietary Restraint, as well as Fear of Fat, and Drive for Thinness, all of which already place white women at risk to develop eating disorders".

2.6.4.2. Studies of Asians in the United Kingdom and Pakistan

Research involving Asian schoolgirls in the United Kingdom (Ahmad, Waller & Verduyn, 1994; Mumford, Whitehouse & Platts, 1991), in Lahore, Pakistan (Mumford, Whitehouse & Choudry, 1992) and in Mirpur, Pakistan (Choudry & Mumford, 1992) has provided only partial support for the argument that eating disorders are culture bound syndromes. In the United Kingdom studies it was found that there is a higher prevalence of bulimia among Asian schoolgirls than among Caucasian schoolgirls. However, this finding was attributed not only to contact with Western cultural eating and body attitudes, but also to high levels of cultural conflict, greater levels of perceived maternal control among the Asian subjects (Ahmad, Waller & Verduyn, 1994) and intrafamilial stress (Mumford et al., 1992).

Among the Asian sample, the risk for eating disorders appeared to be greater among the more traditional families, rather than among those who had assimilated more fully into Western culture. Thus while comparisons with studies in Lahore and Mirpur (see below) indicate that it is greater contact with Western culture which increases the prevalence of disordered eating attitudes and behaviours, the picture is more complicated than a simple "cultural continuum" theory would suggest. Mumford et al. (1992) postulate that while cultural factors appear to increase risk for eating disorders, they are not always the most important risk factor. They point out that the occurrence of eating disorders (in perhaps a different guise) in cultures which are completely untouched by Western culture is not known, and that evidence from nineteenth century case reports indicates that anorexia arose in a culture with no emphasis on slimness. They surmise from this that the drive to thinness in these instances must have arisen from internal conflict rather than external cultural pressures. (This is supported by a study by Furukawa [1994] of Japanese adolescents under acculturative stresses, which found that personality

factors [neuroticism and introversion] were strongly implicated in increased abnormal eating attitudes and behaviours.)

Despite the importance of the above point, however, the studies with Asian girls of varying degrees of Westernisation provides compelling evidence that the role of cultural influence remains large. Mumford et al.'s (1992) study in Lahore, Pakistan, focused on girls at an upper-class English medium high school (i.e. girls who were likely to be relatively Westernised as compared to the average Pakistani schoolgirl). While only one case of bulimia nervosa was detected, it was found that girls with the highest "Westernisation" scores (albeit measured only via food and language preference) also had the highest degree of disordered eating attitudes and body image scores. This implies that the adoption of Western values by non-Western cultures does increase concern about food intake and weight. Mumford et al. (1992) also found evidence that most of the effect of Westernisation on eating attitudes was mediated through greater dissatisfaction with body shape.

While the study in Lahore focused on a relatively Westernised population, the study in Mirpur, Pakistan, using an Urdu version of the Eating Attitudes Test, focused on a relatively non-Westernised population. Choudry and Mumford (1992) did identify one case of bulimia nervosa; however the prevalence of disordered eating attitudes and behaviours was lower than the prevalence in the Lahore study (which, in turn, was significantly lower than the prevalence among Asian girls living in the United Kingdom). This provides support for the theory that eating disturbance occurs on a cultural continuum, with more Westernised groups exhibiting higher levels of disordered eating.

2.6.4.3. A Zimbabwean Study

Hooper and Garner (1980) applied the Eating Disorders Inventory (EDI) to black, white and mixed race school girls in Zimbabwe. At the time of this study, it was generally hypothesised that eating disorders were practically non-existent among blacks in African countries (Raich et al., 1992), and Hooper and Garner's findings

partially supported this opinion. However, their results indicated a general increase in concern with eating and weight as compared to previous studies, as well as providing evidence of a cultural continuum of weight preoccupation and eating disturbance, with the black group being the least concerned and the white group the most concerned. They explain this in terms of traditional Zimbabwean societal norms, in which fat was admired as a sign of strength and prosperity. They posit that although this culture is becoming increasingly Westernised, plumpness is still acceptable. They suggest, however, that it might only be a matter of time before the increasing influence of Western culture and its thin ideal puts black and mixed race girls at similar risk for developing eating disorders as the white girls. This suggestion is borne out by the South African studies below.

2.6.4.4. South African Studies

Swartz and Sheward (1995) point to the possibility of eating disorders being underdiagnosed among black patients in South Africa. They go on to state that

Whatever the actual situation (and research is needed to establish this), it is clear that clinicians would be unwise to assume that blacks are not vulnerable to eating disorders and concerns about weight. South African researchers are in a good position to help modify earlier simplistic views that eating disorders are the province only of middle class whites. (p. 542)

Swartz and Sheward (ibid.) cite a study by Sheward (1994) which found that disordered eating patterns among South African students of all races were as common as among students in Western countries. A significant finding in this study was that black men reported similar levels of disordered eating to white and coloured women, and black women scored significantly higher than any other group. Swartz & Sheward make the important point, however, that it is unclear whether these rates of disordered eating among black students are representative of the black population as a whole.

Szabo and Hollands (1995) conducted a study of disordered eating among schoolgirls (n=213) at a private school in Johannesburg using the Eating Attitudes Test. The overall rate was found to be high (22.66%). Of particular interest to this section is the apparent emergence of disordered eating in the black adolescent population which this study elicited: the prevalence of abnormal eating attitudes among the white schoolgirls was found to be 20.67% whereas the prevalence among the black girls was 37.5%. The prevalence increased by school standard, which provides tentative support for a positive correlation with increased acculturation.

Geach (1995) used the EDI to assess eating disordered behaviour cross-culturally among university residence students. The results of this study indicated no significant difference in disordered eating between black and white subjects, and, contrary to Szabo and Hollands (1995), no increase in disordered eating with increase in the year of study. (Geach explains the latter result in terms of the fact that the sample size was relatively small [n=39 for black students and n=41 for white students], and that it is possible that university students are already an acculturated group.) There was also no relationship found between levels of socioeconomic status and disordered eating.

Grey (1995) conducted a survey of disordered eating and body shape issues among a group of four hundred and fifty-three undergraduate students in KwaZulu-Natal. Similarly to Sheward's study (cited in Swartz & Sheward, 1995), the black female subjects were found to have significantly higher levels of binge eating and significantly thinner body shape ideals than the white or Indian female subjects. This finding is in contradiction to a study by Zahoul (1996) of over one thousand university students, which found that white females at South African universities have more disturbed eating behaviours and attitudes than black and Indian students. However Zahoul draws attention to the high mean scores for black women on the Eating Attitude Test and the Bulimic Investigatory Test, Edinburgh, and comments that these seem to indicate a rapid acculturation process.

Haynes (1995) investigated the relationship between body image and culture among a sample of twenty white and twenty black first year university students, and a black rural sample of twenty women. The three samples were matched for age. Haynes devised an acculturation measure based on the following indices: education, socioeconomic status, media, food preference, language, and own report. Using this measure to quantify acculturation, Haynes found a significant difference in degrees of Westernisation between the black students and the rural women, confirming that black university women do represent an acculturating group. In addition, there was no significant difference on measures of body image dissatisfaction between the two groups of students, but there was a difference between the students and the rural women, with the students scoring significantly higher. The results of the study thus indicate that there is a significant relationship between higher degrees of Westernisation and higher degrees of body image dissatisfaction.

While Haynes' (ibid.) study focuses on body image rather than on disordered eating, in terms of the link between body image dissatisfaction and disordered eating (see section 2.6.1.) it can be argued that her results support the hypothesis that there is an association between higher degrees of Westernisation and aspects of disordered eating. This hypothesis is further supported by Stuart (1996) who studied one hundred and twenty black female students using the Eating Attitudes Test and an acculturation questionnaire which she devised. Stuart found a significant positive relationship between acculturation and disordered eating attitudes among these women. However, further research in this area is needed to corroborate this finding.

The South African studies make an important contribution to the cross-cultural literature. In contrast to studies in other countries, South African black female students are not found to score significantly lower on measures of disordered eating and body shape dissatisfaction than their white counterparts. In fact, the majority of the studies cited in this section have found higher degrees of disordered eating

among black female students. This could be explained by the suggestion in section 2.6.3. that acculturating groups may be at an even greater risk for disordered eating than white women as they seek affirmation from the dominant cultural group (Bulik, 1987; Root, 1990). It could be further argued that this applies particularly strongly to South African blacks, who have had to contend with constitutionalised racial prejudice until recently; hence the divergence in results from studies with black students in the United States of America. South Africa is also currently in more of a state of cultural flux.

It is important to note that black university students represent a particularly Westernised segment of the black population as a whole, and thus the findings of these studies cannot be generalised. Haynes' (1995) use of a rural sample indicates an important direction for future research.

2.6.4.5. Other cross-cultural studies

The following studies support the theory that there is a relationship between acculturation and increased risk for disordered eating:

Chun, Mitchell & Yu (1992) found a low prevalence of anorexia and bulimia among freshman medical students in China. The authors suggest that this is due to a lower availability of the kind of food favoured for bingeing, as well as the difference in social pressure to meet low body weight expectations. The implication of this is that their Chinese culture is a protective feature in terms of risk for eating disorders.

Ford (1992) identified bulimia in an Egyptian female student. Cross-cultural, socio-cultural and intrafamilial factors were all found to have played a role in the etiology and maintenance of the disorder: She had lived in Canada for twelve years and had therefore been exposed to Western attitudes. Her assimilation back into Egyptian culture was the cause of conflict, which she avoided facing through her bingeing and purging behaviour.

Dolan and Ford (1991) found that episodes of binge eating were common among Egyptian students at an English-speaking university. They hypothesize that "influences from both the educational setting and from students having lived in Western countries may contribute to the concern with dieting and weight shown by this group" (p. 352).

Nasser (1986) studied Arab female undergraduate students at London and Cairo Universities. He found that abnormal eating attitudes appear more prevalent among the London group (22%), who are presumably acculturating. However, eating problems (particularly bulimia) were found to exist among the Cairo group as well (a 12% prevalence rate). Nasser suggests that this latter result may be a function of rapid changes towards Westernisation in Cairo itself.

2.7. SUMMARY

The literature review indicates that eating disorders are not a new phenomenon, although it is only in the last three decades that they have reached what Dolan (1991) describes as epidemic proportions. Particular groups appear to be more at risk than others for the development of an eating disorder, and it is thought that eating disturbance occurs on a continuum of severity. A number of theoretical approaches have attempted to clarify the etiology of eating disorders, which appear to be multidetermined phenomena.

