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Intention to be Physically Active and Social Physique Anxiety among Female Undergraduates in Enugu State, Nigeria: A Well-being Perspective

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Abstract

Physical inactivity among female undergraduates in Nigeria poses significant public health and wellbeing concerns. Despite the known benefits of regular physical activity, participation rates remain low, often influenced by psychological and sociocultural factors. One such factor is Social Physique Anxiety (SPA). The study assessed the intention to be physically active and social physique anxiety among female undergraduates in Enugu State Nigeria, from a well-being perspective. An institution-based cross-sectional study was conducted on 402 female undergraduates between July and August 2024 across the public universities in Enugu State, Nigeria. Social physique anxiety was measured with the Social Physique Anxiety scale-7 (SPAS-7), while intention to be physically active was measured using a 4-item questionnaire. Descriptive statistics of frequency, percentage, mean, and standard deviation were used to describe the data pattern. Pearson correlation and multiple regressions were used to test relationships and the predictive power of the study variables on SPA. Findings revealed that SPA is low, while intention to be physically active is high among female undergraduates. Intention to be physically active, age, and academic level did not significantly predict SPA, but Body Mass Index (BMI) strongly and significantly predicted SPA among female undergraduates. The findings highlight the need to focus on physical self-perception and body composition, rather than solely promoting physical activity intentions to effectively reduce SPA in female undergraduates. However, health and wellness programmes in universities should prioritize body image awareness and provide support for healthy weight management, as BMI appears to be a critical factor influencing body-related anxiety among female undergraduates.

Keywords: *body image, physical activity, students, health*

Introduction

Social physique anxiety (SPA) has become a global issue, exerting great impact on the physical, emotional, mental, and social health of individuals. The SPA arises from an increase in concern about body physique, which is the composition and structure of the body, emphasizing the distribution of body fat, muscular mass, and overall body shape (Voelker et al., 2015). Body physique is highly valued and significant to humans, especially females, such that it has become a global issue, creating unnecessary distress to people of all ages. An ideal body physique for most females is broad shoulders or a balanced upper body, a narrow or slim waist, and wide hips or a balanced lower body (Duquette & Duquette, 2025). Most females aspire to have an attractive body or a good physique, and fail-

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ure to achieve it steers emotional reactions such as anxiety and a complex feeling that people around might evaluate and disapprove of their physique or body image (Voelker et al., 2015).

Body image evaluation is done through the assessment of the anthropometric and body composition of a person, which includes muscle mass, body fat percentage (being underweight, overweight, or obese), based on cultural beauty standards. People who fall into any of these body weight categories may have serious issues with their body image and a heightened fear of being evaluated based on how they look, which can cause anxiety in social settings where their bodies may be watched or examined. Being overweight or underweight is associated with lower body satisfaction, thus the strongest predictor of negative body image (Xanthopoulos et al., 2011). In other words, pressure to meet social beauty standards can cause unnecessary anxiety.

The self-body evaluation makes individuals frequently worry about how other people see their bodies. People with this anxiety develop SPA in public places and often avoid situations where their bodies may be examined, because they are afraid of receiving a poor assessment. The SPA is a psychological response people show when they get apprehensive or uneasy about being ridiculed or criticized in public about their body image (Zheng et al., 2021). According to Zartaloudi and Christopoulos (2021), SPA is an emotional response that reflects people's concerns about how other people may see or evaluate their bodies. Contextually, SPA is the anxiety female undergraduates have arising from self-evaluation of body image or by others of their physical appearance or body in public places or when they engage in physical activity (PA). Female undergraduates are young girls who transitioned from secondary schools (high schools) to a university after passing the Joint Admissions Matriculation Board (JAMB) standardized test. Being females seem to make them more conscious of their bodies, which might lead to SPA.

