












# Social physique anxiety in amateur dancers: Associations with body mass index, dance type, and perfectionism

-  **Aikaterini Koupani.** *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*
-  **Athina Pitsi.** *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*
-  **Kyriaki Emmanouilidou.** *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*
-  **Grigorios Masadis.** *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*
-  **Nerantzoula Koufou.** *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*
-  **Konstantinos Filippou.** *Sauder's Robert H. Lee Graduate School. Master of Management. University of British Columbia. Vancouver, Canada.*
-  **Anastasia Cheli.** *International Hellenic University. Thessaloniki, Greece.*
-  **Georgios Sivvas.** *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*
-  **Zoi Mavridou.** *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*
-  **Filippos Filippou**  *Department of Physical Education and Sport Science. Democritus University of Thrace. Komotini, Greece.*


## ABSTRACT

Within dance and physical education contexts, Social Physique Anxiety (SPA) refers to anxiety related to the perception that one's body is being evaluated by others and is frequently reported in aesthetic movement contexts such as dance. While SPA has been widely examined in professional dancers, less is known about its associations with psychological and contextual characteristics in amateur dance education settings. The present study investigated associations between SPA and demographic, somatometric, contextual (BMI), and psychological variables in a sample of 422 amateur dancers participating in Greek traditional dance, classical ballet, contemporary, and Latin dance. Data were collected using validated Greek versions of the Social Physique Anxiety Scale–7 and the Short Almost Perfect Scale. Analyses included descriptive statistics, one-way ANOVA, and hierarchical linear regression. Dance type and BMI were significantly associated with SPA, while the inclusion of perfectionism dimensions increased the explained variance. Classical ballet participants reported higher SPA, whereas Greek traditional dancers reported lower levels. Both perfectionism dimensions were strongly associated with SPA. Focusing on amateur dancers across different dance types, this study contributes to the limited literature on social physique anxiety beyond professional dance while highlighting contextual and psychological factors shaping body-related anxiety in amateur dance participation.

**Keywords:** Social physique anxiety, Amateur dancers, Body image, Traditional dance, Dance education, Perfectionism; Physical activity.

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 **Corresponding author.** *Professor, Department of Physical Education & Sport Science, Campus Democritus University of Thrace, Komotini, 69100, Greece.*

E-mail: [ffilippo@phyed.duth.gr](mailto:ffilippo@phyed.duth.gr)

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## INTRODUCTION

Dance, of any type, is a physical activity in which the body, the dancing body, is the most important tool of artistic expression. According to Aalten (2007) and Pickard (2012), the dancing body is subject to aesthetic evaluation due to its "mandatory" public exposure, whether this takes place in front of an audience during performances or in front of its social environment. When dancers perceive that their bodies are being compared and evaluated by others, this experience may generate considerable psychological pressure and anxiety. Participation in physical activity contexts has also been associated with psychological and body-related perceptions among participants (Bustamante-Sánchez et al., 2026; Leng et al., 2020). The dancers' costumes, which emphasize the structure of their bodies, exacerbate the comparison and further increase the psychological pressure. Pickard (2012) accepts that the type of dance and its environment are the key factors in the intensity of pressure and anxiety.

The anxiety caused by public exposure and evaluation of the body and related to physical appearance is a form of psychological pressure that is very common in the dance environment. According to Hart et al. (1989), Social Physique Anxiety (SPA) is one of the forms of social anxiety. The term SPA refers to the anxiety experienced by an individual when they feel that their physical appearance is being evaluated by others (Hart et al., 1989; Guan et al., 2025; Tsartsapakis et al., 2025). Previous research has shown that SPA may negatively affect psychological well-being and self-esteem (Sabiston et al., 2007; Zartaloudi et al., 2023), while also influencing individuals' social participation, as people with SPA tend to avoid social events and all environments that require public exposure of the body, such as swimming pools, beaches, and sports facilities (Cox et al., 2011; Zartaloudi and Christopoulos, 2021).