In recent years, the research emphasis in the field of eating disorders has shifted to include a cross-cultural focus, as it is recognised that eating disorders appear to be culturally bound syndromes. The role of Western culture and the impact of acculturation on the development of disordered eating attitudes and behaviours has been explored by both international and local researchers. While it is clear that the role of internal and intra familial characteristics should not be underestimated (Abrams et al., 1993; Ahmad et al., 1994; Furukawa, 1994; Mumford et al., 1992),

this research indicates that disordered eating attitudes and behaviours are closely related to Western cultural attitudes. There appears to be a trend which relates increasing degrees of acculturation to a Western value system in non-Western cultures with an increase in disordered eating attitudes and behaviours. Black female students in South Africa are found to be a particularly high risk group for the development of eating disorders. However, further research in this area is needed to confirm these findings.

This research study thus aims to further explore the link between acculturation and disordered eating, and to compare the prevalence of disordered eating attitudes and behaviours among black and white female university students in KwaZulu-Natal. Chapter three will describe the method employed for this research.

CHAPTER THREE

METHOD

3.1. AIMS

The main aims of this study are three-fold:

- (1) To assess the prevalence of disordered eating attitudes and behaviours among black and white female university students in KwaZulu-Natal.

- (2) To determine the variation in levels of disordered eating attitudes and behaviours between the above two groups, and to assess the roles played by socioeconomic status and Body Mass Index in this variation.

- (3) To assess the impact of acculturation on the degree of disordered eating attitudes and behaviours within the group of black students.

3.2. HYPOTHESES

The following hypotheses, derived from the literature reviewed in chapter two, were formulated in order to empirically address the above aims:

Hypothesis 1: The degree of disordered eating attitudes and behaviours (as assessed by the first three subscales of the EDI) will be significantly lower for black female students than for white female students.

Hypothesis 2: Black female students will exhibit a higher mean Body Mass Index (BMI) score (i.e. weight/height²) than white female students, and lower BMIs will correlate positively with higher levels of disordered eating (as assessed by the first three subscales of the EDI) for both race groups.

Hypothesis 3: There will be no significant relationship between socioeconomic status (as measured by Father's occupation) and disordered eating (as measured by the first three subscales of the EDI) for either black or white female students.

Hypothesis 4: There will be a positive correlation between high levels of acculturation (as assessed by the RIAS-B and two other cultural questionnaires) and disordered eating (as assessed by the first three subscales of the EDI) for black female students.

3.3. SAMPLE AND SUBJECTS

The sample population were black and white female students at the Universities of Natal (Pietermaritzburg) and Zululand. University women represent a particularly high risk group for disordered eating attitudes and behaviours (as indicated in section 2.3. above), and black university women provide a sample of acculturating subjects. Thus this sample population was deemed appropriate for meeting the aims of this study.

The specific subjects for the study were those female psychology undergraduate students from the above sample who voluntarily completed the relevant set of questionnaires which were distributed during lectures. (See Table 1 in chapter four for numbers of black and white subjects.)

3.4. INSTRUMENTS FOR ASSESSMENT

3.4.1. Biographical Questionnaire

A biographical questionnaire (Appendix B) was included in order to obtain necessary personal, familial and demographic details for each subject.

3.4.2. The Eating Disorders Inventory (EDI)

Garner, Olmstead and Polivy's (1983) Eating Disorders Inventory (Appendix B) is a 64 item, self-report measure designed to assess those psychological and behavioural traits which are commonly found in anorexia nervosa and bulimia nervosa. It can be useful as

a screening tool, as an outcome measure, as an aid in topological research, or as an adjunct to clinical judgements with eating disorder patients. It is not proposed as a diagnostic instrument for anorexia nervosa or bulimia since, in the authors' opinion, this is an inappropriate use of any psychometric instrument. (Garner & Olmstead, 1984, p. 1)

The EDI is a multiscale measure, and the eight subscales (with abbreviations) are listed below:

1. *Drive for Thinness (DT)*
2. *Bulimia (B)*
3. *Body Dissatisfaction (BD)*
4. *Ineffectiveness (I)*
5. *Perfectionism (P)*
6. *Interpersonal Distrust (ID)*
7. *Interoceptive Awareness (IA)*
8. *Maturity Fears (MF)*

The first three subscales assess attitudes and behaviours related to eating and body shape, whereas the remaining five subscales measure attitudes and behaviours which are clinically considered to be fundamental aspects of the psychopathology of anorexia nervosa (Garner et al., 1983). As the focus of this study is on disordered eating attitudes and behaviours, rather than on anorexia nervosa as a clinical entity, the first three subscales are of primary importance in

terms of the empirical testing of the hypotheses. Subjects scoring above the cut-off scores for each of these three sub scales can be considered to display significant levels of disordered eating.

The EDI has been found to have adequate reliability and validity (Garner & Olmstead, 1984) for Western subjects. However, the cross-cultural validity of the EDI has not been established, although Hooper and Garner's (1986) study provides support for the value of the EDI in detecting subclinical eating disorders in a Southern African multi-cultural setting.

A revised version of the EDI (Eating Disorder Inventory-2) was published in 1990 (Psychological Assessment Resources, 1990), but was not available in South Africa at the time that this research was initiated.

3.4.3. Measures of Acculturation

It was considered important to include a measure of acculturation in terms of the aim of establishing whether there is a positive correlation between acculturation and higher levels of disordered eating among black women. No valid measure of acculturation in South Africa could be found despite reading and consultation, and the measures described below were therefore included in an attempt to rate acculturation.

(It was only after the inception of this research that the author encountered the work by Berry, Trimble and Olmedo (1986), who provide a guide for conducting acculturation research. Future research in this field could benefit from Berry's framework for the assessment of acculturation.)

3.4.3.1. The Racial Identity Attitude Scale for Blacks (RIAS-B)

The RIAS-B (Helms, 1990; Appendix C) identifies four distinct stages of black racial identity: *Preencounter*, *Encounter*, *Immersion* and *Internalisation*. The *Preencounter* stage reflects idealisation of values and beliefs associated with white

identity and rejection of those associated with black identity. The following three stages reflect movement towards a positive black racial identity. The scale has been found to have adequate reliability and validity when used to assess the racial identity of black male and female college/university students (ibid.). However, the scale was designed to assess the racial identity of blacks in the United States of America, and no reliability or validity studies have been conducted with South African blacks.

The *Preencounter* stage will be used in this study as an informal measure of acculturation, although it is acknowledged that there is no simple equation between racial identity and cultural identity. In support of its use for this purpose, it was used by Abrams et al. (1993) to identify cultural assimilation among blacks in their study of disordered eating attitudes and behaviours among black and white female college students in the United States of America.

The short form of the RIAS-B was administered to all black subjects at the University of Zululand. It consists of thirty self-report questions. Question numbers 2 and 11 were altered slightly to make them applicable to a South African context (See Appendix B for the altered form entitled the Social Attitude Scale). (Permission from the author, Ms J. Helms, for the use of the questionnaire and the alterations was requested in writing via Greenwood Publishers. However the publishers received no response from Ms Helms.)

3.4.3.2. Cultural Preference Questionnaire

A set of five questions related to cultural affiliation were devised by the present author with the help of two black psychology Masters students (Appendix B). Mumford, Whitehouse and Choudry (1992) used the eating of Western food and the speaking of English at home as a basis for assessing acculturation. The questions included in this study form an extension of this method of assessment. Pumariega's (1986) study included an acculturation questionnaire, the items of which were rationally derived and included number of years in the United States, language,

food, clothing and music preferences, cultural background of close relations and self-identification. The latter provides further support for the inclusion of this type of questionnaire, despite the lack of validation.

3.4.3.3. Graphical self-rating scale for degrees of Westernisation

A self-rating graph (Appendix B) requiring students to rate their actual and ideal levels of Westernisation on a scale of one to ten was devised by the author as a complement to the above two measures. It was believed that this might be a more straight forward way of assessing acculturation which could yield interesting results in terms of students attitudes and beliefs regarding their own levels of acculturation.

3.5. PROCEDURE

The set of questionnaires (Appendix B) were distributed to all female students attending first, second and third year psychology lectures at the University of Natal (Pietermaritzburg) in October 1994. Certain of the subjects (depending on availability of lecture time) were requested to complete the questionnaires and return them at the end of the lecture period. Others were asked to take the questionnaires away with them and to return them to the psychology department once they were complete. (The response rate for this method was low, particularly among the black subjects, which it was thought might reflect a lesser interest in eating issues among this group, although this was not confirmed by the subsequent results on Drive for Thinness.) The purpose of the study was briefly explained to the subjects, although not in too much detail so as to prevent confounding variables.

It was hoped that at least one hundred students from each of the targeted groups would return completed questionnaires. (At that stage it was envisaged that there might be sufficient Asian respondents to include this group in the study, but a response rate of less than thirty for this group made this infeasible.) One hundred

and twenty-two white subjects completed and returned questionnaires, but only fifteen black subjects did so. This made it necessary to find an alternative black sample, and the psychology department at the University of Zululand agreed to allow data to be collected from their second and third year classes during lecture time in September 1995. All of the respondents were black, and one hundred and fifty-four completed questionnaires were collected.

A scale and a tape measure were made available to the subjects at the University of Zululand so that accurate figures for weight and height could be obtained. This had not been thought of during the 1994 data collection and it is possible therefore that the BMIs of the black subjects may be more accurate than those of the white subjects. The acculturation questionnaires were also altered to their present form (Appendix B) only after the 1994 data collection. Thus only black students from the university of Zululand completed these questionnaires.

The data from all four of the questionnaires was then captured on a spreadsheet and converted to Statgraphics for statistical analysis.

3.6. ANALYSIS OF DATA

Throughout the data analysis the significance level was set at five percent ($p < 0.05$).

3.6.1. EDI Subscales

The scores for the eight EDI subscales were calculated for each subject. These were then compared to Hooper's (1986) suggested cut-off scores (cited in Geach, 1995) and subjects were assigned to groups according to whether their score fell above or below the cut off point for that subscale.

The mean scores and standard deviations for the eight subscales of the EDI were calculated separately for blacks and whites.

Partial Correlation Analyses of the eight subscales were done separately for blacks and whites to test for significant intercorrelations.

Crosstabulation was used to assess the proportional differences between blacks and whites falling above the cut off score for each subscale. A Chi-Square analysis was used to test these differences for statistical significance.

The percentages of whites and blacks scoring above the cut off points on more than one of the first three subscales were calculated using Crosstabulation.

The Two-sample t-test could not be used to test the differences between the average values for the two race groups because it was found that the two variances of the two groups were not equal. A nonparametric method was therefore utilised (Kolmogorov-Smirnov Two-Sample Test) to test these differences on each of the EDI sub-scales.

University differences within the black group on each of the EDI subscales were tested using Crosstabulation. The Kolmogorov-Smirnov Two-Sample Test was used to test for the difference in average values for each of these groups.

