

# SEXISM AND EATING DISORDERS: GENDER DIFFERENCES, CHANGES WITH AGE, AND RELATIONS BETWEEN BOTH CONSTRUCTS

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Abstract: Concern about the prevalence of sexism and eating disorders (EDs) underlies this study, which had two goals: 1) To analyze gender differences and changes with age in sexism and in eating disorders (EDs) (DT-drive for thinness, BN-bulimia, BD-body dissatisfaction); and 2) to explore the relations between sexism and EDs. The sample comprised 941 students from 14 to 25 years old. The Ambivalent Sexism Inventory (Glick & Fiske, 1996) and the Eating Disorders Inventory (Garner, 1990) were applied. The results confirm that males score significantly higher in sexism. Females score significantly higher in DT, BN, BD. Sexism decreased with age. BN increased with age, DT and BD did not vary, whereas some psychological traits (perfectionism, maturity fears, impulsivity, and social insecurity) decreased with age. Positive correlations between sexism and DT, fear of maturity, asceticism, and impulsivity were found.

Keywords: Sexism; eating disorders; gender; adolescence; youth.

Sexismo y trastornos de la conducta alimentaria: Diferencias de género, cambios con la edad y relaciones entre ambos constructos

Resumen: La preocupación por la prevalencia del sexismo y los trastornos de conducta alimentaria (TCA) subyace a este estudio que tuvo dos objetivos: 1) Analizar diferencias de género y cambios con la edad en sexismo y TCA (OD-obsesión por la delgadez, BN-bulimia, IC-insatisfacción corporal); y 2) Explorar las relaciones entre sexismo y TCA. La muestra consistió en 941 estudiantes de 14-25 años. Se aplicó el Inventario de Sexismo Ambivalente (Glick y Fiske, 1996), y el Inventario de Trastornos de la Conducta Alimentaria (Garner, 1990). Los resultados confirmaron que los hombres mostraban puntuaciones superiores en sexismo y las mujeres en TCA. El sexismo disminuyó con la edad. La BN aumentó con la edad, la OD y la IC no variaron, mientras que algunos rasgos (perfeccionismo, miedo a la madurez, impulsividad, inseguridad social) disminuyeron con la edad. Se hallaron correlaciones positivas entre sexismo y OD, miedo a la madurez, ascetismo e impulsividad.

Palabras clave: Sexismo; trastornos de conducta alimentaria; género; adolescencia; juventud.

# INTRODUCTION

Sexism and eating disorders: Gender and age differences

Sexism is defined as a discriminatory attitude towards people because of their biological

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sex, as a function of which, diverse characteristics and behaviors are assumed. Glick and Fiske (1996, 1999, 2001) made an important contribution to our understanding of sexism by identifying ambivalent sexism (AS) as the result of the combination of two types of sexism with antagonistic affective charges. Hostile sexism (HS) shares its negative affective charge with the more traditional sexism and assumes a negative stereotyped and view of women as inferior beings. However, along with the hostile element, there is another one with a positive affective tone, benevolent sexism (BS), based on a traditional ideology that idealizes women as wives, mothers, and romantic objects, but which is nonetheless sexist because it relegates women to these roles, considering them as weak people who must be protected by men.

The review of the investigations that have analyzed differences in sexism as a function of gender and age shows mixed results. Some studies have shown that men score significantly higher in HS and BS (Feather & Boeckmann, 2007; Forbes, Collinsworth, Jobe, Braun, & Wise, 2007; Fowers & Fowers, 2010; Garaigordobil & Aliri, 2011a; Glick & Fiske, 1996; Lameiras & Rodríguez, 2003; Lee, Pratto, & Li, 2007; Masser & Abrams, 1999; Travaglia, Overall, & Sibley, 2009). However, other investigations have not found gender differences in BS (Chen, Fiske, & Lee, 2009; Pereira, Gouveia, da Silva, & Marques, 2005; Sakalli-Ugurlu, 2010; Vaamonde, 2010) or they have found higher scores in men but only up to the age of 42 years (Lameiras, Rodríguez, & González, 2004), or until the age of 54 (Garaigordobil & Aliri, 2013), or in adult men but not during early adolescence (Garaigordobil & Aliri, 2011b).

