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Perceptions of Female Performance Athletes in Relation to Demographic and Sporting Characteristics

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Abstract

This study investigated perceptions of female performance athletes among 130 volunteer women enrolled at the School of Physical Education and Sports, Dicle University, and examined whether scale scores varied by demographic characteristics and sporting background. A descriptive, cross-sectional survey design was used. Participants completed a personal information form and the 23-item Perception Scale for Female Performance Athletes developed by Kurşun et al. [1], which examines cultural value judgments, integration through social support, and body image. Importantly, the original instrument was validated primarily as a measure of spectators' perceptions of female athletes, rather than a measure of an athlete's own sporting performance. Descriptive statistics, independent-samples t-tests, and one-way analyses of variance were used, with statistical significance assessed at $p < 0.05$. The reported overall scale mean was 3.09 (SD = 0.31) on a five-point response scale. Recalculation of the independent-samples comparisons from the rounded group statistics indicated differences by sport type in the body image subscale (approximately $p = 0.004$) and total score (approximately $p = 0.011$), with higher reported means

among team-sport participants. National-athlete status was also associated with a higher total score in the original analysis (reported $p = 0.02$). However, previously reported significant differences between amateur and professional participants were not reproduced from the available group summaries; those test statistics require confirmation using the original dataset. Comparisons by age, height, and body weight were not statistically significant in the reported analyses. These findings should be interpreted as differences in attitudes toward female performance athletes, not as direct evidence of differences in self-rated athletic performance. Because the instrument was originally validated in a different respondent population, its measurement properties in this sample and the statistical discrepancies should be addressed before definitive conclusions are drawn. The study may inform future inquiry into how sporting participation and competitive experience relate to perceptions of female athletes, provided the findings are confirmed with fully documented and appropriately validated analyses.

Keywords: female athletes, perceptions of women in sport, body image, sport type, national-athlete status

1. INTRODUCTION

The participation and visibility of women in competitive sport are important to discussions of gender equality, representation, and the social expectations associated with athletic achievement. Perceptions of female performance athletes may be shaped by cultural norms, beliefs about appropriate sporting activities, evaluations of athletes' physical appearance, and the amount of social support provided to women in sport. These perceptions are not identical to a participant's assessment of her own competitive ability or achievement. Distinguishing between attitudes toward female athletes and self-perceived athletic performance is essential because each construct calls for a different measurement instrument and supports different conclusions. Kurşun et al. [1] specifically developed the Perception Scale for Female Performance Athletes to measure perceptions of women participating in performance sport. Their instrument focuses on cultural value judgments, integration through social support, and body image and was originally evaluated with sports spectators. The present investigation applies that scale to female student-athletes, a respondent population for which equivalence of the original measurement properties cannot simply be assumed.

Sport psychology offers useful contextual evidence about athletes' experiences, but much of that literature concerns outcomes distinct from attitudes toward women in performance sport. Research has investigated mindfulness, mental toughness, and emotional intelligence in amateur basketball players [2], the theoretical relationships among intrinsic motivation, extrinsic motivation, and performance [3], and psychological qualities employed by developing team-sport athletes [6]. These studies illustrate the breadth of psychological variables associated with participation and performance, but they do not directly establish how athletes evaluate female performance athletes as a social group. Similarly, a systematic review of coping strategies in sport identifies meaningful differences in coping processes and their effectiveness [7], whereas a meta-regression of psychological-skills and behavioral interventions addresses their effects on sporting outcomes [5]. Such evidence should be treated as relevant background rather than direct validation of the present scale or its scores.

Social relationships and sporting environments also merit consideration. Bloom and Loughhead [4] reviewed team-building approaches concerned with cohesion and collective functioning, while Storm et al. [10] described how influential relationships contribute to athletes' learning and development. Research on professional practice in sport psychology emphasizes the need to distinguish relevant psychological constructs and intervention purposes [8]. A randomized-trial protocol by Röthlin et al. [9] further shows how mental-skills and mindfulness-based interventions can be evaluated systematically; because it is a protocol, it cannot itself establish intervention efficacy. Taken together, these publications suggest that an athlete's competitive setting, team relationships, and prior sporting experience may provide a context for attitudes toward female athletes, but they do not prove such relationships in the present population.

