



Original

# Antifat attitudes in a sample of women with eating disorders

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## Abstract

**Introduction:** One of the main problems of patients with eating disorders is their body dissatisfaction. Although these individuals usually are not satisfied with their bodies there are not many investigations that focus on how these patients see people with real weight problems. For this reason, in this study it is analyzed how women with eating disorders see obese people.

**Methods:** A total of 104 participants (35 with anorexia nervosa, 28 with bulimia nervosa, 16 with eating disorder not otherwise specified and 25 controls) were selected to conduct the study. To measure anti-fat attitudes the Spanish version of the Antifat Attitudes Questionnaire was used. To measure if participants had body dissatisfaction it was used the Spanish versions of the Body Shape Questionnaire. Finally, anthropometric measures (height and weight) were taken in order to calculate the BMI (kg/m<sup>2</sup>), as well as some socio-demographic information.

**Results:** It was found that participants with bulimia nervosa showed scores higher on antifat attitudes than the rest of the participants. Additionally, it was found that this result was influenced by the body dissatisfaction of the participants.

**Discussion:** These results suggest that negative attitudes toward obese people may influence an individual's body image. One way of maintaining a positive body image (especially, the subjective dimension, body satisfaction) is to compare oneself with those perceived as physically inferior (people with weight problems), a strategy that is especially relevant when the mass media insists in depict extreme thin women.

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Key words: Anorexia nervosa. Bulimia nervosa. Eating disorder not otherwise specified. Antifat attitudes. Body dissatisfaction.

## ACTITUDES ANTI-OBESIDAD EN UNA MUESTRA DE MUJERES CON TRASTORNOS DE LA CONDUCTA ALIMENTARIA

### Resumen

**Introducción:** Uno de los principales problemas de los pacientes con trastornos de la conducta alimentaria es la insatisfacción corporal. Aunque estas personas por lo general no están satisfechos con sus cuerpos, no hay muchas investigaciones que se centran en cómo estos pacientes ven a la gente con problemas reales de peso. Por esta razón, en este estudio se analiza cómo las mujeres con trastornos alimentarios ven a las personas obesas.

**Métodos:** Un total de 104 participantes (35 con anorexia nerviosa, 28 con bulimia nerviosa, 16 con trastornos alimentarios no especificados y 25 controles) fueron seleccionados para llevar a cabo el estudio. Para medir las actitudes anti-obesidad se utilizó la versión española del Antifat Attitudes Questionnaire. Para medir si los participantes presentaban insatisfacción corporal se utilizó la versión española del Body Shape Questionnaire. Por último, se tomaron medidas antropométricas (peso y talla) a fin de calcular el índice de masa corporal (kg/m<sup>2</sup>), así como algunos datos socio-demográficos.

**Resultados:** Se encontró que los participantes con bulimia nerviosa mostraban puntuaciones más altas en las actitudes anti-obesidad que el resto de los participantes. Adicionalmente, se encontró que este resultado estuvo influenciado por la insatisfacción corporal de los participantes.

**Discusión:** Estos resultados sugieren que las actitudes negativas hacia las personas obesas pueden influir en la imagen corporal de una persona. Una manera de mantener una imagen positiva del propio cuerpo (sobre todo, la dimensión subjetiva, la satisfacción corporal) es compararse con aquellos que son percibidos como físicamente inferiores (personas con problemas de peso), una estrategia que es especialmente relevante cuando los medios de comunicación insisten en representar mujeres extremadamente delgadas.

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Palabras clave: Anorexia nervosa. Bulimia nervosa. Trastornos de la conducta alimentaria no especificados. Actitudes anti-obesidad. Insatisfacción corporal.

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## Abbreviations

AFA: Antifat attitudes.  
AN: Anorexia nervosa.  
ANCOVA: Analysis of covariance.  
ANOVA: Analysis of variance.  
APA: American Psychological Association.  
BN: Bulimia nervosa.  
BSQ: Body Shape Questionnaire.  
CV: Covariates.  
DSM: Diagnostic and Statistical Manual.  
DV: Dependent variable.  
ED: Eating disorders.  
EDNOS: Eating disorders not otherwise specified.  
IV: Independent variable.  
UNED: Universidad Nacional de Educación a Distancia.

