

Predicting exercise confidence from body esteem among Filipino college students Enrolled in PathFit 1

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Abstract:

This study the predictive relationship between body esteem and exercise self-efficacy among Filipino college students, considering gender-specific psychological and cultural factors. A total of 475 students (317 males, 158 females; $M_{age} = 18.92 \pm 1.51$ years) from a state university in Region III, Philippines, participated. Using a quantitative correlational design, data were collected via the Body Esteem Scale-Revised (BES-R) and the Exercise Self-Efficacy Scale (ESES). Confirmatory factor analysis confirmed acceptable construct validity (CFI = 0.856–0.940; TLI = 0.837–0.925; RMSEA = 0.087–0.106) and strong reliability (CR = 0.84–0.92). Multiple Linear Regression analysis showed that body esteem significantly predicted exercise self-efficacy among both males ($F(3,313) = 24.640, p < .001$, Adjusted $R^2 = .183$) and females ($F(3,154) = 10.075, p < .001$, Adjusted $R^2 = .148$). For males, upper body strength was the only significant predictor ($\beta = .439, t = 4.239, p < .001$), while for females, weight concern was the strongest predictor ($\beta = .439, t = 3.029, p = .003$). Descriptive results indicated that males had higher exercise self-efficacy ($M = 3.31 \pm 0.75$) than females ($M = 2.79 \pm 0.85$), with significant gender differences across all domains ($p < .001$). These findings demonstrate that body esteem plays a key role in shaping confidence toward exercise, with distinct gender-based predictors. The study highlights the need for gender-sensitive interventions that promote positive body image and exercise confidence. Limitations include its cross-sectional design, reliance on self-reported data, and single-site sample. Future research should employ longitudinal or experimental designs with larger, more diverse populations to better understand the directionality of the relationship between body esteem and exercise self-efficacy.

Key Words: - Body esteem, Exercise self-efficacy, Gender, Collegiate, Physical activity

Introduction

Conceptualizing Body Esteem

Body esteem refers to an individual's evaluation and satisfaction with their body, encompassing feelings about appearance, weight, and perceptions of how others view them (Beltrán-Garrayo et al., 2023; Lacroix et al., 2022; Rezeppa et al., 2021). It is a central aspect of body image and closely tied to self-esteem and psychological well-being. The construct is typically assessed through three subdomains—appearance, weight, and attribution—which capture general satisfaction with one's looks, weight, and perceived social evaluation (Rezeppa et al., 2021). High body esteem contributes to psychological resilience, while low body esteem is associated with anxiety, depression, and disordered eating (Abdoli et al., 2025; Lacroix et al., 2022; Merino et al., 2024).

Sociocultural and Media Influences on Body Esteem

Sociocultural and media factors significantly shape body esteem. Exposure to idealized body images in traditional and social media heightens body dissatisfaction and lowers body esteem, particularly among adolescents and young women (Abdoli et al., 2025; Lacroix et al., 2022; Merino et al., 2024; Prieler et al., 2021). These effects are reinforced by societal standards such as the “thin ideal,” which promote appearance-based self-evaluation and are linked to poor mental health outcomes, including depression and eating disturbances (Abdoli et al., 2025; Lacroix et al., 2022; Merino et al., 2024). However, cultural and ethnic contexts moderate these effects. Collectivist cultures, which emphasize relational and non-appearance-based sources of self-worth, often buffer against media-driven appearance pressures, whereas individualistic cultures may amplify them (Abdoli et al., 2025; Houkamau et al., 2021). Cultural efficacy—confidence in expressing one's cultural identity—also protects body esteem, as shown among Māori populations, where strong cultural identity predicts higher body satisfaction (Houkamau et al., 2021).

Demographic and Interpersonal Factors Affecting Body Esteem

Individual characteristics further influence body esteem. Females consistently report lower body esteem than males (Moyon et al., 2025), while older adults demonstrate greater resilience to appearance pressures (Moyon et al., 2025). Higher body mass index (BMI) tends to correspond with lower body esteem, although this relationship is moderated by gender, education, and cultural norms (Algamdi, 2025; Houkamau et al., 2021; Krupa-Kotara et al., 2023; Merino et al., 2024; Moyon et al., 2025). Supportive family and peer relationships

strengthen body esteem, whereas teasing, discrimination, and victimization predict its decline (Lacroix et al., 2022).