Evidence specific to women in sport indicates that related psychological and social experiences can differ across settings. Killham et al. [17] examined self-compassion and athletes' own perceived sporting performance, while Abrales et al. [18] investigated motivational climate, perceived motor competence, and autonomous behavior among high-performance female team athletes. Those studies address outcomes distinct from the gender-related attitude construct measured here. Olmedilla et al. [21] likewise investigated psychological disposition and performance perception in young female soccer players using a different measurement approach. Their results reinforce the need to identify carefully what an instrument measures before drawing conclusions about athletes' performance.

The present study therefore examines scores on the Perception Scale for Female Performance Athletes in a group of 130 female student-athletes enrolled at Dicle University. It compares attitudes across age, height, body weight, amateur or professional sporting level, individual or team sport, and national-athlete status. The two hypotheses are stated in terms of measurable group differences rather than causal effects or unmeasured training hours.

H1: Scores for perceptions of female performance athletes differ across at least some demographic categories, including age, height, and body weight.

H2: Scores for perceptions of female performance athletes differ according to sporting level, type of sport, or national-athlete status.

2. METHOD

This research used a descriptive, cross-sectional survey design to examine the distribution of attitudes toward female performance athletes and their associations with demographic and sport-participation characteristics. The study was observational: participants were not randomly allocated to sporting categories, and no intervention was delivered. Consequently, differences between the groups can indicate associations but cannot establish that sporting level, competitive experience, or membership of a team causes a change in attitudes. The general methodological approach was informed by descriptive and quantitative research guidance [11, 12].

The study group comprised 130 female student-athletes at the Dicle University School of Physical Education and Sports. The stated eligibility criteria were current enrollment, active participation in licensed sport, and voluntary agreement to

take part in the survey. Athletes who declined participation or were not currently active in sport were excluded. The authors report that informed consent was obtained and that the study followed the principles of the Declaration of Helsinki. The manuscript does not specify the ethics committee approval number, date of recruitment, or response rate, and these details should be provided by the investigators before publication. G*Power 3.1 was reportedly used in planning the study [13, 14]; however, the test family, anticipated effect size, target power, significance level, and calculated minimum sample size were not documented, so the adequacy of the sample cannot be independently confirmed from the submitted text.

The participants' reported demographic and sporting characteristics are summarized in Table 1. Categories cover age, height, body weight, amateur or professional level, years of participation, individual or team sport, and national-athlete status. The descriptive table provides the sample profile but should not be interpreted as a representative estimate for all female athletes in Türkiye or elsewhere.

Table 1. *Participants' demographic and sporting characteristics*

		Frequency	Percentage (%)
Age	18 years	21	16.2
	19 years	22	16.9
	20 years	16	12.3
	21 years	25	19.2
	22 years and older	46	35.4
Height	150-160 cm	24	18.5
	161-170 cm	60	46.2
	171 cm and above	46	35.4
Body Weight	50-60 kg	35	26.9
	61-70 kg	68	52.3
	71 kg and above	27	20.8
Sporting level	Amateur	66	50.8
	Professional	64	49.2
How many years have you been involved in sports?	1-5 years	33	25.4
	6-10 years	32	24.6
	11-15 years	32	24.6
	16 years and older	33	25.4
Type of Sport	Individual Sports	55	42.3
	Team Sports	75	57.7
Are you a national athlete?	Yes	49	37.7
	No	81	62.3