## Introduction

Eating disorders (ED) can be defined as a disturbance of eating behavior that results in the altered consumption of foods and that affects physical health and psychosocial functioning.<sup>1</sup> Eating disorders are frequently found among young women in Western industrialized countries, and are much less common in men. In the last few years this pathology is increasing and there is evidence to suggest that it is women who are at the highest risk of developing ED.<sup>2</sup> Anorexia nervosa (AN), bulimia nervosa (BN) and eating disorder not otherwise specified (EDNOS) are the most frequent disorders.<sup>3</sup> Anorexia nervosa is an ED characterized by excessive food restriction and irrational fear of gaining weight, and a distorted body self-perception.<sup>4</sup> Bulimia nervosa is an ED characterized by binge eating and followed by an attempt to rid oneself of the food consumed (what is called purging, usually by vomiting, taking a laxative or diuretic and/or with excessive exercise).<sup>5</sup> Finally, EDNOS is a category, described in DSM-IV, for disorders of eating that do not meet the criteria for any specific ED.<sup>4</sup>

Patients with ED usually refuse to gain weight and they have an intense fear of becoming obese.<sup>4</sup> Additionally, it is well established that an excessive dissatisfaction with one's own body as well as the feeling of being too big is one of the most important characteristics of ED.<sup>1</sup> For example, some patients with ED are very worried with their own body weight and they overestimate the size of their own body.<sup>6</sup> But if some patients with ED have high body dissatisfaction, how do they see people with real weight problems? Although it is an interesting issue there are not many researches about this topic. For this reason, the aim of the current study is to analyze if patients with ED have negative attitudes toward obese people.

### *Eating disorders and antifat attitudes*

Obesity is a medical condition in which excess body fat produces a negative effect on both psychological

and psychical health.<sup>7</sup> Besides the medical problems, it has been found that obese people have to face a strong social rejection and exclusion because of their weight in several social areas,<sup>8</sup> as shown by a number of studies that suggest that negative attitudes toward obese people are widespread<sup>9</sup> and that obese people suffer discrimination in healthcare settings,<sup>10</sup> in the school,<sup>11</sup> in interpersonal relationships,<sup>12</sup> in the mass media<sup>13</sup> and in the workplace.<sup>14</sup>

Antifat attitudes (AFA) refer to the belief that overweight and obese individuals are responsible for their weight.<sup>15</sup> Common weight-based stereotypes are, for example, that obese people are lazy or that they are less intelligent.<sup>15</sup> However, not many investigations have studied if there is a relationship between ED and rejection to obese people although previous research has suggested that the adoption of a negative stereotype about obese people increases the desire to avoid that negative stereotype.<sup>16</sup> For instance, Cramer et al.<sup>17</sup> have found that negative attitudes toward people with weight problems influence the decision to restrict food consumption, which suggest that the negative perception of others' bodies may be related to one's own body perception. Additionally, it has been found that eating concerns are positively related with AFA<sup>18</sup> which suggest that this type of restrictive behavior is related to the negative perception of other's people bodies. In this line of thinking, recent work around physical appearance issues, body image, and AFA suggests that feelings about one's own appearance may stimulate physical comparisons with obese individuals in order to make one feel better about their own physical appearance<sup>19</sup> which helps to explain why people high concerned in appearance (as ED patients) pay attention to other people bodies. Additionally, it has been found that the thinnest adolescents tend to be more biased toward obese people (see for example, Li et al.<sup>20</sup>). Taken together, these results suggest that may be a relationship between ED and AFA, although there are not any studies about this topic conducted so far. According to the reviewed studies, it would be expected that patients with ED will report more AFA than control participants (people without ED).

### *Body dissatisfaction and eating disorders*

Body image can be defined as the individual experience of the physical self.<sup>21</sup> According to some authors,<sup>22</sup> body image has three dimensions: the perceptual (related to the perception of one's physical appearance and that involves an estimate of one's weight, size and body shape), the subjective (related to satisfaction or worry about appearance) and finally the behavioral dimension (avoidance of some situations that cause anxiety).

