



# Body Image Objectification and Disordered Eating Attitudes Among Secondary School Students of South-West Nigeria

Olaide N Koleoso,<sup>1</sup> Oluyemi O Akanni,<sup>2,\*</sup> and Joy O James<sup>3</sup>

<sup>1</sup>Department of Mental Health, University of Benin Teaching Hospital, Benin-City, Edo State, Nigeria

<sup>2</sup>Federal Neuropsychiatric Hospital, Benin-City, Edo State, Nigeria

<sup>3</sup>Calvary Nursery and Primary School, Ibadan, Oyo State, Nigeria

\*Corresponding author: Oluyemi O Akanni, FWACP, FMCPsych, Federal Neuropsychiatric Hospital, Benin-City, Edo State, Nigeria. Tel: +234-528055841981, E-mail: popyemi@gmail.com

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## Abstract

**Background:** Research on body image objectification in Nigeria is scanty, particularly with regards to disordered eating attitudes. Thus, this study examined the relationship between the 2 constructs among secondary school students in the country.

**Methods:** Overall, 270 students were selected through convenience sampling from 3 schools randomly selected from a local government area in South West Nigeria, and completed a questionnaire containing the 26-item eating attitudes test (EAT-26) and objectified body consciousness scale (OBCS). The students were classified to 2 groups using the EAT-26 cut-off point of 20, and the differences in the mean scores of the 3 sub-scales of OBCS were determined between the groups.

**Results:** There were more females than males (56.7% vs. 43.3%) with a mean age of 16.1 years. Eighty-five students scored above the cut-off point of 20, thus, prevalence rate of disordered eating attitudes was 31.5%. There was no significant association between the socio-demographic variables and disordered eating attitudes. The appearance control belief (a subscale of OBCS) was significantly lower in students with disordered eating attitudes ( $t = 2.18, P = 0.03$ ), whereas, the remaining 2 subscales of OBCS was not significantly associated with disordered eating attitudes.

**Conclusions:** Appearance control belief seems to be the most important in the eating attitudes of Nigerian adolescents in self-objectification. However, more research is needed to shed more light on this matter.

**Keywords:** Appearance Control Belief, Disordered Eating, Nigeria, Self-Objectification

## 1. Background

Body image is a multidimensional construct related to perceptions, thoughts, and feelings about the body and bodily experiences (1). It is a construct of interest in adolescents, who are undergoing biological changes characterized by rapid skeletal growth and an intense transformation in physiognomy (2). In addition to the alteration of physical appearance, consciousness of self-image is progressively developed during this period (3).

Several theories, which take into consideration social and intrapersonal factors, have been propounded to explain body image experience. One such social construction framework is the feminist theory, which basically claims that the female body is an object to be viewed (4). This theory has also been proven to be relevant in males, though with different reasons (5). According to McKinley and Hyde (1996), the experience of perceiving the body from the outside, and the concomitant beliefs associated with such, is referred to as objectified body consciousness (6). The pro-

ponents of such body theory recognizes 3 components, which are body surveillance, body shame, and appearance control beliefs (6). Body surveillance refers to constant monitoring and close observation of the body since the body is construed as an object to be looked at, and it is often done to ensure that one conforms to culturally acceptable standard of beauty. When a gap is perceived between the ideal and the real self, a sense of failure and negative attitude may develop, which is measured as body shame (6). The last component, appearance control belief, is the impression that one has the ability to control one's appearance to fit socially acceptable norms (6).

Hypothetically, adolescents with the desire to conform to the societal ideal, a task sometimes difficult to achieve, may develop unhealthy eating attitude/behaviour and other lifestyle modifications to attain this. Therefore, distortion of the consciousness of the body, as an object, or negative affects toward the body could result in an abnormal eating attitude. Studies have shown a relationship between body image consciousness/awareness and the de-

velopment of eating problems (7-11). Thus, objectification theory provides a useful conceptual framework for examining disordered eating attitudes (12).

## 2. Objectives

In Nigeria, empirical studies on disordered eating attitude have been conducted; and the prevalence rates of disordered eating varied between 14.3% and 58% (13-15). However, self-objectification experience in adolescents has not received adequate research attention in Nigeria. Links between self-objectification and eating disorders have been well-established in the Western nations of the world (7); however, this has not been explored in Nigeria. It would thus be of interest to examine the connection between self-objectification and unhealthy eating attitude in Nigeria. The aim of this study was to replicate the findings on objectification and its relationship with disordered eating attitude in a community sample of secondary school students in the country.

