

THE MEANING OF 'SELF-STARVATION' IN IMPOVERISHED BLACK ADOLESCENTS IN SOUTH AFRICA

ABSTRACT. Recent surveys in South Africa have demonstrated that disordered eating is equally common among black and white female students. Self-report measures have been used in these surveys to establish levels of disordered eating. One study in Tanzania, where a two-stage design was implemented, showed that upon interview the majority of participants did not present with disordered eating. The absence of two-stage studies in South Africa brings into question some of the findings from these surveys. In the present study, we surveyed a sample of black and white high school students in South Africa to establish the prevalence of disordered eating. In the second phase of this study, we attempted to interview those black students from one particular school who scored high on the eating disorder measures. This process proved both challenging and elucidating. While a significant number of young black females endorsed eating disorder symptoms on self-report, interviews with some participants showed that self-starvation and related symptoms had a different meaning from what we would typically expect from someone with an eating disorder. Consequently, this study highlights the need to revisit the methods typically employed in cross-cultural research in eating disorders. Careful consideration of a variety of cultural factors that may alter the meaning of standard measures is called for.

KEY WORDS: adolescents, eating disorders, self-report measures, South Africa

"I vomit because when I have food, then I eat so much that I have to."

—Black South African Teenager Living in an Informal Settlement

INTRODUCTION

Eating disorders in South Africa have typically been viewed as the "exclusive domain" of Caucasian South Africans—the economic elite who have been closely aligned with Western cultural ideals (Ballot et al. 1981; Beumont 1970; Beumont et al. 1976; Le Grange et al. 1995; Nash and Colborn 1994; Norris 1979; Shefer 1987). However, in the changing sociohistorical context of postapartheid South Africa, we have observed several surveys among racially diverse groups of adolescents (Caradas et al. 2001; Szabo and Hollands 1997; Szabo and Allwood in press), and young adults (Le Grange et al. 1998; Marais et al. 2003; Senekal et al. 2001; Wassenaar et al. 2000), suggesting that non-Caucasian South Africans may in fact not be 'immune' to eating disorder pathology. These surveys of 15–25-year-old high school and college students representing the ethnic diversity of South Africa demonstrate that the scores black females achieve on measures of eating disorder pathology are at least as high as those of Caucasian females. In some instances (e.g., Le Grange et al. 1998; Marais et al. 2003), this was also true for black male

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South African students. However, in the absence of follow-up interview or true epidemiologic studies, the prevalence of eating disorders in South Africa remains largely unknown. Moreover, only one small case series of non-Caucasian South Africans meeting criteria for an eating disorder (mostly bulimia nervosa) has been reported (Szabo 1998; Szabo et al. 1995). While eating disorders have been studied among black South Africans, there is still no real evidence of self-starvation among this population.

Reports of eating disorder pathology from other parts of the African continent are quite rare. A few case studies of anorexia nervosa among black Africans, describing three Nigerians and one Zimbabwean, have been published (Famuyiwa 1988; Gregory and Buchau 1984; Nwaefuna 1982). Close examination of these reports reveals that most cases might have qualified for anorexia nervosa, binge/purge subtype, but not restricting subtype. In terms of survey studies, Hooper and Garner (1986) employed the Eating Disorder Inventory (EDI) in a sample of black, white and mixed-race schoolgirls in Zimbabwe. They found high scores among black females on the psychological subscales of the EDI and ascribed this to the possible role played by acculturative stress and the erosion of traditional values. Oyewumi and Kazarian (1992) utilized the Eating Attitude Test-26 (EAT-26) in a sample of black urban high school and college students in Nigeria, while Nasser (1994) used an Arabic version of the EAT-40 among high school students in Cairo. Together, these two studies show that abnormal eating attitudes are quite prevalent among these black African and Arab cohorts (11–18%).

Contrary to this handful of examples of eating pathology outside South Africa, Eddy and Hennessey (2003), in a recent study using a Kiswahili version of the EDI in a random sample of 200 Tanzanian females between the ages 13 and 20, report that the majority of their participants did not achieve subscale scores on the EDI that would characterize them as eating disordered. Of note is the fact that their sample was drawn from urban *and* rural areas and comprised females from schools, churches, and villages. In the only study with interview follow-up data, these authors showed that a minority of participants endorsed any eating disorder features. This study is the first to cast some doubt on the surveys in South Africa showing significant numbers of black participants with pathological eating. Moreover, the Tanzanian study suggests that the South African findings might perhaps not hold up if interview follow-ups were employed. Screening for disordered eating is usually quite cumbersome. Relying on self-report measures alone will provide an indication of eating disorder pathology, but not an eating disorder diagnosis. Moreover, results obtained from self-report alone often vary considerably across studies. Therefore, two-stage screening is always required—yet seldom conducted—in order to confirm diagnosis through personal interview.

Despite these “warning signs,” findings from South Africa and other parts of Africa that demonstrate that eating disorders are possibly emerging among groups

previously thought to be 'protected' from these disorders are not unique. In fact, several survey studies and case reports of eating disorders in other parts of the non-Western world have been published in the past decade, including Bulgaria (Boyadjieva and Steinhausen 1996), India (Bhugra et al. 2000), Japan (Nadaoka et al. 1996), Curaçao (Hoek et al. 1998; Katzman et al. 2004, this volume), and the former Soviet Republic of Georgia (Tchanturia et al. 2002). These findings challenge the now-dated notion that eating disorders are bound to Western or wealthier nations and beg for an explanation as to why eating disorders may be establishing a more democratic demographic presence.