Previous research has found a positive relationship between body dissatisfaction (the subjective dimension of body image) and ED in both cross-sectional<sup>23</sup>

and longitudinal studies.<sup>24</sup> Body dissatisfaction has been proved to be an important relapse factor in ED<sup>25</sup> as well as an important risk factor to develop ED.<sup>26</sup>

In this paper we will focus on the subjective dimension (as it has been said, body dissatisfaction) of body image, because of its relationship with AFA.<sup>18,27-30</sup> Taken together, these works have found that participants with high levels of body dissatisfaction reported higher levels of prejudice toward overweight and obese individuals. For example, some studies have found a positive and significant correlation between body dissatisfaction and AFA with both explicit<sup>27</sup> and implicit measures.<sup>30</sup> Recently, a study has showed that also women in risk to develop ED report more AFA.<sup>31</sup> Although, there are not any studies about it, the reviewed literature suggests that there may be a connection between body dissatisfaction in ED patients and AFA. According to the works presented in this section, it would be expected that patients with ED will report more AFA than control participants (people without clinical problems), especially in those individuals which are more dissatisfied with their own bodies.

To summarize, it is expected that ED patients (AN, BN and EDNOS) will report more AFA than non-clinical individuals, and that this relationship will be influenced by the body dissatisfaction of the participants of the study. According to the reviewed literature<sup>17,18</sup> the hypothesis of the current study is that patients with ED will show more AFA compared to a control group (female students without clinical problems). Additionally, it is expected that female participants of the clinical group will report more body dissatisfaction than the control group and that this variable will be related with the AFA reported of the participants.<sup>27,30,31</sup>

## Methods

### Sample

The sample was composed of 104 women (35 with AN, 28 with BN, 16 with EDNOS and 25 controls). ED patients were selected from the Eating Disorders Unit of the Behavioural Sciences Institute of Sevilla (Spain). Each patient was screened by a multidisciplinary team with extensive experience in ED. Patients were in treatment and the diagnosis was made following the DSM-IV criteria. The participants of the control group were female Spanish students of the UNED (Spanish Open University) who were enrolled in a psychology course and who received extra credit for their participation. It can be seen more information about sample characteristics in table I.

### Instruments

To measure anti-fat attitudes we used the Spanish version of the Antifat Attitudes Questionnaire (AFA).<sup>15,32</sup>

	AN	BN	EDNOS	Control
<i>N</i>	35	28	16	25
<i>BMI</i>				
M	19.75	23.74	22.17	21.36
SD	1.88	4.06	4.64	2.51
<i>Age</i>				
M	23.32	23.68	25	20.16
SD	7.39	8.10	11.32	1.62

AN: Anorexia Nervosa; BMI: Body Mass Index; BN: Bulimia Nervosa; EDNOS: Eating Disorder Not Otherwise Specified.

The AFA ( $\alpha = 0.72$ ) evaluates attitudes toward overweight and obese individuals. AFA consists of 7 items scored on a 7-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). A score was computed by averaging the 7 items of the scale. Higher scores on the AFA reflect greater dislike toward obese people.

To measure if participants had body dissatisfaction it was used the Spanish versions of the Body Shape Questionnaire (BSQ).<sup>33,34</sup> The BSQ ( $\alpha = 0.96$ ) consists of 34 items scored on a 7 point Likert scale ranging from “never” (1) to “always” (7). A score was computed by averaging the 34 items of the scale. Higher scores on the BSQ reflect greater concerns about body shape and body dissatisfaction, especially their concerns of feeling fat.

Finally, anthropometric measures (height and weight) were taken in order to calculate the BMI ( $\text{kg}/\text{m}^2$ ), as well as some sociodemographic information (socioeconomic status, place where they live, studies).

## Results

First of all, an Analysis of Variance (ANOVA) was conducted with AFA as a dependent variable (DV) and ED group (4 levels) as an independent variable (IV) to test if participants with ED have more prejudice toward obese people than the control group. It was found, as it can be seen in table II, that the BN group had the highest scores on the AFA scale and the control groups the lowest. However, the differences were not statistically significant ( $F_{1,102} = 2.60, p = 0.56$ ).

	AN	BN	EDNOS	Control
<i>N</i>	35	28	16	25
<i>AFA</i>				
M	1.96	2.47	2.10	1.70
SD	0.77	1.49	0.94	0.77

AFA: Antifat Attitudes; AN: Anorexia Nervosa; BN: Bulimia Nervosa; EDNOS: Eating Disorder Not Otherwise Specified.

**Table III**  
ANOVA of BSQ (scales from 1 to 7)

	AN	BN	EDNOS	Control
N	35	28	16	25
BSQ				
M	3.46	4.62	2.89	1.75
SD	1.80	1.88	1.57	0.50

AN: Anorexia Nervosa; BN: Bulimia Nervosa; BSQ: Body Shape Questionnaire; EDNOS: Eating Disorder Not Otherwise Specified.