The studies that have analyzed changes in sexism with age vary depending on the age of the participants included in them. The study of Zakrisson, Aderzén, Lenell, and Sandelin (2012) concludes that adolescents of both sexes (M = 18 years) have higher levels of HS and BS than the adults. Masser and Abrams (1999), with a sample comprising three types of participants, pre-university students (M = 17 years), university students (M = 23 years), and full-time workers (M = 35 years), found that adolescents of both sexes scored significantly higher in HS and BS. Lameiras and Rodríguez (2003), using a sample of adolescent and university students, also observed a decrease of HS, BS, and AS with age. Nevertheless, a study (Garaigordobil & Aliri, 2013) that includes participants from 14 to 70 years of age has found evidence of significantly high scores in HS and BS between 14 and 18 years, progressively decreasing until the age of 54 years, and subsequently increasing, and the highest scores were observed between 64 and 70 years.

The second construct that is the target of study are EDs, which constitute a group of mental disorders characterized by altered ingestion behavior or the onset of behaviors to control weight. This alteration leads to physical problems or problems in the individual's psychosocial functioning. The current classifications of EDs include anorexia, bulimia, and other alterations known as unspecified EDs (American Psychiatric Association, 2003).

The studies that analyze gender differences in eating disorders (EDs) have reported that no other clinical pathology displays such evident gender differences. Prevalence studies of EDs indicate that the population at highest risk is that of females from 12 to 21 years, specifically 15- and 17-year-olds (90-95% of the cases) with a male/female ratio of approximately 1:10. All the studies confirm these gender differences, with similar proportions (Kerremans, Claes, & Bijttebier, 2010; Varela-Casal, Maldonado, & Ferré, 2011). EDs have become a social and clinical concern due to their rate of increase in recent years, coinciding with the decrease of the age at the onset of these disorders to 10 years (Maganto, 2011). The analysis of adolescents with symptoms of eating alterations, without a diagnosis of ED, reveals similar gender differences, 52% of adolescent girls versus 17% of boys (Lea, 2011). Studies of body image and age show that, in childhood, there are hardly any gender differences, the most extreme differences are observed in puberty and adolescence, and they diminish progressively in youth (Bully, Elosua, & López-Jáuregui, 2012), but they also show that, at all ages, the level of body dissatisfaction is higher in women (Berg, Frazier, & Sherr, 2009; Cserjési et al., 2010; Espinoza, Penelo, & Raich, 2010; Schutz & Paxton, 2007). Therapeutic efficacy of cognitive-behavioral interventions with these patients lends support to the perceptive and behavioral alterations of people with EDs (Berbel et al., 2010; Castro, Larroy, & Gómez, 2010; Navarro, Jorquera, García Palacios, & Botella, 2010).

Relations between sexism and eating disorders

Research on the relation between sexism and eating disorders (EDs) is scarce. Some studies underline that what conditions EDs are power differences between men and women and the need for submission (Katzman, 1997), whereas others emphasize the sexist influence of the mass media, as elicitors of EDs (Calado, Lameiras, Sepulveda, Rodríguez, & Carrera, 2010). Gamboa (2007) found that women who had experienced sexist episodes with peers and relatives developed a more dissatisfied body image and eating problems. The problems of body image and sexism are mediated by the esthetic body model that predominates in our society, and there is extensive literature linking it to EDs (Moradi, Dirks, & Matteson, 2005). Peer pressure to conform to the esthetic ideal in adolescence elicits behaviors—which can be described as within the clinical range—concerning the use and abuse of diets, originating ED problems and disparaging cognitions about one's own body, with a male/female ratio of about 1:9 (Calado et al., 2010; Maganto & Cruz, 2008). However, other studies suggest that this influence occurs more in non-feminist women than in feminists (Guille & Chrisler. 1999; Sabick & Tylka, 2006). Therefore, the variable sexism influences—albeit indirectly— EDs in adolescents and young people.