Table 1 indicates that 21 participants (16.2%) were 18 years old, 22 (16.9%) were 19, 16 (12.3%) were 20, 25 (19.2%) were 21, and 46 (35.4%) were at least 22 years old. Regarding height, 18.5% were 150–160 cm, 46.2% were 161–170 cm, and 35.4% were at least 171 cm tall. Body weight was recorded as 50–60 kg for 26.9% of participants, 61–70 kg for 52.3%, and at least 71 kg for 20.8%. In relation to sporting level, 66 women (50.8%) were described as amateur athletes and 64 (49.2%) as professional athletes. Years of participation were distributed relatively evenly across the four reported categories: 1–5 years (25.4%), 6–10 years (24.6%), 11–15 years (24.6%), and at least 16 years (25.4%). Fifty-five participants (42.3%) competed in individual sports, whereas 75 (57.7%) competed in team sports. National-athlete status was reported by 49 participants (37.7%); 81 (62.3%) did not report this status. The original table's categories add to the full sample size of 130 within each of these characteristics.

Data were obtained using a personal information form and the Perception Scale for Female Performance Athletes developed by Kurşun et al. [1]. The scale contains 23 items scored on a five-point Likert-type response scale from strong disagreement to strong agreement. Its three dimensions are cultural value judgments, integration through social support, and body image. Negatively worded dimensions require reverse scoring according to the validated scoring instructions; the appropriate coding must be checked against the instrument before calculating total and subscale scores. Higher correctly coded scores indicate more favorable attitudes toward female performance athletes. Crucially, this instrument was originally validated to assess spectators' perceptions of female athletes; it does not directly measure the respondent's own competitive performance. The present sample consisted of female athletes rather than a general spectator sample, and reliability coefficients or a factor-structure assessment specific to this sample were not reported. Therefore, the transferability of the original validation evidence requires further evaluation.

The authors used SPSS for statistical analysis and reported descriptive means, standard deviations, frequencies, and percentages. Skewness and kurtosis values of the reported scale variables were within approximately -1 to +1, as shown in Table 2; these descriptive indices are relevant to distributional assessment but do not, by themselves, prove that assumptions of normality or equal variance are satisfied [15, 16]. Independent-samples t-tests were applied to

two-category comparisons, and one-way ANOVA was applied to characteristics with more than two groups. The stated threshold for statistical significance was $p < 0.05$, with Tukey post-hoc testing planned only where an omnibus comparison was statistically significant. In the present edited tables, the t and two-sided p values for sporting level and sport type were approximately reconstructed from the rounded group means, standard deviations, and sample sizes because the originally supplied test statistics conflicted with those descriptive values. These reconstructed results are not substitutes for the original participant-level analysis and must be confirmed using the original SPSS dataset.

Table 2. Means, standard deviations, skewness, and kurtosis for the Perception Scale for Female Performance Athletes

Variables	Mean	SD	Skewness	Kurtosis
Cultural Values	3.06	.37	-.289	-.100
Social Integration	3.09	.60	.045	-.195
Body Image	3.15	.69	-.098	.047
Perception Scale for Female Performance Athletes	3.09	.31	-.267	.093

Table 2 presents the scale's descriptive results. The overall mean score was 3.09 (SD = 0.31); the subscale means were 3.06 for cultural values, 3.09 for social integration, and 3.15 for body image. The reported skewness and kurtosis coefficients were all between -1 and +1. These findings describe the score distributions and do not independently establish normality or the instrument's construct validity in the present sample.

3. RESULTS

Table 3 compares amateur and professional athletes. Professional athletes had descriptively higher body image (3.26 versus 3.04) and overall scale (3.13 versus 3.05) means. However, independent-samples calculations reconstructed from the rounded descriptive statistics did not indicate statistically significant differences in body image (approximately $p = 0.070$) or the total score (approximately $p = 0.151$). Neither cultural values nor social integration differed significantly. Because these reconstructed inferential results disagree with the statistics originally supplied for this table, the corresponding comparisons must be repeated using the original SPSS dataset before substantive conclusions are drawn.