Sociocultural factors such as ethnicity and socio-economic status (SES) have long been considered important in the development of eating disorders. In particular, it has been argued that Western ideals of thinness among females play a major role in the development of eating disorder pathology (Brownell 1991; Garner and Garfinkel 1980). Consequently, eating disorders have historically been described as illnesses that befall young, white, educated females with high SES living in the Western world. It is this stereotyping of anorexia and bulimia nervosa that led to the categorization of these disorders as culture-bound (Swartz 1985), a notion now refuted by the numerous reports of eating disorders in non-Western populations. Instead, it has been suggested that the eating disorders be viewed as "culture reactive" (DiNicola 1990), affecting individuals experiencing "culture change." Vulnerability in this model is tied less to the pursuit of a thin ideal and more to the erosion of traditional values.

Consequently, cross-cultural findings suggest multiple potential risks for eating disorders, including changing gender roles (Ruggiero 2001), frustration with continued inequalities in spite of cultural change (Szabo and Le Grange 2001), and changes in competitive environments (Catina and Joja 2001).

South Africa continues to undergo rapid sociocultural change, and several hypotheses have been put forward to explain the emergence of unhealthy eating habits and attitudes among black South Africans. One such argument postulates that recent socio-political changes in South Africa that challenge traditional gender roles have left black women unprepared for their "new roles" and consequently more vulnerable to the development of eating disorder symptomatology (Szabo and Le Grange 2001). Another hypothesis refers to South Africans' increased exposure to Western culture since the abolition of apartheid in 1994. In particular, the abolition of apartheid made Africans more mobile as laws that restricted their movement to cities were rescinded. However, perhaps more crucial is the effect these changes might have on young South Africans. Adolescence—an important window in terms of identity development—is perhaps most impacted by the socio-cultural changes in the South African society. Many factors that were instrumental in the shaping of black adolescent identity prior to the abolition of apartheid are now fundamentally different within contemporary South Africa (Stevens and

Lockhat 1997). These authors argue that new role models, economic structures, and the dominance of Western ideologies, have encouraged a shift from collectivism to individualism. As a result, the emergence of a “Coca-Cola” culture among black adolescents—i.e., an embracing of American individualism, competition, individualistic aspirations, and general worldview—has become increasingly apparent. Black adolescents now have to attempt to negotiate the apparently contradictory expectations of pre- and postapartheid South Africa, which may contribute to role confusion rather than identity integration. In this society, where adolescents have to cope with their new social realities and also a widespread destruction of black family relations (Stevens and Lockhat 1997), it is not surprising that a proliferation of gang membership, substance abuse, and antisocial behaviors has been encountered (Thiel 1997).

With an increasing presence of Western ideological symbols at many levels of the social fabric (e.g., language, dress code, and recreational activities), many black adolescents have adopted an identity that represents a shift from African collectivism to a more Western individualism and competitiveness. This identity allows them to cope in their new sociohistorical realm, but at the same time marginalizes or alienates them from their own or traditional realities (Stevens and Lockhat 1997). Bulhan (1980) argues that this process of acculturation frequently results in these previously oppressed adolescents experiencing a “psychological tension” due to the fact that they are straddling different worlds that are increasingly alien to one other. Within this context, it would not be surprising to also note an emergence of eating disorder psychopathology, especially among black female adolescents.

Given this background of dramatic change in South Africa, several questions come to the fore. First, do the high scores on eating disorder measures that have been reported in South Africa reference true prevalence, or could they be the result of methodological artifacts? Hoek et al. (1998) reported fairly high rates of anorexia nervosa in the Curaçao population. When Katzman et al. (2004) interviewed these “cases,” there were no blacks among them. In the South African surveys, questionnaires that are well established among Caucasian samples in the Western world (such as the EAT) were used to determine epidemiologic patterns. However, none of these surveys were followed by interviews, and consequently insufficient attention was paid to the *validity* or the *meaning* of these questionnaire items for non-Caucasian, particularly black African, respondents. Swartz (2001) strongly hinted at this when he cautioned that we do not “*know whether self-report instruments of disordered eating have the same predictive value of disordered behaviour [in South Africa] as has been found elsewhere in the world. We need research which in the South African context can link disorders themselves to the methods we use [in order] to detect such disorders in the community*” (2001: 34). Although the EAT has been translated into several languages—e.g., Spanish,

Hebrew, German, Hindi, Polish, and others (Nasser 1998)—translation of words alone may not necessarily address Swartz's concerns regarding the *meaning* of such questionnaires. Finally, if eating disorders are found among black South Africans, then the question is *why*? Is it an issue of gender, modernization, or culture change, or is it an artefact of our methods (e.g., participants not understanding the research questions, or the questions not being culturally sensitive)?

