



# Attitudes Toward Sexual Diversity in Sport Among Undergraduate Students of Physical Activity and Sport Sciences in Spain

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## Abstract

Sexual diversity in the world of sport has not been widely researched in the Spanish context. Studies on national and international sexual diversity tend to leave out transgender issues and intersexuality. The new framework of action of the International Olympic Committee in 2021 advocates for integration and non-discrimination based on gender identity and sex variations in sport. We analyzed attitudes toward sexual diversity in sport among a sample of PASS university students using the Scale of Attitudes Toward Sexual Diversity Among Athletes and the statistical package R. Each item was subjected to frequency analysis and the results were displayed in contingency tables. The sample comprised 610 students from three Spanish universities (68.85% male and 31.15% female, with a mean age of 21.72 years;  $SD=4.12$ ). Of the four factors analyzed, the lowest levels of rejection were Cognitive Attitudes (96.72%) and Attitudes Toward Transgression (86.89%). One of the most important variables was gender, with women showing greater tolerance toward sexual diversity in sport than men.

**Keywords** Gender differences · University students · Physical education · Diversity

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## Introduction

Tolerance toward sexual diversity is still one of the great social and cultural challenges in sport, where we find even more rigid constructions than elsewhere (Storr et al., 2022). Recent studies have demonstrated that homonegativity is still present in sport settings (Hartmann-Tews et al., 2021; Rollè et al., 2022) despite the fact that social changes have been developed in many countries about the inclusion of LGBTI people. Faced with the natural need to simplify reality, we internalize forms of ordering through stereotypes that we incorporate into our experiences. This is perpetuated in a more deeply rooted way in the practice of sport, where gender stereotypes present greater reticence regarding sexual diversities that limit the possibility of their assimilation. For this reason, it is necessary to make sexual diversity visible in sport and to study society's attitudes toward it, thereby contributing to the eradication of discrimination (Storr et al., 2022).

During the last three decades sexual orientation in sport settings has been studied in deep in Western societies (Anderson, 2002; Griffin, 1998; Pronger, 1992) highlighting a positive evolution into this culture. Even in the last years some non-western scholars have begun to address LGTBI issues in their cultures (Kavasoğlu, 2021; Hamdi et al., 2017; Laurindo & Martins, 2022; Martins, 2022) analyzing how their own cultures and traditions impact on attitudes towards sexual diversity in sport. Notwithstanding, sexual diversity in the world of sport has been understudied in Spain, despite the country being one of the most advanced in terms of legislation and rights for LGTBI people. Spain lies 10th in the Rainbow Europe ranking (2022), with a score of 61.74% out of a total of 49 countries. However, few studies have been carried out in this area in relation to sport (and students of physical activity and sport sciences [PASS], in particular). PASS students include some of the future generations of coaches, teachers, managers, etc. so sexual diversity education during their education could be a fruitful strategy to ensure that this collective is ready and willing to promote these attitudes in their field.

One of the first studies in Spain to address tolerance toward sexual diversity in sport was that of Piedra (2015), which described the discourse used by young Spanish university students to explain the presence of gays and lesbians in sport. He concluded that female students showed more respect toward gay and lesbian athletes. This was supported by the findings of studies carried out in other countries (Worthen, 2014; Ensign et al., 2011). However, the most recent published study with PASS students in Spain points out that male homosexuality is invisible and is largely dealt as a taboo subject for PASS students (Vilanova et al., 2022). These facts, added to the lack of research about this issue in Spain, underscore the necessity of more studies and data that clarify and explain which attitudes toward sexual diversity are present on PASS students.