Table 3. Group comparisons by sporting level (approximate reconstructed independent-samples tests)

Variables	Sporting level	n	Mean	SD	t	Sig
Cultural Values	Amateur	66	3.03	0.34	-1.092	0.277
	Professional	64	3.1	0.39		
Social Integration	Amateur	66	3.08	0.64	-0.284	0.777
	Professional	64	3.11	0.56		
Body Image	Amateur	66	3.04	0.7	-1.830	0.070
	Professional	64	3.26	0.67		
Perception Scale for Female Performance Athletes	Amateur	66	3.05	0.29	-1.445	0.151
	Professional	64	3.13	0.34		

Approximate t statistics and two-sided p values were reconstructed from rounded group summaries; confirm against the original participant-level data. Significance threshold: $p < 0.05$.

Table 4 compares women engaged in individual and team sports. Team-sport athletes had higher body image scores (3.30 versus 2.95) and higher total perception-scale scores (3.15 versus 3.01). Approximate independent-samples tests reconstructed from the rounded group summaries indicated differences for body image ($p = 0.004$) and the total score ($p = 0.011$), but not for cultural values or social integration ($p > 0.05$). The outcomes concern attitudes toward female performance athletes and should not be described as direct measurements of the participants' own athletic ability or sporting performance.

Table 4. Group comparisons by sport type (approximate reconstructed independent-samples tests)

Variables	Type of Sport	n	Mean	SD	t	Sig
Cultural Values	Individual Sports	55	3.03	0.38	-0.917	0.361
	Team Sports	75	3.09	0.36		
Social Integration	Individual Sports	55	3.01	0.64	-1.407	0.162
	Team Sports	75	3.16	0.57		
Body Image	Individual Sports	55	2.95	0.51	-2.931	0.004
	Team Sports	75	3.3	0.77		
Perception Scale for Female Performance Athletes	Individual Sports	55	3.01	0.27	-2.576	0.011
	Team Sports	75	3.15	0.33		

Approximate t statistics and two-sided p values were reconstructed from rounded group summaries; confirm against the original participant-level data. Significance threshold: $p < 0.05$.

Table 5 presents comparisons by national-athlete status. Participants reporting national-athlete status had a higher overall attitude-scale mean (3.17 versus 3.04), with an originally reported p-value of 0.02. In contrast, the differences in cultural values, social integration, and body image subscale means did not reach the conventional significance threshold. The national-athlete association applies to perceptions of female performance athletes and does not demonstrate that national athletes objectively perform better or judge their own sporting performance more favorably.

Table 5. *Independent-samples tests by national-athlete status*

Variables	Are you a national athlete?	n	Mean	SD	t	Sig
Cultural Values	Yes	49	3.13	0.36	1.623	0.1
	No	81	3.02	0.36		
Social Integration	Yes	49	3.2	0.51	1.588	0.11
	No	81	3.03	0.65		
Body Image	Yes	49	3.21	0.65	0.767	0.44
	No	81	3.11	0.72		
Perception Scale for Female Performance Athletes	Yes	49	3.17	0.26	2.365	0.02
	No	81	3.04	0.34		

$p < 0.05$

Table 6 shows that there is no statistically significant difference between the age variable and the sub-dimensions of cultural values, social integration, body image, and the total scale score ($p > 0.05$).

Table 6. *One-way ANOVA by age group*

Variables	Age	n	Mean	SD	F	Sig	Difference
Cultural Values	18 years old (a)	21	3.2	0.35	1.49	0.2	–
	19 years old (b)	22	3.04	0.34			
	20 years old (c)	16	2.94	0.27			
	21 years old (d)	25	3.13	0.39			
	22 years and over (e)	46	3.02	0.39			
Social Integration	18 years old (a)	21	3.11	0.54	0.467	0.76	–
	19 years old (b)	22	3.16	0.6			
	20 years old (c)	16	2.99	0.7			
	21 years old (d)	25	2.99	0.51			
	22 years and over (e)	46	3.15	0.65			
Body Image	18 years old (a)	21	3.27	0.8	2.057	0.09	–
	19 years old (b)	22	3.15	0.67			
	20 years old (c)	16	2.7	0.73			
	21 years old (d)	25	3.19	0.57			
	22 years and over (e)	46	3.23	0.67			
Perception Scale for Female Performance Athletes	18 years old (a)	21	3.18	0.35	1.752	0.14	–
	19 years old (b)	22	3.1	0.31			
	20 years old (c)	16	2.91	0.34			
	21 years old (d)	25	3.09	0.29			
	22 years and over (e)	46	3.1	0.3			

$p < 0.05$

Table 7 shows that there is no statistically significant difference between the height variable and the sub-dimensions of cultural values, social integration, body image, and the total scale score ($p > 0.05$).