The scientific literature notes that the relation between sexism and EDs is mediated by psychological cognitions and behaviors of benevolent sexism (Franzoi, 2001; Forbes, Jung, & Haas, 2006; Glick & Fiske, 1997; Huang, Norman, Zabinski, Calfas, & Patrick, 2007; Neumark-Sztainer, Wall, Haines, Story, & Eisenberg, 2007). In fact, the use of cosmetics, clothing, and precocious seductive behavior is observed in adolescents with a marked bias of benevolent sexism and they blame themselves when their body image does not conform to the ideal pattern of thinness, resorting to unhealthy behaviors (exhaustive physical exercise, the use of laxatives, or aberrant diets) that stabilize an ED (Forbes et al., 2005; Forbes, Doroszewicz, Card, & Adams-Curtis, 2004; Forbes et al., 2006; Westerberg, Edlund, & Ghaderi, 2010).

# Goals and hypotheses

Based on the theory of ambivalent sexism and taking into account the findings of prior

research, this study had two goals: 1) to analyze gender differences and changes with age in the different types of sexism (HS-hostile, BS-benevolent, AS-ambivalent), in eating disorders (EDs) (drive for thinness, bulimia, body dissatisfaction), as well as in other relevant psychological traits for EDs (ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, maturity fears, asceticism, impulsivity, social insecurity); and 2) to explore the concomitant relations between sexism and EDs. Having verified the association of EDs with alterations of body image and, in turn, of alterations of body image with sexism, the present study is relevant because it attempts to examine the possible connection of EDs and sexism. Three hypotheses are proposed in the study: 1) Gender differences will be found, with higher scores in men for sexism (HS, BS, AS) and in women for EDs and traits associated with these disorders; 2) Both sexism and EDs will be significantly higher in adolescents from 14 to 18 years compared to young people from 19 to 25 years of age; that is, sexism and EDs will decrease with age; and 3) Controlling for the effect of sex and age, positive relations will be found between sexism (HS, BS, AS) and EDs (drive for thinness, bulimia, body dissatisfaction), as well as with the other traits associated with EDs.

## **METHOD**

# **Participants**

The sample comprised 941 participants aged between 14 and 25 years, 465 males (49.4%) and 476 females (50.6%) from the Basque Country (Spain). The participants were distributed in two age ranges, 471 adolescents (50.1%) between 14 and 18 years old, and 470 young people between 19 and 25 years old (49.9%). From the sample, 245 (26%) were registered in Compulsory Secondary Education (CSE) (third and fourth grade), 226 (24%) were high school students (first and second grade), 229 (24.3%) were university students (first and second courses), and 241 (25.6%) were older university students (third to fifth courses). The sample is repre-

sentative of the CSE, high school, and university students of the Basque Country. According to the latest survey presented by the Basque Statistical Institute (eustat.es), the population of the CSE and high school students in the Basque Country is 101,757, and the population of university students is 64,127. With a .95 confidence level and a .05 sample error, 766 individuals is the representative sample for a .50 population variance. The sample was selected by simple random sampling of the list of schools of the Basque Country, including university students from diverse faculties: Law, Psychopedagogy, Psychology, Nursing, Industrial Engineering, Physical Education...

#### Assessment instruments

In order to measure the variables of interest in this study, two assessment instruments with guarantees of psychometric reliability and validity were used.

Ambivalent Sexism Inventory (ASI. Glick & Fiske, 1996; Spanish adaptation Expósito, Moya, & Glick, 1998). E). This instrument has 22 sentences, which are rated on a Likert scale ranging from 0 (*strongly disagree*) to 5 (*strongly agree*). The test measures ambivalent sexism (AS), which is made up of two dimensions: Hostile Sexism (HS, which basically coincides with the old sexism) and Benevolent Sexism (BS, understood as a series of sexist attitudes towards women inasmuch as women are considered in a stereotyped fashion and limited to certain roles: mother, wife, and romantic object). The Spanish psychometric studies of reliability of the instrument have revealed a high internal consistency (Cronbach's alpha) for AS ( $\alpha = .90$ ) and its subscales (HS  $\alpha = .89$ ; BS  $\alpha = .86$ ) (Expósito, Moya, & Glick, 1998). In the present study, the internal consistency coefficients obtained in the entire sample point in the same direction (AS  $\alpha$ = .91; HS  $\alpha$  = .90; BS  $\alpha$  = .84). The validity studies of the ASI (Spanish adaptation) yielded significant correlations of AS with the Gender Ideology Scale (Moya, Expósito, & Padilla, 2006), as well as with the Neosexism Scale (Tougas, Brown, Beaton, & Joly, 1995; Spanish adaptation Moya & Expósito, 2001).

