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Sociocultural pressure towards body ideals on social physique anxiety in preadolescents: a longitudinal study

Antonio Granero-Gallegos* [1], Álvaro Sicilia[1], Isabel Sánchez-Gallardo[2], Manuel Alcaraz-Ibáñez[1] & Jesús Medina-Casaubón[2]

[1] *Universidad de Almería, Almería (Spain)*
[2] *Universidad de Granada, Granada (Spain)*

Keywords

Social anxiety
Body image
Stereotypes
Gender roles
Tripartite model
Thin body
Mesomorphic body

Abstract

The affective aversive response derived from considering that one's own body might be negatively evaluated (i.e., social-physique anxiety) has been identified as an important antecedent of various health consequences. However, the connection between sociocultural pressures orienting towards prevailing Western body ideals and physical-social anxiety remains to date unexplored. The aim of the present study was to analyze the effects of sociocultural pressure towards thin body and mesomorphic body ideals perceived from three different sources (i.e., media, family, and peers) on social-physique anxiety in a sample of preadolescents. A longitudinal design and a non-probabilistic convenience sampling technique were used. A total of 651 students (50.4% girls) from 12 schools enrolled in the study. Self-report data were collected on two occasions over a 12-month period, which coincided with the 6th year of primary school and the 1st year of Compulsory Secondary Education. Statistical analyses involved testing different multilevel regression models (Linear Mixed Regression Models). The results showed a gender-differentiated pattern of influence of socio-cultural pressure on social-physique anxiety. The perception of pressure towards the mesomorphic body ideal originating in the media explained social-physique anxiety in boys, while the same was true for the perception of pressure towards the thin body ideal originating in the family in girls. The findings suggest that actions aimed at preventing the onset of social-physique anxiety in preadolescents could benefit from adopting a gender-differentiated perspective.

Presión sociocultural hacia los ideales corporales en la ansiedad físico-social en preadolescentes: un estudio longitudinal

Palabras clave

Ansiedad social
Imagen corporal
Estereotipos
Roles de género
Modelo tripartito
Cuerpo delgado
Cuerpo mesomórfico

Resumen

La respuesta afectiva aversiva derivada de considerar que el propio cuerpo podría está siendo negativamente evaluado (i. e., la ansiedad físico-social) se considera un importante antecedente de diversas consecuencias de salud. No obstante, la conexión entre las presiones socioculturales que orientan hacia los ideales corporales occidentales preponderantes y la ansiedad físico-social permanece hasta la fecha inexplorada. El objetivo de este trabajo fue analizar los efectos de la presión sociocultural hacia los ideales de cuerpo delgado y cuerpo mesomórfico percibida desde tres fuentes (i.e., medios de comunicación, familia e iguales) sobre la ansiedad físico-social en una muestra de preadolescentes. Se empleó un diseño longitudinal y una técnica de muestreo no probabilístico accidental. Participaron 651 estudiantes (50.4% chicas) de 12 centros educativos. Se recabaron datos de tipo autoinformado en dos ocasiones separadas por un periodo de doce meses, coincidiendo con los cursos 6º de primaria y 1º de Educación Secundaria Obligatoria. Se testaron diferentes modelos de regresión multinivel (Modelos Lineales de Regresión Mixta). Los resultados mostraron un patrón de influencia diferenciado en función del sexo. La percepción de presión hacia el ideal de cuerpo mesomórfico originada en los medios de comunicación explicaba la ansiedad físico-social en chicos, ocurriendo lo propio en el caso de la percepción de presión hacia el ideal de cuerpo delgado originada en la familia en chicas. Estos hallazgos sugieren que las medidas encaminadas a prevenir la aparición de la ansiedad físico-social en preadolescentes podrían beneficiarse de adoptar una perspectiva diferenciada en función del sexo de las personas destinatarias.