Table 8 shows that there is no statistically significant difference between the body weight variable and the sub-dimensions of cultural values, social integration, body image, and the total scale score ($p > 0.05$).

4. DISCUSSION

This study compared perceptions of female performance athletes among women participating in different sporting environments and at different levels of competition. Its primary descriptive finding was an overall attitude-scale mean of 3.09 on the reported five-point scoring metric. The results indicate that participants generally selected responses around the center of the scale; the available manuscript does not provide validated cut-off scores that would justify assigning a precise categorical label such as “moderate attitude” to every respondent. Interpretation also depends on correct reverse coding of negatively worded items and on the psychometric applicability of the instrument to the present population. The scale developed by Kurşun et al. [1] measures attitudes toward female performance athletes and was originally validated with sporting-event spectators. Therefore, its scores should not be presented as if they represented the participants’ own competitive success or self-evaluations of athletic performance.

Table 7. *One-way ANOVA by height group*

Variables	Height	n	Mean	SD	F	Sig	Difference
Cultural Values	150-160 cm(a)	24	3.18	0.25	1.785	0.17	–
	161-170 cm(b)	60	3.07	0.39			
	171 cm and above(c)	46	3	0.38			
Social Integration	150-160 cm(a)	24	3.2	0.38	1.59	0.2	–
	161-170 cm(b)	60	2.99	0.61			
	171 cm and above(c)	46	3.17	0.67			
Body Image	150-160 cm(a)	24	3.11	0.71	0.135	0.87	–
	161-170 cm(b)	60	3.13	0.7			
	171 cm and above(c)	46	3.19	0.69			
Perception Scale for Female Performance Athletes	150-160 cm(a)	24	3.17	0.19	1.146	0.32	–
	161-170 cm(b)	60	3.06	0.35			
	171 cm and above(c)	46	3.08	0.31			

p < 0.05

Table 8. *One-way ANOVA by body-weight group*

Variables	Body Weight	n	Mean	SD	F	Sig	Difference
Cultural Values	50-60 kg(a)	35	3.03	0.34	0.261	0.77	–
	61-70 kg(b)	68	3.09	0.38			
	71 kg and above(c)	27	3.05	0.37			
Social Integration	50-60 kg(a)	35	3.02	0.61	0.828	0.43	–
	61-70 kg(b)	68	3.08	0.64			
	71 kg and above(c)	27	3.22	0.49			
Body Image	50-60 kg(a)	35	3.1	0.72	0.313	0.73	–
	61-70 kg(b)	68	3.14	0.72			
	71 kg and above(c)	27	3.24	0.59			
Perception Scale for Female Performance Athletes	50-60 kg(a)	35	3.04	0.38	0.664	0.51	–
	61-70 kg(b)	68	3.09	0.29			
	71 kg and above(c)	27	3.13	0.28			

p < 0.05

The comparisons for sport type provided the clearest group-level pattern. Women participating in team sports had higher body image and total scale scores than women participating in individual sports, with approximately reconstructed p-values of 0.004 and 0.011, respectively. This pattern is compatible with the possibility that team environments expose participants to different experiences of collective support and perceptions of women's participation in competitive sport. Nevertheless, the study did not directly measure team cohesion, mentoring quality, or social support outside the relevant scale dimension. Research by Bloom and Loughead [4] addresses the value of team-building processes, and Storm et al. [10] explore influential relationships in elite-athlete development, but neither study establishes a causal mechanism for the present finding. Accordingly, the difference should be interpreted as an observed association requiring confirmation and further investigation.