Defining Exercise Self-Efficacy

Exercise self-efficacy refers to one's belief in their ability to successfully engage in and sustain physical activity despite (Dawe et al., 2024; Sheng et al., 2025; Xie et al., 2025; Zhou et al., 2025). Grounded in Bandura's Self-Efficacy Theory, this construct underscores that confidence in one's capabilities drives motivation, behavior change, and persistence (Dawe et al., 2024; Xie et al., 2025). Individuals with high exercise self-efficacy set clearer goals, persist despite fatigue or adverse conditions, and establish consistent exercise routines (Dawe et al., 2024; Han et al., 2022; Sheng et al., 2025; Xie et al., 2025; Zhou et al., 2025). Tools such as the Exercise Self-Efficacy Scale (ESES) and the Self-Efficacy for Exercise (SEE) Scale evaluate confidence in maintaining exercise behavior across (Dawe et al., 2024; Reide et al., 2023; Ren et al., 2020; Xie et al., 2025). Social support, peer encouragement, and intrinsic motivation have been identified as key facilitators of exercise self-efficacy, mediating the connection between psychosocial factors and sustained physical activity (Bao, 2025; Ren et al., 2020; Tao et al., 2024; Zhou et al., 2025). This construct is especially relevant for youth and young adults, for whom early development of exercise confidence predicts lifelong physical activity habits (Dawe et al., 2024; Ren et al., 2020; Xie et al., 2025).

Filipino Cultural Context

In the Filipino context, both body esteem and exercise self-efficacy are deeply influenced by sociocultural values and collective identity. Filipino body esteem is strongly shaped by local and colonial beauty ideals, notably the preference for lighter skin, which is associated with higher self-perception but varies across gender and generations (Policarpio et al., 2022). Positive body image within Filipino psychology emphasizes self-acceptance, respect for the body, and resilience against unrealistic media standards (Mariano et al., 2023; Regencia et al., 2023). Among Filipino Muslim women, body esteem is molded by religious and cultural narratives of modesty, protection, and empowerment, fostering agency and countering stereotypes (Gaviola et al., 2024). Social media also plays a substantial role, with body image mediating the relationship between online engagement and self-esteem among Filipino youth (Carinio et al., 2018). Similarly, exercise self-efficacy among Filipinos is influenced by health literacy, community support, and social encouragement (Bhimla et al., 2021; Dahonan-Cuyacot et al., 2023; Kurata et al., 2023; Mancera, 2025). Higher exercise self-efficacy correlates with improved quality of life and resilience across age groups (Dahonan-Cuyacot et al., 2023; Mancera, 2025). Collectively, these findings underscore that Filipino body esteem and exercise self-efficacy are intertwined with sociocultural identity and collective motivation.

PathFit 1

Physical Activity Toward Fitness 1: Movement Competency [commonly known as *PathFit 1*] is a foundational general education course mandated by the Commission on Higher Education [CHED] across Philippine universities to develop students' physical literacy, movement competency, and confidence in engaging in lifelong physical activity. Unlike specialized or sport-oriented subjects that cater to athletes or physical education majors, *PathFit 1* is designed for the general student population, most of whom have limited experience in structured exercise. This makes the group uniquely suitable for examining psychosocial constructs such as body esteem and exercise self-efficacy within a standardized yet inclusive fitness education framework. The course encourages self-assessment, reflection, and awareness of one's physical capabilities—key contexts where perceptions of body image and exercise confidence are actively formed. Studying *PathFit 1* students thus provides valuable insight into how mandated university wellness programs influence motivation, body perception, and confidence in movement, supporting the broader goals of holistic education and Sustainable Development Goal 3: Good Health and Well-being.

Theoretical Relationship Between Body Esteem and Exercise Self-Efficacy

Globally, body esteem has been identified as a strong predictor of exercise self-efficacy. Individuals with higher body esteem tend to report greater confidence in exercising and higher participation in physical activity (Huang et al., 2024; Ouyang et al., 2020; Peng et al., 2025; Tikac et al., 2022). The Exercise and Self-Esteem Model (EXSEM) and Bandura's Self-Efficacy Theory explain this relationship by positing that positive body perceptions enhance one's confidence to overcome physical challenges (Ouyang et al., 2020). Nonetheless, this association is moderated by psychological factors such as motivation, resilience, and social support (Ouyang et al., 2020; Peng et al., 2025; Tikac et al., 2022). Body esteem increases perceived competence and motivation, which elevate self-efficacy and encourage sustained physical activity (Peng et al., 2025). Conversely, increases in exercise self-efficacy can also improve body esteem, supporting a bidirectional (Elavsky, 2010). Cultural and gender norms further shape these dynamics, as societal beauty ideals and collectivist orientations influence how body esteem translates into exercise confidence (Jankauskiene & Baceviciene, 2022; Ouyang et al., 2020; Peng et al., 2025).