* *Corresponding author:* Antonio Granero-Gallegos, Ctra. De Sacramento s/n, La Cañada de San Urbano, 04120, Almería, Spain. agranero@ual.es
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The biological and psychological changes experienced during puberty and adolescence frequently lead to the appearance of adaptation difficulties and psychological conflicts, among which are those regarding identity (Zimmermann & Iwanski, 2014). The way in which the person perceives, feels, and behaves with respect to their body (i. e., body image) (Muth & Cash, 1997) constitutes one of the potential threats to the person's identity during puberty/adolescence, mainly due to the importance attributed to the opinion of others about one's appearance during those stages (Rodgers et al., 2020). One of the possible origins of body image alterations is the sociocultural pressure that orients one towards achieving the two main Western ideals of beauty: the thin-body ideal and the mesomorphic body ideal (i. e., that characterized by muscle definition and a low level of fat) (Frederick et al., 2022; Sicilia et al., 2022). Perceiving this type of pressure can lead to feeling body dissatisfaction and, along with it, to adopting risky behaviours aimed at weight loss/gain (Stice & Van Ryzin, 2019). To prevent the appearance of these unhealthy behaviours, it is important to explore the possible influence of these sources of pressure at early stages.

Traditionally, research in the field of sociocultural pressure aimed at achieving a certain body ideal has focused mainly on women and on the thin-body beauty ideal (Schaefer et al., 2017). In males, this pressure has been directed primarily towards achieving the mesomorphic-body ideal (Convertino et al., 2022; Paterna et al., 2021). However, this does not exclude the possibility that both body ideals can be supported to some extent by individuals of either sex (Ryan & Morrison, 2013), an issue that justifies the need to examine both body beauty ideals in samples that include males and females in the same context.

The tripartite influence model, derived from the sociocultural theory of body-image construction (Thompson et al., 1999), proposes the existence of three main sources of pressure towards the ideals of body beauty: family (e. g., parents and siblings), peers (e. g., friends or fellow students) and the media (e. g., television, radio, or social networks). In the cases of family and peers, the pressure materializes through negative comments, criticism, and disapproval about physical appearance (Amaya-Hernández et al., 2017; Suplee, 2016). In turn, the media have been identified as direct and/or indirect transmitters of aesthetic ideals of beauty (Rodgers et al., 2019). Because of their unrealistic nature, the pursuit of such ideals would play a determining role in the emergence of body-image concerns not only in adolescent girls (Rodgers et al., 2019) but, as recently observed, in males also (Schaefer et al., 2021; Stratton et al., 2015).

Research guided by the tripartite influence model that includes both sexes simultaneously is scarce. This makes it difficult to establish clear conclusions as to the existence of differences regarding the pressures towards beauty ideals in both population groups. One study that did consider adolescents of both sexes (but not both body ideals) was that conducted by Papp et al. (2013). The results of this study showed the existence of positive relationships between perceived pressure from the media and the existence of concerns related to diet and body weight among girls. Other studies conducted on university students (Keery et al., 2004) have also shown the existence of positive relationships between perceived pressure from the media towards the thin-body ideal and variables such as body dissatisfaction (Shroff & Thompson, 2006) or the internalization of the thin-body ideal (Rodgers et al., 2011; Schaefer et al., 2017). For their part, Rodgers et al. (2011) found that parental pressure directly influenced behaviours oriented towards achieving the thin-body ideal, while peer pressure influenced body dissatisfaction or risky eating behaviours. Among adolescent males, the findings of some studies have associated the pressure exerted by the family and the media focused on achieving the mesomorphic ideal with the adoption of behaviours typical of eating disorders (Tylka, 2011).

As indicated, the three sources of pressure (i. e., family, peers, and the media) and the two main beauty ideals (i. e., thin body and mesomorphic body) are likely to be perceived and endorsed by men and women, respectively. However, the lack of research evaluating all these sources of pressure and ideals in the population of both sexes makes it difficult to compare them in terms of their intensity and their possible consequences (e. g., the appearance of eating disorders or concerns with body image) (Rodgers et al., 2011; Tylka, 2011).