Tolerance toward sexual diversity in sport has usually been measured using Herek's (1984) Attitudes Toward Lesbians and Gays (ATLG) scale. However, this only measures tolerance toward LGTBI groups, namely gays and lesbians (Herek & Gonzalez-Rivera, 2006; O'Brien et al., 2013). In other words, it leaves out

several LGBTI groups that are becoming more important in international sport. The new framework of action of the International Olympic Committee (2021) advocates for integration and non-discrimination based on gender identity and sex variations (i.e., transgender and intersexuality) in sport. However, these IOC recommendations are not being complied with, as evidenced by the FINA rule prohibiting the participation of transsexual swimmers who have not transitioned before the age of 12 (FINA, 2022). The scale developed by Piedra (2016) encompasses sexual diversity in its broadest meaning, including direct references to transgender and bisexual people, so was deemed more suitable for a study that aimed to analyze attitudes toward sexual diversity in sport in a sample of PASS students in three Spanish universities.

## Methodology

*Procedure:* An online research using a descriptive cross-sectional study was carried out using the survey tool Limesurvey. Information about the purpose of the study, the project research team, and a link to the questionnaire were included in an email sent to PASS students in three Spanish universities. The protocol was an open survey and therefore not password protected. The questionnaire was distributed among three universities between April and May 2021.

Once participants had accessed the program, they were provided with information concerning data handling (anonymity), informed consent, approval by the Ethics Committee, and contact with the research team. Only one response option was allowed per item.

## Instrument

The questionnaire Escala de Actitudes Hacia la Diversidad Sexual Entre Deportistas [Scale of Attitudes Toward Sexual Diversity Among Athletes] (Piedra, 2016) was used. This scale has been validated and replicated in subsequent studies (García-Oriol & Torreadella, 2019; Ramírez-Díaz & Cabeza-Ruiz, 2020; Vélez & Piedra, 2020). It is a Likert scale with five response options, four factors, and 18 items. Factor 1: cognitive attitudes (Items 7, 13, 16, 17, and 18). Factor 2: attitudes towards gender stereotypes (Items 1, 3, 6, and 12). Factor 3: attitudes toward transgression (Items 4, 10, and 14). Factor 4: affective attitudes (Items 2, 5, 8, 9, 11, and 15). (See attached questionnaire.)

In addition, a set of survey-type questions on socio-demographic variables were included and recoded. The characteristics were analyzed as follows. Sex: *male* or *female*; age: *18–25 years* or *26–60 years*; Nationality 1: *Spanish* or *other*; Nationality 2: *Spanish*, *Latin American*, or *other*; Type of Sport 1: *practicing* or *not practicing*; Type of Sport 2: *individual* or *group*; Total Number of Sports Practiced: *none*, *one*, or *more than one*; Membership of a Federation: *yes* or *no*; Academic Year: *first*, *second*, *third*, or *fourth*; Sexual Orientation: *heterosexual* or *non-heterosexual*; Type of University: *public* or *private*.

## Data Analysis

The statistical package R was used to perform the data analysis. Frequency analysis was carried out with the answers given by the participants to each of the items of the instrument displayed using contingency tables. The analysis consisted of establishing associations between the responses to the items, associations between responses to the items, and socio-demographic variables. The proportions of responses in the central category (*indifferent*) were very low (around 5% in most cases), so it was decided to omit these and proceed to divide them into Agree (*strongly agree* or *agree*) and Disagree (*strongly disagree* or *disagree*).

For Factor 1 (all items), Factor 2 (Item 3), Factor 3 (Items 10 and 14), and Factor 4 (Items 8, 9, 11, and 15) the option *strongly disagree* (SD) represents tolerance or a low level of rejection of sexual diversity in sport, and *strongly agree* (SA) represents no tolerance or a high level of rejection. Taking into account the reverse direction in the wording of Items 1, 6, and 12 (Factor 2), Item 4 (Factor 3), Items 2 and 5 (Factor 4), the option representing high tolerance (low level of rejection) is SA and the option representing no tolerance (high level of rejection) is SD.