3.6.2. Body Mass Index (BMI)

BMI scores for each subject were calculated by dividing the weight (in kilograms) by the height squared (in metres)..

The Kolmogorov-Smirnov Two-Sample Test was used to test the differences between the average values for BMI scores for each race group.

The relationship between BMI scores and disordered eating (as measured by the first three subscales of the EDI) was tested by Simple Regression Analysis.

The average BMI scores for black students from the two universities were compared

using the Kolmogorov-Smirnov Two-Sample test.

3.6.3. Socioeconomic Status (SES)

Father's occupation was used as a measure of SES. There were nine categories for this, with category one representing the highest SES and category eight the lowest SES (category nine was for 'other'). It was decided to divide these categories into two groups: categories 1-3 formed the high SES group and categories 4-8 formed the low SES group.

The relationship between SES and race was tested for significance using a Chi-Square Analysis.

A One-Way Analysis of Variance was used to test the relationship between SES and disordered eating (as measured by the first three subscales of the EDI) for each race group.

A One -Way Analysis of Variance was also used to test the relationship between SES and BMI for each race group.

University differences on SES within the black group were tested through crosstabulation and Chi-Square Analysis.

3.6.4. Acculturation

Simple Regression Analysis was used to test for any significant correlation between the three measures of acculturation.

The RIAS-B was scored and subjects were assigned to groups according to their highest mean subscale score.

The relationships between each of the three acculturation measures and disordered eating (as measured by the first three subscales of the EDI) were tested for

significance by Crosstabulation and Chi-square Analysis.

CHAPTER FOUR

RESULTS

This chapter will summarise the results of the data analysis as detailed in section 3.6. The discussion of these results is presented in chapter five.

The variables designated for this study included the following: race, socioeconomic status (SES), Body Mass Index (BMI), acculturation, and the eight subscales of the EDI.

The mean age for subjects was twenty-three years. The white subjects, who numbered one hundred and twenty-two, were all students at the University of Natal (Pietermaritzburg) in 1994. Fifteen of the black subjects were also students at the University of Natal (Pietermaritzburg) in 1994, and the remaining one hundred and fifty-four were students at the University of Zululand in 1995. (See Table 1 below.)

Table 1

Numbers of black and white subjects from each university

RACE	UNP	UNZ	TOTAL
WHITE	122	0	122
BLACK	15	154	169
TOTAL	137	154	291

UNP = University of Natal (Pietermaritzburg)

UNZ = University of Zululand

4.1. THE EDI SUBSCALES

4.1.1. Mean Subscale Scores

The mean subscale scores for black and white subjects are summarised below (Table 2). Canadian female college sample means (Garner & Olmstead, 1984) and suggested cut-off scores (Hooper, 1986 cited in Geach, 1995) are provided for comparison.

Table 2
Means and standard deviations for EDI subscales

GROUP	DT	B	BD	IN	P	ID	IA	MF
Black	8.0 (5.7) n=150	1.6 (2.8) n=153	8.2 (7.4) n=158	2.7 (2.8) n=153	10.1 (4.7) n=153	4.3 (3.0) n=158	3.8 (3.5) n=150	6.4 (3.8) n=158
White	6.4 (5.9) n=120	2.1 (2.9) n=121	13.0 (8.2) n=120	3.1 (4.8) n=121	4.9 (4.0) n=119	3.2 (3.7) n=120	2.9 (4.0) n=119	2.2 (2.0) n=120
Canadian Sample n=271	5.1 (5.5)	1.7 (3.1)	9.7 (8.1)	2.3 (3.8)	6.4 (4.3)	2.4 (3.0)	2.3 (3.6)	2.2 (2.5)
Cut Off Points	≥15	≥4	≥14	≥10	≥8	≥5	≥10	≥5

Subscale key on p.36

The means for both blacks and whites in this study were higher than the Canadian sample on *Drive for Thinness*, and the mean for whites was higher than the Canadian sample on *Bulimia* and *Body Dissatisfaction*. Hence disordered eating is more prevalent on average in white South African students than in the Canadian comparison sample.

4.1.2. Partial Intercorrelations between Subscales

Partial Correlation Analyses of the eight subscales were done separately for each race group to ascertain the nature of the relationships between subscales. Those intercorrelations which were found to be significant (i.e. $r > 0.192$) are indicated in Table 3 below. The results for the black group are tabulated above the diagonal and the results for the white group are tabulated below the diagonal. The Table is not symmetrical.

Table 3
Partial correlations for EDI subscales

	DT	B	BD	IN	P	ID	IA	MF
DT	-		0.5		0.2			
B	0.3	-					0.6	
BD	0.5		-		-0.2	0.2		
IN				-	-0.2	0.3		
P	0.3				-			
ID				0.5		-		
IA				0.5	0.3		-	0.2
MF								-

BLACKS

WHITES

n = 113 for both groups

Subscale key on p.36

Thus for the white group there were six positive correlations and for the black group there were six positive and two negative correlations.

4.1.3. Proportional Differences Above Cut-Off Points

Crosstabulation and Chi-square analysis was used to assess the proportional differences between race groups falling above the cut-off scores for each of the EDI subscales. The results are summarised in Table 4 below.

Table 4
Proportions above cut-off Level

SUBSCALE	% WHITES	% BLACKS	P VALUE	DIFFERENCE
DT	14.2	19.3	p>0.05	ns
B	22.3	13.7	p>0.05	ns
BD	47.5	22.2	p<0.01	significant
I	14.0	2.0	p<0.01	significant
P	23.5	76.5	p<0.01	significant
ID	26.7	38.0	p<0.05	significant
IA	7.6	6.0	p>0.05	ns
MF	16.7	63.9	p<0.01	significant

n values as in Table 2

ns = not significant

Subscale key on p.36

As Table 4 illustrates, there were significant differences between the race groups in percentages above the cut off scores on *Body Dissatisfaction*, *Ineffectiveness*, *Perfectionism*, *Interpersonal Distrust* and *Maturity Fears*. (Figures 1 and 2 provide a graphic example of the differences on *Body Dissatisfaction* and *Maturity Fears*.) No significant differences were found on *Drive for Thinness*, *Bulimia* and *Interoceptive Awareness*.

4.1.4. Percentages Above Cut-Off Points on More than One Subscale

Cross tabulation was used to compare the percentage of black and white students who scored above the cut-off points on more than one of the first three subscales. The difference was found to be significant ($p<0.01$) and the percentages are tabulated below.

