

## Well-Being and Prejudice toward Obese People in Women at Risk to Develop Eating Disorders

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The literature has found that eating disorders (ED) patients usually have a depression and anxiety diagnosis. However, not many investigations have studied the relationship between ED and well-being. One of the main problems of patients with ED is their body image. These individuals usually see themselves too big but 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 in risk to develop ED see obese people. 456 female students were selected. It was found that women with high scores in the different subscales of the Eating Attitudes Test 26 (EAT-26; dieting, bulimia and oral control) had lower well-being (both subjective and psychological) and worse attitudes toward obese people (measured with Antifat Attitudes Test, AFA, Beliefs About Obese People Scale, BAOP, and Attitudes Toward Obese People Scale, ATOP) compared with women with low scores in the EAT-26.

*Keywords:* eating disorders, subjective well-being, psychological well-being, antifat attitudes.

La literatura ha encontrado que los pacientes con trastornos de la conducta alimentaria (TCA) tienen como diagnóstico concurrente depresión y ansiedad. Sin embargo, no existen muchas investigaciones que estudien la relación entre TCA y el bienestar. Uno de los principales problemas que presentan los pacientes de TCA es su imagen corporal. Estas personas suelen presentar serias distorsiones a la hora de percibir su propio peso pero no hay muchas investigaciones que se centren en cómo ven este tipo de pacientes a las personas que realmente tienen problemas de peso. Por esta razón, en este estudio se analiza cómo las mujeres en riesgo de desarrollar TCA ven a las personas obesas. 456 estudiantes de género femenino fueron seleccionadas para realizar el estudio. Se encontró que las mujeres con puntuaciones altas en las diferentes subescalas del *Eating Attitudes Test* (EAT-26, dieta, bulimia y control oral) informaban de un menor bienestar (tanto psicológico como subjetivo) y que tenían peores actitudes hacia las personas obesas (medido con los cuestionarios *Antifat Attitudes Test*, AFA, *Beliefs About Obese People*, BAOP, y *Attitudes Toward Obese People*, ATOP) si se comparaba con las participantes con bajas puntuaciones en el test EAT-26.

*Palabras clave:* trastorno de la conducta alimentaria, bienestar subjetivo, bienestar psicológico, actitudes anti-obesos.

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 (Fairburn & Walsh, 1995). Bulimia nervosa (BN), anorexia nervosa (AN) and binge eating disorder are the most frequent disorders (Hudson, Hiripi, Pope, & Kessler, 2007). ED are frequently found among young women in Western industrialized countries, and are much less common in men (Andersen, 1995). 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 (Cummins & Lehman, 2007).

### *ED and well-being*

It is very frequent that patients with ED also have additional diagnosis concurrently. Depression and anxiety usually accompanies a diagnosis of an ED (Braun, Sunday, & Halmi, 1994). Patients, mostly women, with ED have a higher prevalence of anxiety and they report significantly more major depressive symptoms compared with people without ED (Touchette et al., 2011).

According to the World Health Organization (WHO, 1948) definition, health is considered as a state of complete physical, mental, and social well-being and not just the simple absence of disease. For this reason it is important to study also the positive psychological human functioning, like quality of life and well-being, and not just focus on the negative aspects (Seligman & Csikszentmihalyi, 2000). Also, it is well established the need for general population research, not just for clinical samples, on the ED topic (Johnson, Spitzer, & Williams, 2001). For this reason, it is important to study not only patients with ED diagnosis but also normal individuals that can develop this pathology with the pass of the time. Studying factors like high drives for thinness, weight concerns, and dieting in general population allow professionals to identify people in risk to develop ED (Wiederman & Pryor, 2000). For this purpose, the EAT-26 (Eating Attitudes Test 26; Garner & Garfinkel, 1979; Garner, Olmsted, Bohr, & Garfinkel, 1982) questionnaire can be used in order to identify the high-risk subjects (Orbitello et al., 2006). This screening test allows professionals to detect individuals with a special disposition to suffer a non specified ED that afterwards will have to be confirmed through a clinical interview.