One of the variables that involves a strong concern with body image is social physique anxiety (SPA) (Hausenblas et al., 2004), the connection of which with the pressure towards achieving the predominant beauty ideals has not yet been examined. This omission is noteworthy for two main reasons. First, SPA is more social in character than the other constructs examined for their connection with perceived pressure towards achieving body ideals (e. g., body dissatisfaction) (Rodgers et al., 2015). This is because SPA not only involves the existence of a certain degree of dissatisfaction with one's own body but also experiencing an aversive affective response from considering that one's own body might be negatively evaluated by others (Hart et al., 1989). Secondly, the fact that SPA has been shown to be a better predictor for some of their possible health consequences (e. g., depressive symptomatology) (Alcaraz-Ibáñez et al., 2020) than other negative body image variables that lack the affective and social components (e. g., body dissatisfaction). Based on these antecedents, it is possible that SPA might explain the process by which pressure towards certain body ideals would lead to the adoption of risky eating behaviours (Alcaraz-Ibáñez et al., 2023).

The social pressure to achieve body beauty ideals can lead to psychological problems, including experiencing anxiety about the inability to display a socially desirable body (e. g., Turel et al., 2018). Despite the advances made in the study of sociocultural influences on body-image construction processes (Paterna et al., 2021), there are hardly any studies that have examined the relationship between sociocultural pressure and social anxiety (Turel et al., 2018) and, much less, research that has analysed the relationship between the three sources of pressure and SPA in preadolescent boys and girls. In this regard, it should be noted that the studies that have addressed the perception of pressure from the different sources proposed by the tripartite model have mainly used

transversal designs and samples of women (e. g., Keery et al., 2004; Shroff & Thompson, 2006) or men (e. g., Schaefer et al., 2021) of university age or adults. Although some longitudinal work has been done with adolescent girls (Rodgers et al., 2015) and some transversal work in which samples of girls and boys has been considered (Papp et al., 2013), none of them simultaneously addressed the two predominant body beauty ideals. In this sense, the predictive character of SPA with respect to the appearance of affective or eating disorders (Alcaraz-Ibáñez et al. 2020; Alcaraz-Ibáñez et al, 2023), together with the social component inherent in said construct, makes it advisable to examine their possible antecedents from the perspective of sociocultural models of influence (Thompson et al., 1999). Carrying out this examination in the preadolescent population is particularly appropriate in light of the evidence that points to the adoption of socially accepted body ideals and concerns with body image as phenomena present at ever younger ages (Paraskeva & Diedrichs, 2020).

Based on the above, the main objective of this research was to analyse the effects of the sociocultural pressure perceived from three different sources (i. e., the media, family, and peers) towards achieving thin-body and mesomorphic-body ideals on SPA in a sample of preadolescents of both sexes. A secondary objective was to examine the possible existence of two types of differences in the six forms of pressure towards achieving the two predominant body ideals under study: (i) between each of them and (ii) between boys and girls. In this regard, the following hypotheses were formulated: H1: Some of the forms of pressure focused on achieving the mesomorphic-body ideal will be the main predictors of SPA in boys; H2: Some of the forms of pressure focused on achieving the thin-body ideal will be the main predictor of SPA in girls; H3: Boys will feel higher levels of pressure towards the mesomorphic-body ideal; H4: Girls will feel higher levels of pressure towards the thin-body ideal. Given the virtual absence of prior studies, no assumptions were made as to the existence of differences in the levels of the different sources of pressure.

Method

Participants

In total, 651 students (50.4% girls) from 12 schools in southern Spain participated. A non-probability sampling technique was used. Two inclusion criteria were established: (i) being in the 6th grade at the beginning of the study, and (ii) completing the questionnaire at the two measurement times. Data collection at time-1 was at the end of the 6th grade (10-13 years, $M = 11.43$, $SD = 0.65$) and at time-2, 12 months later at the end of 1st grade of Compulsory Secondary Education (11-14 years, $M = 12.38$, $SD = 0.68$).

