Internalization of gender stereotypes in adolescent students: differences by sex, age, grade and tastes

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This article examines gender stereotypes in adolescence, their influence on identity formation and role internalization. It also contextualizes the problem and analyzes its impact on the lives of adolescents. The objective of the study focused on identifying and analyzing the gender stereotypes internalized by a sample of adolescents, as well as exploring the factors related to their formation and manifestation. A quantitative approach was used with a sample of 236 students between the ages of 11 and 16. The Gender Stereotyping Scale was used to collect data on gender beliefs and perceptions. The results showed a high internalization of gender stereotypes in the dimensions of affective expression and social behavior, and a low internalization in aspects related to the body and social responsibility. Significant differences were also observed between men and women, with men more likely to reproduce stereotypical beliefs in most of the dimensions analyzed. These findings underscore the need for educational interventions that promote gender equality and reduce stereotypes. These findings can guide the design of programs and policies aimed at reducing gender stereotypes and promoting gender equality during adolescence.

Keywords: stereotypes; gender; adolescents; basic education; age; gender; preferences

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Interiorización de estereotipos de género en estudiantes adolescentes: diferencias por sexo, edad, grado y gustos

Resumen

En este artículo, se examinaron los estereotipos de género en la adolescencia, su influencia en la formación de identidades y la internalización de roles. Además, se contextualizó la problemática y analizó su impacto en la vida de los adolescentes. El objetivo del estudio se enfocó en identificar y analizar los estereotipos de género internalizados por una muestra de adolescentes, así como explorar los factores relacionados con su formación y manifestación. Se empleó un enfoque cuantitativo con una muestra de 236 estudiantes, quienes oscilaban entre los 11 y 16 años de edad. Se utilizó la escala de estereotipos de género para recopilar datos sobre las creencias y percepciones de género. Los resultados revelaron una alta interiorización de estereotipos de género en las dimensiones de expresión afectiva y comportamiento social, y una baja interiorización en aspectos relacionados con el cuerpo y la responsabilidad social. También, se observaron diferencias significativas entre hombres y mujeres, con una mayor tendencia en los hombres a reproducir creencias estereotipadas en la mayoría de las dimensiones analizadas. Estos hallazgos subrayan la necesidad de intervenciones educativas que promuevan la igualdad de género y reduzcan los estereotipos. Estos resultados pueden guiar el diseño de programas y políticas dirigidas a disminuir los estereotipos de género y fomentar la igualdad de género en la adolescencia.

Palabras clave: estereotipos; género; adolescentes; educación básica; edad; sexo; preferencias

Interiorização de estereótipos de gênero em alunos adolescentes: diferenças por sexo, idade, série e gostos

Resumo

Este artigo examina os estereótipos de gênero na adolescência, sua influência na formação da identidade e na internalização de papéis. Ele também contextualizou o problema e analisou seu impacto na vida dos adolescentes. O objetivo do estudo concentrou-se em identificar e analisar os estereótipos de gênero internalizados por uma amostra de adolescentes, bem como em explorar os fatores relacionados à sua formação e manifestação. Foi utilizada uma abordagem quantitativa com uma amostra de 236 alunos com idades entre 11 e 16 anos. A Escala de Estereótipos de Gênero foi usada para coletar dados sobre crenças e percepções de gênero. Os resultados mostraram uma alta internalização de estereótipos de gênero nas dimensões de expressão afetiva e comportamento social, e uma baixa internalização em aspectos relacionados ao corpo e à responsabilidade social. Também foram observadas diferenças significativas entre homens e mulheres, sendo que os homens têm maior probabilidade

de reproduzir crenças estereotipadas na maioria das dimensões analisadas. Esses resultados ressaltam a necessidade de intervenções educacionais que promovam a igualdade de gênero e reduzam os estereótipos. Esses resultados podem orientar a elaboração de programas e políticas destinados a reduzir os estereótipos de gênero e promover a igualdade de gênero durante a adolescência.

Palavras-chave: estereótipos; gênero; adolescentes; educação básica; idade; gênero; preferências

Introduction

Since the 1970s, the concept of 'gender' has gained prominence in feminist theory, providing a perspective that examines the relationship between women and men beyond sexual characteristics, questioning the inequalities attributed to nature (García & Carbonell, 2023).