WHITE AND BLACK STUDENTS ABOVE AND BELOW THE CUT-OFF POINT
FOR *BODY DISSATISFACTION*

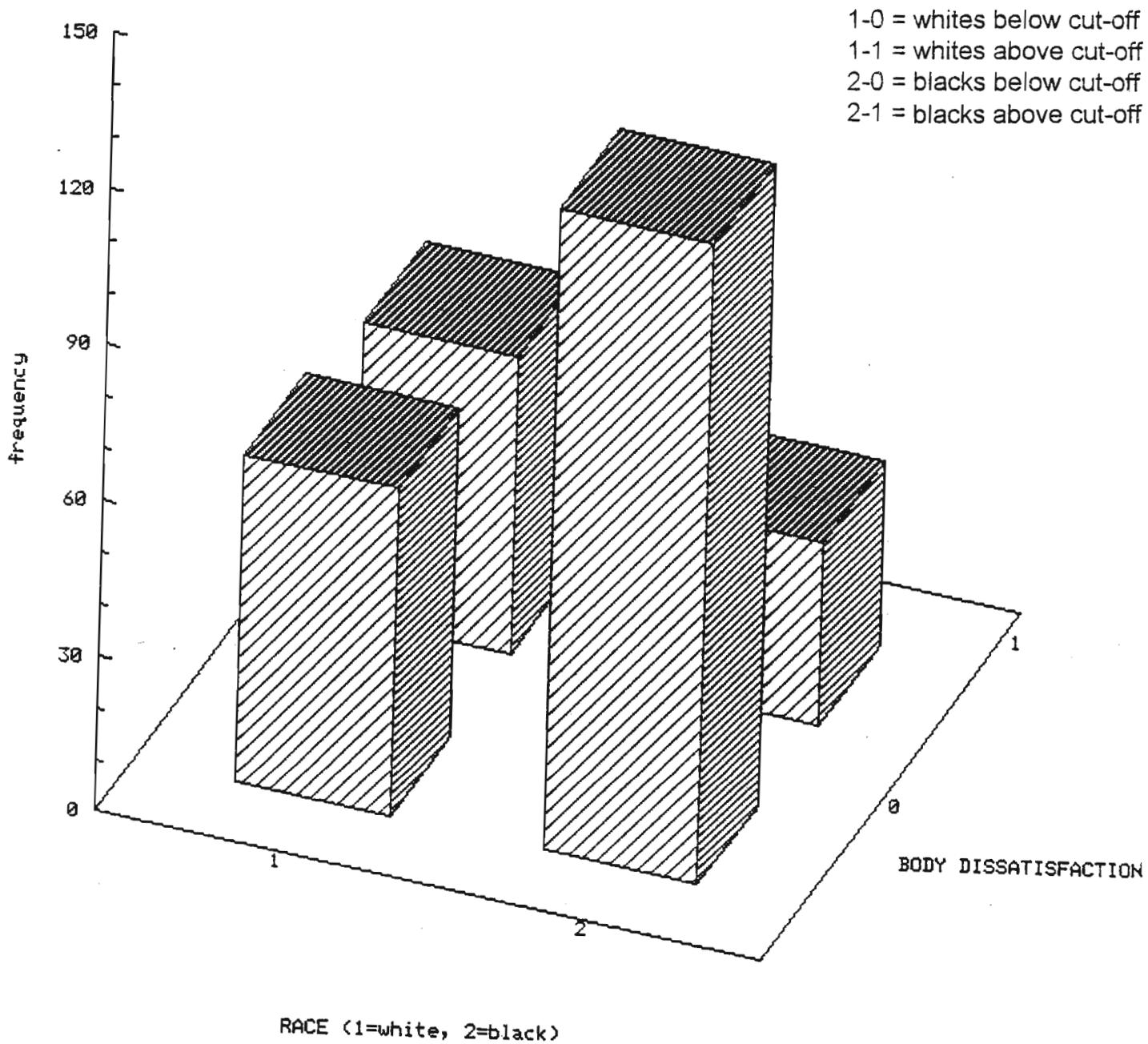


Figure 1

WHITE AND BLACK STUDENTS ABOVE AND BELOW THE CUT-OFF POINT
FOR MATURITY FEARS

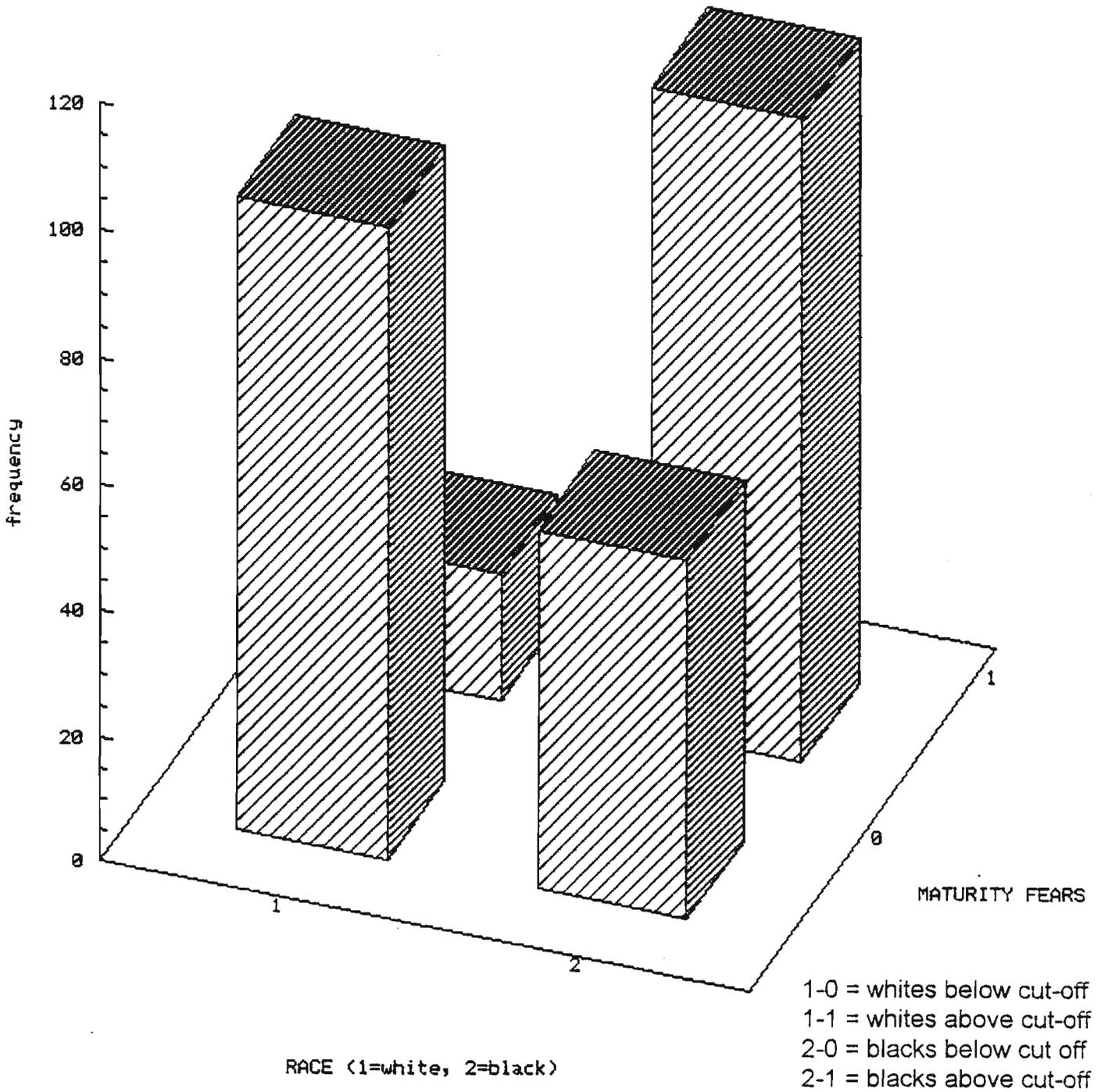


Figure 2

Table 5
Percentages above cut-off points

SUBSCALES	% WHITE n=119	% BLACK n=138
B-BD	10.1	2.2
DT-BD	3.4	4.3
DT-B	0	1.4
DT-B-BD	9.2	4.3

Subscale key on p.36

4.1.5. Differences Between Average Values

The differences between the average values for the two race groups on each of the EDI subscales were also tested for significance with the Kolmogorov-Smirnov Two-Sample test. It was found that there were significant differences between the average values for the two groups on all of the eight subscales (see Table 2 for these averages).

4.1.6. University Differences

In order to check for university differences within the black group, crosstabulation was used to compare the difference in proportions above the cut-off scores between black students from the University of Natal (Pietermaritzburg) and students from the University of Zululand. The results are summarised in Table 6 below.

Table 6

Percentage of black subjects above cut-off point for each university

SUB-SCALE	% UNP n	% UNZ n	P VALUE	DIFFERENCE
DT	20.0 n=15	19.3 n=135	p>0.05	ns
B	20.0 n=15	13.0 n=138	p>0.01	ns
BD	40.0 n=15	20.3 n=143	p>0.05	ns
I	0 n=15	2.2 n=138	p>0.01	ns
P	53.3 n=15	79.0 n=138	p<0.05	significant
ID	28.6 n=14	38.9 n=144	p>0.01	ns
IA	0 n=15	6.7 n=135	p>0.01	ns
MF	40.0 n=15	66.4 n=143	p<0.05	significant

UNP = University of Natal (Pietermaritzburg) ns = not significant
 UNZ = University of Zululand Subscale key on p.36

As Table 6 illustrates, significantly more black subjects from the University of Zululand than the University of Natal (Pietermaritzburg) scored above the cut off point on *Perfectionism* and *Maturity Fears*. However, when comparing the differences between the average values for each of the EDI subscales for black students from the two universities, significant differences were found on *Bulimia* and *Body Dissatisfaction* (with black students from the University of Natal, Pietermaritzburg, scoring higher on these) as well as on *Perfectionism* and *Maturity Fears*. These differences in average values are tabulated below.

Table 7

Significant university differences in average values

SUBSCALE	UNP AVERAGE n = 15	UNZ AVERAGE n = 154	HIGHEST AVERAGE
B	1.9 (2.4)	1.6 (2.8)	UNP
BD	9.7 (9.9)	8.0 (7.0)	UNP
P	6.8 (4.9)	10.5 (4.5)	UNZ
MF	4.3 (4.7)	6.6 (3.6)	UNZ

UNP = University of Pietermaritzburg Subscale key on p.36

UNZ = University of Zululand

It is noteworthy that black females from the University of Natal (Pietermaritzburg) scored significantly higher on subscales related to disordered eating whereas black females from the University of Zululand scored significantly higher on those subscales associated with anorexia nervosa as a clinical entity.

4.2. BODY MASS INDEX (BMI)

4.2.1. Differences Between Average Values

The Kolmogorov-Smirnov Two-Sample Test was also used to test the differences between the average values for BMI scores for the two race groups. The average BMI for white subjects was 20.15 whereas the average BMI for black students was 24.5. The difference was found to be statistically significant. Preliminary results from the NEDCC study (Wassenaar, in process) indicate a similar difference in mean BMI scores (20.89 for whites and 24.76 for blacks).

4.2.2. Relationships Between BMI and Disordered Eating

Simple Regression Analysis was used to test for significant relationships for each race group between BMI scores and scores for the first three subscales of the EDI

(as measures of disordered eating). The results are summarised in Table 8 below.

Table 8
Relationship between BMI and EDI sub-scales

RACE	DEPENDENT VARIABLE	INDEPENDENT VARIABLE	P (SLOPE)	R SQUARED	RELATIONSHIP
White n=113	DT	BMI	p<0.05	5%	significant
Black n=146	DT	BMI	p>0.05	2%	ns
White n=114	B	BMI	p>0.05	1.38%	ns
Black n=151	B	BMI	p>0.05	0.86%	ns
White n=113	BD	BMI	p<0.05	5%	significant
Black n=155	BD	BMI	p<0.05	5.21%	significant

ns = not significant

Subscale key on p.36

As Table 8 illustrates, there was a significant positive relationship between BMI and *Body Dissatisfaction* for both race groups, and a significant positive relationship between BMI and *Drive for Thinness* for the white group only. However, all the R-squared values were low, which indicates a high degree of variance within these relationships.

4.2.3. University Differences

The average BMI scores for black students at the University of Pietermaritzburg (23.09) and black students at the university of Zululand (24.6) were found to differ significantly.

4.3. SOCIOECONOMIC STATUS (SES)

4.3.1. SES and Race

There was a significant relationship between SES (as measured by Father's occupation) and race, with 88.5% of whites and 43.3% of blacks falling into the high category, and 11.5% of whites and 56.7% of blacks falling into the low category.

4.3.2. SES and Disordered Eating

A One-Way Analysis of Variance found no significant relationships between SES and disordered eating (as measured by the first three subscales of the EDI) for either blacks or whites.

4.3.3. SES and BMI

A One-Way Analysis of Variance found that the BMIs for whites differed significantly according to SES, with higher BMIs being correlated with lower SES. However, there was no significant difference for black BMIs according to SES. The averages for these groups are tabulated below.

Table 9

Average BMI scores for blacks and whites

SES	AVERAGE WHITE BMI n=121	AVERAGE BLACK BMI n=166
HIGH	21	24.5
LOW	22.8	25.6

4.3.4. SES and University Differences

No significant difference was found between black students from the University of Natal (Pietermaritzburg) and students from the University of Zululand on the variable SES.

4.4. ACCULTURATION

4.4.1. Correlations Between the Three Questionnaires

Simple Regression Analysis was used to test for any significant correlation between the three measures of acculturation used in the study. There were significant correlations between the following: actual (S3A) and ideal (S3B) levels of Westernisation as assessed by the self-rating graph; S3A and the Cultural Preference questionnaire; the *Preencounter* subscale of the RIAS-B and the Cultural Preference questionnaire. However, there was found to be no significant correlation between S3A and the *Preencounter* subscale. It must also be noted that the R-squared values for each of these tests were below 10% indicating that there is a large degree of variation even in the relationships which were found to be significant.

4.4.2. The RIAS-B Subscales

The number of students falling into each stage of racial identity formation on the RIAS-B was ascertained by calculating the mean for each student on each of the subscales and assigning that student to the scale for which she had the highest mean score. Only four students scored highest on the *Preencounter* scale (used as a measure of acculturation) whereas one hundred and twenty-five students scored highest on the *Internalisation* scale. Eleven Students scored highest on the *Encounter* scale and eight scored highest on the *Immersion* scale. These numbers are represented graphically in Figure 3.

4.4.3. Relationship Between Acculturation and Disordered Eating

The relationships between each of the three measures of acculturation and the first three subscales of the EDI (as measures of disordered eating) were then tested for significance using Chi-square analysis. None of these relationships were found to be significant at the 5% level. Hence this study found there to be no significant

relationship between disordered eating and acculturation.