Instruments

Perceived Sociocultural Pressure Toward the Thin-body and Muscular-body Ideals. A Spanish translation of the *Perceived Sociocultural Pressure Scale* was used in the versions referring to the thin-body (Stice & Bearman, 2001) and mesomorphic-body ideals (Tylka, 2011). Said translation was carried out in the context of the present study following the recommendations formulated for such purposes in instruments proposed for studying body image (Swami et al., 2021). Comprising a total of 12 items, this instrument allows one to evaluate the frequency with which the person perceives pressure from the media, family, and peers towards achieving the thin-body (e. g., "I think my family wants me to lose weight") and mesomorphic-body ideals (e. g., "I think my family wants me to have a strong body"). The responses were given using a Likert scale ranging from 1 = *never* to 7 = *always*. In the present study internal consistency values of $\alpha = .74$ (family pressure towards the thin-body ideal), $\alpha = .75$ (peer pressure towards the thin-body ideal), $\alpha = .87$ (media pressure towards the thin-body ideal), $\alpha = .67$ (family pressure toward the mesomorphic-body ideal), $\alpha = .69$ (peer pressure toward the mesomorphic-body ideal), and $\alpha = .83$ (media pressure toward the mesomorphic-body ideal) were observed.

Social Physique Anxiety. A version of the *Social Physique Anxiety Scale* (SPAS-7; Motl & Conroy, 2000, 2001) validated to the Spanish context in an adolescent population (Sáenz-Álvarez et al., 2013) was used. This instrument assesses how often a person experiences negative affective responses because of the perception that their body may be negatively evaluated by others. The seven items that make up this instrument (e.g., "I wish I wasn't so nervous about my body appearance") are contained in a single factor. The responses were given using a Likert scale ranging from 1 = *never* to 5 = *always*. In the validation study of this instrument to the Spanish context, values of $\alpha = .85$ were observed. Internal consistency values of $\alpha = .74$ (time-1) and $\alpha = .81$ (time-2) were observed in the present study.

Procedure

After obtaining a favourable report from the Bioethics Committee of the University of Almeria, the management teams and the teachers from the different schools were contacted to request their collaboration in the study. Since the participants were minors, prior authorization was required from their parents or legal guardians. Data collection was carried out in the classroom context using a paper form. This process was conducted in the presence of one of the research team members, who informed the participants about the generic objectives of the study, the voluntary nature of their participation, and the confidential treatment of the information collected. Data were collected on two separate occasions over a period of approximately one year. The form used in the first of these data sets recorded basic sociodemographic data (e. g., age, sex) and questionnaires assessing perceived sociocultural pressure towards the thin-body and mesomorphic-body ideals, and SPA. The second data collection comprised the questionnaire assessing SPA.

Data analysis

First, the descriptive statistics, the correlations between the study variables, and the internal consistency values of each subscale were calculated. Values of $\alpha > .70$ are considered acceptable, considering those slightly lower than the cut-off point as marginally acceptable in instruments that, as is the case of some used in this work (Stice & Bearman, 2001; Tylka, 2011) have very few items per factor (Taylor et al., 2008). Next, the effect sizes of the differences (d_{Cohen}) in the study variables across (i) boys/girls and (ii) the six forms of pressure were calculated. The resulting effect sizes were interpreted as trivial (< .2), small (between .2 and .5), moderate (between .5 and .8), and large (> .8) (Cohen, 1988). The fact that the participants belonged to different schools and courses could constitute a breach of the assumption of independence of observations, an issue that warranted the use of Mixed Linear Regression Models (MLM) (Gelman & Hill, 2007). Such models allow one to consider individual variables (level 1) and context variables (level 2) (Hox, 1998). The students' school and course were considered as random effects. The different combinations of the school and course levels were considered in the specification of the multilevel models tested, among which a null model (M0) was included. This M0 served to examine the predictive gain of multilevel models in which both the constant and the random effects of the school and course were included. To test the effects of sociocultural pressure towards the thin/mesomorphic body ideals on SPA at time-2 (SPA_{time2}; dependent variable), different models were tested in which age and SPA_{time1} were introduced in the first step. In a second step the six pressure variables evaluated at time-1 were added. The analyses were performed using the MIXED method and the Restricted Maximum Likelihood estimation method. The -2log statistic of likelihood (-2LL) and the Akaike Information Criterion (AIC) were used to evaluate the goodness of fit and perform the comparison between models (Alarcón et al., 2015). The statistical analyses described above were performed with IBM SPSS V.25 software.