Feminism introduced the term gender to highlight the role of practices, beliefs, representations, and social norms that emerged in relation to anatomical differences between men and women (Risman, 2018). In this regard, Hincapié (2015) referred to "gender as nothing more than a persuasive staging, which in turn ignores the character of the staging" (p. 35). On the other hand, Butler (2004; 2006) defined gender as the mechanism that produces and naturalizes notions of masculinity and femininity, but can also denaturalize them.

For their part, Villanueva-Blasco and Grau-Alberola (2019) consider gender as a social construct that is different from biological sex. In this sense, gender role socialization, based on inequalities, conveys androcentric messages (Ferrer y Bosch, 2013), that reflect schematized and sometimes derogatory social constructions.

In general, gender studies identify three key phenomena: identity, stereotypes, and roles (Lips & Lawson, 2019). Gender identity is the association with a particular category; gender stereotypes are beliefs about the characteristics of men and women; and gender roles prescribe standards based on masculinity or femininity (Delgado et al., 2012; Tobin et al., 2010).

Gender stereotypes are evaluative psychological constructs related to prejudice against groups with less social power, such as women (Lips, 1993; Unger & Crawford, 1992). According to Delgado et al. (2012), gender serves as a social categorization system that assigns roles without regard to actual biological characteristics. Some examples include perceptions of male aggressiveness and the caregiver role associated with women (Martínez, 1996).

Del Valle et al. (2002) argue that stereotypes are cultural manifestations that generalize about the characteristics of men and women. Laird and Thomson (1992), Lagarde (1998) y Jiménez (2005) add that these stereotypes shape cultural identity from childhood and influence actions, thoughts and behaviors. Therefore, it is relevant to analyze gender stereotypes in education and understand their impact on the formation of individual identity (Makarova et al., 2019).

Ortega (1998) proposes a framework for identifying gender stereotypes that includes four aspects of identity that are reflected in social representations; one of them is the body, which ascribes distinctive qualities to men and women; for example, representations in art and the media internalize characteristics of strength and delicacy, respectively, influencing the body image of individuals (Ragonese et al. 2019; Haines et al., 2016). According to Bourdieu (2006), society constructs a sexualized and differentiated reality based on biological aspects of the body, which extends to areas such as morality, where femininity implies the constant control of the body and its expressions under moral norms and the surveillance of modesty.

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Gender stereotypes also influence perceptions of intellectual ability. Men are thought to be better at technical, mechanical, and manual tasks, while women are thought to be better at organizational and cooperative skills. These stereotypes have largely guided scientific research on gender differences, leading to conclusions that support the validity of these stereotypes (Colás & Villaciervos 2007).

Another area in which gender stereotypes are observed is the affective and emotional, where greater emotionality and sensitivity are attributed to the female gender and greater emotional control to the male. In addition, women are expected to have greater communicative competence and men, to show greater introspection and rationality, avoiding personal and vital manifestations.

According to Blázquez (2012), deeply rooted representations of masculinity and femininity in the social imagination are key to formulating hypotheses that guide research on gender. Stereotypes function as sociocultural tools to establish norms and shape individual identity. The internalization of these gender differences has important educational implications, influencing the way people think, interpret, act, and relate. Expected behaviors and evaluations are influenced by stereotypical notions of gender, reflecting gender-based expectations.

For Simón (2006), gender stereotypes in schools affect adolescents. During adolescence, girls often believe that their success depends on their appearance and attractiveness rather than on their intellectual or athletic abilities, which leads them to choose less prestigious and lower-paying careers. Boys, on the other hand, follow a model of success based on strength and athleticism, despite mediocre academic performance in science and technology. This perpetuates an androcentric approach that affects women's self-esteem and fosters arrogance in men, making cooperation between the sexes difficult.

During adolescence, gender stereotypes are consolidated and influence young people's identity through the media (Rodríguez et al., 2016; Ward & Grower, 2020), families (Hassan et al., 2022; Navea-Martín, 2015; Otajonova et al., 2022; Tenenbaum & Leaper, 2002) and communities (Kågesten et al., 2016). For her part, Zhao (2022) points to stereotypes in the educational environment, such as textbooks, language, behaviors, expectations, and attitudes of parents, teachers, and peers. This affects adolescents' self-esteem, influences their career decisions, shapes their self-evaluation and identity, and may even contribute to the dynamics of school violence (Pacheco-Salazar & López-Yáñez, 2019).

Several factors contribute to adolescents' internalization of gender stereotypes, which influence their perceptions of male and female roles. Therefore, it is important to identify these stereotypes in any context in order to promote significant changes. The selected studies share a common theoretical approach and address gender stereotypes, which allows them to be compared with research findings.