## 3. Methods

### 3.1. Study Design and Sampling Technique

The study was a cross-sectional research conducted in Ibadan North local government areas (LGA), Ibadan, located in the South-West region of Nigeria. This LGA was randomly selected from 11 LGAs in Ibadan.

Three secondary schools were randomly chosen from the LGA. One hundred students were selected from each of the schools through the convenience sampling technique; thus, a total of 300 students were recruited. The selection was restricted to students in the senior secondary school classes 2 and 3, who were literate enough to understand the English language used in the research instruments. Students, who did not give assent to participate in the study were excluded.

### 3.2. Study Procedure

Approval to carry out the research at the schools was first obtained from the school authorities. Thereafter, consent was obtained from the teachers of the students, who stood for them in parental capacity. In addition, the purpose and nature of the study were described to the students and their assent was obtained before the questionnaires were administered. The study instruments were administered only to students who indicated interest and they were encouraged to ask questions or raise concerns while filling the questionnaires.

### 3.3. Study Instruments

**Socio-demographics:** These include information, such as age, gender, religion, class, and tribe.

**The 26-item eating attitude test (EAT-26):** The EAT-26, which was developed from the original EAT-40 (16), was used to assess the eating attitude of the students. The test items were rated on a 6-point scale with responses for each item weighted from 0 to 3. A score of 0 was assigned to the 3 asymptomatic responses followed by scores 1, 2, and 3 (with 3 being the farthest in the symptomatic direction). The scores were computed by summing all items. Scores greater than or equal to 20 on the EAT-26 are frequently associated with abnormal eating attitudes and behaviour, and may identify respondents with an eating disorder (17). The scale has been previously used in Nigeria (13-15); the reliability score in this study was 0.81.

**Objectified body consciousness scale (OBCS):** The OBCS developed by McKinley and Hyde (1996) is a 24-item scale, which measures the degree to which an individual views his or her body (6). It consists of 3 sub-scales: body surveillance (items 1 to 8), body shame (items 9 to 16), and appearance control beliefs (items 17 to 24). Body surveillance refers to viewing one's body as an outside observer (e.g. 'during the day, I think about how I look many times'). Body shame involves feeling shame when one's body does not conform to cultural standards (e.g. 'I feel like I must be a bad person when I don't look as good as I could'). Appearance control beliefs measure the belief that one can control one's appearance through efforts (e.g. I can weigh what I'm supposed to when I try hard enough). The OBCS uses a 7-point Likert scale that ranges from 1 (strongly disagree) to 7 (strongly agree). Higher scores on the sub-scales indicate higher levels of the sub-scale construct in question. The OBCS had an overall Cronbach's value of 0.87 in this study, while the sub-scales, body surveillance, body shame, and appearance control belief, recorded internal consistencies of 0.76, 0.74, and 0.72, respectively.

### 3.4. Statistical Analyses

Data analysis was performed using SPSS version 23.0. Students were dichotomized based on their scores on the EAT-26. Participants, who scored 20 and above were grouped to the disordered eating attitudes class, while those with scores below were classified as normal. The students' age was also dichotomised using the mean score of 16 years as the cut-off point, in order to carry out the test of association. Chi-square was used to test socio-demographics associated with disordered eating attitudes. An independent t-test was used to determine differences in the mean scores of each sub-scale of the OBCS between students with disordered eating attitudes and

those classified as normal. Statistical significance level was set at a value of less than 0.05.

#### 4. Results

Two hundred and seventy copies of the questionnaires were found to be properly filled, giving a proper response rate of 90%. The females (56.7%) were more in number than the males (43.3%). The respondents' age ranged from 13 to 17 years, with a mean of 16.1 years. A total of 196 (72.6%) respondents were Christians, while 74 (27.4%) were Muslims. The majority (84.8%) were Yoruba, while 15.2% were categorized as other tribes.

Eighty-five students scored above the cut-off point of 20 or higher, meaning that the prevalence of disordered eating attitudes was 31.5%. There was no significant association between the socio-demographic variables and disordered eating attitudes (Table 1).

Table 2 compares the OBCS subscales scores between the classes of disordered eating attitudes and those regarded as normal. The disordered eating attitudes cases reported significantly lower mean scores than the normal group on the appearance control belief sub-scale alone (Table 2).

#### 5. Discussion

The reported prevalence of 31.5% showed that about 3 out of every 10 students had a disordered eating attitude. This is within the range of 14.3% and 58%, previously reported in studies carried out in Nigeria (13-15), which used the same EAT-26 scale. Variation in the prevalence of eating disordered attitudes has been reported worldwide with the same instrument (18-21). Ehimigbai et al. (2017) (13) reported that cultural and/or methodological differences may be responsible for the wide discrepancy. It must also be noted that the EAT-26 instrument is a screening, not a diagnostic tool, which means that it measures probable cases at risk of developing eating disorders, and not definite cases.