The degree of presence of the factors was categorized in the initial work of Piedra (2016) according to the levels of homophobia proposed by Anderson (2009) and Anderson et al., (2016). Low levels of rejection of diversity in sport = 1–2 points; medium levels = 2.01–3 points; and high levels of rejection = 3.01–5 points. However, when carrying out the frequency distributions by factor and stratifying by the covariates, it was observed that, in many cases, the high- and/or low-level categories of the factor covered a very small number of individuals, which made it difficult to carry out analyses such as a chi-squared test (because it would have required frequencies of five or greater in each cell of the contingency table). To generate the theoretical conditions necessary to apply statistical methods, it was decided to recategorize the levels of presence of the factor into high-medium vs. low levels of rejection, so that when it was not possible to apply a chi-square test, Fisher's exact test could be used. The latter requires a contingency table to have two rows and two columns (two categories for each variable), so the statistical hypothesis test is performed using the probabilities of the binomial distribution. With the variables in binary form, chi-square or Fisher's exact tests were applied to establish statistical associations between the answers given to the questionnaire items and between the items and the socio-demographic variables. A value of 0.05 was assumed as the maximum acceptable value for type I error in the hypothesis test.

## Participants

Responses from 610 PASS students from three Spanish universities (68.85% men and 31.15% women) were analyzed, there were 403 (66.06%) students from public universities and 207 (33.93%) from a private university. The participants were aged between 18 and 60 years, with a mean age of 21.72 years ( $SD=4.12$ ); 91.31% (557) were between 18 and 25 years and 96.1% were Spanish (586). Most of the participants practiced only one sport, and 553 (90.65%), and 314 (51.47%) were members

of regional or national federations, respectively; of these, 68.79% were men. Participants of a heterosexual orientation comprised 88.85% of the sample (135 women and 407 men); bisexual orientation, 5.2% (29 women and 3 men); and homosexual orientation, 3.9% (19 women and 5 men).

## Results

### Item Analysis

The highest percentages regarding tolerance toward sexual diversity were found in the responses to Item 3 (96.39%); Item 18 (93.11%); Item 16 (90.98%); Item 17 (90.98%); and Item 10 (90.5%), where the participants disagreed with the statements. Additionally, there were higher percentages of tolerance for sexual diversity in the case of other items that were agreed with (namely, Item 1 [94.43%] and Item 6 [94.1%]). The factors with the lowest levels of rejection were Factor 1 (Cognitive attitudes; 96.72%) and Factor 3 (Attitudes towards transgression; 86.89%). By contrast, Factor 2 (Attitudes towards gender stereotypes) was found to have a high level of rejection (53.77%), while the low level of rejection was only 3.28%. Three of the four items in Factor 2 showing high levels of rejection were considered to represent tolerance to sexual diversity in sport because of their inverse characteristics (Table 1).

### Association Between Variables

The contingency tables revealed that the female participants showed a greater tolerance toward sexual diversity in sport than the male participants. In most cases, we found percentages above 90%, that is, Item 16 (98.9%); Items 17 and 18 (97.89% rejection); and Item 3 (98.42%).

**Table 1** Levels of rejection by factor

	Levels of rejection (%)	
	High	Medium
Factor 1. Cognitive attitudes towards diversity	6 (0.98%)	14 (2.30%)
	590 (96.72%)	21 (3.28%)
	3 (0.49%)	77 (12.62%)
Factor 2. Attitudes towards Gender Stereotypes	328 (53.77%)	261 (42.95%)
	21 (3.28%)	530 (86.89%)
	3 (0.49%)	4 (0.66%)
Factor 3. Attitudes towards Transgression	3 (0.49%)	77 (12.62%)
	77 (12.62%)	530 (86.89%)
	3 (0.49%)	4 (0.66%)
Factor 4. Affective attitudes towards diversity	4 (0.66%)	102 (16.72%)
	102 (16.72%)	504 (82.62%)
	4 (0.66%)	504 (82.62%)

In general, the students from the public universities showed a higher percentage of tolerance towards sexual diversity. It is worth noting, however, that high percentages of tolerance of sexual diversity were observed in both types of university. The results were Item 3 (95.7% and 96.8%); Item 18 (90.8% and 94.3%); Item 17 (88.0% and 92.6%); Item 16 (87.9% and 92.5%); and Item 10 (87.5% and 92.1%) for private and public universities, respectively.