Results

Descriptives and correlations

The mean values of the scales were in the low or low-mid part of their possible ranges (see Table 1). The pressure from the family towards the mesomorphic-body ideal showed higher levels than those of other sources of pressure in both boys and girls. Among boys, the magnitude of the differences between the types of pressure ranged from small close to moderate (pressure towards the thin-body ideal exerted by the family [$d_{Cohen} = .46$] and pressure from peers towards the mesomorphic-body ideal [$d_{Cohen} = .44$]), to moderate close to large (pressure towards the thin-body ideal exerted by peers [$d_{Cohen} = .75$] and the media [$d_{Cohen} = .77$]). Among girls, the magnitude of the differences ranged from small close to moderate (pressure toward the thin-bodied ideal exerted by family [$d_{Cohen} = -.44$] and by the media [$d_{Cohen} = .47$], and pressure toward the mesomorphic-body ideal exerted by peers [$d_{Cohen} = .48$] and by the media [$d_{Cohen} = .49$]), to moderate close to large (pressure toward the mesomorphic-body ideal exerted by peers [$d_{Cohen} = .70$]). Overall, the highest values corresponded to perceived family pressure toward the thin-body and mesomorphic-body ideals. In addition, mean scores tended to be higher for pressure sources oriented toward the mesomorphic-body ideal compared to those oriented toward the thin-body ideal. Regarding sex differences (see Table 1), these were small and favoured boys in the case of pressure towards the mesomorphic-body ideal exerted by both family and peers, while proving trivial in the rest of the cases.

Regression analysis

Examination of the goodness-of-fit values suggest that the model including the school and the constant (M1) was the one with the greatest effect on the independence of observations (M0, -2LL = 1406.23; M1, -2LL = 1382.91; $\chi^2 = 23.32$, $gl = 1$, $p < .001$). The intraclass correlation coefficient values (ICC) = .07 indicated that 7% of the total variability in SPA_{time2} was attributable to the difference between the average of the different schools. These results were considered indicative of the desirability for using multilevel analysis techniques (Heck and Thomas, 2000).

Taking M1 as a starting model, different models were tested considering the school grouping. In the new model, the SPA_{time2} remained the dependent variable while the level 1 independent variables (model 2, M2) were introduced into the equation: age and the six pressure variables established according to the source (i. e., family, peers, and the media) and the type of ideal (i. e., thin or mesomorphic). The results referring to the first of the M2 steps (see Table 2) show that the effects of age on SPA_{time2} were not statistically significant, but the effects of SPA_{time1} on SPA_{time2} were. This was true for both girls and boys. The results referring to the second of the M2 steps (see Table 2) show the effects of the pressure from the media towards the thin-body and mesomorphic-body ideals on SPA_{time-2} as being statistically significant. Model 3 was then estimated ($M3_{boys}$), from which the variables whose effects were not statistically significant in $M2_{boys}$ were eliminated. The goodness-of-fit indices indicated a better fit of $M3_{boys}$ compared to $M2_{boys}$ ($\chi^2 = 16.27$; $gl = 5$; $p < .01$), so the first of them, with an explained variance of 74%, was retained. Thus, the existence of higher levels of perceived pressure from the media towards achieving the mesomorphic-body ideal preceded (in time) the presence of higher SPA levels. This effect was negative, contrasting with the perceived pressure from the media towards achieving the thin-body ideal.

As far as the girls are concerned, the results from the second of the M2 steps (see Table 3) show the effects of family pressure towards the thin-body ideal on SPA as statistically significant. The goodness-of-fit indices indicated a better fit for $M3_{girls}$ compared to $M2_{girls}$ ($\chi^2 = 22.60$; $gl = 6$; $p < .001$) (Table 3), so the former, with an explained variance of 50%, was retained. In this way, the existence of higher levels of perceived pressure from the family towards achieving the thin-body ideal preceded (in time) the presence of higher SPA levels.