Factors that contribute to the formation of SPA levels include, among others, the individual's body type, social comparisons, the expectations that the individual has of themselves, and their degree of perfectionism. According to Nordin-Bates et al. (2012) and Sabiston et al. (2007), the effect of these factors is even greater in environments where aesthetic evaluation levels are particularly high, as is the case in dance. Understanding the factors that contribute to the emergence and formation of SPA levels may help in the development of intervention dance programs that will contribute to reducing these levels.

However, the type of dance is a decisive factor that contributes to shaping the levels of SPA, since all dance genres—classical ballet, contemporary, Latin, and traditional—do not require the same technical demands from dancers nor do they promote the same aesthetic standards. Research (Boyes and Cornelissen, 2024; Kalyva et al., 2023) has shown that SPA levels are particularly high in dance genres that require dancers to have a specific body type and where strict aesthetic criteria prevail. This view is evident in classical ballet, which requires dancers to have a specific body structure, precision in their movements, and technically perfect execution. In contrast, contemporary dance is characterized by freedom of movement, expression, and creativity (Thomas et al., 2011; Pickard, 2012). In Latin dances, the focus is on rhythm, physical strength, and interaction with one's partner (Ferri and Leahy, 2025; Koutedakis and Jamurtas, 2004). In contrast, traditional dance is a collective activity where participation is not limited by body type, age, or gender (Markula et al., 2022). Research examining Greek traditional dance programs has also highlighted their association with psychological outcomes such as reduced anxiety and positive motivational orientations (Filippou et al., 2020). The different requirements of each type of dance suggest that SPA may vary depending on the technical and aesthetic characteristics of each dance (Kalyva et al., 2023).

However, apart from the dance environment, psychological factors such as perfectionism also seem to play an important role in shaping SPA levels. Various theoretical models have been proposed for studying

perfectionism, one of which is the dual model, according to which Standards and Discrepancy are its two distinct dimensions (Rice et al., 2014). High standards reflect the goals set by the individual and usually serve as a motivation for personal improvement. Discrepancy, on the other hand, reflects the individual's feeling that they are unable to achieve the high goals they have set and is usually associated with negative emotions such as anxiety and psychological distress (Rice et al., 2014). According to Stoeber and Eismann (2007) and Nordin-Bates et al. (2011), in the dance environment, perfectionism is associated with increased self-criticism, fear of failure, and dependence of personal value on the acceptance of the environment.

Despite the growing body of research on social physique anxiety in dance, most studies have focused on professional or pre-professional dancers. Comparatively little attention has been given to amateur dance participants, even though they frequently take part in public performances and experience similar evaluative environments. As a result, the way demographic, contextual and psychological factors relate to SPA in amateur dance education remains insufficiently understood.

The aim of the present study was therefore to examine the extent to which demographic (gender, age), somatic (BMI), environmental (dance type), and psychological (perfectionism dimensions: Standards and Discrepancy) factors are statistically associated with social physique anxiety in amateur dancers. By identifying patterns of association within this population, the study seeks to provide empirically grounded information that may inform pedagogical practices in amateur dance education in Greece.

## MATERIAL AND METHODS

### *Participants*

A total of 422 amateur dancers participated in the study, engaging in dance activities related to Greek traditional dance, classical ballet, contemporary dance, and Latin dance. Participation in dance performances organized by their cultural associations and dance groups constituted a criterion for their inclusion in the study.

Table 1. Demographic and somatometric characteristics of the sample.

	N	%	
<b>Gender</b>			<b>Age</b>
Male	98	23.22	M = 34.17 ± 13.41
Female	324	76.78	
Total	422	100	
<b>BMI</b>			
Underweight	20	4.74	M = 24.15 ± 3.93
Healthy weight	254	60.19	
Overweight	115	27.25	
Class 1 Obesity	33	7.82	
Total	422	100	
<b>Dance type</b>			
GTD	255	60.43	
Classical ballet	58	13.74	
Contemporary	60	14.22	
Latin	49	11.61	
Total	422	100	

As shown in Table 1, participation in the study by gender and dance type was not equal. This imbalance in the distribution is neither random nor a methodological error. This distribution reflects the natural participation patterns observed in dance activities in Greece, where female participation is considerably higher than male participation (Filippou et al., 2010; Goulimaris and Filippou, 2016).