The SPA can negatively impact one's self-esteem and quality of life. For instance, SPA can make one avoid swimming because of a feeling of inadequacy or dissatisfaction with one's appearance in comparison with others. The main negativities of SPA are body dissatisfaction, concerns about body weight, and body shape (Linardon et al., 2017). Tsartsapakis et al. (2023) revealed that SPA was significantly positively linked with body image dissatisfaction. This SPA feeling probably results in unwillingness or reduced intention to engage in PA for fear of unveiling their dissatisfied body shape in public. Earlier studies found a negative relationship between SPA and PA levels (Jiang & Wang, 2025; Sung & Hong, 2020), indicating that individuals with higher levels of SPA tend to be less physically active.

In order to achieve the desired shape, many people may participate in PA and fitness regimens to enhance their physical appearance and boost their sense of social acceptance. Regular engagement in PA helps to improve body appearance as well as reduce SPA in individuals (Gualdi-Russo et al., 2022; Zartaloudi et al., 2023). Ejeh (2021) observed a positive interaction between SPA and PA, indicating that SPA is a good determinant of engagement in PA. Engagement in PA stimulates the release of dopamine, serotonin, and endorphins, which enhances mood regulation (Zartaloudi et al., 2023), thereby reducing the level of anxiety. Individuals with SPA avoid engaging in PA (Crawford & Eklund, 1994; Zartalaud & Christopoulos, 2021) probably for fear of being mocked, laughed at, or evaluated. In line with the theory of planned behaviour (TPB) proposed by Ajzen (1985), behavioural intention is influenced by attitudes, subjective norms, and perceived behavioural control. Within this framework, the TPB suggests that female undergraduates are more likely to intend to be physically active when they have positive attitudes toward PA, perceive social support for being active, and feel capable of overcoming barriers to activity. The SPA may serve as a negative modifier, potentially reducing the intention to participate in PA due to fear of negative evaluation or body comparison, thereby affecting confidence and comfort in PA settings. Following from the above, declaration of intention by individuals having SPA to engage in PA can be a good indicator of their motivation towards PA, as well as a trustworthy predictor of their behaviour.

Factors associated with SPA include socio-demographic variables of age, BMI, and academic level. Age has an impact on SPA, as reported by Hagger and Stevenson (2010), and Jin and Fung (2021) found that women's SPA levels may rise with age. This implies that older female undergraduates are likely to have a higher level of SPA than the younger ones. Prior studies report that females, especially those with higher body mass index (BMI), show a greater level of SPA than their male counterparts (Hagger & Stevenson, 2010; Zartaloudi et al., 2023). Auster-Gussman et al. (2021) reported that BMI significantly predicts PA behaviour, and regular exercise can help people lose weight, but on the other hand, a higher BMI may lead to engagement in less PA (Spees et al., 2012).

In Enugu State, like many regions in Nigeria, there is a growing awareness of youth mental health and wellbeing, yet limited empirical research has been conducted on how social-emotional factors such as SPA intersect with intention to engage in PA among university undergraduates. Body image and socio-cultural expectations appear to significantly shape young women's attitudes toward PA, and the female undergraduates may face pressure to conform to societal beauty standards, and fear of being negatively evaluated can reduce their willingness to engage in PA, especially in public or mixed-gender environments. A study has shown that females tend to experience higher levels of SPA more than males (Hagger & Stevenson, 2010), which may contribute to gender differences in PA participation levels (Rosselli et al., 2020), hence the need for this study, so as to contribute to the available literature. Specifically, the study assessed the levels of social physique anxiety among female undergraduates by age, academic level, and BMI; determined intention to be physically active among female undergraduates; and explored the correlation between SPA, PA intention, and other covariates of age, academic level, and BMI. This research is essential for providing evidence-based recommendations to university administrators, policymakers, and public health educators on how to reduce SPA and enhance PA participation through inclusive and supportive programmes. Ultimately, the study contributes to the broader goal of improving student wellbeing and fostering lifelong healthy behaviours among young Nigerian women, particularly female undergraduates.

Methods

Study design and setting

An institution-based cross-sectional study was conducted between July and August 2024 across the public universities in Enugu State, Nigeria. The selected universities are the

University of Nigeria (UNN, Nsukka & Enugu campuses) and Enugu State University of Science and Technology (ESUT), located across the three Senatorial Districts (Enugu North, Enugu East, and Enugu West).