Although several investigations have studied the relationship between depression, anxiety and ED, not many researches have focused on the quality of life of patients with ED (see for example: Doll, Petersen, & Stewart-Brown, 2005; Padierna, Quintana, Arostegui, Gonzalez, & Horcajo, 2001), though it has been found that people with ED report a significant impairment in well-being. In these investigations well-being has been measured with the SF-36 (Short Form 36 Health Survey) (Ware & Sherbourne, 1992; Ware, 2000) one of the most widely used and evaluated generic health-

related quality of life questionnaires. However, the SF-36 does not take account of the different components of well-being and it has been suggested that SF-36 is not broad enough to assess specific domains as comprehensively like other instruments (Bullinger, 1997). Recently, other studies have found similar results (Abraham, Brown, Boyd, Luscombe, & Russell, 2006; Adair et al., 2010; Bamford, 2010; Las Hayas et al., 2006), that patients with ED report low scores in quality of life questionnaires, using instruments specifically developed for ED patients that measure different components of well-being but that can be only used for clinical samples. For this reason, in the current research well-being is considered as a multidimensional construct and hedonic (hedonism is a school of thought which argues that pleasure is the only intrinsic good) and eudaimonic (Greek word for happiness) perspectives are included (Ryan & Deci, 2001) using for this purpose questionnaires that can be applied in the general population. Hedonic perspective focus on subjective well-being (SWB; Diener, 2000) and measure how happy people are. SWB has two components, one cognitive (evaluation of the satisfaction with one's life as a whole) and the other one emotional (predominance of positive affect over negative affect or affect balance). On the other hand, the eudaimonic perspective focuses on psychological well-being (PWB; Ryff, 1989) and measures the potentialities of human beings. PWB conceives well-being as a multidimensional construct made up of life attitudes like self-acceptance, positive relation with others, autonomy, environmental mastery, purpose in life, and personal growth. Therefore, the first aim of the present study is to analyze if women in risk to develop ED suffer less SWB and PWB.

### *ED and antifat attitudes*

Patients with ED (especially in AN) usually refuse to gain weight and they have an intense fear of becoming obese (APA, 2000). It is well established that an excessive dissatisfaction with one's own body as well as the feeling of being too big (although some of the patients are usually underweight like in AN) is one of the most important characteristics of ED. For example, some of the patients (especially in AN) are very worried with their own body weight and they usually overestimate the size of their own body (Garner, 2002). But if some patients with ED perceive themselves as fat, 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 second aim of the present study is to analyze if people in risk to develop ED present negative attitudes toward obese people.

Several studies prove that being fat generates rejection and discrimination in almost every life sphere (Puhl, Heuer, & Brownell, 2010). Antifat attitudes refer to the belief that overweight and obese individuals are responsible for their weight (Crandall, 1994). Common weight-based stereotypes

are, for example, that obese people are lazy or that they are less intelligent. Not many investigations have studied if there is a relationship between ED and rejection to obese people although some studies have found that antifat attitudes were correlated with body image (Lewis, Cash, Jacobi, & Bubb-Lewis, 1997; O'Brien, Hunter, Halberstadt, & Anderson, 2007; Solbes & Enesco, 2010), body dissatisfaction and eating concerns (Pepper & Ruiz, 2007). According to the reviewed literature it would be expected that women in risk to develop ED will have more negative attitudes toward obese people than people with no special concerns about food and their own weight.

To summarize, the goals of the current study are to analyze if people in risk to develop ED suffer less well-being and if they have negative attitudes toward obese people. According to the reviewed literature, the first hypothesis is that women in risk to develop ED (high scores in the EAT-26) will report less SWB and PWB than women without risk. Additionally, it is expected, as the second hypothesis of the study, that women in risk to develop ED will report more negative attitudes toward obese people than women with no risk.