Table 1

Descriptive statistics and correlations

Variables		1	2	3	4	5	6	7	8	9
1 Age		-	.10	.08	.06	.06	.03	.10	.06	.12*
2 SPA_{time1}		.08	-	.36**	.35**	.34**	.26**	.29**	.28**	.48**
3 PR_TB_Fa		.11*	.37**	-	.70**	.60**	.54**	.60**	.46**	.24**
4 PR_TB_Pe		.06	.34**	.66**	-	.62**	.53**	.66**	.51**	.21**
5 PR_TB_Md		13*	.43**	.53**	.49**	-	.37**	.49**	.75**	.17**
6 PR_MB_Fa		.10	.21**	.55**	.50**	.39**	-	.61**	.51**	.12**
7 PR_MB_Pe		.00	.19**	.44**	.59**	.32**	.62**	-	.54**	.18**
8 PR_MB_Me		.03	.29**	.43**	.41**	.72**	.51**	.37**	-	.21**
9 SPA_{time2}		.12*	.44**	.33**	.28**	.25**	.20**	.21**	.22**	-
Boys	*M*	11.45	1.87	2.63	2.21	2.13	3.46	2.67	2.35	1.83
	DT	0.65	0.67	1.76	1.49	1.64	1.82	1.77	1.74	0.71
Girls	*M*	11.42	1.99	2.36	2.02	2.28	3.09	2.32	2.44	2.01
	DT	0.64	0.75	1.63	1.37	1.75	1.67	1.52	1.69	0.81
	d_{Cohen}	-.05	.17	-.16	-.13	.09	-.21	-.21	.05	.24

Nota. PR_TB_Fa = Pressure towards the thin-body ideal (Family); PR_TB_Pe = Pressure towards the thin-body ideal (Peers); PR_TB_Md = Pressure towards the thin-body ideal (Media); PR_MB_Fa = Pressure towards the mesomorphic-body ideal (Family); PR_MB_Pe = pressure towards the mesomorphic-body ideal (Peers); PR_MB_Md = Pressure towards the mesomorphic-body ideal (Media); SPA_{time1} = Social physique anxiety assessed at time 1; SPA_{time2} = Social physique anxiety assessed at time 2. The values presented in the lower diagonal correspond to the girls (n = 328), while those presented in the upper diagonal correspond to the boys (n = 323).
**p < .01; *p < .05.

Table 2

Regression analysis: Estimations and goodness of fit (dependent variable: SPA_{time2})

	M2			M3		
Boys	Estimation (error)	*t*	sig.	Estimation (error)	*t*	sig.
Step 1						
Age	.07 (.05)	1.36	.174			
SPA_{time1}	.51 (.05)	9.7	< .001	.51 (.05)	9.88	< .001
Step 2						
Age	.06 (.05)	1.21	.226			
SPA_{time1}	.49 (.05)	8.66	< .001	.51 (.06)	9.23	< .001
PR_TB_Fa	.06 (.03)	1.96	.051			
PR_TB_Pe	.02 (.04)	0.61	.544			
PR_TB_Md	-.1 (.04)	-2.67	.008	-.05 (.03)	-1.61	.107
PR_MB_Fa	-.05 (.03)	-1.93	.055			
PR_MB_Pe	-.01 (03)	-0.2	.84			
PR_MB_Md	.1 (.03)	2.91	.004	.07 (.03)	2.32	.021
Goodness-of-fit statistics						
Deviation (-2LL)	639.57			623.3		
AIC	641.57			625.3		

Nota. M2 = Model 2; M3 = Model 3; PR_TB_Fa = Pressure towards the thin-body ideal (Family); PR_TB_Pe = Pressure towards the thin-body ideal (Peers); PR_TB_Md = Pressure towards the thin-body ideal (the Media); PR_MB_Fa = Pressure towards the mesomorphic-body ideal (Family); PR_MB_Pe = Pressure towards the mesomorphic-body ideal (Peers); PR_MB_Md = Pressure towards the mesomorphic-body ideal (the Media); SPA_{time1} = Social physique anxiety at time 1; SPA_{time2} = Social physique anxiety at time 2; -2LL = 2log of likelihood; AIC = Akaike Information Criterion. The estimation coefficients shown are standardized.

Discussion

The main objective of the present study was to examine the predictive effects of the pressure perceived from different socializing agents (i. e., family, peers, and the media) towards achieving the two predominant body ideals in Western cultures (i. e., thin body and mesomorphic body) on SPA in a preadolescent sample. The results suggest the existence of a pattern of influence differentiated according to sex. Specifically, the pressure exerted by the media towards the mesomorphic-body ideal and by the family towards the thin-body ideal are shown to be the main respective predictors of SPA in boys and girls.