NUMBER OF BLACK STUDENTS IN EACH STAGE OF RACIAL IDENTITY ON THE RIAS-B

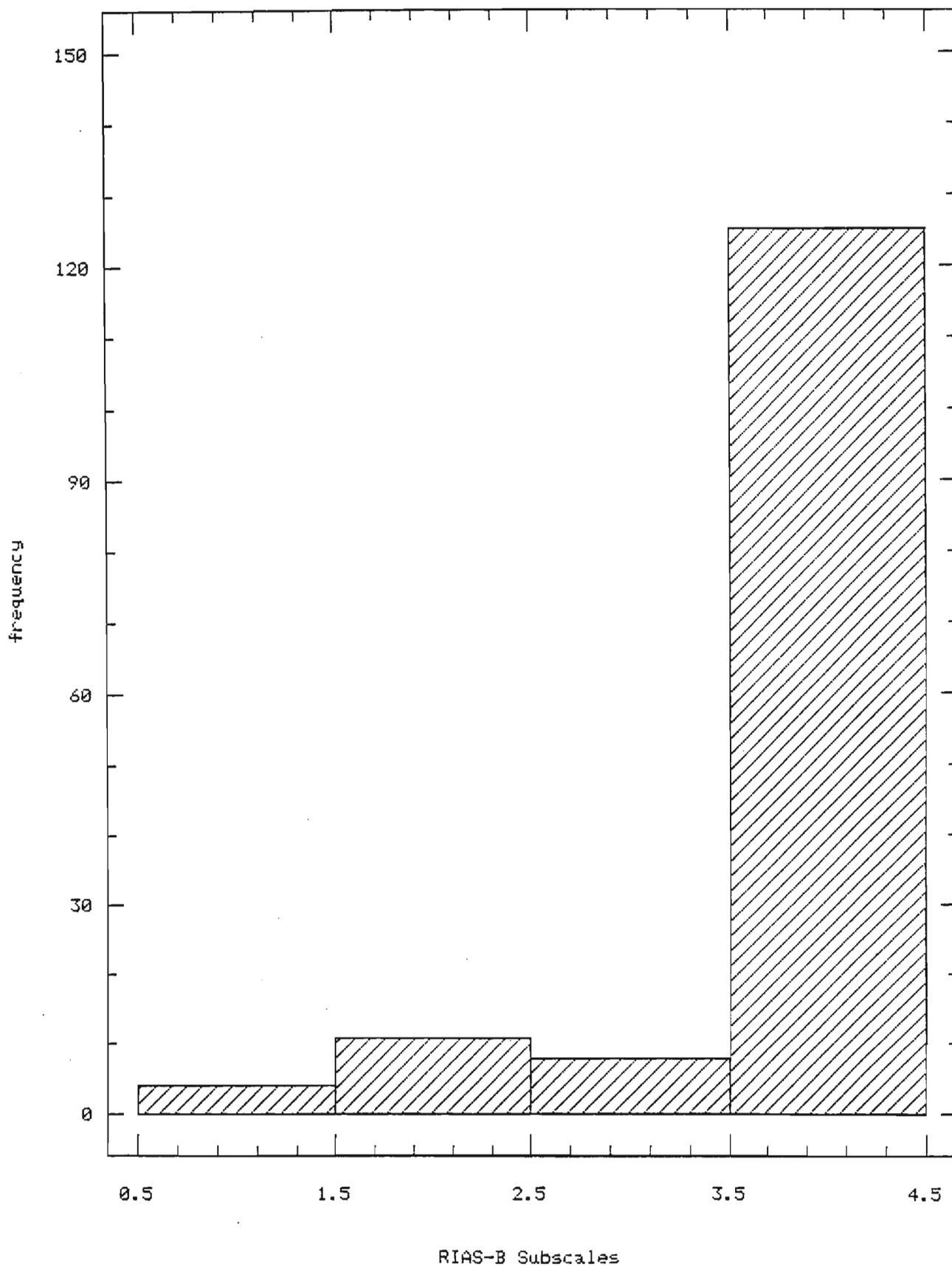


Figure 3

CHAPTER FIVE

DISCUSSION

In this chapter the results summarised in chapter four will be discussed in terms of the original hypotheses of this study and the literature reviewed in chapter two. The discussion focuses on three areas in its assessment of levels of disordered eating: a comparison of black and white students, a comparison of black students according to university, and a comparison of black students according to levels of acculturation.

5.1. COMPARISON OF BLACK AND WHITE STUDENTS

5.1.1. The EDI Subscales

The EDI identifies eating disordered attitudes and behaviours rather than diagnosing clinical eating disorders. Follow up interviews with high scorers would be needed to make any definitive diagnosis of anorexia nervosa or bulimia nervosa. However, EDI subscale scores give an indication of the level of disordered eating. Scores above the cut-off points used in this study suggest attitudes, behaviours and personality traits commonly associated with eating disorders or subclinical eating disorders, and therefore indicate high risk groups. It is useful to consider cultural differences on each of these subscales in order to glean comparative information regarding the prevalence of disordered eating and the risk for eating disorders.

5.1.1.1. An analysis of the first three subscales as measures of disordered eating

Black females scored significantly higher than white South African and Canadian females on average on *Drive for Thinness* (see Table 2). Almost twenty percent of black females scored above the cut-off score on this subscale, which indicates a high prevalence of disordered eating attitudes among this sample. This is

supported by other South African research studies (Geach, 1995; Grey, 1995; Sheward, 1994 cited in Swartz & Sheward, 1995). Geach (1995) found that more black females scored at or above the 90th percentile for *Drive for Thinness* than white females, although the difference was not significant.

Relatively high *Drive for Thinness* scores among black women challenge the notion that black women value plumpness. However, it is likely that a university student sample represents a more Westernised rather than traditional outlook, and a rural sample may have yielded a different response (see Haynes, 1995).

High scores for the *Bulimia* subscale (especially for the white group) were anticipated from the literature on the prevalence of bulimic behaviour among female students (Fairburn & Beglin, 1990; Nevo, 1985; Pyle et al., 1986; Rand & Kuldau, 1992; Schlesior-Stropp, 1984). This expectation was supported by the data, with twenty-two percent of whites scoring above the cut-off point for this subscale (see Table 4). The mean for this group was significantly higher than the mean for the black group and the mean for the Canadian sample (see Table 2). The mean score for black subjects was only slightly lower than that for the Canadian sample, which indicates that black South African females, while scoring significantly lower on average than their white counterparts, are demonstrating bulimic behaviour on a similar level to elsewhere in the Western world.

Grey (1995) posits that socioeconomic status and the availability of high calorie foods may influence binge eating. However, his argument that black South African women may exhibit lower scores on measures of bulimia than white South African women due to their overall lower socioeconomic status is not borne out by the results of this study (see section 5.1.3. below).

White South African females also scored significantly higher than black females and the Canadian sample on *Body Dissatisfaction*, with forty-eight percent scoring above the cut-off point for this subscale (see Table 4). This finding contradicts

Grey's (1995) findings that black female students have significantly thinner body shape ideals than white female students, but lends support to studies by Geach (1995) and Rucker and Cash (1992) who similarly found that black female students (in South Africa and the United States respectively) held more favourable body-image attitudes than their white peers. These findings are possibly attributable to the role of the white Western media in emphasizing slimness as desirable.

Drive for Thinness and *Body Dissatisfaction* were significantly positively correlated for black subjects, which suggests that those black subjects who scored high on *Body Dissatisfaction* are also those who obtained high scores for *Drive for Thinness*. For the white group, there are significant positive correlations between *Drive for Thinness*, *Bulimia* and *Body Dissatisfaction*. (See Table 3.)

In summary, white South African female students appear to have particularly high levels of disordered eating (as measured by the above three subscales) relative to the Canadian sample. However, black South African female students' level of disordered eating appears to be comparable to that exhibited by the Canadian sample, and in the case of *Drive for Thinness* is higher in the black group than in either of the other two. Significantly more white subjects than black subjects scored above the cut-off point on a combination of all three of the above subscales (see Table 5). This result tends to support the hypothesis that the degree of disordered eating attitudes and behaviours (as measured by the first three subscales of the EDI) is significantly lower for black females than for white females (i.e. Hypothesis 1). However, it is acknowledged that *Drive for Thinness* provides a truer measure of disordered eating than *Body Dissatisfaction*, which focuses on body image. Geach (1995) used *Drive for Thinness* as the primary measure of disordered eating. Had this been the case in this study, Hypothesis 1 would have proven false. However, it was decided that a combination of all of the first three subscales would provide a more thorough measure of disordered eating attitudes and behaviours for this study. Thus the results must be seen in the context of this decision, and the findings on *Drive for Thinness* should alert one to the fact that black women can no

longer be considered immune to eating disorders.

5.1.1.2 An analysis of subscales measuring psychological variables

Although subscales four to eight were not included in the original hypotheses, they provide further relevant information in terms of the above conclusions. (See Table 2.) While white subjects scored higher on average on *Ineffectiveness*, black subjects scored significantly higher on average on all the remaining subscales, which indicates a propensity towards attitudes and behaviours associated with eating disorders among this group. This factor, in combination with the high scores for *Drive for Thinness*, places black women in a high risk category for the development of eating disorders.

Berry et al. (1986, 1988) refers to the impact of acculturative stress in the life of an individual or community which may occur in the acculturation process as a result of social integration and personal crisis. Both Hooper and Garner (1986) and Geach (1995) make reference to the possible role played by acculturative stress and the erosion of traditional values in accounting for high scores among black women on the psychological subscales of the EDI. This seems a feasible explanation for the results of this study, particularly in view of the major sociopolitical changes which South Africans have recently experienced. Studies by Ahmad, Waller and Verduyn (1994), Furukawa (1994), and Mumford et al. (1992) point to the important role played by acculturative stress in producing internal conflict, which can in turn become a predisposing factor for an eating disorder.

Of particular interest are the extremely high percentages above the cut-off points for *Perfectionism* and *Maturity Fears* for black subjects. Possibly the black women in the sample have had to be extremely high achievers (associated with *Perfectionism*) to have reached the level of university admission, given the social, political and educational restraints present during the Apartheid years. *Perfectionism* is positively correlated with *Drive for Thinness* for this group, but is negatively correlated with *Body Dissatisfaction* (i.e. as perfectionism increases,

dissatisfaction with the body decreases), which is inexplicable without follow-up research. In Geach's (1995) study, these two subscales are similarly negatively correlated, but not to a significant level as in this study.

The highly significant difference between black and white subjects on *Maturity Fears* might imply that the responsibilities facing adult black women are perceived as more arduous in general than those facing white women in this country. However specific research in this area would be needed to corroborate this speculation.