In this sense, Colás and Villaciervos (2007) found high percentages of internalization of gender stereotypes in all the dimensions studied. Although the differences in the acceptance of these stereotypes between boys and girls are not very pronounced, boys tend to accept gender stereotypes more than girls. In both cases, internalization is significant, with subtle differences, with boys more likely to maintain gender stereotypes than girls. In addition, they observed that more than 35% of adolescents accept gender stereotypes related to the body. Half believe that social behaviors are valued differently according to gender, which influences their behavior. They also accept differences in skills and abilities; girls tend toward writing and caring for people and boys toward technical and scientific careers, which influences their career choices.

There is widespread acceptance of emotional stereotypes. In terms of social responsibility, 20% of girls and 40% of boys accept stereotypes, despite progress in integrating women into the workforce and efforts to achieve equality in domestic tasks

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On the other hand, according to the results of Villanueva-Blasco and Grau-Alberola (2019), there are significant differences in the adoption of gender stereotypes according to sex and age, especially during the transition to middle adolescence. In general, males show a greater tendency towards stereotypes compared to females. In Compulsory Secondary Education (CSE), gender stereotypes are more present in males, especially in physical appearance, skills, competencies and emotional aspects during the fourth year. For females, these stereotypes are more evident in the first year, moderately affecting emotional aspects and, to a lesser extent, social behavior. In addition, there is a tendency for the acceptance of stereotypes to decrease for women and increase for men.

In another study, García and Carbonell (2023) expand the theoretical references with the works of Colás and Villaciervos (2007), González (2008), Martínez and De Sola (2003) y Pacheco et al. (2014). These studies provide theoretical and methodological support for the present work. The results show a high incidence of gender stereotypes among the participating adolescents, with percentages close to or greater than 50% in most areas, for both men and women. However, males reproduce these stereotypical beliefs more strongly than females in all the dimensions analyzed.

In the study by Villarreal-Fernández and Durán-Quiceno (2023), it was found that the most internalized stereotype was that of social behavior, followed by affective expression. The dimensions of physical and social responsibility were less internalized. There were no significant differences between males and females by age, but revealing differences in stereotypes were observed according to school grades. In summary, students acquire more stereotypes about the behaviors expected of men and women in society as they progress through school grades, with men holding more stereotypical beliefs than women.

The region where this study was conducted was Medellín, Antioquia, Colombia, an area that faces challenges related to gender equity and the influence of roles and stereotypes in the formation of adolescents. In this context, it is particularly relevant to generate information on how gender stereotypes are perceived and adopted by young people, since this contributes to understanding and addressing the barriers that limit equal development in this crucial stage. Therefore, this study responds to the need to obtain data that will allow local educational institutions to design policies and strategies to promote greater gender equality and support the achievement of the United Nations Sustainable Development Goals (SDGs), which promote gender equality as a fundamental element of social development.

In summary, adolescence is a key period of change and development during which gender stereotypes are consolidated under the influence of the media, family, and community. These stereotypes influence adolescents' identity formation and social expectations. Studies show a high internalization of these stereotypes, which vary by gender. Therefore, it is crucial to address them in educational and social contexts so as to promote equality and eliminate gender barriers. Identifying and understanding how these stereotypes are perpetuated will help to develop effective educational strategies that promote gender equality and the healthy development of adolescents.

Methodology

Nature and design of the research

The reasoning used in this research was deductive because the categories used are part of the accumulated knowledge. In addition, "deduction makes it possible to establish a link between theory and observation and to deduce from the theory the phenomena observed" (Dávila, 2006, p. 181). In this sense, the present work adopted a deductive approach, since hypotheses were formulated from the theory, which were contrasted with observations (Bericat, 1998). Specifically, the study was analytical, observational (not experimental), descriptive-correlational in scope, without carrying out an intervention process (Lozares & López, 1991). Therefore, since the phenomenon was not monitored over time, nor were changes

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over time analyzed in the same group, the design was cross-sectional (Hernández-Ávila et al., 2000).

Population and sample

The study included 236 students from a public educational institution in the municipality of Medellín, Antioquia. The sampling procedure was convenience (not random) and corresponded to all students in the identified grades whose parents accepted and signed the informed consent.