Second, if eating disorders do exist among black South Africans, it will be important to discern whether anorexia nervosa, bulimia nervosa, or eating disorder—not otherwise specified might be more common. Studies in the United States suggest that anorexia nervosa is quite limited among African Americans (Le Grange et al. 1998; Striegel-Moore et al. 2003). A recent study in Curaçao (Katzman et al. 2004) also suggests few, if any, cases of anorexia nervosa in the black population of that island nation. Moreover, there do not appear to be any studies in South Africa that suggest anorexia nervosa among black females. However, we cannot be too hasty and dismiss anorexia nervosa among black South Africans. Lee (1997) argues that "culturally sensitive" criteria enabled him to identify females with anorexia nervosa in Hong Kong. Applying this "sensitivity" to the South African context might allow us to demonstrate that South Africans manifest disordered eating in other ways, or that the clinical salience of disordered eating might be somewhat different.

The present study is a modest step to examine the methods typically employed to detect disordered eating cross-culturally. Consequently, this study may serve as a methodological critique of the eating disorder assessment tools thus far employed in a cross-cultural setting such as South Africa. First, we decided to conduct a survey to establish whether a pattern similar to those found in previous studies in South Africa of high levels of disordered behavior among black high school students might emerge. Only two prior studies among black adolescents in South Africa have been published (Caradas et al. 2001; Szabo and Hollands 1997), neither of which employed interviews to determine diagnostic status. Second, we proposed to use different methods of assessment than the prior studies, in that the survey was to be followed by a structured interview and open-ended questions. This follow-up was conducted specifically to learn more about the *meanings* of the survey responses.

METHODS

Data for this paper are part of a larger project assessing eating disorder attitudes and behaviors in a sample of ethnically diverse South African high school and college students (Le Grange et al. n.d.). The Research Ethics Committee in the Department of Psychology at the University of Cape Town, South Africa approved this study.

Phase 1: Questionnaire survey

A convenience sample of 813 white ($n = 362$), black ($n = 230$), and mixed-race ($n = 221$) students from five high schools in the Western Cape province of South Africa participated in this survey, which was conducted in 2001. We wanted to select schools that would enable us to have an ethnically mixed sample, that were not too far from Cape Town, and that were situated in urban and periurban areas. Although South African schools have been racially desegregated,¹ many schools are still predominantly black, white or mixed-race in their pupil demographics. Two of the schools surveyed for this report can be described as historically black (African) schools, two as historically white schools, and one as an historically mixed-race school. Two of the schools are located close to the city centre, with the other three schools situated approximately 50–120 kilometers outside the city of Cape Town. The two schools in African townships are in poor areas with predominantly working-class or unemployed residents.

This survey included a demographic questionnaire, the EAT-26 (Garner et al. 1982), and the Bulimic Investigatory Test, Edinburgh (BITE; Henderson and Freeman 1987). These measures were chosen to allow for easy comparison with three prior studies, which employed the same measures (Katzman et al. 2004; Le Grange et al. 1998; Tchanturia et al. 2002).

It was decided not to translate these measures into Xhosa and Afrikaans, as English is the language of instruction at the schools surveyed, and all participants were in at least the 10th grade. We therefore anticipated that the participants would have adequate understanding of these questionnaires. In an attempt to verify this assumption, we included an inquiry at the end of the demographic questionnaire about how well the participants understood the questions they were asked.

*Measures**Demographic questionnaire*

The purpose of the demographic questionnaire was to gather background information of each participant. The students were asked to report their age, grade, gender, ethnicity, religious affiliation, home language, and the language they spoke with their friends. Socio-economic status was established by participants indicating parental occupation. Parental occupations were divided into seven categories as outlined by Natrass and Seekings (2001); upper class, semi-professional class, intermediate class, core working class, petty traders, marginal working class, and other. Additional SES information was gathered by asking participants whether they had a telephone, electricity in their house, a car, and how many people slept in the same room as them.

In the absence of a standard measure of acculturation in South Africa, a subset of questions was added to the demographic questionnaires to obtain an estimate of

the degree to which young black South Africans are exposed to modernizing and urbanizing trends as opposed to a more traditional African cultural environment. Therefore, participants were asked to indicate: (a) whether they had a *television* at home; (b) what their favorite *magazine or newspaper* was; (c) the name of their *favorite celebrity* who has the respondent's ideal body type; (d) their favorite kind of *food*; (e) two *leisure activities* they most frequently engaged in; and (f) whether they thought *older women* should be heavy. We arrived at these specific questions after consultation with a US-based anthropologist (Jean Comaroff) who trained in South Africa and the UK and continues to conduct much of her research work in South Africa. These specific questions were aimed at suggesting the degree to which young black South Africans are becoming acculturated to a Western cultural experience as opposed to a more traditional African cultural environment.

In addition, participants self-reported their weight in kilograms (kg) and height in meters (m). They were also asked to rate their own weight on a five-point Likert-type scale from 1 = very underweight to 5 = very overweight.

Eating disorder measures

EAT-26 is a 26-item self-report scale primarily measuring symptoms associated with anorexia nervosa. A score of 20 or greater suggests a possible eating disorder. The BITE is a 33-item self-report measure of both the symptoms and severity of bulimia nervosa. A score of 25 or greater suggests a bulimic disorder. Both these measures provide cutoff scores, which allow the investigator to identify, albeit in a crude fashion, probable cases of an eating disorder. Therefore, scoring at or above these cutoff levels can be taken to indicate clinical levels of disordered eating. A formal diagnosis of an eating disorder, however, can only be established through structured clinical interview and not by the EAT-26 or the BITE.