The level of participation in each dance type was another criterion for inclusion in the study. Thus, a larger proportion of the sample consists of participants involved in Greek traditional dance, as this is the dance type that demonstrates the highest level of participation.

### **Procedures**

The present study employed a cross-sectional correlational research design. According to the institutional guidelines of Democritus University of Thrace, studies involving adult participants, anonymous questionnaire-based data collection, and no experimental procedures do not require formal approval from the Ethics Committee. The study involved adult participants who voluntarily completed internationally established questionnaires. Permission to conduct the research was obtained from the leaders of the dance groups, and written informed consent was secured from all participants prior to data collection. Furthermore, they were assured that the anonymity of the participants would be fully respected and that the survey data would be used exclusively for scientific purposes such as conference presentations and publications in scientific journals.

Thus, the questionnaires were completed at the premises of the participants' clubs and dance groups and the completion time was approximately 10-15 minutes. 495 questionnaires were given in total and 426 were returned with a response rate of 86.06%. Four questionnaires were excluded from the analysis due to incomplete completion.

Anthropometric characteristics: Body Mass Index (BMI) was used as an indicator of participants' body size. BMI was calculated using the standard formula [weight (kg) / height<sup>2</sup> (m<sup>2</sup>)]. For this purpose, participants self-reported their body weight and height. Although self-reported somatometric data may present small deviations compared with objective measurements, they constitute a widely used practice in social and behavioural science research. Previous studies have shown that self-reported height and weight data show a high correlation with actual measurements and are considered sufficiently reliable for research purposes (Pursey et al., 2019; Stommel and Schoenborn, 2009). However, the potential for minor reporting bias cannot be entirely excluded.

Quantitative data: Quantitative data were collected using the Greek versions of the following instruments:

- a) Social Physique Anxiety Scale—7 items (SPAS-7) (Motl and Conroy, 2000, 2001). The Greek version of the scale (Koupani et al., 2025) consists of seven items assessing anxiety related to the perception that one's physical appearance is being evaluated by others. Responses are recorded on a 5-point Likert scale ranging from 1 ("does not describe me at all") to 5 ("describes me very much"). The item 'I am comfortable with how fit my body appears to others' was reverse-scored to be in the same direction as the other items. The lowest possible score is 7 and the highest possible score is 35 with the highest scores revealing higher levels of SPA. In the present sample, the internal consistency of the SPAS-7 was satisfactory (Cronbach's  $\alpha = .91$ ).
- b) For the collection of the data, related to perfectionism, the Greek version (Koupani, 2025) of the Short Form of the Revised Almost Perfect Scale (SAPS) by Rice et al. (2014) was used. The scale

consists of eight items which are distributed into two factors. The first factor, Standards, is composed of 4 formulations (e.g. I have high expectations for myself) and explores the levels - high or low - that one sets for oneself. That is, this factor explores whether a person sets high goals and the effort an individual is willing to invest to achieve flawless performance. The second factor, Discrepancy, is also composed of 4 statements (e.g. Doing my best never seems to be enough) and explores the frequency of the feeling, which a person has, that they have failed to achieve the high goals they set. That is, it assesses the discomfort as well as the frustration and anxiety when one fails to meet the high standards/goals set.

Responses are given on a 7-point Likert-type scale from 1 = strongly disagree to 7 = strongly agree. High scores on the Standards factor indicate that the individual is constantly striving to achieve the best possible for themselves since their need for excellence is strong. In contrast, high scores on the Discrepancy factor indicate large discrepancies between goals and standards set and those achieved. In the present study, the internal consistency coefficients of the SAPS factors were satisfactory (Standards: Cronbach's  $\alpha = .89$ ; Discrepancy: Cronbach's  $\alpha = .90$ ).