## Method

### Sample

Young women provide a good sample for studying ED since the ages of 16-35 represent the ages of highest ED prevalence (Fairburn, 1998). For this reason participants were 456 Spanish female students of the UNED from 18 to 35 years (age:  $M = 25.1$ ,  $SD = 3.62$ ; Body Mass Index or BMI:  $M = 21.86$ ,  $SD = 2.78$ ) who were enrolled in a psychology course and who received extra credit for their participation. All the participants were Spanish (homogenized sample included students from the different regions of Spain but no immigrants; Jennings, Forbes, McDermott, Juniper, & Hulse, 2005) and had a similar socioeconomic status.

### Instruments

To measure anti-fat attitudes the Spanish versions of the Antifat Attitudes Questionnaire (AFA) (English version: Crandall, 1994; Spanish version: Magallares & Morales, 2008), the Beliefs About Obese Persons Scale (BAOP) (English and Spanish versions: Allison, Basile, & Yaker, 1991) and the Attitudes Toward Obese Persons Scale (ATOP) (English and Spanish versions: Allison et al., 1991) were used. The AFA evaluates attitudes toward overweight and obese individuals. AFA consists of 13 items scored on a 7-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7). The measure has three subscales according to Crandall (1994). The first is the Dislike subscale (7 items;  $\alpha = .72$ ), which is a measure of antipathy toward

overweight and obese people. A score was computed by averaging the 7 items of the subscale. Higher scores on the Dislike subscale reflect greater dislike toward obese people. The second subscale measures a concern about one own's weight, called by Crandall Fear of Fat (3 items,  $\alpha = .84$ ). A score was computed by averaging the 3 items of the subscale. Higher scores on the Fear of Fat subscale reflect greater concern about gaining weight. Finally, the third subscale measures beliefs about controllability of weight and its name is Willpower (3 items,  $\alpha = .67$ ). A score was computed by averaging the 3 items of the subscale. Higher scores on the Willpower subscale reflect greater perception that weight is under personal control. BAOP measures beliefs about the causes of obesity with an eight-item Likert rating scale (from 1, strongly disagree, to 7, strongly agreed). Coefficient alpha was .71. A score was computed by averaging the 8 items of the scale. Higher scores on this measure reflect greater beliefs that obesity is under personal control. Finally, ATOP measures the internalization of antifat attitudes. The ATOP has 20 items, with higher scores reflecting more negative attitudes toward obese people. A score was computed by averaging the 20 items of the scale. Coefficient alpha was .61.

To measure if participants had eating problems the Spanish version of the Eating Attitudes Test (EAT-26) (English version: Garner & Garfinkel, 1979; Garner et al., 1982; Spanish version: Rivas, Bersabé, Jiménez, & Berrocal, 2010) was used. The original version consisted of 40 items but Garner et al. (1982) revised the EAT into a 26-item version scored on a 7-point Likert scale ranging from "never" (1) to "always" (7). The EAT-26 consists of 3 factors: Dieting, Bulimia and Food Preoccupation, and Oral Control. The Dieting factor (13 items,  $\alpha = .86$ ) evaluates the avoidance of fattening foods and a preoccupation with being thinner. A score was computed by averaging the 13 items of the subscale. Higher scores on the Dieting subscale reflect greater food restriction. The Bulimia and Food Preoccupation subscale (6 items,  $\alpha = .71$ ) evaluates binge eating and purging and thoughts about food. A score was computed by averaging the 6 items of the subscale. Higher scores on the Bulimia subscale reflect greater food concerns. Finally, the Oral Control factor (7 items,  $\alpha = .56$ ) assesses how people control food intake and perceive pressure from other people to gain weight. A score was computed by averaging the 7 items of the subscale. Higher scores on the Oral Control subscale reflect greater food control.