Phase 2: Follow-up interviews

One of the two black high schools was selected to approach potential candidates for interview. This school is about 50 kilometers outside of Cape Town and was chosen because of ease of access. This phase consisted of a structured interview with a randomly selected subset of interviewees who scored above the clinical cutoff on the EAT-26. The purpose of this interview was to confirm a formal diagnosis of an eating disorder as well as to establish whether the EAT-26 accurately reflected disordered eating in an economically impoverished periurban setting. This subset of students also participated in a structured research-based interview, the Eating Disorder Examination (EDE) (Cooper and Fairburn 1987; Fairburn and Cooper 1993), and completed the questionnaire format of the EDE (EDE-Q) (Fairburn and Beglin 1994). The EDE was included to verify the interviewees' diagnostic status.

Measures

The EDE

The EDE is a 38-item investigator-based structured interview, which accesses a range of the specific psychopathology of anorexia nervosa, bulimia nervosa and their variants. The EDE yields a score for four subscales—*restraint*, *eating concern*, *shape concern*, and *weight concern*—a global score, and frequency or severity ratings for key behavioral and attitudinal aspects of eating disorders. The EDE may be used to generate a DSM-IV diagnosis. Interrater reliability and internal consistency of subscales, together with discriminant and concurrent validity have all been established as satisfactory (Fairburn and Cooper 1993).

The EDE-Q

The EDE-Q is a self-report 41-item measure adapted from the EDE interview format. An investigation conducted by Luce and Crowther (1999) indicated excellent internal consistency and two-week test-retest reliability for the four EDE-Q subscales (similar to those of the EDE), when completed by female undergraduate students from a large Midwestern university in the United States. Like the EDE interview format, the questionnaire yields a global score, a score for each subscale, and scores for individual behavioral and attitudinal aspects of eating disorders.

RESULTS

Phase 1: Questionnaire survey

Demographics

The mean age for this study group ($n = 813$) was 16.8 years ($SD = 1.5$), while 58% were female and 42% male. In terms of ethnicity, 362 were white (45%), 230 black (28%), and 221 mixed-race (27%). Language spoken at home was Afrikaans (37%), English (33%), Xhosa (23%), and another African language (7%). The demographic questionnaire inquired about the presence of a telephone, television, vehicle, and electricity at home. The presence or absence of these amenities was used as a proxy for respondents' economic status. Table 1 presents the percentage of participants from the three ethnic groups with and without access to these items at home.

Whereas 100% of white and mixed-race respondents favored magazines that could be considered to reflect Westernised values (e.g., *Vogue*, *Elle*, *Cosmopolitan*, *Surf Magazine*, *Teen Zone*, and *Bike SA*), comparatively fewer (43%) of black participants favored such magazines ($X^2 = 236.802$, $df = 2$, $p < .000$). Instead, the majority of black participants favored magazines specifically aimed at a black readership in South Africa (e.g., *Drum*, *Pace*, *Bona*, *Laduma*, and *The Sowetan*). More black respondents (22%), compared to white (7%) and mixed-race (10%)

TABLE 1
Percentage of Participants with Access to Telephone, Television, Electricity,
or a Vehicle at Home

	Telephone*	Electricity*	Television*	Car*
White	98	100	100	98
Black	68	84	87	30
Mixed Race	97	100	99.5	86

* X^2 , all p 's < .000.

respondents, indicated that older females “should be heavy” ($X^2 = 28.686$, $df = 2$, $p < .000$). Black respondents (20.4%) were more likely to indicate a traditional African dish (e.g., *pap* and *samp*, thick porridge-like staple foods for many blacks in South Africa) as their favorite meal compared to their white (1%) and mixed-race (1%) counterparts ($X^2 = 95.009$, $df = 2$, $p < .000$). The latter two groups were more likely to favor “Western” meals such as pizza, pasta, and burgers, although it cannot be ruled out that these food choices are reflective of income rather than race.

EAT and BITE

The mean scores for the EAT-26 and the BITE are presented in Table 2. As shown in this table, black respondents scored significantly higher than their white and mixed-race counterparts. Separate ANOVAs by gender also demonstrated that black males and females scored higher than their white and mixed-race counterparts.

Phase 2: Interview follow-up

The primary purpose of the follow-up interviews was to verify the validity of our findings during the questionnaire survey phase of this study and verify psychiatric diagnosis. We were surprised by the fact that black respondents consistently scored higher than their white and mixed-race counterparts on the measures. Rogler (1999) points to the fact that when assessment measures are based on the “expert rational analyses model” of content validity and used outside the North American cultural mainstream, several errors come into play. For instance, cultural insensitivity can occur when linguistic translations try to conform to the exact terms of standardized instruments, or when concepts are uncritically

TABLE 2
Mean EAT-26 and BITE Scores for White, Black, and Mixed-Race Respondents

	White	Black	Mixed-race	F	Sign
EAT-26	10.4 (10.1)	14.3 (9.1)	7.4 (7.2)	32.186	.000
BITE	9.7 (8.1)	17.1 (7.8)	8.7 (6.3)	87.629	.000

transferred across cultures (for more detail, also see Dohrenwend 1994 and Goldstein and Simpson 1995). Therefore, one of the five schools surveyed ($n = 154$, 20% of the entire study group), which was least expected to have a high prevalence of students with disordered eating, was identified for interviews. This school is situated in a predominantly black township, a large part of which consists of informal settlements—with increased urbanization after the end of apartheid, large informal settlements are now characteristic of most urban areas of South Africa. Approximately 20,000 people are estimated to live in this particular settlement. The infrastructure is limited, but includes one high school, an elementary school, library, primary care clinic, and some informal shops and shebeens (bars). The sport facilities include a soccer field and a basketball court.