### **Data analysis**

Statistical analysis of the data included:

- (a) Descriptive data, with central tendency and dispersion indices (mean, standard deviation) and inferential statistics indices (skewness and kurtosis), as well as visual inspection using Q-Q plots to check the normality of variables,
- (b) In order to examine the statistical associations between SPA and demographic, somatometric, environmental, and psychological variables such as gender, age, dance type and Body Mass Index, as well as the two factors (Standards & Discrepancy) of SAPS, Hierarchical linear regression was used as an analytical strategy to examine the relative and incremental associations of sets of variables with SPA, without implying causal direction. The analysis was performed in two stages. In the first stage (Model1) variables were entered sequentially to examine how different sets of variables (gender, age, dance type and BMI) were associated with SPA, while in the second (Model2) the two factors were added to examine their incremental association with SPA (Standards and Discrepancy) of SAPS. The adequate statistical power of the selected analysis is supported by sample number since, according to Liu et al. (2025) and Maxwell (2000), the required number per predictor variable is 15-20 participants.

The number of predictors required the researchers to control for potential multicollinearity. The detection of multicollinearity was carried out using indicators such as Variance Inflation Factor (VIF), Tolerance. Because a high correlation was observed between the two factors of perfectionism, a control was carried out by considering the Condition Index and Variance Proportions (Maxwell, 2000). From the values obtained by the two indices it was found that the observed correlations between the two independent variables Standards and Discrepancy were not prohibitive and therefore it was decided to keep them in the model. An additional reason for their retention was their clear theoretical distinction. Finally, the quality of the model was examined by considering the value of the R<sup>2</sup> fit coefficient which is utilized as a criterion of good fit of the data in the linear model (Maxwell, 2000).

To investigate possible differences in SPA levels due to dance type, a one-way ANOVA analysis was performed. Statistical significance was set at  $\alpha = .05$  level.

## RESULTS

### **Hierarchical linear regression analysis**

Hierarchical regression analysis was performed to investigate the association between SPA and demographic, somatometric, environmental, and psychological variables. The analysis process was carried out in two stages: a) in the first stage (Model1), gender, age, BMI, and dance type were entered. Dance type was entered as an ordinal variable reflecting increasing aesthetic and technical demands, and b) in the second stage (Model2), the two factors (Standards and Discrepancy) of perfectionism were added. Specifically:

#### *Model 1: Associations between SPA and demographic, somatometric and environmental variables*

As shown in Table 2, Model 1 was statistically significant ( $F(4,417) = 51.97$  &  $p < .001$ ). The model accounted for 33.3% of the variance in SPA, indicating substantial shared variance between SPA and the included variables ( $R^2 = .333$  & Adjusted  $R^2 = .326$ ).

Table 2. Summary of hierarchical regression analysis (Model1) predicting SPA.

Model	R	R Square	Adjusted R Square		Sig
1	.577 <sup>a</sup>	.333	.326	$F(4,417) = 51.97$	.001 <sup>b</sup>

Note. a, b. Factors: (Constant), dance type, gender, age, BMI.

Table 3 presents the regression coefficients for Model 1. Among the variables included, dance type showed the strongest association with SPA ( $B = 0.353$ ,  $\beta = 0.508$ ,  $p < .001$ ). BMI was also significantly associated with SPA ( $B = -0.035$ ,  $\beta = -0.183$ ,  $p < .001$ ). Gender and age were not statistically significant ( $p = .090$  and  $p = .924$ , respectively).

Table 3. Regression coefficients for Model1 predicting SPA.

Model 1	Coefficients <sup>a</sup>						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.149	.294		10.717	.000		
Gender	.129	.076	.073	1.701	.090	.871	1.149
Age	.000	.002	.004	.095	.924	.802	1.248
BMI	-.035	.009	-.183	-3.987	.000	.760	1.317
Dance type	.353	.029	.508	12.000	.000	.892	1.121

Note. a. Dependent variable: SPA.

### **Differences in social physique anxiety across dance types**

A one-way ANOVA was conducted to examine differences in SPA across dance types.

The results indicated a statistically significant effect of dance type on SPA,  $F(3, 418) = 134.18$ ,  $p < .001$ , with a large effect size (partial  $\eta^2 = .491$ ).

Post hoc comparisons using the Bonferroni test indicated significant differences among all four dance types. Classical ballet dancers reported the highest SPA scores, followed by Latin and contemporary dancers, whereas participants in Greek traditional dance reported the lowest SPA scores (Table 4).

Table 4. Differences in SPA across dance types.