The results of the present study highlight the importance of the pressure exerted from the media among preadolescent males. This is because this source of pressure was the only one that contributed to explaining SPA over time. This prediction is positive and significant in the mesomorphic-body ideal while negative in the thin-body ideal. The fact that the pressure exerted by the media towards the mesomorphic-body ideal was shown as the main positive predictor of SPA means that H1 is fulfilled. This finding is consistent with those of previous studies that reported a particular predictive capacity for the pressure exerted by the media towards the internalization of the mesomorphic ideal (Stratton et al., 2015). In this regard, it should be noted that boys tend to feel more motivated by and demonstrate greater control over information and communication technologies than girls (Urbina et al., 2002). It would hypothetically be possible for children of these ages to perceive pressure from the media towards achieving the mesomorphic-body ideal. According to the tripartite model (Thompson et al., 1999), the internalization of social appearance standards contributes to body dissatisfaction, an issue that would be closely linked to internalizing the mesomorphic-body ideal among males (Karazsia & Crowther, 2010). This might explain the fact that the perceived pressure towards achieving the mesomorphic-body ideal resulted in the appearance of SPA among preadolescents. For its part, the fact that the perceived pressure towards achieving the thin-body ideal negatively predicted SPA could be explained by the possibility that internalizing said ideal may not have been so evident in boys at such young ages (Papp et al., 2013). This would mean that, despite the perception of pressure existing, it would not translate into experiencing a higher SPA level because of the impossibility of achieving the thin-body ideal. A possible step towards verifying the plausibility of this would be to assess the degree of internalization of both ideals in the context of examining the relationship between sociocultural pressures and SPA.

For the girls, the fact that the pressure from the family towards achieving the thin-body ideal emerged as the main positive predictor variable of SPA means that H2 is fulfilled. These findings contrast somewhat with those of previous studies that identify the media as a main source of pressure in terms of its

Table 3

Regression analysis: Estimations and goodness of fit (dependent variable: SPA_{time2})

	M2			M3		
Chicas	Estimation (error)	*t*	sig.	Estimation (error)	*t*	sig.
Step 1						
Age	.11 (.06)	1.78	.076			
SPA_{time1}	.47 (.05)	8.79	< .001	.47 (.05)	8.92	< .001
Step 2						
Age	.11 (.06)	1.74	.084			
SPA_{time1}	.41 (.06)	6.81	< .001	.40 (.05)	7.06	< .001
PR_TB_Fa	.09 (.04)	2.42	.016	.10 (.03)	3.7	< .001
PR_TB_Pe	.01 (.04)	0.1	.921			
PR_TB_Md	-.04 (.04)	-1.16	.247			
PR_MB_Fa	-.02 (.03)	-0.59	.559			
PR_MB_Pe	.05 (.04)	1.25	.21			
PR_MB_Md	.04 (.04)	1.09	.278			
Goodness-of-fit statistics						
Deviation (-2LL)	740.55			717.93		
AIC	742.55			719.93		

Nota. M2 = Model 2; M3 = Model 3; PR_TB_Fa = Pressure towards the thin-body ideal (Family); PR_TB_Pe = Pressure towards the thin-body ideal (Peers); PR_TB_Md = Pressure towards the thin-body ideal (the Media); PR_MB_Fa = Pressure towards the mesomorphic-body ideal (Family); PR_MB_Pe = Pressure towards the mesomorphic-body ideal (Peers); PR_MB_Md = Pressure towards the mesomorphic-body ideal (the Media); SPA_{time1} = Social physique anxiety at time 1; SPA_{time2} = Social physique anxiety at time 2; -2LL = 2log of likelihood; AIC = Akaike Information Criterion. The estimation coefficients shown are standardized.