Research Gap and Hypothesis

The relationship between body esteem and exercise self-efficacy is well established in international research, yet its dynamics within the Filipino sociocultural context are insufficiently represented in the literature. Empirically, most Philippine-based studies focus on youth and general populations (Mancera, 2025), offering limited insight into college students, who constitute a distinct developmental group characterized by evolving

self-concept, academic demands, and lifestyle changes. Within the PathFit 1 framework—a standardized university fitness program promoting self-regulation and holistic wellness—understanding how body esteem influences exercise confidence is essential for strengthening health education outcomes. Theoretically, although Bandura’s Self-Efficacy Theory and the Exercise and Self-Esteem Model (EXSEM) explain how positive body perceptions foster self-efficacy (Ouyang et al., 2020), these models are rarely examined in collectivist and postcolonial contexts, where constructs such as *kapwa* (shared identity), relational interdependence, and culturally embedded beauty norms may mediate self-perception and (Gaviola et al., 2024; Mariano et al., 2023; Policarpio et al., 2022; Regencia et al., 2023). Methodologically, Philippine studies often employ nonstandardized or adapted tools that reduce reliability and cross-cultural validity (Mancera, 2025). This study addresses these empirical, theoretical, and methodological limitations by analyzing the predictive relationship between body esteem and exercise self-efficacy among Filipino college students using validated and culturally attuned instruments—the Body Esteem Scale–Revised (BES-R) and the Exercise Self-Efficacy Scale (ESES). Guided by Bandura’s Self-Efficacy Theory and the EXSEM, the study hypothesizes that higher body esteem predicts higher exercise self-efficacy among Filipino college students enrolled in PathFit 1.

Material & methods

Participants

The study population comprised students enrolled at a state university in Region III, Philippines, during the first semester of AY 2025–2026. Inclusion criteria required respondents to be bona fide students enrolled in required courses and without formal athletic training experience, ensuring representation of the general student population. Exclusion criteria removed students from other campuses and those enrolled in elective or non-mandatory subjects to maintain sample uniformity. Participation was voluntary, and respondents were free to withdraw at any time without penalty, in accordance with ethical standards protecting autonomy.

Post Hoc Power Analysis

Table 1 presents the post hoc power analysis for the regression models across all respondents and by gender. Results indicate that all models achieved excellent statistical power ($1 - \beta > .80$), confirming that the sample sizes were sufficient to detect medium-sized effects at $\alpha = .05$. The high power values suggest a minimal risk of Type II error and strong sensitivity in identifying significant relationships. Overall, these findings support the adequacy of the sample and reinforce the reliability and methodological rigor of the regression analyses.

Table 1 *Post Hoc Power Analysis Results for Regression Models*

Parameters	All Respondents	Male	Female
Test Type	Linear Multiple Regression (Random Model), Two-Tailed		
Number of Predictors	3		
Total Sample Size (N)	475	317	158
α Error Probability	0.05		
Effect Size (f^2)	0.30		
Critical R^2	0.0196	0.0294	0.0587
Lower Critical R^2	0.0046	0.0007	0.0014
Upper Critical R^2	0.0196	0.0294	0.0587
Achieved Power ($1 - \beta$)	1.0000	1.0000	0.9999

Table 2 presents the descriptive characteristics of the respondents, summarizing their age, height, and weight by sex. The demographic profile shows that participants were predominantly late adolescents within the typical age range for first-year college students. As expected, males generally exhibited greater height and body weight than females, reflecting the normal biological and developmental differences between the sexes. Overall, the results suggest that the sample represents a generally healthy and non-athletic college population, which is appropriate for exploring psychological constructs such as body esteem and exercise self-efficacy without the confounding influence of athletic specialization or age-related variance.