Sample distribution

The sample consisted of 236 students in the sixth, seventh, and eighth grades. Of these, 111 (47%) were female and 125 (53%) were male. The sample of students had a mean age of 13.2 years, with an age range of 11 to 16 years. The coefficient of variation in age was approximately 11.89%, indicating moderate variability in the age of the participants. This represents a wide distribution of students at different stages of early adolescence, providing a varied perspective in the analysis of the data obtained from the questionnaire.

Data collection techniques and instruments

Students participated voluntarily in the data collection, with the informed consent of their parents or guardians, as well as the consent of each participant. The data collection sessions took place in the classroom, during school hours, with the presence of the authors to provide support in the use of the questionnaire. Before starting, the aim of the study and the importance of their cooperation were explained. The administration of the instrument took between ten and twenty minutes and was carried out in an atmosphere of trust, allowing the students to clarify any doubts that might arise.

For the data collection, the Gender Stereotypes Scale developed by Colás and Villaciervos (2007) was used, which evaluates six fundamental dimensions obtained through a combination of theoretical review and contributions from previous studies, namely:

1. Body (3 items: 1-3): assesses perceptions of physical attractiveness and body grooming as gender-related aspects.

   Example: «Women should care more than men about their appearance and beauty».

2. Social Behavior (SB) (2 items: 4-5): analyzes the attitudes expected of people in external situations according to gender.

   Example: «Discreet, prudent, and modest behavior is more valued in women».

3. Skills and Abilities (SA) (6 items: 6-11): Measures beliefs about the skills and abilities associated with each gender.

   Example: «Men are more capable than women of performing technical and mechanical tasks».

4. Emotional Management (EM) (4 items: 12-15): examines an individual's emotional response to various situations, considering gender stereotypes.

   Example: «It's ridiculous for men to cry or express their feelings in public».

5. Affective Expression (AE) (5 items: 16-20): Observes how people of each gender are expected to express their affection.

   Example: «Women can hug or kiss their friends to show affection, but men cannot».

6. Social Responsibility (SR) (2 items: 21-22): Assesses gender roles in terms of the social responsibility attributed to each gender.

   Example: «Women should take care of the house and their children».

The Gender Stereotypes Scale uses a series of dichotomous response categories (Yes or No)

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to determine the presence or absence of each statement in students.

The reliability of the instrument as a whole (original application) was determined by Cronbach's alpha, the result of which was adequate (α=.7805).

The internal consistency of the instrument for this application was calculated with Cronbach's alpha (α=0,795, IC=0,755-0,830) and McDonald's omega (Ω=.799, IC=0,762-0,836), since these are values (α, Ω e IC) accepted as valid (Oviedo and Campo-Arias, 2005) and at a better level than the values of the questionnaire at the time of its design. These calculations were carried out using the JASP software.

In addition to the scale, demographic data such as age, gender, and school level were collected from the participants in order to analyze significant differences and correlations. To assess interests and preferences in various activities (Internet, sports, reading, math, and video games), the questionnaire included direct questions in a frequency scale format. Each student was asked to indicate whether he or she liked or disliked each specific activity. These questions were designed to identify possible gender differences in preferences based on activities commonly associated with stereotypical gender roles.

Data Analysis Techniques

Data analysis was performed first in Excel and then in JASP software for organizing the database and applying reliability, normality, and frequency statistics. SPSS 27 was then used for comparisons of means, effect sizes, and descriptive and correlational studies.

First, the reliability of the instrument was assessed using Cronbach's alpha (α) and McDonald's omega (ω), indices with their respective confidence intervals (CI), due to the precision of ω when working with factor loadings (Ventura-León & Caycho-Rodríguez, 2017).

For descriptive analysis, the mean of each dimension was considered. The distribution of the variables was evaluated with the Kolmogorov-Smirnov statistic for samples with more than 50 subjects, considering p > 0,05 as an indication of normality. The general mean, standard deviation, minimum and maximum values were calculated.

In the relational phase, means were compared using the Mann-Whitney U test for two samples and Kruskal-Wallis for more than two samples, with p < 0,05 as the significance criterion. Kruskal-Wallis and Dunn tests were used to assess general and specific differences, respectively, in addition to effect size and biserial correlation by ranks for the Mann-Whitney U test.

To analyze the correlations between age, grade, and gender stereotypes, the Spearman Rho coefficient was used in the correlational study, and the point biserial coefficient was used for the gender variable. This test was also used to examine the correlations between students' interests (reading, math, sports, video games, and the Internet) and gender stereotypes, using p < 0,05 as the criterion of significance. The strength of the correlation was determined according to the following scale of absolute values: strong (0.5-1), moderate (0.3-0.49), and weak (<0.29), bearing in mind whether the correlation was positive or negative.