5.1.2. Body Mass Index (BMI)

The first part of Hypothesis 2 was confirmed by the result that white subjects obtained significantly lower BMI scores on average than black subjects (see section 4.2.1.). This finding agrees with the preliminary results of the NEDCC study (Wassenaar, in process) which found white subjects to have an average BMI of 21.15 compared to an average of 25.36 for black subjects. However, the second part of Hypothesis 2 was found to be false for this sample (i.e. that lower BMI scores would correlate positively with higher levels of disordered eating, as measured by the first three subscales of the EDI). For both race groups, higher rather than lower BMIs correlated positively with *Body Dissatisfaction*; thus as BMI increases so does dissatisfaction with body shape and size. For the white group only it was found that *Drive for Thinness* also increases with an increase in BMI. There were no significant correlations between BMI and *Bulimia* for either group. (See Table 8.)

Thus it seems likely that higher BMI scores predispose female students to disordered eating attitudes and behaviour, particularly body dissatisfaction. This makes sense in the context of the value placed on a thin body shape in Western culture. It is possible that whites with higher BMIs are under more pressure to conform to this shape; hence the significant positive correlation with *Drive for Thinness* in this group, who thus indulge in more disordered eating behaviours.

5.1.3. Socioeconomic Status (SES)

While Father's occupation is admittedly a somewhat limited and sexist measure of SES, it provided a rough guideline by which to assess this variable. It is acknowledged, however, that the omission of Mother's occupation may have reduced the validity of the SES estimates.

The significant difference found between black and white subjects on the variable of SES is not surprising in terms of the historical socioeconomic structure of South African society. The hypothesis that there is no significant relationship between SES and disordered eating (as measured by the first three subscales of the EDI) was found to be true in this study. No significant relationships were found between SES and *Drive for Thinness*, *Bulimia* or *Body Dissatisfaction* for either blacks or whites. This challenges earlier notions that disordered eating (particularly anorexia nervosa) was significantly related to higher SES (Anderson & Hay, 1985; Garner & Garfinkel, 1980), and lends support to more recent literature and research which has refuted this notion (Geach, 1995; Hoek, 1995; Pumariega, 1986; Rand & Kuldau, 1992; Ziervogel, 1995). This is important in terms of the fact that it indicates that primary prevention programmes for eating disorders need to include all socioeconomic groups.

It is interesting, however, that lower BMIs were associated with higher SES for both race groups, although the difference was only statistically significant for the white subjects (see Table 9). This implies that although no significant relationship was found between SES and disordered eating, there is possibly greater pressure to conform to a thin body shape among higher socioeconomic status groups (which are also likely to be the more acculturated group in terms of the black subjects). However, this finding may also be a function of the type of food eaten by each group.

5.2. COMPARISON OF BLACK STUDENTS ACCORDING TO UNIVERSITY

University differences did not form part of the original hypotheses of the study. However it was decided to explore these as they might yield interesting results in that black students at the University of Natal (Pietermaritzburg) would have had greater contact with white students than students at the University of Zululand, which has a very low percentage of white students. The fifteen black subjects at the University of Pietermaritzburg had not completed the same versions of the acculturation questionnaires (see section 3.5) and the two groups could therefore not be compared directly in terms of this variable. It is likely, however, that the Pietermaritzburg group is more acculturated due to the difference in the demographics of the two campuses.

5.2.1. The EDI Subscales

Black subjects from the University of Zululand scored significantly higher than those at the University of Natal (Pietermaritzburg) on *Perfectionism* and *Maturity Fears*, whereas black subjects from the University of Natal (Pietermaritzburg) scored significantly higher (on average) on *Bulimia* and *Body Dissatisfaction* (see Table 7). This distinction is interesting in terms of the division between subscales related directly to disordered eating attitudes and behaviours and those related to psychological variables associated with eating disorders. It seems that black subjects at the University of Natal (Pietermaritzburg) have a stronger tendency towards disordered eating. It can be hypothesized from this that their contact with white Western students is influential in this regard; however further research with a bigger sample is necessary to validate this hypothesis.

The significantly higher scores (both on average and on percentage above the cut-off point) for University of Zululand students on *Perfectionism* and *Maturity Fears* may suggest that black subjects who are at an earlier point on the acculturation continuum may be at a greater risk for the development of psychopathological traits associated with anorexia as a clinical entity. This may signify that the initial stages

of the acculturation process are particularly psychologically stressful. Once again, however, these speculations cannot be verified without further research in the area of acculturation.

5.2.2. Body Mass Index (BMI)

The significantly lower average BMI scores for black subjects at the University of Natal (Pietermaritzburg) (see section 4.2.3.) may again be a function of this group's greater contact with white Western culture and its pathogenic emphasis on slimmer body shapes.

5.2.3. Socioeconomic Status (SES)

Although black students from the University of Natal (Pietermaritzburg) obtained higher scores on subscales associated with disordered eating, and lower BMI scores, there was no significant difference between black subjects from the two universities on socioeconomic status (see section 4.3.2.). This lends further support to the hypothesis that there is no relationship between SES and disordered eating.

5.3. COMPARISON OF BLACK STUDENTS ACCORDING TO ACCULTURATION

5.3.1. The Measures of Acculturation

There were a number of problems with the three measures of acculturation used in this study which may have impacted on the results.

Subjects had difficulty in understanding what the self-rating graph required of them, and the significant correlation between scores for actual and ideal levels of Westernisation may partly be a function of this difficulty (i.e. subjects didn't distinguish between the two tasks). Many subjects omitted this question altogether.

The Cultural Preference Questionnaire tended to be handled better by students,

and this form of questionnaire appears to have worked well in other research studies (Haynes, 1995; Pumariega ; Stuart, 1996). In retrospect, this questionnaire could have been more extensive.

Although the RIAS-B has been used for the purpose of measuring cultural assimilation in black Americans (Abrams et al., 1993) there were problems with using it as a measure of acculturation for South African blacks. In measuring racial identity attitudes it appears to have a better face relationship with a transition towards black consciousness than with the process of acculturation. Furthermore, only four subjects fell into the *Preencounter* category (see Figure 3), and this was therefore not a statistically useful "acculturated" sample. By far the majority of subjects fell into the category of *Internalisation*, which (in terms of the use of the questionnaire in this study) would represent the least Westernised group. However, it seems probable that subjects can both identify with being black yet also subscribe to certain Western values. Hence it seems that racial identity was not a good measure of acculturation for this study. A further problem is that this questionnaire was designed for use with blacks from the United States of America and has not been validated for a South African sample.

The development of an effective and valid measure of acculturation in South Africa is a priority for the success of future research in this area, and Berry et al.'s work might provide a useful guide for this.

5.3.2. Relationship to Disordered Eating Attitudes and Behaviours

This study found there to be no significant relationship between acculturation (as measured by the three questionnaires discussed above) and disordered eating (as measured by the first three subscales of the EDI). (See section 4.4.3.) Hence Hypothesis 4 proved to be false. However, this result is questionable in that the three measures of acculturation are problematic (see section 5.3.1. above) and have no established reliability or validity for this population. In contradiction to this finding, the analysis of university differences (see section 5.2.1. above) suggests

the possibility of a relationship between acculturation to Western norms and disordered eating attitudes and behaviours. Similarly, Stuart (1996), using a 32 item, rationally derived measure which she devised to cover a wide range of cultural variables, found a highly significant relationship between acculturation and abnormal eating attitudes. Further research in this area is indicated in order to fully clarify the relationship between disordered eating and acculturation.

5.4. CONCLUSION

5.4.1. Summary

This study's finding that white female students have the highest overall level of disordered eating contradicts findings by Grey (1995) and Sheward (1994 cited in Swartz & Sheward, 1995) that black female students in South Africa are exhibiting higher levels of disordered eating. However, the significantly higher scores for black subjects on the *Drive for Thinness* subscale of the EDI are indicative of a shift in the latter direction.

Recent research, both in South Africa and internationally (see section 2.6.4.), has tended to support the contention that eating disorders are culture bound syndromes, rooted in Western cultural values and conflicts. This has led to the hypothesis that ethnic groups who are in the process of acculturating from a traditional to a Western set of values and norms, become increasingly at risk for the development of eating disorders. Although this study found no direct link between acculturation and disordered eating, this is thought to be at least in part a function of the problems encountered with the instruments used to measure acculturation. Furthermore, the analysis of university differences suggests that increased contact with Western culture is influential in terms of the development of disordered eating attitudes and behaviours.

The significantly high scores obtained by black female students on *Perfectionism*

and *Maturity Fears* correlates with other research findings (Geach, 1995; Hooper & Garner, 1980) and suggests that acculturative stresses may predispose black women to the type of internal psychological conflict associated with eating disorders (supported by Haynes, 1995). This, in combination with the high *Drive for Thinness* scores, places black female students in a high risk category for the development of an eating disorder.

Socioeconomic status was found to bear no relation to disordered eating, which adds weight to other research which debunks the theory that higher socioeconomic status is positively associated with eating disorders (Geach, 1995; Hoek, 1995; Pumariega, 1986; Rand & Kuldau, 1992; Ziervogel, 1995). It seems, however, that higher BMI scores do represent a risk factor for disordered eating attitudes and behaviours.

5.4.2. Implications of this Study

The major implication of this study is that black women (particularly university students) can no longer be considered to be immune to the development of eating disorders. This means that primary prevention and treatment programmes must aim to include this group. Health care workers also need to be alerted to the fact that black women, and women of any socioeconomic status group, are at risk for the development of an eating disorder so that early identification and diagnosis is facilitated.

The Western media plays an important part in the formation and perpetuation of the values of this culture. Primary prevention programmes need to educate the media as to the pathogenic role it may play in the spreading of disordered eating attitudes and behaviours through its emphasis on thin body shapes as ideal.

5.4.3. Limitations of this Study

The generalisability and reliability of the results of this study are limited by the factors listed below:

- Lack of established cross-cultural validity of the EDI, although Hooper and Garner (1980) found high scores on this instrument to be a good predictor of subclinical cases of anorexia nervosa across cultures in Zimbabwe.
- Lack of established reliability or validity for the three measures of acculturation.
- The use of a student sample, with no rural comparison group.
- The exclusion of Asian and coloured students from the sample.
- Less vigorous height and weight measures for the white sample than the black sample.
- The omission of Mother's occupation from the biographical questionnaire may have reduced the validity of SES estimates.

5.4.4. Recommendations for Future Research

The above limitations suggest important areas for future research. The validation of assessment instruments for use cross-culturally is an imperative for future South African studies which wish to achieve greater reliability and generalisability. The development of an appropriate instrument for the measure of acculturation in a South African context is furthermore essential in order for research to reliably assess the link between acculturation and disordered eating. Cognisance of Berry's (1986) methods for assessing acculturation might prove useful in this regard. A rural-urban comparative study of eating attitudes and behaviours (such as Haynes, 1995, conducted for body image) would provide further important information concerning the role of culture in the etiology of eating disorders. It also seems important to further explore the link between acculturative stress, ensuing psychological conflict, and the link to eating disorders.