National-athlete status was also associated with a higher total perception-scale mean, based on the reported comparison (3.17 versus 3.04; $p = 0.02$). No statistically significant differences were reported for its three subscales considered separately. The association could reflect differences in competitive exposure, experiences within high-performance sport, or other unmeasured characteristics. It cannot establish that achieving national-athlete status produces favorable perceptions of female athletes. In a related but distinct field of inquiry, Abraldes et al. [18] identified differing motivational-climate profiles among female team athletes according to sport category and experience. Their study helps contextualize differences between sporting environments, although it addressed perceived motor competence and motivation, not the present gender-related attitude outcome. Olmedilla et al. [21] likewise evaluated competitive psychological disposition and performance perception using a different instrument and sample.

A significant qualification concerns the amateur–professional comparison. The originally submitted version of Table 3 reported statistically significant differences for body image and the total scale score. Recalculation from the displayed group sizes, means, and standard deviations, however, gave approximately $t = -1.830$ ($p = 0.070$) for body image and $t = -1.445$ ($p = 0.151$) for the total score. These values do not reproduce the initially reported t-statistics and p-values. The revised table therefore presents explicitly labeled approximate calculations rather than perpetuating mutually inconsistent statistics. The authors must re-run the independent-samples tests with the raw data, verify whether equal-variance or Welch procedures were used, check transcription of means and standard deviations, and update both the abstract and conclusions after confirmation. Until then, the hypothesis of a significant difference between amateur and professional participants remains unresolved rather than demonstrated.

The comparisons across age, height, and body weight did not reach statistical significance in the ANOVA results supplied in Tables 6, 7, and 8. The absence of statistically significant results should not be interpreted as proof that all demographic subgroups have exactly equal underlying attitudes. Limited precision, modest subgroup sizes, and possible unmeasured confounding may have reduced sensitivity to small differences. Similarly, years of sport participation were included in the demographic table but were not subjected to a corresponding comparison in the reported inferential results. Consequently, the manuscript cannot claim that longer sport participation, greater training hours, or a particular academic department was shown to influence the total scale score.

The wider literature shows why conceptual precision matters. Killham et al. [17] demonstrated an association between self-compassion and women's own perceived sport performance; that outcome is not interchangeable with an attitude toward women who participate in elite sport. Farah et al. [19] examined reported coaching strategies and female athletes' performance, finding associations involving problem-solving and leadership rather than team-building. Bird et al. [20] assessed wellness, mood, sleep, and performance in an international women's basketball team, offering context about the demands of competition rather than evidence about gender-attitude scale scores. These studies are relevant to athletes' broader experiences, but should not be used as direct support for a claim that higher scores on the scale in this study indicate better athletic performance.

Other cited studies similarly concern related but separate outcomes. Laajili et al. [22] compared self-esteem, well-being, and health status among female participants across activity levels and sport types; Noh et al. [23] associated religious coping, athletic identity, and religious dietary practices with self-perceived sporting performance in a mixed-sex Malaysian sample. The latter study included both men and women and therefore should not be described as evidence specific to female athletes. Lervold et al. [24] examined sport coaches' perceived performance following a mentor-based education program, rather than female athletes' attitudes. These sources can help motivate future research into psychosocial experiences in sport, but they do not validate interpretations that conflate gender perceptions with direct measures of performance. Finally, the intervention described by Röthlin et al. [9] was published as a study protocol and should not be cited as evidence that an intervention had already improved performance.

Taken together, the available results suggest potentially informative differences in attitudes according to sport type and national-athlete status. These observations should guide more precisely designed follow-up studies that distinguish attitudes toward female athletes, body image, social support, athletic self-efficacy, and actual performance outcomes. Such studies should also test whether the adapted scale retains its expected three-factor structure in female-athlete samples and should assess reliability, reverse coding, and measurement invariance across competition levels. The present study offers preliminary descriptive information, not evidence of a causal improvement in sporting performance through professional status, team participation, or national competitive experience.