possible influence on the internalization of the thin-body ideal and the appearance of body weight and diet concerns (e. g., Papp et al., 2013; Rodgers et al., 2011; Schaefer et al., 2017). The results of the present study are nevertheless consistent with the fact that a considerable amount of time is still spent at home during preadolescence. In particular, this circumstance is compatible with the possibility that the family environment plays an important role in encouraging girls to take up behaviours aligned with the adoption of the thin-body ideal (Suplee, 2016). In this sense, the predominant role played by family pressure (compared to that exerted by peers or the media) has been suggested for the adoption of eating behaviours in girls aimed at achieving a thin-body with a low level of fat (e. g., Rodgers et al., 2011). However, it has also been observed that pressure exerted by peers and the media plays a more important role than that exerted by the family in the internalization of the thin-body ideal in girls (Rodgers et al., 2011). In view of the above, the results of the present work underline the potential differentiated role of the different sources of pressure with respect to their possible consequences. In order to specify this role, future studies are required that consider not only one of these consequences (as has been the case with this work) but the consequences as a whole.

Another important finding of the present study concerns the differences observed between the different forms of pressure examined. The fact that higher averages were observed in the case of pressure sources oriented towards the mesomorphic-body ideal (even in girls) is in line with recent findings (Ramme et al., 2016), which suggest a change in the female beauty ideal. Such a change would consist of the presence of good muscle tone also becoming a desirable feature in the woman's body (Rodgers et al., 2019). This possibility would likewise be supported by our results, which point to the practical absence of differences in the levels of pressure perceived between boys and girls from the different sources, meaning that H3 and H4 are not fulfilled. It should also be noted that, in both girls and boys, the main source of pressure towards the thin-body ideal observed in the present work is the family. This highlights the important socializing role played by the family at an early age in the body image construction process, for example, regarding critical comments made about the body, weight, or eating habits in this context (Suplee, 2016). In light of these results, further study of this type of influence at an early age could help prevent problems related to body image in later stages of development (e. g., in adolescence) where other sources of pressure (e. g., peers) tend to become more prominent (Chein et al., 2011).

The fact that this work is the first to examine longitudinally the association between the perceived pressure towards achieving the main body ideals from the different sources proposed in the tripartite model and SPA in preadolescents is one of its main strengths. However, certain limitations must also be recognized. First, the particular characteristics (i. e., a non-clinical preadolescent population) and the selection procedure (i. e., non-probability) of the sample make it difficult to generalize the results. Second, the nature of the instruments employed. Specifically, it should be noted that the instrument currently used to evaluate the pressure towards body ideals has been around for more than two decades (Stice & Bearman, 2001). This means that some of the more recent forms of communication may not be explicitly reflected in its content. Third, the limited number of data collection points (two) and the relatively short sampling time interval. Had we been able to extend the number of sampling points over time, it would have been possible to examine the question under study in particularly sensitive developmental periods such as the transition from preadolescence to adolescence or from adolescence to adulthood.

The present study is a first attempt to study longitudinally the relationship between the three sources of pressure proposed in the tripartite model (i. e., family, peers, and the media) towards the two predominant beauty ideals (i. e., thin and mesomorphic) and SPA in preadolescents (boys and girls). The findings suggest that measures aimed at preventing the onset of SPA in preadolescents could benefit from adopting a gender-differentiated perspective. Specifically, the results suggest the need to address the pressure exerted in the family context towards achieving the thin-body ideal in the case of girls, and that exerted by the media towards achieving the mesomorphic-body ideal in the case of boys. Examples of measures that should be taken in this regard would be (i) to implement awareness campaigns aimed at parents encouraging the adoption of critical positions regarding the prevailing body ideals and (ii) to promote the implementation of self-regulatory codes or governmental legislative measures (McComb & Mills, 2020) aimed at modulating the messages transmitted by the media related to adopting certain body ideals. This is even more necessary given the increasing accessibility to the digital world and social networks, an issue that could increase the exposure of the preadolescent population to messages related to body ideals.

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Conflict of interest

The authors declare that they have no conflict of interest in the publication of this article.

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Antonio Granero-Gallegos, Álvaro Sicilia,
Isabel Sánchez-Gallardo, Manuel Alcaraz-Ibáñez,
Jesús Medina-Casaubón

Presión sociocultural hacia los ideales corporales en la ansiedad físico-social en preadolescentes: un estudio longitudinal

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