Spanish nationals had a higher percentage of tolerance to sexual diversity in sport. The items with the highest tolerance were Item 16 (91.3%, 73.4%, and 77.8%); Item 10 (91.1%, 73.4%, and 77.8%); and Item 14 (86.7%, 73.3%, and 66.6%) for Spanish, Latin American, and other nationalities, respectively.

In general, significant differences were observed in the ages of the participants in the case of Items 4 and 18 and the academic year in the case of Items 10 and 13; the type of sport practiced (individual or group) in the case of Items 6, 12, and 14; for the second type of sport where the category of both (group and individual) was added in the case of Items 3 and 8; and the number of sports played in the case of Items 3, 9, and 14.

Table 2 shows that there were no high levels of rejection. In terms of the characteristics of the participants, a low level of rejection (regarding tolerance of sexual diversity) of more than 80% was observed. In addition, women had a 98.4% tolerance of sexual diversity, and men, 92.1%. Finally, in general, the variables or characteristics that had the most weight (significant differences) in terms of a high tolerance to sexual diversity in sport were gender and nationality.

## Association Between Factors and Participant Characteristics

Table 3 shows that, for Factor 1 (cognitive attitudes), statistically significant differences were observed between women and men ( $p = .038$ ): the women had a lower proportion of rejection (98.9%) than the men (95.7%). Another statistically significant variable was the type of university ( $p = .012$ ): 98% of participants at public universities showed low levels of rejection.

According to the levels of rejection in Factor 2 about attitudes towards gender stereotypes (where a high-medium level of rejection represents tolerance), the association between gender, nationality, and type of university was statistically significant;

**Table 2** Variables with a statistically significant association with overall levels of rejection

		Overall level of rejection		<i>P</i> value
		High-Medium (36)	Low (574)	
Gender	Male (420)	33 (7.9%)	387 (92.1%)	0.002
	Female (190)	3 (1.6%)	187 (98.4%)	
Nationality*	Spanish (586)	32 (5.5%)	554 (94.5%)	0.046*
	Other nationality (24)	4 (16.7%)	20 (83.3%)	

\**p* value obtained using Fisher's exact test

**Table 3** Cross-tabulation of variables regarding the rejection levels of the grouped factors

	Factor 1. Cognitive attitudes			Factor 2. Attitudes towards gender stereotypes			Factor 3. Attitudes towards transgression			Factor 4. Affective attitudes		
	High-Medium	Low	p value	High-Medium	Low	p value	High-Medium	Low	p value	High-Medium	Low	p value
	Sex	18 (4.3%)	402 (95.7%)	<b>0.038#</b>	402 (95.7%)	18 (4.3%)	<b>0.038#</b>	68 (16.2%)	352 (83.8%)	<b>0.001#</b>	91 (21.7%)	329 (78.3%)
Age	2 (1.1%)	188 (98.9%)		188 (98.9%)	2 (1.1%)		12 (6.3%)	178 (93.7%)		15 (7.9%)	175 (92.1%)	
18–25 years	19 (3.4%)	538 (96.6%)	1	538 (96.6%)	19 (3.4%)	1	74 (13.3%)	483 (86.7%)	0.686	96 (17.2%)	461 (82.8%)	0.764
26–60 years old	1 (1.9%)	52 (98.1%)		52 (98.1%)	1 (1.9%)		6 (11.3%)	47 (88.7%)		10 (18.9%)	43 (81.1%)	
Nationality	19 (3.2%)	567 (96.8%)	0.558	569 (97.1%)	17 (2.9%)	<b>0.039#</b>	73 (12.5%)	513 (87.5%)		99 (16.9%)	487 (83.1%)	0.163
Spanish	1 (4.2%)	23 (95.8%)		21 (87.5%)	3 (12.5%)		7 (29.2%)	17 (70.8%)		7 (29.2%)	17 (70.8%)	
Another	18 (3.4%)	505 (96.6%)	0.754	505 (96.6%)	18 (3.4%)	0.754	69 (13.2%)	454 (86.8%)	0.888	87 (16.6%)	436 (83.4%)	0.236
None	2 (2.3%)	85 (97.7%)		85 (97.7%)	2 (2.3%)		11 (12.6%)	76 (87.4%)		19 (21.8%)	68 (78.2%)	
One or more	1 (5.9%)	16 (94.1%)	0.437	15 (88.2%)	2 (11.8%)	0.103	3 (17.6%)	14 (82.4%)	0.478	5 (29.4%)	12 (70.6%)	0.194
Not Practiced	19 (3.2%)	574 (96.8%)		575 (97.0%)	18 (3.0%)		77 (13.0%)	516 (87.0%)		101 (17.0%)	492 (83.0%)	
Practice	8 (3.1%)	251 (96.9%)	0.89	253 (97.7%)	6 (2.3%)	0.369	33 (12.7%)	226 (87.3%)	0.877	48 (18.5%)	211 (81.5%)	0.392
Individual	11 (3.3%)	323 (96.7%)		322 (96.4%)	12 (3.6%)		44 (13.2%)	290 (86.8%)		53 (15.9%)	281 (84.1%)	
Group												