Eating Disorder Inventory (EDI-2. Garner, 1990; Spanish adaptation, Corral, González, Pereña, & Seisdedos, 1998). This self-report assesses the symptoms that normally accompany anorexia and bulimia nervosa. The EDI measures psychopathological dimensions related to EDs. It has 91 self-administered items that are rated on a 5-point Likert scale ranging from 0 to 5 (never-always), and it provides scores on 11 scales that are clinically relevant for EDs. The instrument includes three scales that assess attitudes and behaviors related to food, weight, and physique: DT-Drive for thinness (extreme desire to be thinner, concerns with food, intense fear of gaining weight), BN-Bulimia (tendency to think about binges and the tendency to binge), BD-Body dissatisfaction (dissatisfaction with the general shape of one's body and with the size of body parts that cause exaggerated worry), and eight more general scales about psychological traits that are clinically relevant in EDs: Ineffectiveness (feelings of general incapacity, emptiness, self-contempt), Perfectionism (degree to which a person selfimposes the need for the highest levels of personal achievement), Interpersonal distrust (feelings of disillusion, discouragement, distancing and mistrust of relations), Interoceptive awareness (degree of difficulty to recognize and respond appropriately to emotional states; to identify sensations related to hunger and the feeling of fullness), Maturity fears (the desire to return to the security of childhood; fear of all the psychological or biological experiences related to the weight of adulthood), Asceticism (a tendency to pursue virtue through spiritual ideals, such as self-discipline, sacrifice, control of bodily needs), Impulsivity (difficulty regulating impulses, hostility, agitation, self-destruction and the destruction of interpersonal relations) and Social insecurity (a feeling of discomfort and apprehension about participating in social situations). The psychometric studies confirm the reliability of the test (Cronbach's alpha = higher than .80 for the groups of anorexia nervosa in all the scales; test-retest reliability = coefficients higher than .80), and in nonclinical samples, consistency ranged between .72 and .92 (Garner & Olmsted, 1984). The psychometric studies in the original samples and the Spanish samples confirm the validity, as statistically significant differences were found between patients diagnosed with anorexia and bulimia, as well as between clinical patients with ED and people without ED. The Spanish studies of reliability have revealed an acceptable internal consistency (split halves) in the DT, BN, BD scales (between .57 and .88.). In the present study, the internal consistency coefficients obtained in the entire sample point in the same direction ( $\alpha$  = between .71 and .87), with a global coefficient .92 for the scales.

## Procedure

Firstly, an interview was set up with the headmasters of the schools to present the investigation and request their collaboration. Subsequently, a meeting was held with the parents of the pre-university participants to explain the study and request their explicit informed consent, authorizing their sons and daughters to participate in the investigation. The questionnaires were administered collectively in the classroom; they were voluntary and anonymous. The participants were requested to complete their identification data (gender, age...) and the instructions were read aloud to them. The investigators (psychology graduates) were present during administration of the tests to provide any help needed. The mean administration time was 40 minutes. The study met the ethical values required in research with human beings, respecting the fundamental principles (informed consent and right to information, protection of personal data and guarantees of confidentiality, nondiscrimination, and freedom to leave the

study at any stage) and was favorably assessed by the Ethical Committee of the Basque Country University.

## **RESULTS**

Sexism and eating disorders: Gender differences and changes with age

In order to analyze whether there were any gender differences and changes with age, multivariate and univariate analyses of variance were carried out. The results obtained in sexism (HS-hostile, BS-benevolent, AS-ambivalent) are presented in Table 1, and those of ED symptoms in Table 2.