The mean age for the students at this school who participated in the survey phase was 18.2 years (range 15–27); they were from grades 10 to 12, and 52% were female and 38% male (10% of respondents did not record their gender).²

The EAT-26

Results for this one high school on the EAT-26 indicated that 59 participants (38.3% of the total sample) scored above the cutoff point (i.e., a score of 20 or greater). Of these 59 participants, 32 were female (43% of all females), and 21 were male (39% of all males) (6 failed to report gender). Mean scores are reported in Table 3. Participants who scored above the cutoff for the EAT-26 (≥ 20), were approached for the interview phase.

Characteristics of interviewees

Five females, with ages ranging from 15 to 19 years old and with EAT-26 scores of 20 or greater, could be reached and agreed to be interviewed. These participants did not agree to be tape-recorded and only allowed the interviewer to continue with the interview when the tape recorder was put away, and not just turned off. Ideally, participants who scored less than 20 on the EAT-26 should also have been approached for interview in order to exclude false negatives. However, given the considerable effort to reach those who scored 20 or greater on this measure, time

TABLE 3
Mean EAT-26 Scores for Total Sample, Females,
Males, and Interviewees

	Valid <i>N</i>	Mean	SD
Total	147	18.1	8.9
Female	75	18.3	9.5
Male	54	18.6	8.7
Interviewees	5	32.6	6.9

and other constraints prevented us from pursuing this option as well. All interviews were conducted in English by the same interviewer (A.B.).

Mean score for these five participants was 32.6 (SD = 6.9, range 23–42). The interviewees' body mass indexes (BMI) were calculated using their questionnaire data. BMIs were not meaningful, though, as the respondents supplied inaccurate information. For instance, one respondent indicated that her height was 12 centimeters, while another reported her height as 50 centimeters. These responses may reflect difficulty understanding the question due to language and/or unfamiliarity with the task. Though admittedly a subjective observation, the interviewer judged none of the interviewees as thin.

On the Demographic Questionnaire, all interviewees indicated that they had electricity and a television, four had a telephone, and two had a car at home. All indicated that they had lived in a city for a number of years. However, during the interviews it was discovered that they all had lived only in rural locations. Three of the five indicated that older women should be heavy. None of the interviewees indicated a traditional African dish as their favorite food. Three indicated that their favorite magazine was *Drum* (a weekly entertainment magazine featuring South African celebrities and aimed at a black readership), another favored *Bona* (similar to *Drum*), and one indicated that her favorite magazine or newspaper was the *Cape Argus* (a Cape Town daily newspaper featuring mostly domestic news stories).

The interviews

The discussion of the answers to the EAT-26 during the interview phase yielded important and unexpected findings. The EAT questions are presented in a six-point Likert form and respondents are asked to circle the appropriate response on a scale ranging from *always* exhibiting to *never* exhibiting the behavior. The EAT does not allow for explanations of the reasons for the behaviors, which in these cases turned out to be problematic. For example, when respondents were asked if they found themselves preoccupied with food, some of the interviewees had indicated on the EAT-26 that this was *always* the case. However, the reason for this was not indicative of someone exhibiting disordered eating symptoms. Instead, the reason given in two cases, as recorded by the interviewer, was that their "family is poor, there is not always food in the house, and thus [they are] constantly hungry and thinking about food."

When responding to the EAT-26 question whether they vomited after they had eaten, most of the interviewees indicated that they *never* did. However, one participant reported that she *occasionally* did. In the interview, two reasons were offered to explain the "purging" behavior. First, the participant indicated that she would sometimes vomit after eating "pig's meat." When she was very hungry and that was the only food available, she would have to eat it. However, it was not allowed to digest in her stomach due to her cultural beliefs, and she would therefore

have to vomit it up after she had eaten it. Second, she also induced vomiting as part of an internal cleansing ritual to protect the body from sickness. Thus, the reasons for endorsing *preoccupation with food* or *vomiting* were not due to concerns with shape or weight, but rather due to cultural practices and economic circumstances.

During the interviews it was discovered that many of the participants had originally struggled to understand the questionnaire. Three out of the five interviewees had indicated on the question pertaining to their understanding of the questionnaire that they had found it difficult to understand. All five mentioned that subsequent to completing the questionnaire, many of their friends indicated that they had had difficulties understanding the questionnaire and had in many cases circled any answer when they did not understand the question. Most of the interviewees incorrectly completed the questionnaire, as exemplified by the anomalous answers to the BMI questions. When they were asked the same questions again, with the interviewer explaining the questions, the interviewees provided different answers from those originally given during the questionnaire phase.