**Table 3** (continued)

	Factor 1. Cognitive attitudes			Factor 2. Attitudes towards gender stereotypes			Factor 3. Attitudes towards transgression			Factor 4. Affective attitudes		
	High-Medium	Low	<i>p</i> value	High-Medium	Low	<i>p</i> value	High-Medium	Low	<i>p</i> value	High-Medium	Low	<i>p</i> value
Belongs to a federation	9 (3.0%)	287 (97.05)	0.748	286 (96.6%)	10 (3.4%)	0.89	44 (14.9%)	252 (85.1%)	0.214	47 (15.9%)	249 (84.1%)	0.343
tion	11 (3.5%)	303 (96.5%)		304 (96.8%)	10 (3.2%)		36 (11.5%)	278 (88.5%)		59 (18.8%)	255 (81.2%)	
Academic Year	10 (5.1%)	185 (94.9%)	–	188 (96.4%)	7 (3.6%)	–	25 (12.8%)	170 (87.2%)	0.972	38 (19.5)	157 (80.5%)	0.485
Second	4 (2.6%)	150 (97.4%)		150 (97.4%)	4 (2.6%)		21 (13.6%)	133 (86.4%)		25 (16.2%)	129 (83.8%)	
Third	3 (2.0%)	144 (98.0%)		142 (96.6%)	5 (3.4%)		18 (12.2%)	129 (87.8%)		28 (19.0%)	119 (81.0%)	
Fourth	3 (2.6%)	111 (94.4%)		110 (96.5%)	4 (3.5%)		16 (14.0%)	98 (86.0%)		15 (13.2%)	99 (86.8%)	
Sexual Orientation	17 (3.1%)	525 (96.9%)	0.48	526 (97.0%)	16 (3.0%)	0.201	74 (13.7%)	468 (86.3%)	0.266	96 (17.7%)	446 (82.3%)	0.537
Non-heterosexual	3 (4.4%)	65 (95.6%)		64 (94.1%)	4 (5.9%)		6 (8.8%)	62 (91.2%)		10 (14.7%)	58 (85.3%)	
Type of university	12 (5.8%)	195 (94.2%)	<b>0.012#</b>	196 (94.7%)	11 (5.3%)	<b>0.043#</b>	33 (15.9%)	174 (84.1%)	0.138	44 (21.3%)	163 (78.7%)	<b>0.07#</b>
Public	8 (2.0%)	395 (98.0%)		394 (97.8%)	9 (2.2%)		47 (11.7%)	356 (88.3%)		62 (15.4%)	341 (84.6%)	

– Not applicable for the chi-square test; \**p* value obtained using Fisher's exact test; # = statistically significant



women had a high-medium level of rejection of 98.9% ( $p = .038$ ), while the Spanish participants had a higher percentage of high-medium rejection of 97.1% ( $p = .039$ ).