Results

Descriptive study

The distribution of the data for the variable gender stereotypes and its dimensions (body, social behavior, skills and abilities, emotions, affective expression, social responsibility) was determined using the Kolmogorov-Smirnov test in SPSS 27, with a result of p < 0.001 for all dimensions. This indicates the absence of a normal distribution and the need to use analyses with non-parametric statistics.

Table 1. shows the results of the descriptive study for n = 236. The highest mean was observed in the dimension Affective Expression (SD = 1.26), followed by Social Behavior (SD = 0.71). The lowest means correspond to Body (SD

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= 1.07) and Social Responsibility (SD = 0.83). The total score of the gender stereotypes measure shows a mean close to but below the median, with a small dispersion (SD = 4.48) with respect to the mean. In general, 55% of the adolescents in the sample internalize gender stereotypes. This is also reflected in the different dimensions of the construct, with the exception of body, with 38%, and social responsibility, with 49% of the participating students.

The table also includes the value of the median of the gender stereotypes and their dimensions, which is important because the distribution is not normal. In addition, normality tests were carried out for each variable, differentiating by grade, gender and age, and none of them showed a normal distribution.

Table 1

General descriptive analysis of the results of the application of the Gender Stereotypes Scaler

Variable	Maximum possible score	Mean	SD	CI		Weighted mean	Median
				LL	UL		
Body	3	1,13	1,07	0.99	1,27	0,38	1,00
Social behavior	2	1,25	0,71	1,16	1,35	0,63	1,00
Competencies and abilities	6	3,31	1,88	3,06	3,55	0,55	4,00
Emotions	4	2,20	0,89	2.09	2,32	0,55	2,00
Affective expression	5	3,38	1,26	3,22	3,54	0,68	4,00
Social responsibility	2	0,98	0,83	0,87	1,08	0,49	1,00
Gender stereotypes	22	12,25	4,48	11,68	12,82	0,55	13,00

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

Each item on the scale corresponds to a stereotype that may or may not have been internalized by the adolescents, which was then analyzed (see Table 2). The frequency indicates how many times each item was answered 'yes', i.e., when the stereotype was present, and also indicates the percentage of that response.

In the Body dimension, stereotypes generally had the lowest level of internalization, although almost 50% of the participants believed that women should pay more attention to their appearance than men.

Regarding Social Behavior, there was a high presence of gender stereotypes in the sample, highlighting that more than two-thirds of students value that women have modest, prudent and discreet behavior.

Stereotypes about competence and ability were mostly internalized, all above 50%, except for the belief that men are better at technical and mechanical tasks, which was strongly internalized by almost 70% of the participants.

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In terms of emotions, participants were in an intermediate position in terms of internalizing gender stereotypes, highlighting the normalization of girls crying when they feel hurt, even though it is perceived as acceptable for men to cry or express emotions in public.

The dimension 'Affective expression' showed the highest level of internalization of gender stereotypes, with almost 50% of the participants believing that demonstrations of affection with hugs and kisses are not exclusively reserved for women, and more than 80% believing in the ability of women to comfort others when they are sad.

Table 2

Frequency and percentage of positive response for each item on the scale

Dimension	Item	Frequency	Percentage (%)
Body	1	86	36,4
	2	83	35,2
	3	98	41,5
Social behavior	4	135	57,2
	5	161	68,2
Competencies and abilities	6	90	38,1
	7	120	50,8
	8	147	62,3
	9	118	50,0
	10	143	60,6
	11	162	68,6
Emotions	12	29	12,3
	13	196	83,1
	14	151	64,0
	15	144	61,0
Affective expression	16	114	48,3
	17	128	54,2
	18	191	80,9
	19	185	78,4
	20	179	75,8
Social responsibility	21	103	43,6
	22	128	54,2

The results of gender stereotypes and their dimensions, differentiated by gender, age and grade of the students, are presented in percentages (see Table 3).