The eating disorder examination

We were unable to administer the EDE successfully. Respondents struggled to answer the questions and had significant difficulty referencing all responses to the “last 28 days” (each EDE question is in reference to the past 4 weeks or 28 days). In most cases, when asked to estimate the number of days on which a behavior would occur, interviewees would just guess any number. For example, when answering that they “never ate a mid-morning snack,” participants would give the estimate of 20 days out of the 28. We concluded that the interviewees might have been guessing during the EDE because they gave different answers to the same questions when asked at different times, or when the same question was asked slightly differently. The reason for the guessing was not that the interviewees were unwilling to participate. On the contrary, interviewees made considerable efforts to be available for these interviews while on school break. One interviewee informed the interviewer that she had “nothing to do.” Another interviewee asked the interviewer whether it would be possible for her to stay with the interviewer while the other interviews are conducted, because she “would be bored at home.” However, after several fruitless attempts to explain the EDE and with all five respondents becoming somewhat exasperated with the effort typically required to complete this structured interview, the EDE was rejected in favor of the simpler, shorter questionnaire format (EDE-Q).

The eating disorder examination—questionnaire

After an arduous and careful process, with many of the EDE-Q questions explained to the interviewees, this self-report of eating disorder behaviors was completed “for” each participant—the interviewer asked the questions, the interviewee responded verbally, and the interviewer wrote the responses down herself. Like the

TABLE 4
Participant EDE-Q Subscale and Global Scores

EDE-Q Subscale	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5
Restraint	0.4	0	0	0.4	0
Eating concern	0	0	0.6	0	0.33
Shape concern	0.5	0.125	0	0.375	0.375
Weight concern	0.4	0.4	0	0.4	0.2
Global score	0.325	0.131	0.15	0.3	0.23

EDE, the EDE-Q yields four subscale scores and a global score (providing a measure of the overall severity of the eating disorder psychopathology). The EDE-Q also provides specific information, which allows the administrator to arrive at a diagnosis for anorexia or bulimia nervosa. Arguably, this is not as reliable as the interview format. The four subscale scores and the global scores for the five interviewees are presented in Table 4.

As is evident from Table 4, the subscale scores of these five interviewees were quite low and more typical of noneating disordered individuals than patients with anorexia or bulimia nervosa. Although the original EAT-26 scores reflected a high probability of an eating disorder, the subsequent inquiry regarding the original answers to this measure as well as responses on the EDE-Q would rule out an eating disorder diagnosis in any of the five interviewees.

Just as interviews to validate the questionnaire responses on the EAT-26 revealed many misunderstandings, participants' answers on the EDE-Q questions revealed a cultural disconnect on this measure as well. Unlike the EAT-26, the EDE-Q specifies that the behavior must occur for reasons pertaining to weight and shape. This added descriptor proved quite pertinent. For example, it was discovered that laxative use was quite common among the interviewees to prevent constipation given the high carbohydrate content of everyday foods such as *pap*.

Had the EDE-Q not specifically requested that the reasons for laxative use be explained, the purging behavior could have falsely been attributed to eating disorder pathology. One question on the EDE-Q that proved to be problematic was whether thinking about food interfered significantly with one's ability to concentrate on things that one is interested in. Two interviewees indicated that this was indeed the case for them. Once again, this was due to the fact that food was scarce, and that at times they were so hungry that they could not concentrate or think about anything but food.

DISCUSSION

Our findings revealed that black high school students in our South African sample demonstrated significantly greater eating disorder psychopathology, as measured

by the EAT-26 and BITE, than their white and mixed-race counterparts. High scores on the EAT-26 and the BITE among the black participants seem to amplify the findings from previous South African studies among adolescents (Caradas et al. 2001; Szabo and Hollands 1997) and college students (Le Grange et al. 1998; Marais et al. 2003; Senekal et al. 2001; Wassenaar et al. 2000). This could suggest that significant eating disorder pathology may be emerging among black adolescents in developing societies such as South Africa. While the current study employed methods similar to those that have typically been employed in prior South African surveys, including our own (cf. Le Grange et al. 1998; Wassenaar et al. 2000), through interviewing and qualitative approaches, we have come to appreciate that the issue of 'emerging' eating disorder pathology among black Africans is perhaps more complex than we had previously thought.

If we follow the explanations advanced in the literature, we could hypothesize that it is ethnicity itself that is at issue here; or that this is the result of the rapid sociopolitical changes that South Africa has experienced over the past 10 years; or acculturation to a Western, modern type of society; or exposure to cultural ideals of female thinness expressed in the media. However, given our knowledge of the community where these young black participants were living, none of these explanations seemed convincing. Instead, it appeared to us that most of the black participants were living under conditions of significant poverty, and that we needed to examine our findings from this vantage point. Hence, we attempted a follow up of all female participants who scored above the cutoff on the EAT-26 for an interview three months after the survey phase of the study. This closer examination of questionnaire responses revealed that it is somewhat premature to conclude that there is a high degree of eating disorder psychopathology among young black South Africans. In particular, it cautions against the use of these questionnaire measures in the absence of follow-up interviews.