To measure SWB participants completed the Spanish versions of the Positive and Negative Schedule (PANAS) (English version: Watson, Clark, & Tellegen, 1988; Spanish version: Sandín et al., 1999) and the Satisfaction with Life Scale (SWLS) (English version: Pavot & Diener, 1993; Spanish version: Cabañero et al., 2004). The PANAS is a 20-item measure that evaluates positive (10 items) and negative affect (10 items) that is answered with a 7-point Likert scale (from 1, strongly disagree, to 7, strongly agreed). Positive and negative affect scores were computed

Table 1  
Differences between groups (dieting subscale) on hedonic and eudaimonic measures of well-being

Well being measure		Dieting subscale		<i>F</i> (1, 226)	<i>d</i>
		With risk <i>n</i> = 113	Without risk <i>n</i> = 115		
Satisfaction with life	<i>M</i>	4.69	5.16	3.90**	.37
	<i>SD</i>	1.41	1.11		
Affect balance	<i>M</i>	1.23	2.18	16.71**	.54
	<i>SD</i>	1.84	1.67		
Self-acceptance	<i>M</i>	4.94	5.51	16.33**	.53
	<i>SD</i>	1.17	.95		
Positive relation with others	<i>M</i>	5.50	5.79	3.8*	.26
	<i>SD</i>	1.11	1.09		
Autonomy	<i>M</i>	4.86	5.30	14.15**	.50
	<i>SD</i>	.87	.88		
Environmental mastery	<i>M</i>	5.03	5.45	11.89**	.45
	<i>SD</i>	1.03	.82		
Personal growth	<i>M</i>	5.65	5.80	2.20	.19
	<i>SD</i>	.84	.68		
Purpose in life	<i>M</i>	5.40	5.71	4.73*	.28
	<i>SD</i>	1.16	1.02		

\*\*  $p < .01$ ; \*  $p < .05$

by averaging items of positive or negative affect scales respectively. The negative affect score was subtracted from the positive affect score to obtain a measure of affect balance. Therefore, a positive score reflects a predominance of positive over negative affect, while a negative score reflects a predominance of negative over positive affect. Alpha coefficient was .82 for the positive affect subscale and .85 for the negative affect subscale. The SWLS is a 5-item measure of global life satisfaction answered with a 7-point Lykert-type scale (from 1, strongly disagree, to 7, strongly agreed). A score was computed by averaging the 5 items of the subscale. Higher scores on the SWLS reflect greater life satisfaction. The coefficient alpha was .87.

To measure PWB the Spanish version of the Scale of Psychological Well-Being (SPWB) (English version: Ryff, 1989; Spanish version: Díaz et al., 2006) was used. The SPWB is a 29-items scale that measures 6 different aspects of positive psychological functioning like self-acceptance (4 items), positive relations with others (5 items), autonomy (6 items), environmental mastery (5 items), purpose in life (5 items), and personal growth (4 items). A 7-point Likert scale (from 1, strongly disagree, to 7, strongly agreed) was used. Six scores were computed, one for each dimension, by averaging the corresponding items for each of these dimensions. Higher scores on different dimensions or subscales reflect greater positive psychological functioning. Alpha coefficients were .81 for self-acceptance, .77 for positive relations with others, .72 for autonomy, .67 for

environmental mastery, .68 for purpose in life, and .83 for personal growth.

Finally, participants reported their height and weight (to calculate the BMI), as well as some sociodemographic information (socioeconomic status, place where they live, studies).

## Results

In order to analyze if women in risk to develop ED reported less well-being and more negative attitudes toward obese people it was decided to select individuals with more extreme scores. The groups of participants were formed by categorizing those individuals with the higher and lower scores on the different subscales of the EAT-26 (25% upper and 25% below) as groups with and without risk to develop ED respectively. This process of selection was made 3 times, one for each of the 3 subscales of the EAT-26 (Dieting, Bulimia and Oral Control). Comparisons between these two groups on all the well-being and antifat attitudes variables were made by means of the one way ANOVA. Cohen's *ds* (Cohen, 1988) were also calculated as indices of effect size. Cohen (1988) defined *d* as the difference between means divided by standard deviation of either group ( $ds \geq .2$  are considered medium effect sizes and  $ds \geq .8$  large effect sizes; Cohen, 1988). Participants with medium scores were not selected for the final sample and were excluded of the analysis.