The results of the MANOVA for the set of sexism variables (HS, BS, AS), Wilks'  $\lambda = .870$ . F(2, 936) = 70.08, p < .001 show significant gender differences, and the effect size was medium ( $\eta^2 = .130$ , r = .36); there were also differences as a function of age, Wilks'  $\lambda = .936$ , F(2,936) = 31.85, p < .001, with a medium-low effect size ( $\eta^2 = .064$ , r = .25). The results of the analysis of variance (see Table 1) confirm the existence of gender differences in HS, BS, and AS, with significantly higher scores in the males in all three types of sexism at all ages, that is, from 14 to 25 years. In addition, in comparison to the adolescents, the young people obtained significantly lower scores in HS, BS, and AS, which reveals a decrease of sexism with age.

The results of the MANOVA for the ED symptoms and the associated variables, Wilks'  $\lambda = .786$ , F(11, 776) = 19.19, p < .001, showed significant gender differences, with a medium effect size ( $\eta^2 = .214$ , r = .46); differences as a

Table 1. Means, standard deviations, analysis of variance, and effect size of sexism as a function of gender and age

			escents years			Young (19-25 years)						
		Ien 249)		men 222)		Ien 216)		men 254)	F(1, 939)		F(1, 939)	
	M	SD	M	SD	M	SD	M	SD	Gender	$\eta^{\scriptscriptstyle 2}$	Age	$\eta^{\scriptscriptstyle 2}$
Hostile Sexism (HS)	2.71	0.94	2.02	0.84	2.32	0.96	1.56	0.97	139.64***	.130	48.70***	.049
Benevolent Sexism (BS)	2.46	0.88	2.25	0.89	2.25	0.94	1.62	0.94	48.86***	.050	49.06***	.050
Ambivalent Sexism (AS)	2.58	0.76	2.14	0.76	2.28	0.85	1.59	0.85	115.92***	.110	63.76***	.064

<sup>\*\*\*</sup> p < .001.

Table 2. Means, standard deviations, analysis of variance, and effect size of eating disorders symptoms a	s a function of
gender and age	

	Adolescents (14-18 years)			Young (19-25 years)								
	Men $(n = 249)$		Women $(n = 222)$		Men $(n = 216)$		Women $(n = 254)$		F (11, 776)		F(11, 776)	
	M	SD	M	SD	M	SD	M	SD	Gender	$\eta^{\scriptscriptstyle 2}$	Age	$\eta^{\scriptscriptstyle 2}$
Drive for thinness	1.61	2.21	5.37	5.81	1.59	2.26	5.09	5.69	156.59***	.145	0.28	.000
Bulimia	1.26	2.17	1.44	2.65	1.54	2.30	2.13	3.27	6.96**	.005	6.00*	.008
Body dissatisfaction	3.86	4.66	8.79	6.86	3.24	3.51	8.29	6.92	172.00***	.159	0.46	.002
Ineffectiveness	1.86	2.69	2.90	3.86	1.94	2.70	2.48	3.57	9.78**	.015	1.20	.001
Perfectionism	3.48	2.79	3.70	3.72	3.42	2.99	2.94	3.14	0.19	.000	4.39*	.004
Interpersonal distrust	2.73	2.66	2.70	2.16	3.05	3.12	2.46	2.85	4.86	.003	0.04	.000
Interoceptive awareness	2.41	2.94	4.38	4.21	3.04	2.86	2.93	3.63	14.70***	.018	6.66*	.004
Maturity fears	6.05	3.67	6.23	4.30	5.47	4.22	5.08	3.77	0.26	.000	10.09**	.012
Asceticism	2.99	2.25	4.04	3.08	3.84	3.02	3.17	3.08	0.73	.001	0.93	.000
Impulsivity	3.13	3.67	3.66	4.48	3.24	3.89	2.14	3.58	0.48	.001	12.30***	.008
Social insecurity	3.08	3.45	3.10	3.47	2.88	3.07	2.61	3.05	1.32	.000	4.21*	.003

<sup>\*</sup> p < .05. \*\* p < .01. \*\*\* p < .001.