For Factor 3 (attitudes toward transgression), gender and nationality had a statistically significant association where the significance was less than  $p = .03$ : 93.7% of women and 87.5% of Spanish nationals presented low levels of rejection toward transgression.

For Factor 4 (affective attitudes), there was a significant gender difference in the low levels of rejection: 92.1% among the women and 78.3% among the men. There was a significant difference in the low percentage of rejection in participants at public universities (84.6%) compared with private universities (78.7%). In general, there were not many differences concerning the characteristics in this factor, which in terms of greater rejection, presented lower percentages compared with the other factors. There was a statistically significant association between gender ( $p = .00$ ) and the type of university ( $p = .07$ ).

The characteristics with the greatest strength in terms of tolerance were gender and nationality since these were found to have statistically significant associations between the items, factors, and groups of items (Table 2). It is important to underline that not all items presented characteristics with statistically significant associations in terms of extreme values (such as Items 1, 11, 14, 17, and 18). On the other hand, the male participants showed less rejection in Item 5 (“I wouldn’t mind if someone saw me in an LGBT sports club”); Item 7 (“I do not think that boys are genetically prepared for ‘artistic’ sports such as skating, gymnastics, and aerobics”); Item 9 (“I would not like to change in the same changing room as a transgender person”); and Item 12 (“I dislike hearing the word faggot being used as a swear word in stadiums”), which means that they disagreed with the statements or questions (Table 4).

## Discussion

The present study aimed to analyze attitudes towards sexual diversity in sport among a sample of university PASS students in Spain. The findings show that the participants exhibited generally low levels of rejection of diversity in sport. This confirms the findings of several previous studies such as Anderson and Mowatt (2013) in USA, Magrath et al. (2022) in UK or Ramírez-Díaz and Cabeza-Ruiz (2020) in Spain. However, many participants presented intermediate attitudes of rejection, thus the problem is still present like other researchers currently are underscoring (Amodeo et al., 2020; Hartmann-Tes et al., 2022; Smits et al., 2021) especially among transgender people (Braumüller et al., 2020; Tamir, 2022). As Griffin (1998) and Soler-Prat et al., (2022) point out, different climates to sexual diversity coexist in sport having non-straight people different strategies to live their sport practice. Piedra et al. (2017) discovered the existence of an intermediate level between the one described herein as medium and a high one. The factor analysis of the scale revealed that, of the four factors present, the levels of rejection increase considerably for Factor 2 (Attitude towards gender stereotypes), where the items refer to shaking hands with a gay man; effeminate sportsmen; girls who do combat sports; and the word faggot as an insult in stadiums. As Krane (2016) states much discrimination and