Table 2  
Differences between groups (dieting subscale) on attitudes toward obese people

Antifat measure		Dieting subscale		<i>F</i> (1, 226)	<i>d</i>
		With risk <i>n</i> = 113	Without risk <i>n</i> = 115		
Dislike	<i>M</i>	2.04	1.57	18.29**	.77
	<i>SD</i>	1.01	.58		
Fear of fat	<i>M</i>	5.01	2.03	326.16**	2.4
	<i>SD</i>	1.36	1.11		
Willpower	<i>M</i>	4.44	3.74	18.49**	.57
	<i>SD</i>	1.27	1.16		
ATOP	<i>M</i>	3.66	3.32	23.12**	.63
	<i>SD</i>	.62	.44		
BAOP	<i>M</i>	4.49	4.06	12.71**	.46
	<i>SD</i>	.99	.84		

\*\*  $p < .01$ ; \*  $p < .05$

### Dieting

According to previous criterion, 228 individuals were selected (risk to develop ED group:  $n = 113$ ; and without risk group:  $n = 115$ ). These groups were correctly formed, given that the mean scores on classification variable (Dieting subscale score of the EAT-26) were significantly different between groups [risk group = 4.03 vs. without risk group = 1.36,  $F(1, 226) = 962.06$ ,  $p < .01$ ;  $d = 3.37$ ].

A one-way ANOVA was conducted (see Table 1), with the Dieting subscale as a factor (two groups: risk and no risk) and the SWB and PWB scales as dependent variables (DV). The results showed that women with higher scores in the Dieting subscale presented less SWB than participants with lower scores in this subscale of the EAT-26. It was found that life satisfaction and affect balance were lower in participants of the risk group. Additionally, it was found that women had lower PWB. Participants of the risk group reported less self-acceptance, positive relations with others, autonomy, environmental mastery and purpose in life than women with low scores in the Dieting subscale. The ANOVA revealed the differences were statistically significant.

Another one-way ANOVA was made with the dieting subscale as the Independent Variable (IV) and the scales to measure attitudes toward obese people (AFA, ATOP and BAOP) as DVs (see Table 2). It was found that participants of the risk group had higher scores in dislike, fear of fat and willpower (subscales from AFA), ATOP and BAOP than women of the no risk group.

Finally, a one-way ANOVA was performed with the dieting subscale as IV and the BMI as DV. It was found that participants high in Dieting had also higher BMIs [ $M = 22.96$ ,  $SD = 2.87$  vs  $M = 20.74$   $SD = 2.73$ ] and the differences were statistically significant [ $F(1, 226) = 35.57$ ,  $p < .01$ ;  $d = .79$ ].

### Bulimia

With the same procedure, 212 individuals were selected (risk to develop ED group:  $n = 117$ ; and without risk group:  $n = 95$ ) but in this case with the Bulimia subscale. These groups were correctly formed, given that the mean scores on classification variable (Bulimia subscale score of the EAT-26) were significantly different between groups [risk group = 3.11 vs. without risk group = 1.05;  $F(1, 210) = 696.34$ ,  $p < .01$ ;  $d = 2.69$ ].

A one-way ANOVA was made, with the Bulimia subscale as the IV and the SWB and PWB scales as DVs (see Table 3). The results showed that women with higher scores in the Bulimia subscale reported less SWB than participants with lower scores in this subscale of the EAT-26. It was found that life satisfaction and affect balance were higher in participants of the no risk group. Additionally, it was found that women with higher scores in the Bulimia sub-scale had lower PWB. The ANOVA showed that participants of the risk group reported low scores in self-acceptance, positive relation with others, autonomy, environmental mastery and purpose in life than women of the no risk group.