The next step was to conduct another ANOVA but in this case with the BSQ (body dissatisfaction) as the DV. As it can be seen in table III, the control group had the lowest scores in this scale. The differences were statically significant ( $F_{1,102} = 14.93, p < 0.01$ ). The post hoc test calculated showed that the differences can be found between the control group and the rest of the groups (Tukey tests,  $p < 0.01$  except for EDNOS).

Finally, an Analysis of Covariance (ANCOVA) was made. ANCOVA evaluates whether population means of a DV are equal across levels of a categorical IV while statistically controlling for the effects of other continuous variables that are not of primary interest, known as covariates (CV). Therefore, when performing ANCOVA, we are adjusting the DV means to what they would be if all groups were equal on the CV. It was done an ANCOVA with the AFA as the DV and type of ED as the IV, and in this case controlling the effect of body dissatisfaction (BSQ). As it can be seen in table IV, controlling the influence of body dissatisfaction (BSQ) the results are almost the same (see table II) but in this case the differences are statically significant ( $F_{1,102} = 5.23, p < 0.01$ ). The post-hoc tests reveal that differences were found between the BN and control group (Tukey test,  $p < 0.04$ ).

The results allow us to maintain the hypothesis of the current research, because as it has been showed, ED patients (in this case BN participants) report more AFA than the control group, when their body dissatisfaction is controlled statically.

## Discussion

In previous AFA investigation,<sup>18,27,28,30</sup> significant correlations were found between body dissatisfaction,

**Table IV**  
ANOVA (scales from 1 to 7)

	AN	BN	EDNOS	Control
N	35	28	16	25
AFA				
M	1.95	2.47	2.10	1.70
SD	0.79	1.49	0.94	0.77

AFA: Antifat Attitudes; AN: Anorexia Nervosa; BN: Bulimia Nervosa; EDNOS: Eating Disorder Not Otherwise Specified.

eating concerns and negative attitudes toward obese people but this study is the first to examine the relationship between ED and AFA in a clinical sample. In the current study it was found that participants with BN had more AFA than the control group, when it was controlled statically the body dissatisfaction of the participants. This result suggest that BN patients have a negative vision of obese individuals which is related to what it has been found in other researches.<sup>35</sup> According to this work, ED patients perceive obese individuals as more anxious, alone, lazy, dependent, submissive, fearing, impulsive or picky than control participants,<sup>35</sup> which is consistent with the current finding presented in this paper.

This result, BN patients reporting more AFA when controlling the effect of body dissatisfaction, was expected according to the reviewed literature. We believe that this result may be explained because people with BN, and ED patients in general, effort hardly to look good, and for that reason may also expect that others should be taking similar care of their own physical image as they do. Because of this, obese people may be seen as deviating from these ideals and for this reason are discriminated against. For instance, Puhl et al.<sup>9</sup> suggest that there is a relationship between internalization of negative weight-based stereotypes and ED. These authors have found that individuals who internalize negative weight-based stereotypes are particularly vulnerable to engage in non-healthy efforts to lose weight. As this last investigation suggests the relationship between how people see themselves (body image) and how they see obese people (AFA) can be bidirectional and future research must be done in order to clarify the nature of this relationship. In other words, it is important to remark that it is unclear whether AFA is an antecedent concomitant or if it is just a consequence of the ED pathology.

However, we believe that these results, consistent with others,<sup>16,17</sup> suggest that negative attitudes toward obese people may influence an individual's body image. According to some authors<sup>19,27</sup> one way of maintaining a positive body image (especially, the subjective dimension, body satisfaction) is to compare oneself with those perceived as physically inferior (people with weight problems), a strategy that is especially relevant when the mass media insists in depict extreme thin women.<sup>36</sup>

The current study is subject to some limitations that deserve mention. First of all, in the research explicit scales has been used in order to measure the prejudice toward obese people (AFA). It would be necessary, for future investigations, to conduct studies with the same goals, using not only explicit scales, but also implicit measures (see for example, Teachman et al.)<sup>37</sup>. In the second place, it is a cross-sectional study. However, only longitudinal studies can provide insight into how ED and AFA interact with different daily life stressful experiences. Despite these limitations, the study provides new data with potential applications.

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