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Table 3

Porcentaje de estereotipos de género por sexo, edad y grado

Gender stereotypes	Gender (%)		Age (%)						Grade (%)		
	Male	Female	11	12	13	14	15	16	6°	7°	8°
Social responsibility	55,2	41,9	59,1	53,3	55,1	38,5	48,0	44,8	55,7	49,1	40,9
Affective expression	70,7	64,0	70,9	67,2	67,5	65,2	71,2	69,5	76,0	62,3	67,0
Emotions	57,0	52,9	56,8	55,8	55,1	54,9	49,0	60,5	57,2	52,6	57,1
Competencies and abilities	59,7	49,9	69,7	53,0	53,4	50,3	65,3	60,5	67,4	47,8	53,6
Social behavior	64,8	60,4	68,2	63,1	59,3	64,8	70,0	52,7	70,7	60,4	57,5
Body	38,4	36,9	24,2	27,9	40,7	39,3	46,7	50,9	33,8	37,4	42,8
General	58,9	52,1	60,3	54,2	55,9	53,3	60,0	59,1	62,1	51,8	55,0

With regard to gender, both in the overall results and in each of the dimensions, men were found to have internalized stereotypes more than women. Specifically, the difference was more than thirteen percentage points in Social Responsibility and about ten points in Skills and Abilities. On the other hand, the difference in the Body dimension was minimal, a little more than one point; the scores were almost equal for men and women.

Regarding age, there was generally more internalization at age eleven and less at age fourteen, with no clear upward or downward trend. It was interesting to observe the behavior in the 'Body' dimension, where internalization was lower at eleven years of age and increased at later ages, being highest between fifteen and sixteen years of age. This suggests that there are more stereotypes about women's bodies at older ages. The other dimensions did not show a clear trend in the different age groups studied.

Students' grade level provided insight into the effect of classroom context on gender stereotypes. Only for the dimension 'Social responsibility' was a trend observed in which the internalization of the stereotype decreased with increasing grade level, similar to what happens with age. In the latter case, however, there were increases at some ages. For all dimensions except 'Body', stereotypes were higher in the sixth grade.

Students were also asked about their interests by topic, which allowed us to identify differences between men and women, some of which are the result of beliefs about the roles each sex should play. Table 4 shows the results of the differences in interest between males and females in specific activities, reflecting patterns according to gender stereotypes; for example, males expressed greater interest in sports, mathematics, and video games, while reading was the only activity with greater female participation, in line with the roles traditionally associated with each gender.

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Table 4

Mean interest in specific activities by gender

Internet %		Sports %		Reading %		Mathematics %		Videogames %	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
80	78	93	87	49	72	80	75	90	52

Relational study

Comparison of results

This phase began with the comparison of the results between the different variables and the subgroups in each of them (see Table 5); however, only the results that showed significant differences are presented; the significant *p* is found in Table 5. In addition, the effect size of these variations was calculated, that is, the size of the difference observed.

Table 5

Comparación de resultados por grupos y tamaño del efecto

Group	Stereotype	*p*	*Effect size*	Comparison subgroup	*p*
Gender	Competencies and abilities	0,012	0,188	M > F	0,006
	Affective expression	0,028	0,161	M > F	0,014
	Social behavior	0,015	0,174	M > F	0,007
	General	0,012	0,189	M > F	0,006
Age	Body	0,037	0,046	11 < 15	0,025
				11 < 16	0,018
				12 < 13	0,026
				12 < 14	0,042
				12 < 15	0,009
				12 < 16	0,006
	Social behavior	Not significant	0,015	15 > 16	0,050
	Competencies and abilities	Not significant	0,032	11 > 12	0,041
				11 > 14	0,026
				15 > 12	0,042
				15 > 14	0,023
	Social behavior	Not significant	0,029	12 > 14	0,024
				13 > 14	0,014

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Group	Stereotype	p	Effect size	Comparison subgroup	p
Grade	Social behavior	Not significant	0,023	6 > 7	0,048
				6 > 8	0,021
	Competencies and abilities	0,001	0,071	6 > 7	0,001
				6 > 8	0,008
	Affective expression	0,002	0,053	6 > 7	0,001
				6 > 8	0,028
	Social behavior	Not significant	0,018	6 > 8	0,020
	General	0,007	0,047	6 > 7	0,001
					0,031

Table 5, shows that there were significant differences in the internalization of gender stereotypes, mainly in the dimensions of 'Competencies and Abilities', 'Affective Expressions', and 'Social Responsibility', with a tendency to be greater for men than for women, and with an effect size between small and medium (Domínguez-Lara, 2018).

With respect to age, there were significant differences in the Body dimension and in certain subgroups. For Social Behavior, Competencies and Abilities, and Social Responsibility, the overall score did not differ significantly, but it did in certain groups. Similarly, in some dimensions, such as Behavior and Social Responsibility, there were no significant overall differences, but there were differences in subgroups. Competencies and Abilities, Affective Expressions, and General Score showed significant differences, although the effect size was small. A tendency towards greater internalization of gender stereotypes with age was observed.