Participants and sampling procedures

The study participants consisted of female undergraduate students in Enugu State, Nigeria. The total number of female undergraduates is 3,083 as of the time of the study. Only full-time female undergraduates in public universities who are in good health, gave consent, and were available at the time of data collection were included in the study population. Hence, female undergraduates in private universities were excluded from the study.

The study sample was determined using Cohen et al. (2018) Randomized Table Guideline, which yielded a value of 380. To control attrition rate, a 10 per cent (0.1), i.e., 380x10/100=38, of the minimum required sample size was added, which increased the final sample size to 418 participants. Simple random sampling and convenience sampling techniques were used to draw the sample size. A simple random sampling technique was used to draw 11 faculties (6 from UNN & 5 from ESUT). Thereafter, the convenience sampling technique was used to select 38 female undergraduates who gave consent and were willing to respond to our questions across the 11 faculties. This gave rise to 418 participants.

A proportional stratified random sampling technique was adopted to draw 418 female undergraduates from the two public universities in Enugu State (University of Nigeria, Nsukka [UNN] & Enugu State University of Science and Technology [ESUT]) based on their female undergraduate population. The two public universities were stratified into two strata. The first stratum was UNN, with a population of 1,826 (59.23%) female undergraduates, and the second stratum was ESUT, with a population of 1,257 (40.77%) female undergraduates. Specifically, 248 female undergraduates were drawn from UNN, and 170 female undergraduates were drawn from ESUT. Within UNN and ESUT, a further stratification was done based on academic level (100, 200, 300, 400, 500, 600 levels), to ensure representation across different levels. Finally, within each academic level, simple random sampling was used to draw the required number of female undergraduates.

Measures

Following the participants' consent, a 7-item Social Physique Anxiety Scale-7 (SPAS-7) and a 4-item Intention to be physically active questionnaire were administered for data collection. The questionnaire consisted of three parts. Part I consisted of three socio-demographic variables (age, BMI, and academic level). Age was grouped into two (15-20 years and 21+ years). Body Mass Index was grouped into four categories (underweight, normal weight, overweight, and obese). Academic level was categorized into four groups (year one, year two, year three, year four and above). Part II consisted of seven questions with non-dichotomous response options on social physique anxiety (SPA) level, while Part III consisted of four questions with non-dichotomous response options on Intention to be physically active.

The SPA was measured with the Social Physique Anxiety Scale-7 (SPAS-7) modified by Mott and Connoy (2000) from the original version of SPAS developed by Hart et al. (1989). The SPAS-7 is a 7-item scale with each item rated on a Likert scale, from 'not at all characteristic of me ' (1), slightly characteristic of me (2), moderately characteristic of me (3), very characteristic of me (4), extremely characteristic of me (5). Scores of the responses to the seven items are summed up, with item 5 reverse-scored. The possible range of scores is from 7 to 35. A higher total score indicates greater SPA; thus, scores below half of the total score (21) were considered low SPA, and scores equal to or above half of the total score were regarded as high SPA (Zartloudi et al., 2023). The SPA-7 has a good internal consistency (α=0.86–0.89).

Intention to be physically active was measured using a 4-item questionnaire developed by Escarti and Gutierrez (2001), further modified by Hein and Koka (2004). The items are on a 7-point Likert scale of 1 = strongly disagree, 2 = disagree moderately, 3 = disagree slightly, 4 = neutral, 5 = agree slightly. 6 = agree moderately and 7 = agree strongly. Total score ranges from 4-8, with a higher score indicating greater intention to be physically active. Scores below half of the total score (16) signify low intention to be physically active, while scores equal to or above half of the total score imply high intention to be physically active.

In order to examine the face and construct validity, the scales were given to a professional board of five experts on the subject (medical and public health sciences, human kinetics, and sports studies) and an expert in methodology. After collecting the opinions of these experts, possible modifications were made. To assess the reliability (internal consistency), a trial test was performed on 50 female undergraduates, and the Cronbach's alpha value was calculated, which yielded 0.852 for the SPA-7 scale, while the intention to be physically active questionnaire yielded an index of 0.716. The cut-off point for the calculations was 0.70.