Dance type	M	SD		p	$\eta^2$
Classical ballet	4.10	.47			
Latin	3.81	.68			
Contemporary	3.45	.52	F(3, 418) = 134.18	<.001	.491
GTD	2.77	.53			
Total	3.17	.74			

*Model 2: Addition of perfectionism dimensions*

In the second stage (Model 2), the two perfectionism dimensions (Standards and Discrepancy) were added to the model. As shown in Table 5, Model 2 was statistically significant,  $F(6, 415) = 155.23$ ,  $p < .001$ . The model explained 69.2% of the variance in SPA ( $R^2 = .692$ , Adjusted  $R^2 = .687$ ).

The increase in explained variance indicates that perfectionism dimensions share substantial variance with SPA beyond demographic, somatometric, and contextual variables.

Table 5. Summary of hierarchical regression analysis (Model 2) predicting SPA.

Model	R	R Square	Adjusted R Square		Sig
1	.832a	.692	.687	$F(6,415) = 155.23$	.001 <sup>b</sup>

Note. a, b. Factors: (Constant), gender, age, BMI, dance type, Standards, Discrepancy.

Table 6 presents the regression coefficients for Model 2. Both perfectionism dimensions were significantly associated with SPA: Standards ( $B = 0.230$ ,  $\beta = 0.370$ ,  $p < .001$ ) and Discrepancy ( $B = 0.222$ ,  $\beta = 0.379$ ,  $p < .001$ ).

Dance type remained a statistically significant variable ( $B = 0.108$ ,  $\beta = 0.155$ ,  $p < .001$ ), although its standardized coefficient was reduced compared to Model 1. Gender emerged as statistically significant in Model 2 ( $B = 0.115$ ,  $\beta = 0.065$ ,  $p = .027$ ). BMI continued to show a negative association with SPA ( $B = -0.016$ ,  $\beta = -0.086$ ,  $p = .007$ ), whereas age was not statistically significant ( $p = .790$ ).

Multicollinearity diagnostics indicated acceptable values for all predictors (VIF range: 1.15–3.40). Although Standards and Discrepancy showed shared variance (Condition Index = 22.123; variance proportions = .90 and .83), these values were not considered indicative of problematic multicollinearity.

Table 6. Regression coefficients for Model 2 including perfectionism dimensions.

Model 2	Coefficients <sup>a</sup>					Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
(Constant)	1.095	.221		4.957	.000		
Gender	.115	.052	.065	2.221	.027	.867	1.153
Age	.000	.002	.008	.267	.790	.799	1.251
BMI	-.016	.006	.086	-2.722	.007	.743	1.346
Dance type	.108	.023	.155	4.704	.000	.680	1.470
Standards	.230	.030	.370	7.779	.000	.329	3.039
Discrepancy	.222	.027	.379	8.106	.000	.340	2.942

Note. a. Dependent variable: SPA.

## DISCUSSION

The present study explored how SPA among amateur dancers participating in public performances is related to demographic (gender, age), somatometric (BMI), contextual (dance type), and psychological factors (perfectionism dimensions: Standards and Discrepancy). To address this aim, hierarchical regression analysis was employed in order to explore the relative and incremental contribution of these variables to variance in SPA.

The whole process was carried out in two phases. In the first phase (Model 1), associations between SPA and demographic, somatometric, and environmental factors were examined. The results indicated that these variables accounted for a substantial proportion of shared variance in SPA (33%), suggesting that social physique anxiety among amateur dancers is embedded within both individual characteristics and features of the dance context. This finding is consistent with earlier studies suggesting that SPA is associated with objective physical indicators such as BMI, as well as with demographic characteristics such as gender (Hart et al., 1989; Zaccagni et al., 2014). From this finding, it can be seen that the SPA of amateur dancers is not exclusively a psychological manifestation but appears to be closely associated with factors such as gender, age, body characteristics, and features of the aesthetic and social context in which dancers perform.