Table 2 *Characteristics of the Respondents*

	Female	Male	All
Age	18.93±1.69	18.91±1.42	18.92±1.51
Height	1.57±0.06	1.69±0.07	1.65±0.07
Weight	52.69±15.81	64.40±17.60	60.51±17.88

Research Instruments

The study employed the Body Esteem Scale–Revised (BES-R) (Frost et al., 2018), a gender-specific and multidimensional refinement of the original Body Esteem Scale that more accurately reflects contemporary cultural attitudes toward the body (Frost et al., 2018). The BES-R measures body esteem through distinct subscales for each gender: Physical Conditioning, Sexual Appearance, and Upper Body Strength for males, and Physical Conditioning, Sexual Attractiveness, and Weight Concern for females. Demonstrating strong construct

and convergent validity across undergraduate samples, the BES-R is recognized as a reliable and psychometrically sound instrument for assessing self-perceptions related to body image (Franzoi & Herzog, 1986; Frost et al., 2018). Responses were rated on a 5-point Likert scale, with higher scores reflecting greater body esteem, and subscale scores analyzed separately to represent the scale's multidimensional structure.

The study also utilized the Self-Efficacy for Exercise Behaviors Scale (SEEB) (Sallis et al., 1988), a theory-based measure assessing individuals' confidence in maintaining regular exercise despite situational barriers. The SEEB includes two subscales—Resisting Relapse and Making Time for Exercise—which assess confidence in sustaining exercise amid external pressures and in prioritizing physical activity despite fatigue, stress, or time constraints. The instrument has shown high internal consistency ($\alpha = .83-.85$), test-retest reliability ($r = .68$), and criterion-related validity through correlations with vigorous physical activity (Sallis et al., 1988). Participants rated 12 items on a 5-point Likert scale (1 = Sure I could not do it, 5 = Sure I could do it), with higher scores indicating stronger exercise self-efficacy. The SEEB is widely acknowledged as a reliable and valid tool for evaluating exercise self-efficacy and understanding psychological factors underlying sustained physical activity.

Refitting of the Instruments

Reliability and validity testing were conducted separately for male and female participants to account for gender-specific differences in body esteem and exercise self-efficacy within the Filipino context. The BES-R, which has gender-specific subscales, and the SEEB were analyzed independently by gender to ensure accurate representation of their factorial structures and constructs. This approach strengthened construct validity, internal consistency, and cultural appropriateness by capturing distinct structural patterns across groups, thereby enhancing the accuracy and interpretability of the findings.

Table 3 presents the psychometric properties of the Body Esteem Scale-Revised (BES-R) for both male and female respondents. The results indicate that the BES-R demonstrated acceptable construct validity and high internal consistency across genders. The three-factor model structure—comprising *Physical Conditioning*, *Sexual Attractiveness*, and *Weight Concern* or *Upper Body Strength*—showed a satisfactory model fit, confirming that the instrument reliably captures the multidimensional nature of body esteem among Filipino college students. The removal of a few low-loading items improved clarity and measurement precision. At the same time, the strong reliability and convergent validity values confirm the robustness of the BES-R in assessing body esteem within the local context. Overall, these findings suggest that the adapted BES-R is a psychometrically sound and culturally appropriate tool for examining gender-specific perceptions of body image in the Philippine higher education setting.

Table 3 *Summary of Psychometric Properties of the Body Esteem Scale-Revised (BES-R)*

Index / Parameter	Female Version	Male Version
Model χ^2 (df)	519 (186), $p < .001$	758 (186), $p < .001$
CFI	0.856	0.883
TLI	0.837	0.868
SRMR	0.058	0.048
RMSEA (90% CI)	0.106 [.096, .117]	0.098 [.091, .106]
Factor Structure	Physical Conditioning, Sexual Attractiveness, Weight Concern	Physical Conditioning, Sexual Attractiveness, Upper Body Strength
Factor Loadings (Range)	.584 – .834	.648 – .839
Items Omitted	“Buttocks,” “Gender Drive” (loadings $< .60$)	“Gender Activities,” “Gender Drive” (loadings $< .60$)
Factor Correlations (Covariances)	PC-SA = .866; PC-WC = .887; SA-WC = .922	PC-SA = .875; PC-UBS = .956; SA-UBS = .875
Composite Reliability (CR)	PC = 0.87; SA = 0.89; WC = 0.92	PC = 0.92; SA = 0.89; UBS = 0.89
Average Variance Extracted (AVE)	PC = 0.53; SA = 0.53; WC = 0.58	PC = 0.57; SA = 0.53; UBS = 0.62
Interpretation	Acceptable construct validity; strong convergent validity; partial discriminant validity; high reliability.	Acceptable construct validity; strong convergent validity; partial discriminant validity; excellent reliability.