function of age were also observed, Wilks'  $\lambda =$ .953, F(11, 776) = 3.48, p < .001, with a medium-low effect size ( $\eta^2 = .047$ , r = .21). Table 2 shows that the females score significantly higher in ED behaviors, such as drive for thinness, bulimia, and body dissatisfaction, as well as in psychological traits associated with ED symptoms, such as ineffectiveness and interoceptive awareness. No gender differences were found in perfectionism, interpersonal distrust, maturity fears, asceticism, impulsivity, and social insecurity. Moreover, the results show that the adolescents (14-18 years) score significantly higher in perfectionism, maturity fears, and social insecurity, whereas the young people score higher in bulimia. Significant differences as a function of age were observed in interoceptive awareness; however, the gender\*age interaction was significant, F(1, 939) = 17.65, p <.001, as it was observed to increase with age in the boys, whereas in the girls, it decreased. Scores in drive for thinness, body dissatisfaction, ineffectiveness, interpersonal distrust, and asceticism barely varied with age.

Relations between sexism and eating disorders

With the goal of analyzing the concomitant relations between the diverse types of sexism

and ED symptoms, partial correlations were calculated, controlling for the effect of gender and age, the results of which are presented in Table 3.

The correlation coefficients obtained (see Table 3) confirm significant and positive correlations of the three types of sexism (HS, BS, AS) with drive for thinness, maturity fears, asceticism, and impulsivity. In addition, correlations were found between HS and AS and perfectionism and interoceptive awareness. Therefore, the results suggest that the participants with high levels of sexism (HS, BS, AS) also had high scores in drive for thinness, maturity fears, asceticism, and impulsivity, and participants with high scores in HS and AS also scored high in perfectionism and interoceptive awareness. Nevertheless, it is noted that the correlations between sexism and ED symptoms, albeit significant, are of low magnitude.

## **DISCUSSION**

The purpose of the study was to analyze gender differences and changes with age in sexism and EDs, as well as to study the relations between these constructs. Firstly, the results have shown that the males score significantly higher in HS, BS, and AS at all ages, that is,

	Hostile Sexism	Benevolent Sexism	Ambivalent Sexism
Drive for thinness	.08*	.09**	.10**
Bulimia	.03	.01	.03
Body dissatisfaction	.05	.04	.05
Ineffectiveness	.04	.01	.03
Perfectionism	.07*	.05	.07*
Interpersonal distrust	.06	.02	.02
Interoceptive awareness	.14***	.05	.11**
Maturity fears	.10**	.07*	.10**
Asceticism	.13***	.10**	.13***
Impulsivity	.16***	.11**	.16***
Social insecurity	.04	.00	.02

Table 3. Partial correlations between sexism and eating disorders symptoms, controlling for the effect of gender and age

from 14 to 25 years. In contrast, the females score significantly higher in ED behaviors, such as drive for thinness, bulimia, body dissatisfaction, as well as in psychological traits, such as ineffectiveness and interoceptive awareness. Therefore, the results also allow confirmation of Hypothesis 1 because, at all ages, the males scored higher in sexism and the females in ED symptoms.

These results confirm those obtained in other studies of sexism that have reported higher scores in the men in HS and BS (Feather & Boeckmann, 2007; Forbes et al., 2007; Fowers & Fowers, 2010; Garaigordobil & Aliri, 2011a; Glick & Fiske, 1996; Lameiras & Rodríguez, 2003; Lee et al., 2007; Masser & Abrams, 1999; Travaglia et al., 2009), although they contradict other investigations that have not found gender differences in BS (Chen et al., 2009; Pereira et al., 2005; Sakalli-Ugurlu, 2010; Vaamonde, 2010). In general, this discrepancy may be explained by the ages of the participants included in the studies, because, during adolescence and youth, the men score higher in BS, but at adulthood, gender differences in BS decrease (Garaigordobil & Aliri, 2013; Lameiras et al., 2004). The results obtained in ED symptoms confirm those of other studies (Bully et al., 2012; Calado et al., 2010; Kerremans et al., 2010; Lea, 2011; Varela-Casal et al., 2011) that have found gender differences in EDs, with higher scores in women.