Another one-way ANOVA was made with the Bulimia subscale as IV and the scales to measure attitudes toward obese people (AFA, ATOP and BAOP) as DVs. It was found that participants of the risk group had higher scores in dislike, fear of fat and willpower (subscales from AFA), ATOP, and BAOP than women of the no risk group (see Table 4).

Also, a one-way ANOVA was conducted with the bulimia subscale as IV and the BMI as DV. It was found that participants high in Bulimia had also higher BMIs ( $M = 22.61$ ,  $SD = 3.12$  vs  $M = 20.91$ ,  $SD = 2.79$ ) and the differences were statistically significant [ $F(1, 210) = 16.91$ ,  $p < .01$ ;  $d = .57$ ].

**Table 3**  
*Differences between groups (bulimia subscale) on hedonic and eudaimonic measures of well-being*

Well being measure		Bulimia subscale		<i>F</i> (1, 210)	<i>d</i>
		With risk <i>n</i> = 117	Without risk <i>n</i> = 95		
Satisfaction with life	<i>M</i>	4.68	5.16	7.82**	.39
	<i>SD</i>	1.31	1.11		
Affect balance	<i>M</i>	1.26	2.08	11.57**	.47
	<i>SD</i>	1.88	1.59		
Self-acceptance	<i>M</i>	4.86	5.45	15.34**	.54
	<i>SD</i>	1.18	.98		
Positive relation with others	<i>M</i>	5.37	5.73	5.14*	.31
	<i>SD</i>	1.15	1.11		
Autonomy	<i>M</i>	4.84	5.29	12.47**	.49
	<i>SD</i>	.93	.87		
Environmental mastery	<i>M</i>	5.02	5.48	10.99**	.47
	<i>SD</i>	1.07	.87		
Personal growth	<i>M</i>	5.58	5.68	.83	.11
	<i>SD</i>	.81	.87		
Purpose in life	<i>M</i>	5.29	5.76	9.75**	.43
	<i>SD</i>	1.15	.99		

\*\*  $p < .01$ ; \*  $p < .05$

**Table 4**  
*Differences between groups (bulimia subscale) on attitudes toward obese people*

Antifat measure		Bulimia subscale		<i>F</i> (1, 210)	<i>d</i>
		With risk <i>n</i> = 117	Without risk <i>n</i> = 95		
Dislike	<i>M</i>	2.04	1.56	17.54**	.59
	<i>SD</i>	1.01	.52		
Fear of fat	<i>M</i>	4.61	2.24	128.54**	1.6
	<i>SD</i>	1.71	1.22		
Willpower	<i>M</i>	4.26	3.82	6.39*	.57
	<i>SD</i>	1.31	1.21		
ATOP	<i>M</i>	3.65	3.36	14.19**	.53
	<i>SD</i>	.62	.45		
BAOP	<i>M</i>	4.46	4.15	5.51*	.33
	<i>SD</i>	.97	.87		

\*\*  $p < .01$ ; \*  $p < .05$

### *Oral control*

Finally, 228 individuals were selected (risk to develop ED group:  $n = 116$ ; and without risk group:  $n = 112$ ) with the Oral Control subscale. These groups were correctly formed, given that the mean scores on classification variable (Oral control subscale score of the EAT-26) were significantly different between groups [risk group = 4.02

vs. without risk group = 1.74,  $F(1, 226) = 1442.21$ ,  $p < .01$ ;  $d = 5.13$ ].

A one-way ANOVA was made, with the oral control subscale as the IV and the SWB and PWB scales as DVs (see Table 5). The results showed that women with higher scores in the oral control subscale reported less SWB than participants with lower scores in this subscale of the EAT-26. It was found that life satisfaction and affect balance