Data collection procedure

This research was developed in accordance with the Ethical Principles of the World Medical Association Declaration of Helsinki for medical research involving human subjects (World Declaration of Helsinki, 2022), and the research was approved by the Research Ethics Committee of the Faculty of Education, University of Nigeria, Nsukka (Ethical Clearance Code: REC/FE/2024/00038).

Data were collected by administering the questionnaires to the 418 female undergraduates. In order to obtain the participation of the respondents, the research team met with the Director of Academic Planning/Registrar of the universities drawn for the study, requesting their permission to study their subjects. After obtaining informed consent (verbal) from the female undergraduates, as agreed upon with the Director of Academic Planning/Registrar, and explaining to them how and when the data would be collected, the study proceeded. Also, the research team explained the objectives of the research to the participants, and the latter were assured about the privacy of their personal data. After their consent was obtained, the researchers, with the aid of the Director of Academic Planning/Registrar, administered 418 copies of the questionnaire to the respondents for completion. Participants filled out the questionnaires individually, and this was done only once. The questionnaires were collected immediately after being filled out in order to ensure maximum return rate. Out of 418 copies administered to the participants, 16 copies were lost due to incomplete responses and the inability to return the questionnaire. The remaining 402 copies of the ques-

tionnaire gave a return rate of 96.17 per cent. All the returned copies of the questionnaire were duly filled out and used for the study analyses.

Data analysis

The returned questionnaires were sorted and cleaned. The analyses were performed using the IBM Statistical Package for Social Sciences (SPSS) software package, version 25. The standard descriptive statistics of frequency, percentage, mean, and standard deviation were used to describe the data pattern. Pearson correlation and multiple regressions were used to test relationships and the predictive power of the study variables on SPA.

The normality of the data was checked through skewness, kurtosis, and the Kolmogorov-Smirnov (KS) test. Normal distribution was considered if the skewness showed values between -2 and +2, and the KS test is not significant (Bryne, 2010). In order to adjust the sample to normal, the data of each variable were adjusted using the In(x) and x2 algorithms if they were not normally distributed. All the tests were 2-tailed, and the probability values less than 0.05 ($p \leq 0.05$) were considered significant.

Results

A total of 418 participants were targeted; however, data from 402 female undergraduates were used for analysis after accounting for attrition. This gave a response rate of 96.17%. The mean age of participants was 20.67±2.51.

Overall social physique anxiety (SPA) of female undergraduates is low (54.7%; Mean 17.77±6.49) (Table 1). From the table, age 15-20 with 58.6% (18.43±7.13) experienced more SPA compared to 40.6% of age 21 and above (17.21±5.84). In terms of academic level, year two with 54.7% (18.62±7.18) experienced more SPA, followed by year one with 50.7% (18.39±6.48), year four and above with 39.5% (17.77±6.46), and year three with 37.1% (17.12±6.20). With respect to BMI, those who are obese experienced more SPA with 74.3% (22.86±6.95), followed by those who are overweight with 48.1% (18.54±6.43), those who are underweight with 44.7% (18.43±6.3), and those who have a normal weight with 40.2% (16.64±6.07). From the results in Table 1, the means of the demographic groups are less than the cutoff mean for high SPA (21-35), indicating that undergraduates do not feel a high level of concern when others evaluate their bodies.

Table 1: Demographic Characteristics and Responses on Social Physique Anxiety Overall of Female Undergraduate Students in Enugu State (n = 402)

Variable	N	Categorical data		Continuous data	
		Low SPA f(%)	High SPA f(%)	Mean	SD
Overall SPA	402	220 (54.7)	182 (45.3)	17.77	6.49
Age					
15- 20	185	91 (41.4)	94 (58.6)	18.43	7.13
21 and Above	217	129 (59.4)	88 (40.6)	17.21	5.84
Academic level					
Year one	75	37 (49.3)	38 (50.7)	18.39	6.48
Year two	117	53 (45.3)	64 (54.7)	18.62	7.18
Year three	124	78 (62.9)	46 (37.1)	17.12	6.20
Year four and Above	86	52 (60.5)	34 (39.5)	17.77	6.46
BMI					
Underweight	47	26 (55.3)	21 (44.7)	18.43	6.37
Normal weight	239	143 (59.8)	96 (40.2)	16.64	6.07
Overweight	81	42 (51.9)	39 (48.1)	18.54	6.43
Obese	35	9 (25.7)	26 (74.3)	22.86	6.95