Results from Model 1 of the hierarchical regression analysis indicate the dance type showed the strongest statistical association with SPA among the examined variables. Supplementary analyses using categorical coding confirmed the robustness of this association. This result of the research is in agreement with the results of studies (Pickard, 2012; Thomas et al., 2011) according to which the prevailing aesthetic perceptions and ideal physical patterns associated with each dance type are strongly linked to levels of SPA. The observed significant differences between the four dance types confirm the view that each dance type projects different aesthetic standards and requires dancers with different levels of dancing ability, skill and specialised technique. Within this context, the dancing body becomes an object of observation, comparison and evaluation in a different way, which depends significantly on the dance type.

From the results of the one-way ANOVA analysis it is found that participants in classical ballet activities showed the highest SPA scores. This finding highlights the classical ballet environment as one characterized by the most intense evaluation of the dancing body. A strict evaluative climate that may be related to both the aesthetic standards that this dance type projects and the high demands for technical precision in the execution of the dance movement. The very opposite score was obtained by the participants of Greek traditional dance activities, confirming the view that neither strict aesthetic standards nor a specific type of body structure are required from activities that promote collective participation and identity. This result supports the view of Tjersland and Borovica (2021) and Markula et al. (2022) that SPA appears to be strongly associated with specific cultural and aesthetic contexts.

A finding that contrasts with much of the existing literature was highlighted by Model 1 of hierarchical regression analysis. Although existing literature reports a positive correlation between BMI and SPA, i.e. the higher the BMI the higher the body dissatisfaction and stress, the present study revealed a negative correlation between the two indicators. A negative correlation which suggests that in the dance environment, physical social anxiety is not solely associated with objective body metric indicators such as BMI. In this case, the view of Hart et al. (1989) and Sabiston et al. (2007) that BMI is shaped by factors such as the extent to which the individual adopts the projected social physical norms, perceived expectations i.e. what the individual believes their social environment expects of them and how they compare themselves to others appears to be valid. This finding should be interpreted cautiously, as BMI does not capture qualitative aspects

of body composition, such as muscularity or fat distribution, which are particularly relevant in dance populations.

In the first stage of hierarchical regression analysis, gender and age did not show a statistically significant correlation with levels of social body concern. This finding suggests that these demographic characteristics, when examined in conjunction with somatometric and environmental factors, do not appear to substantially differentiate participants' levels of SPA. Therefore, social physique anxiety cannot be attributed solely to demographic factors but appears to be more related to characteristics of the dance environment and the dancer's individual experience. This finding indicates that demographic characteristics alone do not sufficiently differentiate SPA levels when examined alongside contextual and somatometric factors.

As already mentioned, the hierarchical regression analysis was conducted in two distinct stages. In the first stage (Model 1), the statistical correlations of social body concern with demographic, somatometric, and environmental factors were examined. In the second stage (Model 2), the two dimensions of perfectionism (Standards and Discrepancy) were added, which led to a significant increase in the percentage of common variance between the variables examined and SPA. This finding suggests that perfectionism traits are closely related to social physique anxiety and explain an additional part of its variability, beyond that related to demographic and environmental factors.

Importantly, both dimensions of perfectionism contributed to a substantial increase in the variance shared with SPA thus confirming the dual nature of perfectionism (Rice et al., 2014). The result reflects the view of researchers (Nordin-Bates et al., 2011; Stoeber and Eismann, 2007) according to which the dance environment, an environment in which prevailing standards of technical precision and aesthetic perfectionism are directly linked to individual self-worth, is a context in which perfectionism emerges as a key psychological factor associated with SPA.

The second stage of the hierarchical regression analysis revealed two more important results for the research. The 1<sup>st</sup> result relates to the type of dance and its importance while the 2<sup>nd</sup> result relates to the emergence of gender as statistical contributor. Specifically, in Model2, dance type, although it continues to be a statistically significant predictor of SPA, loses some of its power. This result reveals that the relationship between SPA and dance genre is, to some extent, influenced by perfectionism which seems to explain part of the initial effect of dance genre on SPA (Blažev et al., 2020; Levinson et al., 2013). The second important result is the emergence of gender as a statistically significant predictor of SPA. This result implicitly demonstrates that in order to reveal gender differences in SPA, psychological factors should be taken into account.