**Table 5**  
*Differences between groups (oral control subscale) on hedonic and eudaimonic measures of well-being*

Well being measure		Oral control subscale		<i>F</i> (1, 226)	<i>d</i>
		With risk <i>n</i> = 116	Without risk <i>n</i> = 112		
Satisfaction with life	<i>M</i>	4.85	5.27	6.61**	.34
	<i>SD</i>	1.42	.98		
Affect balance	<i>M</i>	1.59	2.21	7.27**	.36
	<i>SD</i>	1.77	1.63		
Self-acceptance	<i>M</i>	5.05	5.57	14.01**	.51
	<i>SD</i>	1.18	.87		
Positive relation with others	<i>M</i>	5.66	5.82	1.23	.14
	<i>SD</i>	1.11	1.04		
Autonomy	<i>M</i>	4.93	5.28	7.27**	.35
	<i>SD</i>	.99	.93		
Environmental mastery	<i>M</i>	5.17	5.52	7.75**	.44
	<i>SD</i>	1.11	.81		
Personal growth	<i>M</i>	5.61	5.71	.91	.11
	<i>SD</i>	.71	.88		
Purpose in life	<i>M</i>	5.52	5.64	.84	.11
	<i>SD</i>	1.06	.99		

\*\* *p* < .01; \* *p* < .05

**Table 6**  
*Differences between groups (oral control subscale) on attitudes toward obese people*

Antifat measure		Oral control subscale		<i>F</i> (1, 226)	<i>d</i>
		With risk <i>n</i> = 116	Without risk <i>n</i> = 112		
Dislike	<i>M</i>	1.87	1.56	9.15**	.39
	<i>SD</i>	.89	.66		
Fear of fat	<i>M</i>	3.77	2.77	21.30**	.61
	<i>SD</i>	1.81	1.44		
Willpower	<i>M</i>	4.11	3.66	6.21*	.43
	<i>SD</i>	1.34	1.22		
ATOP	<i>M</i>	3.47	3.34	2.92	.23
	<i>SD</i>	.64	.87		
BAOP	<i>M</i>	4.34	4.19	1.49	.16
	<i>SD</i>	.91	.87		

\*\* *p* < .01; \* *p* < .05

were lower in participants of the risk group compared to the results of women with lower scores on the Oral Control subscale. Additionally, it was found that people from the risk group had lower PWB. The ANOVA showed that participants with higher scores in the oral control sub-scale reported low scores in self-acceptance, autonomy and environmental mastery than participants of the no risk group.

Another one-way ANOVA was made with the oral

control subscale as IV and the scales to measure attitudes toward obese people (AFA, ATOP and BAOP) as DVs. It was found that participants of the risk group had higher scores in dislike, fear of fat and willpower (subscales from AFA). No statistically significant differences were found in BAOP or ATOP (see Table 6).

Finally, a one-way ANOVA was performed with the oral control subscale as IV and the BMI as DV. It was

found that participants high in oral control had also higher BMIs ( $M = 22.67$ ,  $SD = 3.28$  vs  $M = 20.95$ ,  $SD = 2.23$ ) and the differences were statistically significant [ $F(1, 226) = 21.55$ ,  $p < .01$ ;  $d = .61$ ].

Taken together, and as it was hypothesized, the results suggest that women in risk to develop ED report less SWB and PWB (with medium effect sizes) and more negative attitudes toward obese people (medium effect sizes, with the exception of the fear of fat subscale with a large effect size) than women without eating concerns.

## Discussion

Reports of well-being problems were much more common in participants with high scores in the different sub-scales of the EAT-26. Different components of well-being were affected in the high risk to develop ED group. The results showed that hedonic or subjective well-being (SWB, affect balance and life satisfaction) and eudaimonic or psychological well-being (PWB, self-acceptance, positive relation with others, autonomy, environmental mastery and purpose in life. Personal growth did not show any significant results) were lower in the group of women with special concerns about their own weight (in Dieting, Bulimia and Oral Control subscales). Because it is a correlational study it is unclear whether SWB and PWB are an antecedent concomitant or if they are just a consequence of the possible pathology. In any case, to recognize the presence of low levels of well-being, as in the case of anxiety and depression, in non clinical settings in young women can help professionals to prevent the appearance of ED (Godart et al., 2003; Stice, Shaw, & Marti, 2007).