Key: N = Number of Participants; f = Frequency; % = Percentage; SPA = Social Physique Anxiety; SD = Standard Deviation

Overall intention to be physically active is high (74.4%; Mean 17.83± 6.63) (Table 2).

There was a positive non-significant relationship between SPA and intention to be physically active ($r=0.04$, $p>0.05$), age had a negative non-significant relationship with SPA ($r=-0.04$) but correlated positively with intention to be active ($r=0.14$, $p=<0.001$). Academic level had a negative, non-significant relationship with SPA ($r=-0.10$) but correlated negatively with age ($r=0.68$, $p<0.001$). The BMI had a positive significant relationship with SPA ($p=0.21$, $p<0.001$) but correlated negatively with intention to be active ($r=0.18$, $p<0.001$). The significant correlation observed between SPA and BMI resulted in the calculation of the coefficient of determination, which gave 0.0441 (Table 3). This implies that 4.41% of the variation in SPA level of female students could be explained by the linear relationship between SPA and BMI.

Table 2: Intention to be Physically Active Overall of Female Undergraduate Students in Enugu State (n = 402)

Variable	N	Categorical Data		Continuous Data	
		Low Intention f(%)	High Intention f(%)	Mean	SD
Overall Intention	402	103 (25.6)	299 (74.4)	17.83	6.63

Table 3: Pearson Correlation Analysis on Study Variables (n = 402)

Variable	N	Mean	SD	1	2	3	4	5
SPA	402	17.77	6.49	-				
Intension to be physically active	402	17.83	6.630	.04	-			
Age	402	20.67	2.51	-0.04	0.14**	-		
BMI	402	23.10	5.05	0.21**	-018**	0.43	-	
Academic Level	402	2.55	1.03	-0.10	0.04	0.68**	0.04	-

Key: SPA = Social Physique Anxiety; SD = Standard Deviation; BMI = Body Mass Index; N = Number of Participants

Intention to be active, age, BMI, and academic level explained a significant amount of variance in the SPA, F(4, 397)=6.33, p>0.05, R2=0.25, R2adjusted=0.05. The analysis shows that intention to be physically active, age and academic level did not significantly predict SPA (β=0.07, t(4, 397)=1.46, p=0.150; age (β=0.04, t(4, 397)=0.65, p=0.520; academic level (β=-0.12, t(4, 397)=-1.80, p=0 .070, however BMI significantly predicted SPA (β=0.22, t (4,397)=4.51, p<0.001) (Table 4).

Table 4: Multiple regressions showing relationship of SPA with Intention to be Physically Active and Demographic Factors (n = 402)

Variable	B	SEB	β	t	p-value
SPA	9.50	3.39		2.804	0.01
PA intention	0.07	0.05	0.07	1.455	0.15
BMI	0.29	0.06	0.22	4.510	0.00
Age	0.11	0.18	0.04	0.645	0.52
Academic level	-0.76	0.42	-0.12	-1.799	0.07

Key: B = unstandardized beta; SEB = Standardized error for unstandardized beta; β = Standardized beta; t = T statistic; p = probability level; SPA = Social physique anxiety; BMI = Body mass index