On the other hand, sixth graders showed a greater internalization of gender stereotypes. Regarding preferences, there were significant differences in the preference for reading (p < 0.001), which was more pronounced in females, and the preference for video games (p < 0.001), which was more pronounced in males.

Correlations between variables

The correlation between the socio-demographic and taste variables of the students with gender stereotypes and their dimensions is presented in Table 6, with the most significant results (p > 0.05).

Table 6

Correlations between the different study variables

Gender stereotypes	Variables	Grade	Gender	Age	Sports	Videogames
Body	Correlation			0,207		
	p			0,001		
Social behavior	Correlation	- 0,136				
	p	0,037				

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Competencies and abilities	Correlation	- 0,171	- 0,158		
	p	0,008	0,015		
Emotions	Correlation			0,188	
	p			0,004	
Affective expression	Correlation	- 0,139	- 0,134		
	p	0,033	0,040		
Social behavior	Correlación	- 0,133	- 0,161		0,134
	p	0,041	0,013		0,040
General	Correlation	- 0,133	- 0,167		
		0,041	0,010		

As can be seen in Table 6, there were significant, weak and negative correlations between school grade and the internalization of gender stereotypes in dimensions such as social behavior, competencies and abilities, affective expression, social responsibility and in the total score of the questionnaire. This suggests that as school grade increases, the internalization of gender stereotypes decreases in these dimensions and in general.

As for gender, a negative correlation was found, indicating that in these dimensions and in the total score, the internalization of stereotypes was lower in women than in men, although the strength of the correlation was weak. On the other hand, the correlation with age shows a higher level than the previous ones, indicating that the internalization of body stereotypes increases with age.

In addition, the activities preferred by the students and their relationship with gender roles were studied, finding weak correlations that suggest that those people who like sports have higher levels of internalization of emotion stereotypes, and those who like video games have the same levels, but in the dimension of social responsibility.

Discussion

The results of the research show that the participating students have a high level of internalization of gender stereotypes. This characteristic is similar to that found in other research, such as Colás and Villaciervos (2007), García and Carbonell (2023), Villanueva-Blasco and Grau-Alberola (2019), Villarreal-Fernández and Durán-Quiceno (2023), where internalized beliefs above this percentage were evident. Despite the temporal differences between the oldest and most recent studies, the persistence of these levels is worrying, although the location of each study must be considered. These high levels of internalization of stereotypes can lead to difficulties in identifying their interests and respecting the rights of students.

The greatest internalization of stereotypes is found in the dimensions of Affective Expression and Social Behavior. This shows that it is still believed that women are the ones who should express love and affection more, while differences persist in the way men and women behave socially. These results are in line with the work of Villarreal-Fernández and Durán-Quiceno (2023), who conducted their research in an educational institution in the same department, but in a different municipality; that is, the culture, in terms of beliefs regarding the role of men and women, is common. The same happens with the less internalized stereotypes, such as the body and social responsibility, obtaining similar results in both studies.

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Seeing the tastes of adolescents, such as some of the activities they do, allows us to introduce new variables that are consistent with what has been found in other research. At the same time, it allows us to identify possible causes or consequences of the internalization of stereotypes. In this case, it is observed that masculine preferences prevail in sports, Internet use, mathematics and video games, and feminine preferences prevail in reading, thus confirming socially internalized gender stereotypes. The results allow us to observe that emotional stereotypes are more internalized with the taste for sports, and social responsibility with the taste for video games.

There were significant differences in the internalization of stereotypes in the general result regarding the gender of the participants. These results are different from those obtained by Villarreal-Fernández and Durán-Quiceno (2023), but they are similar to other works in which these differences were significant (Colás & Villaciervos, 2007; Villanueva-Blasco & Grau-Alberola, 2019). In addition, it was observed that the significance of the differences was presented between gender and the dimensions of competencies and abilities, affective expression and social responsibility.

The correlational study became a contribution to the understanding of the subject, since it allowed to identify how the internalization of stereotypes increases or decreases in relation to other variables. This leads to educational activities that, in some way, influence these beliefs. On the other hand, there was a negative correlation between stereotypes and school grade; the higher the grade, the fewer stereotypes in general and greater internalization in men. The grade in which the student is found negatively correlates social behavior, skills and abilities, affective expression, social responsibility and stereotypes in general, corroborating what was outlined by Zhao (2022), in the approach to the effect that the educational environment can have, in this case, the peers with whom he or she studies.