**Table 4** Items presenting characteristics with statistically significant associations

Item 2. I would feel comfortable in my team with a transgender colleague.		Agreed.	Disagree	p-value
Nationality	Spanish	467 (93.0%)	35 (7.0%)	0.032*
	Another	13 (76.5%)	4 (23.5%)	
Type of university	Private	157 (89.2%)	19 (10.8%)	0.042
	Public	323 (94.2%)	20 (5.8%)	
Item 3. I think it makes sense for the crowd to laugh at an effeminate player during a match				
Type of sport	Not Practiced	2 (11.8%)	15 (88.2%)	0.042*
	Practice	10 (1.7%)	573 (98.3%)	
Item 4. If I had a child I would enjoy watching him/her practice rhythmic gymnastics				
Sex	Man	345 (93.2%)	25 (6.8%)	0.026
	Woman	175 (97.8%)	4 (2.2%)	
Item 5. I wouldn't mind if someone saw me in an LGBT sports club				
Sex	Man	242 (77.8%)	69 (22.2%)	0.000
	Woman	166 (93.8%)	11 (6.2%)	
Nationality	Spanish	399 (84.4%)	74 (15.6%)	0.023*
	Another	9 (60.0%)	6 (40.0%)	
Type of university	Private	124 (78.5%)	34 (21.5%)	0.034
	Public	284 (86.1%)	46 (13.9%)	
Item 6. A girl would be just as feminine if she played combat sports				
Nationality	Spanish	555 (98.8%)	7 (1.2%)	0.038*
	Another	19 (90.5%)	2 (9.5%)	
Item 7. I believe that children are not genetically prepared for "artistic" sports such as skating, gymnastics, aerobics				
Sex	Man	45 (11.7%)	338 (88.3%)	0.014
	Woman	10 (5.3%)	179 (94.7%)	
Item 8. If I had children, I would not want the coach to be a transgender person				
Nationality	Spanish	26 (5.6%)	437 (94.4%)	0.013*
	Another	4 (25.0%)	12 (75.0%)	
Type of university	Private	16 (10.2%)	141 (89.8%)	0.013
	Public	14 (4.3%)	308 (95.7%)	
Item 9. I would not want to change in the same changing room as a transgender person				
Sex	Man	38 (13.0%)	255 (87.0%)	0.019
	Woman	11 (6.1%)	168 (93.9%)	
Item 10. If I had a daughter, I would feel uncomfortable about her competing in rugby				
Nationality	Spanish	20 (3.6%)	534 (96.4%)	0.01*
	Another	4 (18.2%)	18 (81.8%)	
Item 12. I dislike hearing the word faggot used as a swear word in stadiums				
Sex	Man	281 (85.9%)	46 (14.1%)	0.02
	Woman	172 (93.0%)	13 (7.0%)	
Nationality	Spanish	440 (89.1%)	54 (10.9%)	0.045*
	Another	13 (72.2%)	5 (27.8%)	

**Table 4** (continued)

Item 2. I would feel comfortable in my team with a transgender colleague.		Agreed.	Disagree	p-value
Type of sport	Not Practiced	10 (66.7%)	5 (33.3%)	0.021*
	Practice	443 (89.1%)	54 (10.9%)	
I would feel uncomfortable if I found out that my teammate was not heterosexual				
Sex	Man	19 (5.5%)	324 (94.5%)	0.038
	Woman	3 (1.6%)	181 (98.4%)	
Item 15. I would not want to change in the same changing room where there is a homosexual person				
Sex	Man	28 (8.6%)	298 (91.4%)	0.004
	Woman	4 (2.2%)	181 (97.8%)	
Nationality	Spanish	27 (5.5%)	464 (94.5%)	0.006*
	Another	5 (25.0%)	15 (75.0%)	
Type of university	Private	19 (11.0%)	153 (89.0%)	0.001
	Public	13 (3.8%)	326 (96.2%)	
Item 16. Girls who play contact sports lose a bit of their femininity				
Sex	Man	26 (6.6%)	367 (93.4%)	0.003
	Woman	2 (1.1%)	188 (98.9%)	

\**p* value obtained using Fisher's exact test

bias against LGBT people is grounded in social expectations about sex and gender (p. 241). Not only these gender stereotypes conditioning individual participation in sport (Plaza et al., 2017), but it has effects on how people live his/her sportive career (Amodeo et al., 2020).

Of all the present study's findings, the attitudinal differences between women and men stand out. Various national studies on attitudes towards sexual diversity (García-Oriols & Torreadella, 2019; Ramírez-Díaz & Cabeza-Ruiz, 2020) and international studies (Drummond et al., 2021; Gill et al., 2006) have found the same. Gay men's physical activity levels are lower than those of lesbian women (Greenspan et al., 2019), and the climate of respect for gay men is higher among girls than boys. Symons et al. (2017) claimed that this is based on negative gender stereotypes of gay men (e.g., that they are weak and more feminine, like women). An association between negative gender stereotypes, sexism, and homophobia still exists in sport.