The outcome of the study was unanticipated because only the appearance control belief significantly related to eating attitudes, thus suggesting that appearance control belief is the most important of the subscales. Body surveillance and body shame were not observed to be related to eating disordered attitudes, unlike what researchers have shown, which is that both are strong correlates of eating disordered behaviour (9, 10).

Adolescents with disordered eating attitudes had lower scores on appearance control belief in the present study. One would have thought that students with disordered eating attitudes would score higher on appearance

control belief because the unhealthy eating behaviour they engaged in is expected to be preceded and driven by the notion that their appearance could be controlled by regulating feeding. In other words, people, who believe they can control their appearance are more likely to develop eating disorder problems. The finding in the current study was not consistent with this conception. Reports on the relationship between appearance control belief and eating disorder have however been inconsistent: Some studies reported a reverse of what was found (22, 23), while others found no connection between control beliefs and eating disorder symptomatology (24, 25). The well-known lack of association and conflicting reports may have been reflected in the design of some body-objectification studies, in which the appearance control belief subscale was omitted in the use of the OBCS (7, 11, 12). It was tempting to exclude the subscale in this study, yet it was retained because the study was novel in this environment.

A possible way to explain the relationship detected in this study was to conceive controlling appearance as a skill that gives adolescents a sense of competence that they do not easily give up (6). People, who are psychologically stable (and by extension students, who have a normal eating attitude) may be able to retain such skills and thus record higher beliefs in appearance control. Regardless of the explanation, the association between the 2 variables is likely to be mediated by yet unexposed factors. Advanced investigations are required to be done in this regard and also a review of the appearance control belief construct is necessary.

##### 5.1. Conclusion

The disordered eating attitudes of 31.5% reported in this study is in tandem with the literature from Nigeria. The belief that one's appearance can be controlled was significantly weaker in students with disordered eating attitudes. This unusual finding has further opened up the complexity associated with the appearance control belief construct and highlighted the call for extended research in Nigeria.

##### 5.2. Limitations and Recommendations

The data were self-reports and there could be social desirability bias in responses, which was supposed to have been overcome by maintaining anonymity during filling of the questionnaire. A second-stage evaluation following the eating attitudes screening in order to diagnose definite cases of eating disorder is advocated: This may be more useful and informative in showing the true relationship with self-objectification. Evaluation of the impact of self-objectification beyond eating behaviour to other lifestyle

**Table 1.** Association of Socio-Demographic with Disordered Eating Attitudes<sup>a</sup>

Variables	Normal	DEA	Total	Significant Test
<b>Gender</b>				$\chi^2 = 0.05, P = 0.83$
Male	81 (69.2)	36 (30.8)	117 (100.0)	
Female	104 (68.0)	49 (32.0)	153 (100.0)	
<b>Age</b>				$\chi^2 = 0.02, P = 0.89$
< 16	56 (69.1)	25 (30.9)	81 (100.0)	
≥ 16	129 (68.3)	60 (31.7)	189 (100.0)	
<b>Religion</b>				$\chi^2 = 2.42, P = 0.12$
Christianity	129 (65.8)	67 (34.2)	196 (100.0)	
Others	56 (75.7)	18 (24.3)	74 (100.0)	

Abbreviation: DEA, Disordered Eating Attitudes.

<sup>a</sup>Values are expressed as No. (%).**Table 2.** Difference Between Normal and Disordered Eating Attitudes Group in Objectified Body Consciousness Scale<sup>a</sup>

Variables	Eating Status	Mean	SD	t	P Value
<b>B surveillance</b>	Normal	37.38	9.18	1.52	0.13
	DEA	35.45	9.94		
<b>B shame</b>	Normal	31.76	9.62	-1.34	0.18
	DEA	33.42	9.01		
<b>ACB</b>	Normal	33.96	8.01	2.18	0.03
	DEA	31.16	10.50		

Abbreviations: ACB; Appearance Control Belief; B; Body; DEA; Disordered Eating Attitudes.

<sup>a</sup>Normal: n = 185; DEA: n = 85; df = 268.

regulations is recommended. Lastly, the design of future studies should take into account the need to revalidate the scales to make them more culture-sensitive, and to embark on large-scale studies, which may be more applicable or appropriate to the Nigerian population.

### Footnotes

**Authors' Contribution:** Conceptualization and design of the study, Olaide N Koleoso; analysis and interpretation of the data, Oluyemi O Akanni; collection of data and review of the literature, Joy O James. All authors contributed to the manuscript writing and critically reviewed the work.

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