The inclusion of other South African ethnic groups in future research studies of this nature would provide a more comprehensive picture of the cultural distribution of disordered eating attitudes and behaviours, and provide further important information concerning target groups for primary prevention and treatment programmes. The NEDCC study (Wassenaar, in process), which will incorporate

the results of this study, is a move towards meeting this latter need, and is expected to yield important data concerning the prevalence of disordered eating across cultures in South Africa.

REFERENCES

- Abraham, K. (1949). Selected Papers on Psychoanalysis. London: The Hogarth Press.
- Abrams, K.K., Allen, L.R. & Gray, J.J. (1993). Disordered eating attitudes and behaviours, psychological adjustment, and ethnic identity: A comparison of black and white female college students. International Journal of Eating Disorders, 14 (1), 49 - 57.
- Ahmad, S., Waller, G., Verduyn, C. (1994). Eating attitudes among Asian schoolgirls: The role of perceived parental control. International Journal of Eating Disorders, 15 (1), 91 - 97.
- American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders, fourth edition, revised. Washington, DC: American Psychiatric Association.
- Anderson, A.E. & Hay, A.B. (1985). Racial and socioeconomic influence in anorexia nervosa and bulimia. International Journal of Eating Disorders, 4, 479 - 487.
- Bear, M.J. (1990). An Investigation into the relationship between women's needs to achieve, body affect and eating attitudes. Unpublished Masters Thesis, University of Natal (Pietermaritzburg).
- Berry, J. W., Trimble, J.E. & Olmedo, E.L. (1986). Assessment of Acculturation. In W.J. Lonner & J.W. Berry (Eds). (1986). Field methods in cross-cultural research (p. 291 - 324). Newbury Park: Sage.
- Berry, J.W. (1987). Acculturation and psychological adaptation among refugees. In D. Miserez (Ed). (1987). Refugees - The trauma of exile (p. 97 - 110).

Dordrecht: Martinus Nishoff.

- Berry, J.W. & Kim, U. (1988). Acculturation and mental health. In Dasen, P.R., Berry, J.W. & Sartorius, N. (1988). Cross-cultural psychology and health: Towards application (p. 207 - 236). Newbury Park: Sage.
- Birksted-Breen, D. (1989). Working with an anorexic patient. International Journal of Psychoanalysis, 70, 29 - 39.
- Boskind-Lodahl, M. (1981). Cinderella's stepsisters: A feminist perspective on anorexia nervosa and bulimia. In Howell, E. & Bayes, M. (eds). (1981). Women and mental health (p. 248 - 262). New York: Basic Books.
- Bulik, C.M. (1987). Eating disorders in immigrants: Two case reports. International Journal of Eating Disorders, 6, 133 - 141.
- Chernin, K. (1985). The hungry self: Women, eating and identity. London: Virago.
- Choudry, I.Y. & Mumford, D.B. (1992). A pilot study of eating disorders in Mirpur (Pakistan) using an Urdu version of the Eating Attitudes Test. International Journal of Eating Disorders, 11, (3), 243 - 251.
- Chun, Z.F., Mitchell, J.E., Li, K., Yu, W.M., Lan, Y.D., Jun, Z., Rong, Z.Y., Hlan, Z.Z., Filice, G.A., Pomeroy, C. & Pyle, R.L. (1992). The prevalence of anorexia nervosa and bulimia nervosa among freshman medical college students in China. International Journal of Eating Disorders, 12, (2), 209 - 214.
- Dolan, B. (1991). Cross-cultural aspects of anorexia nervosa and bulimia: A review. International Journal of Eating Disorders, 10(1), 67 - 78.

- Dolan, B., Evans, C. & Lacey, J. (1992) : The natural history of disordered eating behaviour and attitudes in adult women. International Journal of Eating Disorders, 12, (3), 241 - 248.
- Dolan, B. & Ford, K. (1991). Binge eating and dietary restraint: A cross-cultural analysis. International Journal of Eating Disorders, 10(3), 345 - 353.
- Fairburn, C.G. & Beglin, S.J. (1990). Studies of the epidemiology of bulimia nervosa. American Journal of Psychiatry, 147, 401 - 408.
- Ford, K.A. (1992). Bulimia in an Egyptian student: A case study. International Journal of Eating Disorders, 11, (4), 407 - 411 (1992).
- Ford, K.A., Dolan, B.M. & Evans, C. (1990). Cultural factors in the eating disorders: A study of body shape preferences of Arab students. Journal of Psychosomatic Research, 34(5), 501 - 507.
- Furukawa, T. (1994). Weight changes and eating attitudes of Japanese adolescents under acculturative stresses: A prospective study. International Journal of Eating Disorders, 15, (1), 71 - 79.
- Garfinkel, P.E. & Garner, D.M. (1982). Anorexia nervosa: A multidimensional perspective. New York: Brunner/Mazel.
- Garner, D.M. (1990). Eating Disorder Inventory-2: Computer version. Psychological Assessment Resources, Inc.
- Garner, D.M., Garfinkel, P.E., Schwartz, D. & Thompson, M. (1980). Cultural expectations of thinness in women. Psychological Reports, 47, 483 - 491.
- Garner, D.M. & Garfinkel, P.E. (1980). Socio-cultural factors in the development of

anorexia nervosa. Psychological Medicine,10, 647 - 656.

Garner, D.M., Olmstead, M.P. & Polivy, J. (1983). Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. International Journal of Eating Disorders,2, 15 - 34.

Garner, D.M. & Olmstead, M.P. (1984). Manual for Eating Disorder Inventory (EDI). USA: Psychological Assessment Resources, Inc.

Geach, M.F. (1995). A cross-cultural study of eating disordered behaviour in female university residence students. Unpublished Masters Thesis, Rhodes University, Grahamstown.

George, C.L. (1992). A phenomenological analysis of anorexia nervosa. Unpublished Masters Thesis, University of Durban-Westville.

Gray, J.J., Ford, K. & Kelly, L.M. (1987). The prevalence of bulimia in a black college population. International Journal of Eating Disorders, 6,(6), 733 - 740.

Grey, A.R. (1995). Disordered eating and body shape issues in a cohort of black, Indian and white undergraduate students, Unpublished Masters Thesis, University of Durban-Westville.

Greenberg, J. & Mitchell, S. (1983). Object relations in psychoanalytic theory. Cambridge: Harvard University Press.

Haynes, H. (1995). An investigation of the relationship between body image and culture: A pilot study. Unpublished Masters Thesis, University of Natal (Pietermaritzburg).

- Helms, J.E. (1990). Black and white racial identity: Theory, research and practice. New York: Greenwood Press.
- Hoek, H.W. (1995). Epidemiology of anorexia nervosa and bulimia nervosa in the western world. Continuing Medical Education, 13(5), 501 - 508.
- Hooper, M.S. & Garner, D.M. (1986). Applications of the Eating Disorders Inventory to a sample of black, white and mixed race schoolgirls in Zimbabwe. International Journal of Eating Disorders. 5 (1), 161 - 168.
- Lawrence, M. (ed).(1987). Fed up and hungry: Women, oppression and food. London: The Women's Press.
- le Grange, D., Tibbs, J. & Noakes, T.D. (1993). Implications of a diagnosis of anorexia nervosa in a ballet school. International Journal of Eating Disorders, 15(4), 369 - 376.
- le Grange, D. & Ziervogel, C. (1995). Eating disorders - including obesity. Continuing Medical Education, 13(5), 477 - 478.
- Lewis, V. & Blair, A. (1993). Women, food and body image. In C. Niven & D. Carroll (eds).(1993). The health psychology of women (p. 107 - 120). Switzerland: Harwood Academic Publishers.
- Macsween, M. (1993). Anorexic bodies: A feminist and sociological perspective on anorexia nervosa. London: Routledge.
- Minuchin, S., Rosman, B.L. & Baker, L. (1978). Psychosomatic families: Anorexia nervosa in context. Cambridge: Harvard University Press.
- Mitchell, J. & Eckert, E. (1987). The scope and significance of eating disorders.

Journal of Consulting and Clinical Psychology, 55(5), 628 - 634.

Mumford, D., Whitehouse, A. & Choudry, I. (1992). Survey of eating disorders in English-medium schools in Lahore, Pakistan. International Journal of Eating Disorders, 11(2), 173 - 184.

Mumford, D.B., Whitehouse, A.M. & Platts, M. (1991). Sociocultural correlates of eating disorders among Asian schoolgirls. British Medical Journal, 297, 718.

Nagera, H. (ed). (1990). Basic psychoanalytic concepts on the libido theory. London: Karnac Books.

Nasser, M. (1986). Comparative study of the prevalence of abnormal eating attitudes among Arab females of both London and Cairo universities. Psychological Medicine, 16, 621 - 625.

Nasser, M. (1988). Culture and weight consciousness. Journal of Psychosomatic Research, 32(6), 573 - 577.

Nevo, S. (1985). Bulimic symptoms: Prevalence and ethnic differences among college women. International Journal of Eating Disorders, 4, 151 - 168.

Orbach, S. (1978). Fat is a feminist issue. London: Arrow Books.

Peters, N.B. (1994). Definitions related to sociocultural issues. Unpublished lecture notes.

Polivy, J. & Herman, C. (1987). Diagnosis and treatment of normal eating. Journal of Consulting and Clinical Psychology, 55(5), 634 - 644.

Prince, R. (1983). Is anorexia nervosa a culture-bound syndrome? Transcultural

Psychiatric Research Review, 20, 299 - 300.

Pumariega, A.J. (1986). Acculturation and eating attitudes in adolescent girls: A comparative and correlational study. American Academy of Child Psychiatry, 25(2), 276 - 279.

Pyle, R.L., Halverson, P.A., Neuman, P.A. & Mitchell, M.D. (1986). The increasing prevalence of bulimia in freshman college students. International Journal of Eating Disorders, 5(1), 907 - 916.

Raich, R., Rosen, J., Deus, J., Perez, O., Requena, A. & Gross, J. (1992). Eating disorder symptoms among adolescents in the United States and Spain: A comparative study. International Journal of Eating Disorders, 11(1), 63 - 72.

Rand, C. & Kuldau, J. (1992). Epidemiology of bulimia and symptoms in a general population: Sex, age, race and socio-economic status. International Journal of Eating Disorders, 11(1), 37 - 44.

Root, M.P. (1990). Disordered eating in women of colour. Sex Roles, 22(7/8), 525 - 536.

Rucker, C. & Cash, T. (1992). Body images, body-size perceptions, and eating behaviours among African-American and white college women. International Journal of Eating Disorders, 12(3), 291 - 299.