Note. BES-R = Body Esteem Scale-Revised; PC = Physical Conditioning; SA = Genderual Attractiveness; WC = Weight Concern; UBS = Upper Body Strength; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; SRMR = Standardized Root Mean Square Residual; RMSEA = Root Mean Square Error of Approximation; CR = Composite Reliability; AVE = Average Variance Extracted. Model fit thresholds follow Hu and Bentler (1999): CFI and TLI $\geq .90$ (acceptable), SRMR $\leq .08$ (good), and RMSEA $\leq .08$ (adequate). Items “buttocks,” “gender drive,” and “gender activities” were omitted for loadings below .60 to improve model clarity and validity.

Table 4 summarises the psychometric evaluation of the Exercise Self-Efficacy Scale (ESES) for both male and female respondents. The results demonstrate that the ESES exhibited a stable two-factor structure across genders, confirming its suitability for assessing exercise-related confidence among Filipino college students. The strong reliability and convergent validity indices indicate that the instrument effectively captures students' perceptions of their ability to maintain regular physical activity and manage time for exercise. The

partial discriminant validity observed between factors suggests that while these domains are related, they still represent distinct aspects of exercise self-efficacy, commitment, and time management. Overall, the findings affirm that the ESES is a psychometrically sound and culturally adaptable tool for evaluating exercise confidence in higher education contexts.

Table 4 *Summary of Psychometric Properties of the Exercise Self-Efficacy Scale (ESES)*

Index / Parameter	Female Version	Male Version
Model χ^2 (df)	128 (53), $p < .001$	181 (53), $p < .001$
CFI	0.930	0.940
TLI	0.913	0.925
SRMR	0.047	0.044
RMSEA (90% CI)	0.095 [.074, .116]	0.087 [.074, .102]
Factor Structure	Staying with Exercise Programs; Making Time for Exercise	Sticking to Exercise Routines; Staying with Exercise Programs
Factor Loadings (Range)	.614 – .889	.611 – .803
Items Omitted	None	None
Factor Correlation (Covariance)	Staying–Making = .932 ($p < .001$)	Sticking–Staying = .959 ($p < .001$)
Composite Reliability (CR)	Staying = 0.89; Making = 0.86	Sticking = 0.89; Staying = 0.84
Average Variance Extracted (AVE)	Staying = 0.54; Making = 0.55	Sticking = 0.54; Staying = 0.52
Interpretation	Adequate construct validity; strong convergent validity; partial discriminant validity; excellent reliability.	Good construct validity; strong convergent validity; partial discriminant validity; excellent reliability.

Note. ESES = Exercise Self-Efficacy Scale; CFI = Comparative Fit Index; TLI = Tucker–Lewis Index; SRMR = Standardized Root Mean Square Residual; RMSEA = Root Mean Square Error of Approximation; CR = Composite Reliability; AVE = Average Variance Extracted. Model fit criteria: CFI and TLI $\geq .90$ (acceptable), SRMR $\leq .08$ (good), RMSEA $\leq .08$ (adequate). No items were removed during refitting. High factor correlations ($\geq .93$) indicate partial discriminant validity but consistent theoretical distinctiveness between latent factors.

Data Gathering

Data were collected through a self-administered Google Form administered from October 13–18, 2025, during the first semester of AY 2025–2026. The questionnaire consisted of five sections: study introduction and ethical information, demographic profile, Body Esteem Scale–Revised (BES-R), Exercise Self-Efficacy Scale (ESES), and informed consent. Both instruments were presented in English with Filipino translations to ensure clarity and cultural relevance. Participation was voluntary, and only completed responses with consent were included in the analysis.

The survey was accessible via any internet-enabled device and required approximately 10–15 minutes to complete. Post-data collection, BES-R and ESES were analyzed separately for male and female respondents to establish construct validity, convergent validity, and internal reliability, ensuring psychometric robustness within the Filipino college student context.