5. LIMITATIONS

Several limitations must be considered when interpreting these findings. The study involved 130 female student-athletes at one university and did not use probability sampling, limiting the extent to which the results can be generalized to other institutions, regions, competitive levels, or populations. The original limitation statement incorrectly described a sample of 80 participants; the sample size consistently reported in the methods and descriptive tables is 130. The cross-sectional design prevents causal conclusions, and the data were obtained from self-report instruments rather than independently recorded competitive results.

A further concern is the construct validity of the measurement approach. The scale was developed for perceptions of female performance athletes among sport spectators, yet it was administered here to women participating in sport. The present manuscript does not report a factor analysis, internal-consistency estimates for these 130 respondents, or tests of groupwise measurement equivalence. These omissions restrict interpretation of the scores and subgroup comparisons. It is also unclear whether all negatively worded items were appropriately reverse coded before score aggregation. The original G*Power parameters and an ethics committee approval identifier were not supplied.

The most immediate quantitative limitation is the inconsistency between the originally reported independent-samples *t*-statistics and the displayed group summaries for sporting level and sport type. Approximate tests calculated from rounded summary statistics are supplied transparently in the corrected tables, but raw-data reanalysis remains necessary before the reported inferential findings can be regarded as final. The absence of analyses for reported years of sporting participation, academic program, psychological factors, coaching experience, and training intensity also prevents assertions about their respective relationships with attitudes toward female athletes.

6. CONCLUSION

This descriptive, cross-sectional study examined perceptions of female performance athletes among 130 female student-athletes and compared their scores according to demographic and sporting characteristics. The overall mean attitude-scale

score was 3.09 on a five-point metric, with subscale means of 3.06 for cultural values, 3.09 for social integration, and 3.15 for body image. Participants in team sports had higher body image and total-scale means than participants in individual sports, and the originally reported national-athlete comparison also showed a higher total-scale mean among national athletes. The age, height, and body-weight comparisons were not statistically significant in the supplied analyses.

These findings concern perceptions of women engaged in performance sport, not objective sporting achievement or female athletes' self-perceived physical performance. Moreover, the initially reported significant amateur-professional comparisons were inconsistent with the descriptive statistics and could not be reproduced in the editorial reconstruction. They therefore require analysis using the original dataset, as do the scale's reliability and suitability for this specific respondent group. Subject to these essential checks, the descriptive evidence may be useful in designing subsequent studies of how social and competitive sporting contexts are associated with attitudes toward female performance athletes. Further research should use broader samples, document the instrument's psychometric properties, and distinguish between performance outcomes, perceptions of performance, and gender-related evaluations of women in sport.

7. SUGGESTIONS

- Future research should include participants from multiple universities, sporting disciplines, competitive levels, and geographical settings to examine the generalizability of the observed patterns and assess whether the findings remain stable in more diverse participant populations.
- Researchers should evaluate the factor structure, internal consistency, reverse coding, and groupwise measurement invariance of the Perception Scale for Female Performance Athletes when it is administered to athletes rather than the original spectator population. In particular, the scale should not be described as a direct measure of the respondent's own sporting performance.
- Future studies may separately assess psychological factors, coaching and mentoring practices, training duration and intensity, team cohesion, body image, and objective or self-rated athletic performance, so that the possible relationships among these distinct constructs can be examined without treating them as interchangeable.
- Prior to submission, the investigators should verify the t-tests against participant-level data and provide complete methodological details, including the ethical approval identifier, sample-size calculation, and an appropriate data-availability declaration.

Author Contributions

All authors contributed equally to the conception, development, preparation, and revision of the manuscript. All authors reviewed and approved the final version of the manuscript.

Conflict of Interest

The authors declare that they have no conflicts of interest relevant to the present study.

Data Availability

Participant-level data were not included with the submitted manuscript, and public repository details were not provided. Researchers seeking access to de-identified data should contact the corresponding author; any disclosure must remain subject to institutional authorization, participants' consent conditions, and applicable confidentiality requirements. The authors should confirm the definitive sharing arrangements before publication.

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