Discussion

The aim of the study was to assess the relationship between intention to be physically active and SPA of female undergraduates in Enugu State, Nigeria. The results show that almost half of the female students had high SPA and more than half had low SPA. The results are in contrast with the finding of Ejeh (2021) among students in Kogi State College of Education. Although their overall mean score is below the criterion mean (21), which is referred to as high level of SPA (Zartloudi et al., 2023), it is enough signal that the female students are experiencing SPA, suggesting that they are already having some level of distress and body dissatisfaction as explained by Linardon et al. (2017) and Tsartsapakis et al. (2023). This feeling of body dissatisfaction may reduce their self-esteem or self-worth which in turn can stimulate emotional anxiety or worry that others may judge and disapprove of their appearance or body image as expressed by Voelker et al. (2015). Feeling of body dissatisfaction can as well result in health problems such as unhealthy dietary behaviours, depression, and avoidance of opportunities to engage in physical activity (PA) that will benefit their overall health because they would not want to expose their unattractive bodies to public glare for fear of being criticized, ridiculed as reported by Zheng et al. (2021). Moreover, there is a difference in the mean scores of the two age groups, with age group 15-20 years having more proportion and greater mean score on SPA than age group 21+ years. However, the negative correlation between age and SPA supports the report of Hagger and Stevenson (2010) and Jin and Fung (2021) that SPA levels vary by age, signifying that SPA reduces as one gets older. Although the mean scores of the age group differ, the result of the multiple regressions showed it is not a significant predictor of SPA. This suggests that more consideration should be given to all the younger groups in application of intervention strategies to overcome SPA among female undergraduates in Enugu State.

In terms of academic level above half the female undergraduates in year two, slightly above half of those in year one, above one-third of those in year four and above, and above one -third of those in year three are experiencing SPA. This is indicated in the mean scores of the academic levels. Although the mean scores of the various academic levels differ, the result of the multiple regressions showed it is not a significant predictor of SPA. With reference to BMI, almost three-quarter of the obese, almost half of the overweight and underweight, and two above two-fifth of those with normal weight experience SPA. This is supported by the result of the multiple regressions showing that BMI is a significant predictor of SPA. This result supports the findings of Xanthopoulos et al. (2011) that being overweight or underweight is associated with lower body satisfaction, thus the strongest predictor of SPA.

Female undergraduates had high intentions to be physically active. This high intention is portrayed in the overall mean, which is above the criterion grand mean of sixteen. This finding is reasonable in context, though it emerged as an unanticipated finding contradicting view of literature suggestions that individuals with SPA avoid public places and opportunities to engage in PA for fear of being evaluated (Voelker et al., 2015). This finding is logical, although it was not anticipated, because regular involvement in PA will aid them to get rid of excess weight, remain fit and maintain attractive physique (National Institute of Health [NIH], 2013). Regular and moderate PA can successfully lower SPA levels in undergraduate students (Sung & Hong, 2020). Engaging in PA has numerous physical, mental, and social health benefits, such as, fitness gains, reduces anxiety and depression rates among other gains. Physical activity may reduce depression associated with body dissatisfaction

by boosting the production of endorphins (mood enhancers), which increases levels of serotonin and dopamine associated with happiness and well-being (Bruce, 2025). Production of these hormones may aid reduction of SPA. Engaging in PA can offer opportunity to socialize and connect with new people, form friendships with people who have similar interests, improve self-confidence thereby reduce social isolation and loneliness (Davis et al., 2021) associated with SPA.

There was a positive non-significant relationship between SPA and intention to be physically active, age had a negative non-significant relationship with SPA, but correlated positively with intention to be active. Academic level had a negative non-significant relationship with SPA, but correlated negatively with age. The BMI had a positive significant relationship with SPA but correlated negatively with intention to be active. It is obvious that only age correlated negatively with SPA implying that one tends to overcome SPA as one advances in age. These findings are congruent with the assertions of Hagger and Stevenson (2010) and Zartaloudi et al. (2023) that individuals with high BMI experience more SPAS. However, low intention to be active observed in students with high BMI confirms the report of Auster-Gussman et al. (2021) that BMI significantly predict PA behaviour. The findings support Spees et al. (2012) that high BMI may lead to engagement in less PA. This result suggests that majority of the students with high BMI experience SPA which negatively predict intention to be physically active (Jiang & Wang, 2025; Silicia et al., 2016). Individuals with SPA avoid engaging in PA (Crawford & Eklund, 1994; Zartalaud & Christopoulos, 2021) probably for fear of being mocked and laughed at (evaluated).