In terms of specific dimensions, it is evident that school-aged adolescents show a significant tendency to internalize gender stereotypes related to physical appearance, social interactions, occupational skills and abilities, and gender roles in the family environment. These findings are consistent with previous research highlighting the powerful influence of media, family, and society in the construction of gender stereotypes during adolescence (Kågesten et al., 2016; Tenenbaum & Leaper, 2002; Ward & Grower, 2020; Zhao, 2022).

Conclusions

The research shows that gender stereotypes are deeply internalized by the adolescents in the sample, consistent with previous studies that highlight the influence of these stereotypes on individual perceptions and behaviors.

In particular, the Affective Expression and Social Behavior dimensions showed the highest levels of internalization, suggesting that specific roles and behaviors are assigned to each gender in terms of emotion and social behavior. This reinforces the idea that men are expected to be emotionally strong and women, to be more empathetic and sociable.

Although the Body dimension showed lower levels of internalization, it is concerning that nearly 50% of participants believe that women should take more care of their appearance than men. This reflects the persistence of beauty and body image stereotypes, which may have implications for self-esteem and mental health.

On the other hand, there are significant differences between men and women in the internalization of gender stereotypes. Men showed higher levels in general as well as in specific dimensions such as competence, affective expression, and social responsibility. These findings are consistent with the theory of gender socialization, which postulates that men are raised to be independent and achievement-oriented, while women are educated to be emotional and relationship-oriented.

Furthermore, the internalization of body stereotypes increases with age, possibly due to the greater influence of media and social pressures during adolescence. However, no

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clear trend was observed in other dimensions, suggesting that stereotype internalization may occur at different stages of development.

In terms of grade level, sixth graders showed greater internalization of stereotypes than eighth graders, suggesting a greater vulnerability in the early years of adolescence when young people are constructing their gender identity.

These findings highlight the importance of implementing educational policies that promote gender equality and reduce the perpetuation of stereotypes in the school environment. In order to make progress towards achieving the UN Sustainable Development Goals, particularly SDG 5 on gender equality, it is recommended that educational institutions in the region adopt awareness-raising and training programs for both students and teachers. These programs should address the impact of gender stereotypes on identity construction and their long-term effects on academic and career choices.

Educational institutions are encouraged to promote spaces for reflection and analysis of gender roles in order to reduce discriminatory attitudes and provide an inclusive environment. In addition, the commitment of institutions is crucial in designing intervention strategies that strengthen a just and equitable vision in future generations, contributing to a society that values the diversity of skills and talents, regardless of gender.

For future research, it is suggested to increase the sample size to obtain more representative and generalizable results; to examine the impact of educational interventions designed to challenge gender stereotypes and promote equality; to explore the influence of cultural, religious and socio-economic factors on gender stereotypes; to conduct longitudinal studies to assess the long-term effects of attitudes and perceptions related to gender stereotypes; to examine the relationship between gender stereotypes and academic achievement, including career choices and

performance, compare gender attitudes in different educational contexts, such as public and private schools, rural and urban schools, and across countries; and complement quantitative research with qualitative approaches, for instance in-depth interviews and focus groups, in order to gain a more detailed and contextualized understanding of experiences and beliefs related to gender stereotypes, as these qualitative approaches would enrich the understanding of gender stereotypes and provide more comprehensive perspectives to inform future educational interventions and policies.

Conflict of interest

The authors declare that no personal interests or interests beyond their control, including misconduct or values other than those usual and ethical in research, were involved in the conduct of the work or the writing of the article.

Ethical Responsibilities

This study respected the ethical standards established by the Declaration of Helsinki and Law 1581 of 2012, which establishes general provisions for the protection of personal data in Colombia, including the voluntary nature of participation, the free and informed consent for the use of data collected for research purposes, and the indication that participants could stop participating at any time. Therefore, the confidentiality of the participants was respected in the processing of the data, and the guardians were asked to sign the informed consent and assent of each participating student.

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Contribution

Jorge Eliécer Villarreal-Fernández: Principal investigator. Statistical data processing, writing of the materials and methods and acquisition of the results.

Paola Andrea Durán-Quiceno: analysis and interpretation of results, search for background information, drafting of the introduction, methods, discussion and conclusions.

Luís Vega Jaime: analysis and interpretation of the results, drafting of the introduction, methods, discussion and conclusions, editing.

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