However, the present study also illustrates that obtaining the much needed interview data can be quite difficult. The seemingly straightforward process of contacting participants for follow-up interviews was challenging. Forty questionnaires (out of 59 high scorers on the EAT-26) contained sufficient contact details for us to telephone these participants for interview. In the majority of cases, telephones were not operational or kept ringing. In some instances, the phone was left off the hook while the person who answered went "looking" for the high school student, and the connection was lost after a few minutes. For several cases, the telephonic contact details given by participants were inaccurate. In many cases the telephones were no longer in operation, or if calls were answered, no one knew the participant we were looking for. Also, where telephones were answered, people had great difficulty understanding the English-speaking researcher. Street addresses were of limited use, in part because of the layout of African townships in South Africa, and because the population is quite transient and tends to move

frequently. In the cases where calls were answered, however, no one declined participation. Consequently, after exhausting attempts at reaching these 40 potential participants, we were only able to reach 5 participants. These 5 students were all female and they all agreed to participate. Obtaining interviews from only 5 of the 40 eligible participants is problematic given our two-stage interview design. This shortcoming obviously does not allow us to comment on the likelihood of eating disorders among the remaining high scorers who were unavailable for interview.

Finding a suitable venue in which to conduct the interviews also proved a challenge. We were reluctant to use the school or the homes of participants, due to confidentiality concerns. Consequently, arrangements were made to meet participants at a major intersection on the outskirts of the townships, from which the interviewer and interviewee proceeded to a university office for the follow-up procedures.

As stated above, while five interviews cannot be considered representative of the whole sample, interesting findings did emerge that offer important methodological lessons for future studies using eating disorder screening tools. Despite English being the language of instruction at the school attended by the interviewees, most participants appeared to struggle to understand the questionnaire. This is problematic, as it would also appear as if answers were circled randomly, therefore making it impossible to interpret the EAT-26 scores. Also, eating disorder screening tools that allow *explanations* for disordered eating behavior should be used. As seen from this study, behaviors that would generally be considered indicative of disordered eating do occur among nonaffluent adolescents in rural environments. The reasons for these “eating disordered behaviors,” though, are due to cultural and contextual circumstances as opposed to concerns about slenderness. It is only fair to speculate that prior studies in the industrialized world, using “Western” instruments, might have experienced similar technical or interpretive challenges to the ones we have had to negotiate. However, without qualitative data, it would be impossible to ascertain the degree to which large samples concealed such challenges.

Differences between high school and college students should also be taken into account. While black college students may be more familiar with the language and task at hand, therefore providing some credibility to the surveys conducted in South Africa during the past several years, this may not necessarily be the case among the black high school students in the present study. We will return to this point somewhat later in the “Discussion.”

An interesting outcome of the interview phase was the discrepancy in meaning between the interviewee’s EAT-26 and EDE-Q scores. While the EAT-26 scores reflected attitudes and behaviors indicative of disordered eating, the EDE-Q demonstrated the opposite. Some possible explanations could account for these discrepancies. First, interviewees admitted to having problems understanding the

EAT-26, and indicated that they circled answers randomly. This surprised us, as English is also the language of instruction at their school. In this case, it can be concluded that the EAT-26 does not accurately reflect the eating disorder concerns of these specific participants. Second, as discovered during the interviews, behaviors indicative of disordered eating, such as vomiting, starving and preoccupation with food, did occur in this subsample, not for reasons pertaining to shape and weight, but rather for cultural and situational reasons. As the EAT-26 does not allow explanations to be given for the occurrence of these behaviors, respondents endorsing such behaviors or attitudes would turn out to be false positives on this measure. Finally, the EAT-26 scores may also be a reflection of the respondents' lack of familiarity with this task. Given low exposure to research in general and questionnaires in particular among impoverished black participants, the subjects might have made mistakes or not taken the procedure seriously because they did not understand the implications for the research.

As a result, rather than being able to comment on the prevalence of eating disorder attitudes and behaviors in this study, we offer cautions for future studies of this nature. Our study highlights considerable stumbling blocks to embarking on cross-cultural survey-based investigations. Had the interviews not been conducted, the high EAT-26 scores for the black participants (and by implication those of the BITE) might have been accepted as reflective of high levels of disordered eating among these participants. This assumption turned out to be inaccurate, at least for the five interviewees. This study cautions against unconditional acceptance of questionnaire scores, especially when the findings are unexpected. Further investigation, such as an interview phase, should therefore be encouraged.

What is our understanding of the responses of African participants on survey-type instruments such as the EAT-26 and the BITE? First, we can speculate about the role of language. There is ample quantitative and qualitative evidence in the present study that language was indeed a problem. Nevertheless, we can defend our initial decision to use English instruments at least as a reasonable strategy. Approximately 75% of participants indicated that the questionnaires were "easy" or "very easy" to complete. A majority (53%) of those who said the questionnaires were "difficult" or "very difficult" to complete were black, while 29% were white and 18% mixed-race. However, had we translated the questionnaires we might not have inquired about the *meaning* of the endorsement by black participants of pertinent questions on the indices used in this study. Thus, translation may need to be considered; however this in itself is problematic, as many terms are not translatable into an African language, or the translated version may have different meanings or connotations for certain cultural groups in South Africa.

A second and related point to keep in mind when we interpret these data is that our subjects of investigation were high school students. Most of the existing South

African literature on eating disorder surveys refers to college students. We might have over-estimated the abilities of the black African adolescent participants to complete the questionnaires in a language other than the one they spoke at home.