Schlesier-Stropp, B. (1984). Bulimia: A review of the literature. Psychological Bulletin, 95(2), 247 - 257.

Shefer, T. (1986). A social-psychological study of eating and body problems among women. Unpublished Masters Thesis, University of Cape Town.

- Silber, T. (1986). Anorexia nervosa in blacks and Hispanics. International Journal of Eating Disorders,5(1), 121 -128.
- Stein, D.M. & Laakso, W. (1988). Bulimia: A historical perspective. International Journal of Eating Disorders,7(2), 201 - 210.
- Striegel-Moore, R.H. Silberstein, L.R. & Rodin, J. (1986). Towards an understanding of risk factors for bulimia. American Psychologist,41(3), 246 - 263.
- Stuart, S. (1996) Acculturation and the eating attitudes of black women in South Africa. Unpublished Masters Thesis, University of Natal (Durban).
- Swartz, L. (1983). Is thin a feminist issue? Paper presented at the first PASA Conference, Pietermaritzburg.
- Swartz, L. & Sheward, D. (1995). More about anorexia nervosa and bulimia nervosa. Continuing Medical Education,13(5), 541 - 542.
- Szabo, C. & Hollands, C. (1995). The prevalence of abnormal eating attitudes in a high school population - A preliminary study. Paper presented at the 10th National ACAPAP Conference in Durban, August 1995.
- Thomas, V.G. (1988). Body image satisfaction among black women. Journal of Social Psychology,129(1), 107 - 112.
- Thompson, S.B. (1993). Eating disorders: A guide for health professionals. London: Chapman & Hall.
- Wassenaar, D.R. (in process). Application of the Eating Disorders Inventory to a cross-cultural sample of university female students in South Africa.

Wise, J. (1995). Is there a West? Time, 146(25),p. 60.

Wiseman, C.V., Gray, J.J., Mosimann, J.E. & Ahrens, A.H. (1992). Cultural expectations of thinness in women: An update. International Journal of Eating Disorders, 11(1), 85 - 89.

Yates, A. (1989). Current perspectives on eating disorders: History, psychological and biological aspects. American Academy of Child and Adolescent Psychiatry,28(6), 813 - 828.

Zahoul, B. (1996). Prevalence of eating disturbances among South African university students. Unpublished Masters Thesis, University of Natal (Pietermaritzburg).

Ziervogel, C.F. (1995). Anorexia nervosa and bulimia nervosa in young women in South Africa. Continuing Medical Education,13(5), 543.

APPENDIX A

DSM-IV Diagnostic Criteria for Anorexia Nervosa and Bulimia Nervosa (APA, 1994, p. 539 - 550)

1. Anorexia Nervosa

A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g. weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).

B. Intense fear of gaining weight or becoming fat even though under-weight.

C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.

D. In postmenarcheal females, amenorrhea, i.e. the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g. oestrogen, administration).

Anorexia Nervosa can be classified as either restricting type or binge eating/purging type.

2. Bulimia Nervosa

A. Recurrent episodes of binge eating. An episode of binge eating is characterised by both of the following:

(1) eating in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances

(2) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)

B. Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.

C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least twice a week for three months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

Bulimia Nervosa can be classified as purging type or non-purging type.

APPENDIX B

Questionnaires used in this Study

NEDCC of South Africa

National Eating Disorders Co-ordinating Committee
(as established at Eating Disorder Forum.7 May 1993)

P.O. Box 98
Isando, 1600
Tel: (011)392-2301
Fax: (011)974-3408

EATING RESEARCH QUESTIONNAIRE

Thank you for completing this questionnaire. You are assured that all details will be regarded as confidential. We will be seeking overall trends and not focus on individual questionnaires. The question sheets are not coded, nor are you required to put your name on the questionnaire. The following data will be of great value to us, however. Before turning over, please complete the following details. Thank you for your assistance.

Date of Birth (dd/mm/yy): _____

Gender: ✓ Male Female

Age (dd/mm/yy): _____

Approximate Height: _____ m

Approximate Weight: _____ kg

Home language: _____

Race group*: _____

Marital status : _____

Number of children (circle one): 0 1 2 3 4 5 5+

Place of residence (town or city): _____

Name of University or College _____

Current Course of Study: _____ Degree/Dip: _____

Number of: Sisters: _____ Brothers: _____

Parents' ages: Mother: _____ Father: _____

Father's occupation (tick one)

Professional	<input type="checkbox"/>	Artisan	<input type="checkbox"/>
Own Business	<input type="checkbox"/>	Labourer	<input type="checkbox"/>
Educator	<input type="checkbox"/>	Unemployed	<input type="checkbox"/>
Clerical	<input type="checkbox"/>	Other	<input type="checkbox"/>
Administrative	<input type="checkbox"/>		

(*It is acknowledged that under apartheid legislation references to race or culture were justifiably regarded as offensive. For the purposes of this research however, this information may be useful in identifying particular culture-specific trends and health and illness patterns).

Please will all Black students answer the following three sets of questions:

1. SOCIAL ATTITUDE SCALE (after Helms 1990)

This questionnaire is designed to measure people's social attitudes. It is once again acknowledged that references to racial groups and divisions might be regarded as offensive in terms of the sensitivity of racial issues in South Africa. However, such references are unavoidable in the context of this research. There are no right or wrong answers, and all individual replies will be treated as confidential. On your answer sheet, mark the block which best describes how you feel.

S T R O N G L Y	D I S A G R E E	D I S A G R E E	U N C E R T A I N	A G R E E	S T R O N G L Y	A G R E E
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 I believe that being Black is a positive experience.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 I know through experience what being Black in South Africa means.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3 I feel unable to involve myself in White experiences, and am increasing my involvement in Black experiences.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4 I believe that large numbers of Blacks are untrustworthy.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5 I feel an overwhelming attachment to Black people.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 I involve myself in causes that will help all oppressed people.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 I feel comfortable wherever I am.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 I believe that White people look and express themselves better than Blacks.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 I feel very uncomfortable around Black people.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10 I feel good about being Black, but do not limit myself to this group's activities.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11 I often find myself referring to White people in insulting terms.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12 I believe that to be Black is not necessarily good.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13 I believe that certain aspects of the Black experience apply to me, and others do not.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14 I frequently confront the system and the man.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15 I constantly involve myself in Black political and social activities (art shows, political meetings, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16 I involve myself in social action and political groups even if there are no other Blacks involved.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17 I believe that Black people should learn to think and experience life in ways which are similar to White people.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18 I believe that the world should be interpreted from a Black perspective.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19 I have changed my style of life to fit my beliefs about Black people.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20 I feel excitement and joy in Black surroundings.

S D D U
T I S
R S A
O N G A
N G R A
G R E E
L E E
Y E

<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

- 21 I believe that Black people come from a strange, dark, and uncivilised past.
- 22 People, regardless of their race, have strengths and limitations.
- 23 I find myself reading a lot of Black literature and thinking about being Black.
- 24 I feel guilty and/or anxious about some of the things I believe about Black people.
- 25 I believe that a Black persons most effective weapon for solving problems is to become a part of the White persons' world.
- 26 I speak my mind regardless of the consequences (e.g. being kicked out of school, being imprisoned, being exposed to danger.)
- 27 I believe that everything Black is good, and consequently I limit myself to Black activities.
- 28 I am determined to find my Black identity.
- 29 I believe that White people are intellectually superior to Blacks.
- 30 I believe that because I am Black, I have many strengths.

2.

<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

- 1 I prefer to speak English in most situations.
- 2 I prefer to eat Western-style food rather than the food of any other culture.
- 3 If I were ill, I would prefer to go to a medical doctor rather than to a traditional healer.
- 4 I do not believe that it is important to preserve traditional rites and ceremonies.
- 5 I do not believe in magic or witchcraft.

3.

Use the graphs on the right to roughly indicate with an "X",

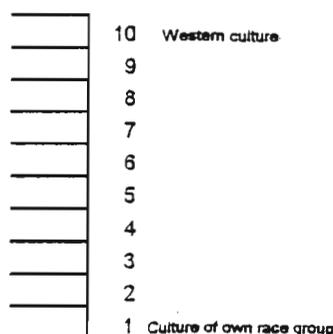
(a) the degree to which you believe your lifestyle actually matches that of Western culture rather than matching the culture of your own race group, and

(b) the degree to which you would ideally like your lifestyle to match that of Western culture rather than matching the culture of your own race group.

(e.g. A mark at level 9 or 10 would indicate a lifestyle very similar to that of Western culture, whereas a mark at level 1 or 2 would indicate a lifestyle very similar to the culture of your own race group.)

(a) ACTUAL

(b) IDEAL



APPENDIX C

The Racial Identity Attitude Scale for Blacks (Helms, 1990, p. 43-44)

- | Item | Item |
|---|---|
| 1. I believe that being Black is a positive experience. | 17. I believe that Black people should learn to think and experience life in ways which are similar to White people. |
| 2. I know through experience what being Black in America means. | 18. I believe that the world should be interpreted from a Black perspective. |
| 3. I feel unable to involve myself in White experiences, and am increasing my involvement in Black experiences. | 19. I have changed my style of life to fit my beliefs about Black people. |
| 4. I believe that large numbers of Blacks are untrustworthy. | 20. I feel excitement and joy in Black surroundings. |
| 5. I feel an overwhelming attachment to Black people. | 21. I believe that Black people came from a strange, dark, and uncivilized continent. |
| 6. I involve myself in causes that will help all oppressed people. | 22. People, regardless of their race, have strengths and limitations. |
| 7. I feel comfortable wherever I am. | 23. I find myself reading a lot of Black literature and thinking about being Black. |
| 8. I believe that White people look and express themselves better than Blacks. | 24. I feel guilty and/or anxious about some of the things I believe about Black people. |
| 9. I feel very uncomfortable around Black people. | 25. I believe that a Black person's most effective weapon for solving problems is to become a part of the White person's world. |
| 10. I feel good about being Black, but do not limit myself to Black activities. | 26. I speak my mind regardless of the consequences (e.g., being kicked out of school, being imprisoned, being exposed to danger.) |
| 11. I often find myself referring to White people as honkies, devils, pigs, etc. | 27. I believe that everything Black is good, and consequently, I limit myself to Black activities. |
| 12. I believe that to be Black is not necessarily good. | 28. I am determined to find my Black identity. |
| 13. I believe that certain aspects of the Black experience apply to me, and others do not. | 29. I believe that White people are intellectually superior to Blacks. |
| 14. I frequently confront the system and the man. | 30. I believe that because I am Black, I have many strengths. |
| 15. I constantly involve myself in Black political and social activities (art shows, political meetings, etc.) | |
| 16. I involve myself in social action and political groups even if there are no other Blacks involved. | |