Potential Ethical Issues

Ethical clearance was obtained from the Local In-House Ethics Committee of the College of Sport, Exercise, and Recreation at a state university in Central Luzon, with formal approval from the college research coordinator. Data were collected voluntarily via an online Google Form among Filipino college students enrolled in PATHFIT 1. Participants provided electronic informed consent prior to participation, and all items were non-mandatory to ensure autonomy. The questionnaire was available in English and Filipino and administered from October 13–18, 2025.

All data were stored in a secure, encrypted cloud drive accessible only to the research team and will be retained for one year before deletion. Responses were anonymized and reported in aggregate form in accordance with institutional and international ethical standards. During manuscript preparation, ChatGPT, Consensus, and Zotero were used solely for literature search, reference management, and editorial support; all outputs were critically reviewed, and the author assumes full responsibility for the final content.

Statistical Analysis

Data were analyzed using Jamovi, IBM SPSS Statistics, and Microsoft Excel. Confirmatory Factor Analysis (CFA) in Jamovi was conducted to assess construct validity, convergent validity, and reliability of the BES-R and ESES, with separate analyses for male and female respondents. Internal consistency was evaluated through indicator reliability, inter-item and item-total correlations, while Composite Reliability (CR) and Average Variance Extracted (AVE) were computed in Excel. Model fit was determined using χ^2 , CFI, TLI, SRMR, and RMSEA based on established thresholds. Following validation, Multiple Linear Regression (MLR) in SPSS examined the predictive effects of body esteem dimensions on exercise self-efficacy. Assumptions of normality were verified using the Shapiro–Wilk test. A post hoc power analysis (G*Power 3.1; $N = 475$; $f^2 = 0.30$; $\alpha = .05$) indicated excellent statistical power ($1 - \beta > .99$), confirming adequacy of the sample. All analyses were interpreted at $\alpha = .05$ (Stone, 2021).

Test of Normality

As shown in Table 5, all variables across both male and female respondents yielded p-values less than .05, indicating that the data for Resisting Relapse, Making Time for Exercise, and Total Exercise Self-Efficacy significantly deviate from normality. Hence, the distributions of these variables are non-normal, suggesting that non-parametric tests are more appropriate for subsequent analyses involving these data.

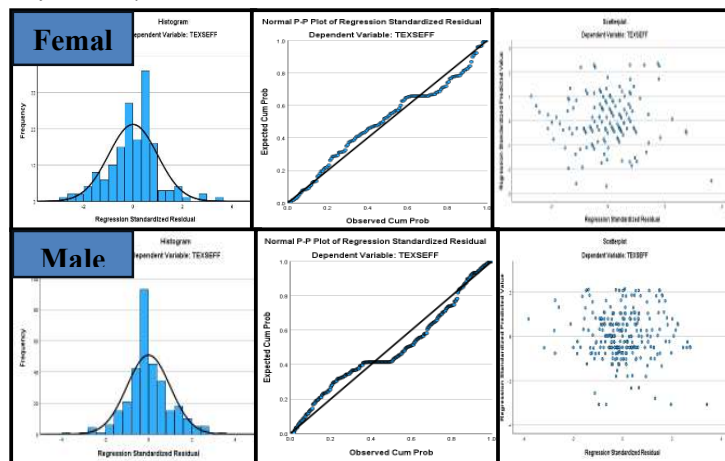
Table 5
Test of Normality Using the Shapiro–Wilk Test

Variable	Sex	Statistic (W)	df	p-value	Interpretation
Resisting Relapse (RESRELAP)	Female	.904	158	< .001	Not normally distributed
	Male	.953	317	< .001	Not normally distributed
Making Time for Exercise (MTTOEX)	Female	.981	158	.030	Not normally distributed
	Male	.934	317	< .001	Not normally distributed
Total Exercise Self-Efficacy (TEXSEFF)	Female	.961	158	< .001	Not normally distributed

The Body Esteem Scale–Revised (BES-R) is a gender-specific tool with distinct subscales for males and females, making cross-gender comparisons inappropriate. Because the male and female versions measure different constructs, normality testing and direct comparisons across genders were not conducted.