In the ED topic, investigations have traditionally focused on symptom reduction rather than well-being. In the last few years the trend is changing and nowadays most of the investigations include quality of life measures. It is important to remark that recently some instruments have been developed to assess quality of life in ED patients like the Health-Related Quality of Life in Eating Disorders (HeRQoLED; Las Hayas et al., 2006), the Quality of Life for Eating Disorders questionnaire (QOL ED-H; Abraham, 2008; Abraham et al., 2006), the Health Related Quality of Life for the Eating Disorders (HeRQoLED-S; Bamford, 2010) and the Eating Disorders Quality of Life Scale (EDQLS; Adair et al., 2010) that are used with clinical samples but that do not include hedonic and eudaimonic components of well-being. Quality of life measures in ED have become more popular and most of the researchers recognize the importance of evaluating well being and functioning in specific domains of life that may be affected by ED (Bamford & Sly, 2010). The assessment of quality of life and well-being may provide useful information in patients with ED as this paper suggest. As a matter of fact, in Positive Psychology (Seligman & Csikszentmihalyi,

2000) it is suggested to promote mental health rather than merely treat illness.

Another result of the current study is that women in risk to develop ED (in the Dieting, Bulimia and Oral Control subscales) had higher BMI than participants with low scores on the different subscales of the EAT-26. This result is similar to what has been found recently in a sample of adolescents in risk to develop ED (Veses et al., 2011). According to these authors, teenagers with higher BMIs showed a higher risk of having ED than those with normal weight. The result of the current study suggests that women with higher BMIs may develop a higher consciousness about eating concerns.

In previous antifat attitudes investigation (Lewis et al., 1997; O'Brien et al., 2007; Pepper & Ruiz, 2007; Solbes & Enesco, 2010), significant correlations were found between body image, body dissatisfaction and eating concerns and negative attitudes toward obese people (specially with the dislike and willpower subscales of the AFA) but this study is the first to examine the relationship between ED and antifat attitudes. In the current study it was found that participants with higher scores in the different sub-scales of the EAT-26 (Dieting, Bulimia and Oral Control) questionnaire reported more negative attitudes toward obese people in AFA (the 3 subscales), BAOP and ATOP scales compared to the participants with low scores in the EAT-26. According to the results of the present research and the reviewed literature, it can be said that people with high scores in ED tests tend to be biased against obese people. In fact, when Crandall (1994) developed AFA included a subscale that measured how people were afraid to gain weight (fear of fat subscale) that had a positive and high correlation with the dislike subscale. According to the results of the present study, there may be a component related to eating concerns that can be explaining why people stigmatize obese individuals. Therefore, people with eating concerns (as women in the risk group), which represents a big effort to look good, may also expect that others should be taking similar care of their own physical image. Because of this, obese people may be seen as deviating from these ideals and for this reason are discriminated against. For instance, Puhl, Moss-Racusin, and Schwartz (2007) 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 (antifat attitudes) can be bidirectional and future research must be done in order to clarify the nature of this relationship.

The current study is subject to some limitations that deserve mention. First of all, in the research self-reports has been used. It would be necessary, for future investigations, to conduct studies with the same goals, using



not only self-reports, but also more objective criteria, evaluating the same constructs with alternative measures (BMI, waist-to-hip ratio, clinical interview, psychiatric and medical evidences) and not just with a screening test like EAT-26. In the second place, it is a cross-sectional study. However, only longitudinal studies can provide insight into how ED, well-being and antifat attitudes interact with different daily life stressful experiences. Finally, it is important to remark the necessity to reply these findings with clinical samples. It will be very interesting to analyze if women with a diagnosis of an ED report less SWB and PWB and have more negative attitudes toward obese people. The use of a nonclinical sample clearly limits the conclusions to this sample. Nonetheless, many of the observed results were consistent with those reported in clinical samples, leaving open the possibility that similar processes are involved in women in risk to develop ED. Despite these limitations, the study provides new data with potential applications.

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