Another notable feature of the present study's findings is the significant differences between the attitudes of Spanish and non-Spanish. Piedra et al. (2017, 2021) and Anderson & Piedra (2021) have called for more cultural studies on homophobia in sport. Each culture understands and explains diversity using different social, religious, familial, or sporting variables. Studies such as Hamdi et al. (2017) or Anderson (2017) reveal the relevance of religion in who sexual diversity is respected. Due its postulates, some religions are more inclined to express non-respectful attitudes. In other cases, some disciplines as football (Soler-Prat, 2009), rugby (Anderson & McGuire, 2010) or rhythmic gymnastics (Piedra, 2017) are traditionally and socially

more linked to some gender, forcing to some athletes to develop actions and strategies aimed at subverting the cultural norms (Vilanova et al., 2022). Education, both formal and non-formal, conditions how sexual diversity is viewed and constructed (Hortigüela-Alcalá et al., 2022), as Fuentes-Miguel et al., (2022) concluded, “school environments and particularly Physical Education teachers should also be aware of the demands in terms of time, effort, and collaboration that trans [*gender diversity*] requires”. Spain has a clear legislative trajectory in terms of LGBT rights, and LGBT people are more visible than in many Latin American countries (Piedra et al., 2021).

As has been noted, the highest levels of rejection were observed in Factor 2. The variables gender and nationality had the greatest weight in determining the results. However, there were also significant differences in attitude in respect of the type of university (public or private) in Factors 1 (cognitive attitudes) and 2 (attitudes towards gender stereotypes). As Woodford et al. (2013), Atteberry-Ash et al. (2018) or Anderson (2017) have pointed out, variables such as religiosity or political ideology greatly influence the degree of respect for or rejection of sexual diversity, and this was very much the case among the private university participants in the present study (Martínez-García, 2013; Religión & Digital, 2016).

A limitation of the present study was the disproportionate number of male participants. This was a consequence of the over-representation of men on PASS degrees (Serra et al., 2019). Notwithstanding, the results of the study demonstrate the need to implement actions that promote equality, equity, respect, and tolerance toward sexual diversity in sport, especially among young people.

## Conclusion

The results of the present study exhibited generally low scores that means a reduced presence of rejection attitudes to diversity in sport. However, it is interesting to note that a significant number of participants exhibited intermediate attitudes of rejection. This suggests that, while there is increasing tolerance toward sexual diversity in sport, barriers persist. Four main variables that influenced attitudes toward sexual diversity in sport among the participants were identified:

- While general tolerance towards sexual diversity was noted, attitudes of rejection toward gender stereotypes were observed to be increasing, with high levels of rejection.
- One of the most important variables was gender, with the women being more tolerant of sexual diversity in sport than the men.
- Differences were observed between Spanish and non-Spanish participants, which suggests that cultural variables should be taken into consideration when promoting tolerance toward diversity in sport.
- Public and private university participants differed significantly in their attitudes, with the latter cohort manifesting relatively lower levels of rejection of sexual diversity in sport. There was also a direct relationship between nationality and

the participants' profiles according to the type of university; an association between cultural and ideological influences and nationality was apparent, with Spain showing a greater visibility of LGTBI in sport.

After the evidences highlighted in this paper, new or additional data analyses should be explored in order to look deeper into these issues. More research must be focused on how cultural backgrounds influence attitudes towards sexual diversity in sport. Additionally, new studies should be carried out in Spain about how athletes, especially men, live and experience these climates of rejection/tolerance.

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## Declarations

**Conflict of interest** The authors declare no competing interests.

**Consent to Participate** Informed consent was obtained from all individual participants included in the study.

**Ethical Approval** Ethics Committee. Once participants had accessed the program, they were provided with information concerning data handling (anonymity), informed consent, approval by the Ethics Committee of the Universidad Europea (CIPI/21/055), and contact with the research team. Only one response option was allowed per item.

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