Secondly, the results confirm that adolescents (14-18 years) score significantly higher in

HS, BS, and AS, than young people (19-25 years), who reveal a decrease in sexism at these ages. These results confirm those obtained in other studies with adolescents and young people (Garaigordobil & Aliri, 2013; Lameiras & Rodríguez, 2003; Masser & Abrams, 1999; Zakrisson et al., 2012). In ED symptoms, the results show that drive for thinness and body dissatisfaction do not vary with age; bulimia increases, whereas perfectionism, maturity fears, impulsivity, and social insecurity decrease with age. Therefore, Hypothesis 2 is partially confirmed because only the decrease of sexism (HS, BS, AS) with age is verified. Although various psychological traits associated with EDs decrease with age, drive for thinness and body dissatisfaction do not vary, and bulimia increases with age, which refutes the hypothesis. The fact that ED symptoms do not decrease with age has been confirmed in other studies (Lea, 2011; Maganto, 2011; Varela-Casal, 2011) and the explanation, as repeated studies show, lies in the fact that women increase their body dissatisfaction with age (Bully et al., 2012; Maganto & Cruz, 2008), they experience more interpersonal distrust and attitudes of food restriction related to asceticism, and therefore, they present a higher number of EDs at all ages (Kerremans et al., 2010).

Thirdly, the correlation coefficients confirm that the participants with high scores in all types of sexism (HS, BS, AS) also score high in drive for thinness, maturity fears, asceticism, and impulsivity. In addition, those with high scores

<sup>\*</sup> p < .05. \*\* p < .01. \*\*\* p < .001.

in HS and AS also score high in perfectionism and interoceptive awareness. However, it is important to note that these correlations, while significant, are low in magnitude. Therefore, the third hypothesis is also partially confirmed, because after controlling for the effect of gender and age, positive relations were found between sexism (HS, BS, AS) and ED symptoms (drive for thinness), and traits associated with ED symptoms (maturity fears, asceticism, impulsivity, perfectionism, and interoceptive awareness). Nevertheless, it is noted that no relations were found between sexism and other ED symptoms (bulimia, body dissatisfaction) and associated traits (ineffectiveness, interpersonal distrust, social insecurity). These results are related to those obtained in other studies (Gamboa, 2007) that have found that women who have had sexist experiences develop a more dissatisfied body image and eating problems. The scientific literature indicates that the relation between sexism and ED symptoms is mediated by cognitions and psychological behaviors of BS (Franzoi, 2001; Forbes et al., 2006; Glick & Fiske, 1997; Huang et al., 2007; Neumark-Sztainer et al., 2007). Nevertheless, in this study, correlations between sexism and ED symptoms were found with all three types of sexism. There is no clinical pathology in which gender differences are so evident, which justifies gender ideology, and the values of social pressure about the conception of the ideal woman, aspects that have been addressed in prior research with similar results (Forbes et al., 2005; Forbes et al., 2006; Westerberg et al., 2010).

This study has the limitation of using self-reports, with the resulting social desirability bias. Nevertheless, the investigation contributes relevant information about the changes that occur in ED symptoms, and in the traits associated with them, from adolescence to youth. In addition, using a representative sample and an extensive age range, the work provides evidence of the relations between sexism and ED symptoms, such as drive for thinness, which affects adolescents and young people. Nevertheless, the conclusions concerning the relation between ED symptoms and sexism should be interpreted with caution because this study was not carried out with clinical population, which is a limita-

tion. The results lead us to suggest the need to implement interventions during childhood and adolescence with the aim of preventing ED symptoms. By means of diverse activities, these programs should promote a critical review of the sexist esthetic-body models that are idealized in diverse media (publicity, video-games, TV, social networks...) in which extreme thinness predominates as an ideal of beauty. Young people and adolescents are exposed to these esthetic and behavioral models that reinforce sexist attitudes associated with stereotyped bodily esthetics that are linked to ED symptoms. Moreover, in view of the data obtained, activities that promote the control of impulsivity, independence, and the capacity to recognize and respond appropriately to emotions will have a positive effect on the reduction of sexism and of ED symptoms. The efficacy of cognitivebehavioral treatments advises their use as a means of reducing ED symptoms (Castro et al., 2010; Navarro et al., 2010).

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