There was at least one other intriguing underestimation on our part. We failed to anticipate that young persons in our study group in general, and the impoverished black African adolescents in particular, do not have the same capacity as adults to be introspective, to make a judgment about themselves, their behaviors and their inner lives, and then to indicate this judgment on a rating scale. This is a task that is perhaps taken for granted when we are dealing with study participants who are college students, black African or Caucasian, who have grown up under modern individualized forms and conditions of existence and are culturally more assimilated. These typically are the forms of existence that characterize Western or "modern" societies. They contain individuals who see their lives in terms of internal psychological dispositions: self-knowledge, anxieties, self-worth, personal inadequacies, and the like. In other words, we probably underestimated the potential distance between how these young people experience themselves, and the heavily psychologized individual of "Western" societies.³

Another methodological point: even if the black participants understood the language of the questionnaires, and the task was not challenging, the meaning of those behaviors tapped by the questionnaires differed from those of white, middle class adolescents. In other words, even if the black participants had answered truthfully, reliably and accurately, the meanings of their responses were radically changed by the conditions of poverty (and, of course, cultural practices). So, to answer truthfully that "I sometimes eat so much that I vomit" does not necessarily mean that this respondent has concerns about shape and weight and therefore induces vomiting to compensate for an episode of binge eating. Instead, in the words of one respondent: "I vomit because *when* I have food, then I eat so much that I have to [vomit]." Yet another participant: "my mother regularly gives me laxatives, or I take them, not because of weight concerns, but because it is considered 'cleansing.'" Given the circumstances of economic hardship, their 'bingeing' and 'purging' may be rational behaviors, given that the food these youngsters regularly consume is often contaminated. Therefore, their purging behaviors could objectively be seen to be cleansing. However, reflecting on Sing Lee's (1997) work in Hong Kong using "culturally sensitive" criteria in order to make a diagnosis of an eating disorder, our findings cannot rule out the possibility that South Africans, especially black South Africans, may manifest disordered eating in ways heretofore not entertained by clinicians, and that the clinical salience of these disorders might be somewhat different across cultural contexts. Following this argument, it is therefore not inconceivable that someone who purges in the midst of economic deprivation in fact signals greater pathology. Canino and Guarnaccia (1997) caution that accurate diagnosis could be impacted by cross-cultural differences in the

phenomenology of emotion as well as the language in which it is expressed. This question has not been adequately addressed in the South African context.

Apart from the modest number of participants in the interviews, some shortcomings to this study should be mentioned. In the interview phase, we failed to measure respondents' weight and height, which would have enabled us to accurately calculate the BMI of the interviewees. The EDE training provided to the interviewer might have been inadequate. However, even with sufficient training, the interviewer might still have struggled to work her way through this lengthy interview if a rather elaborate explanation was required for every question. The EDE-Q (and the clarifications provided by the interviewer) seemed a suitable substitute. Finally, although unlikely, it may be that the respondents chosen for the interviews were not representative of the rest of the black respondents. The interviewees, the five participants who were reachable and available for this part of the study, may have been among a small minority who did not understand the questionnaire and therefore circled answers randomly. If the selection of students to be interviewed introduced an element of bias into the study, we would argue that this would be a bias toward underestimating the effects we discussed in this paper. The mere fact that these students were reachable would seem to indicate that their SES was slightly higher and their families a little more settled than the rest of the students. Other students might have had more difficulties than the ones we managed to interview, if the logic of our argument holds.

CONCLUSION

The findings from this study have important implications for researchers of disordered eating outside the Western industrialized world. More specifically, we are compelled to rethink our methodological approach to future studies in South Africa and the extent to which the assessment of disordered eating ought to be contextually developed. Translation of research instruments should be considered when disordered eating is assessed among high school students whose predominant home language is not English, *even if* the language of instruction at school is English. However, translation alone might not be sufficient. As noted by Johnsen (2001) and Sanchez-Johnsen and Cuellar (in press), factors in addition to the translation of measures need to be addressed in the development of culturally competent instruments. These include acculturation level and ethnic identity, language proficiency and bilingualism, and use of norms for diverse ethnic groups. Cultural values are imbedded in the test content and procedures, and therefore must be included in the design of assessment instruments. Canino and Guarnaccia (1997: 128) articulate the South African challenge clearly when they state that "the resulting instrument must be capable of identifying similar phenomena to those identified by the original version but in a

dissimilar sociocultural context." Eating disorder researchers are often psychologists and psychiatrists, but as Nasser et al. (2001) point out, we need to collaborate with other disciplines in order to render our cross-cultural research efforts more successful.

NOTES

1. In South Africa, the old "racial" categories of apartheid are still used. The government, for example, asks a question about ethnic origin on its census forms, and asks all organizations and institutions to report on their employee demographics in these categories to monitor the implementation of employee equity policies. We use these categories (black for black Africans, mixed-race for people previously classified as "colored," and white for Caucasians) to reflect this history, and as a broad indicator of ethnic origin.

2. This wide age range is not uncommon for black African high school students in South Africa. Sociopolitical and economic factors have caused many black South Africans to delay schooling or to have their schooling interrupted. Consequently, many students are of an older age not commonly expected among high school students.

3. See Louw (2002) for a discussion on the construction of the psychologized individual in South Africa.

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