Overall, the findings highlight consistent patterns of association between SPA and specific contextual and psychological characteristics within amateur dance education. These patterns contribute to a contextualized understanding of how appearance-related anxiety is distributed across different dance genres and psychological profiles within physical activity environments (Bustamante-Sánchez et al., 2026).

### **Limitations**

The following limitations were taken into account in conducting this research:

- The sample of the research consists exclusively of amateur dancers who participate in dance performances of their dance clubs and groups.
- The sample of the research comes from participants of Greek Traditional, Classical ballet, Contemporary and Latin dance classes.

- BMI was calculated taking into account the values given by the participants themselves which may have affected the accuracy of its calculation.
- BMI is a general indicator which does not capture qualitative characteristics of body composition. The cross-sectional design of the study does not allow causal inferences.

## CONCLUSIONS

From the statistical analysis of the data and the discussion that followed, the following conclusions are drawn:

- Social Physique Anxiety (SPA) among amateur dancers participating in public performances emerges as a multifactorial phenomenon, associated with a combination of contextual, psychological, somatometric, and demographic characteristics rather than with any single factor in isolation.
- Dance type was consistently associated with variations in SPA, with classical dance participants reporting the highest levels and Greek traditional dance participants the lowest. This finding highlights the role of different aesthetic norms and evaluative climates across dance genres in shaping dancers' experiences of appearance-related anxiety.
- The two dimensions of perfectionism (Standards and Discrepancy) were strongly associated with SPA and substantially increased the proportion of shared variance explained beyond demographic and contextual variables, supporting the dual nature of perfectionism and its relevance within dance education contexts.
- Age did not differentiate levels of SPA within the sample, suggesting that appearance-related anxiety is not confined to specific age groups among amateur dancers.
- Gender was not independently associated with SPA but emerged as statistically significant when psychological factors were included in the analysis, indicating that gender-related differences in SPA may be better understood within a broader psychological framework.
- Body Mass Index showed a negative association with SPA, underscoring the limited explanatory value of objective body size indicators in dance environments, where perceived aesthetic standards and social comparison processes appear to play a more central role.

### ***Practical implications***

The results and conclusions of this research, without implying causal relationships and by highlighting consistently correlated factors, are of particular importance for dance education, especially in the context of both amateur dance and physical education. Highlighting the correlation of SPA with factors such as dance genre and the two dimensions of perfectionism brings to light empirical indicators that enable dance teachers to reflect on educational programs by taking into account factors that have been associated with increased levels of SPA, with the aim of creating learning environments that do not enhance SPA.

Knowing the dance environments in which high levels of SPA are recorded, as well as the psychological profiles in which strong discrepancies between personal standards and achievements are recorded, dance teachers and physical education teachers who teach dance as part of a physical education course are able to adjust the course structure, assessment criteria and feedback practices, with the aim of reducing the emphasis on appearance and limiting social comparisons.

Finally, the findings of the study can contribute to the development and implementation of pedagogical practices that promote body acceptance, psychological safety and participation in dance activities for enjoyment and without fear of comparison and commentary on the physical construction.

## AUTHOR CONTRIBUTIONS

All authors meet the criteria for authorship in accordance with established ethical guidelines. Filippou Filippou conceived the initial idea of the study and coordinated its overall design, in collaboration with Athina Pitsi, Kyriaki Emmanouilidou, and Konstantinos Filippou. Aikaterini Koupani, Nerantzoula Koufou, Grigorios Masadis, Anastasia Cheli, Georgios Sivvas, and Zoi Mavridou conducted the literature review and were responsible for data collection; they supervised the completion of the questionnaires, addressed participants' questions, checked the questionnaires for completeness, and entered the data into SPSS and LISREL. Konstantinos Filippou, Athina Pitsi, Kyriaki Emmanouilidou, Nerantzoula Koufou, Aikaterini Koupani, and Filippou Filippou jointly decided on the statistical analyses and interpreted the results. Athina Pitsi, Kyriaki Emmanouilidou, Grigorios Masadis, Nerantzoula Koufou, and Aikaterini Koupani drafted the manuscript under the guidance of Filippou Filippou and revised it critically.. All authors have critically reviewed and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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## CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this manuscript.

## AI USE DISCLOSURE

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