The result supports the bidirectional relationship between BMI and intention to be physically active (Carrasquilla et al., 2022) which implies that high BMI results in low intention to be active while low level of activity may result in high BMI. However, the positive correlation between SPA and intention to be physically active was in contrast with Sung and Hong (2020) and Jiang and Wang (2025) assertions that SPA has a negative relationship with intention to be physically active. The positive relationship indicates that as SPA increases, intention to be active increases too, indicating that changes in one variable do not always result in changes in the other. The negative association between SPA and intention to be physically active aligns with Theory of Planned Behaviour (TPB), as high anxiety likely reduces perceived behavioural control and weakens positive PA attitudes, lowering the intention to participate in PA or exercise. Also, the Self-Determination Theory (SDT) could give a reasonable explanation on how to boost PA behaviour in those who had low intention to engage in PA. Inability to achieve satisfaction of the three basic psychological needs which includes autonomy, competence, and relatedness will basically result in low intention to be physically active, because one needs to be in charge, possess the required skills and have support of the significant others. (Sung & Hong, 2020; Jiang & Wang, 2025). Satisfaction of these three basic psychological needs will enable them to engage in PA which helps to improve body appearance, reducing SPA (Gualdi-Russo et al., 2022; Zartaloudi et al., 2023).

Implications for Well-being

The study highlights that while overall SPA among female undergraduates is generally low, specific subgroups experience higher levels of concern. Obesity emerges as a significant factor in higher SPA, suggesting a direct link between BMI and body image anxiety. This implies that promoting healthy body image and addressing concerns related to weight, particularly for obese and overweight students, is crucial for their psychological wellbeing. Interventions that foster body acceptance and challenge unrealistic beauty standards could be beneficial. The findings support the design of university health programmes (e.g. body image workshops in university gyms) that go beyond PA promotion to include body image education and BMI-sensitive interventions. Results can inform curricula in health education, psychology, or physical education to include modules addressing self-perception and wellness in young women. This research contributes to understanding localized psychological barriers and motivators for PA, aiding in the development of culturally relevant public health strategies.

Limitations of the Study

The use of self-administered questionnaires may have led to underreporting or over reporting due to social desirability or misinterpretation of items. As a cross-sectional study, causality between BMI and social physique anxiety cannot be established. The study focused only on female undergraduates in Enugu State, limiting the generalizability of findings to other populations, including male students or non-student groups. Psychological variables such as self-esteem, peer influence, or media exposure, which may mediate the relationship between physical activity and body image, were not included.

Conclusion

This study investigated the relationship between intention to be physically active and social physique anxiety among female undergraduates in Enugu State, Nigeria, within a well-being framework. The findings revealed that SPA levels were generally low among the participants, while intention to be physically active was high. While age and academic level did not significantly predict SPA, BMI emerged as a significant predictor, indicating that students with higher BMI levels tended to report higher concerns related to their physical appearance in social settings. Interestingly, the intention to be physically active was not significantly associated with SPA, suggesting that other factors may influence students' motivations for PA beyond body image concerns. However, health and wellness programmes in universities should prioritize body image awareness and provide support for healthy weights management, as BMI appears to be a critical factor influencing body-related anxiety among female undergraduates. This may further reduce latent SPA and support mental well-being. Universities should develop non-judgmental and supportive environments, such as female-only fitness sessions or wellness clubs, to increase comfort and participation in physical activities. Since BMI was a significant predictor, health and counseling units of the various universities should offer personalized education and counseling that integrates both physical health and self-image support. Physical activity promotion should incorporate mental health education, emphasizing self-esteem, personal growth, and stress management, rather than focusing solely on appearance. Longitudinal studies should be conducted to explore the causal pathways between body image, BMI, PA, and mental well-being among university undergraduates. Without adopting longitudinal studies, the reciprocal relationships among the study variables will remain incomplete. Therefore, future studies are encouraged to adopt the longitudinal design to uncover the deeper, time-based interactions that shape the health outcomes of female undergraduates.

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Conflict of interest

The authors have declared no competing or conflicting of interests.

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