Figure 1 presents the diagnostic plots assessing the assumptions of linearity, normality, and homoscedasticity for the regression models predicting Total Exercise Self-Efficacy (TEXSEFF) among female and male respondents, respectively. In both models, the residuals were approximately normally distributed, as shown by the histograms and Normal P–P plots, where most data points were closely aligned with the diagonal line. The scatterplots of standardized residuals against predicted values exhibited random dispersion, confirming that the relationship between the predictors—*Physical Conditioning*, *Sexual Attractiveness*, and *Weight Concern/Upper Body Strength*—and the dependent variable was linear and homoscedastic. Additionally, the Durbin–Watson statistics (1.927 for females and 1.830 for males) indicated no autocorrelation, verifying the independence of residuals. Collectively, these diagnostic results confirm that the data adequately met the statistical assumptions required for multiple linear regression, ensuring the validity and reliability of the subsequent inferential analyses.

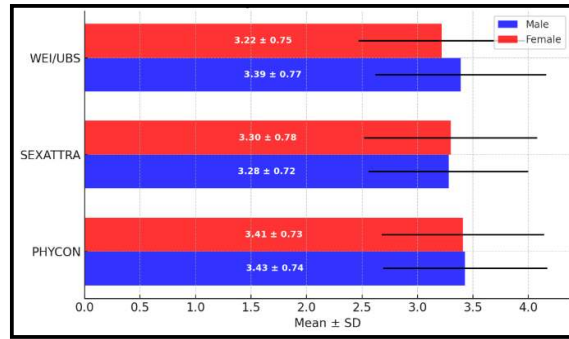
Figure 1. *Assumption of Linearity*



Results

Figure 2 presents the comparative distribution of scores for male and female respondents across the three dimensions of the Body Esteem Scale–Revised (BES-R). Overall, both groups reported comparable levels of body esteem, though distinct gender-related patterns emerged. Males tended to rate themselves higher in *Upper Body Strength*, reflecting the cultural association of physical strength with a masculine identity. In contrast, females showed slightly higher evaluations in *Physical Conditioning* and *Sexual Attractiveness*, aligning with sociocultural expectations that emphasize appearance and fitness among women. These patterns suggest that while general body satisfaction is similar across sexes, the underlying dimensions that shape body esteem differ in ways consistent with gendered ideals and socialization processes within the Filipino context.

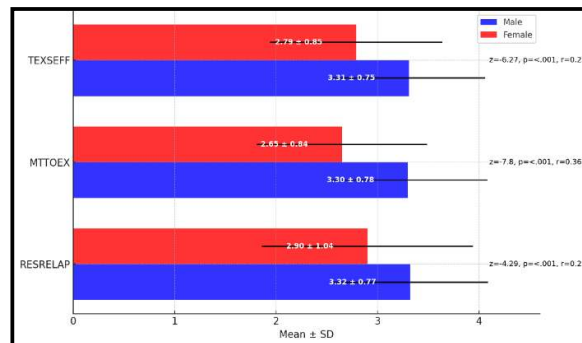
Figure 2 Descriptive Statistics of Body Esteem Dimensions by sex



Note. PHYCON = *Physical Conditioning*; SEXATTR = *Sexual Attractiveness*; WEI/UBS = *Weight Concern for females and Upper Body Strength for males*. BES-R = *Body Esteem Scale-Revised*; M = *Mean*; SD = *Standard Deviation*. Error bars represent ± 1 SD from the mean. Male scores are shown in blue and female scores in red.

Figure 3 presents a comparative analysis of the exercise self-efficacy of male and female respondents across the three domains of the Exercise Self-Efficacy Scale (ESES). The results reveal clear gender differences in confidence regarding the maintenance of regular exercise behaviors. Male students consistently exhibited higher self-efficacy across all dimensions, suggesting greater confidence in resisting relapse, allocating time for physical activity, and sustaining exercise routines. These patterns may reflect sociocultural norms that associate physical competence and perseverance with masculinity, providing males with more reinforcement and opportunities to develop confidence in physical domains. Conversely, the relatively lower self-efficacy among females may stem from appearance-related concerns, limited access to structured exercise experiences, or social expectations that place less emphasis on physical performance. Overall, these findings underscore the importance of gender-sensitive fitness interventions that empower female students to develop confidence and self-regulation in exercise participation.

Figure 3 Comparison of exercise self-efficacy between sexes



Note. RESRELAP = *Resisting Relapse*; MTTOEX = *Making Time to Exercise*; TEXSEFF = *Total Exercise Self-Efficacy*; ESES = *Exercise Self-Efficacy Scale*; M = *Mean*; SD = *Standard Deviation*; z = *Mann-Whitney U test statistic*; p = *significance level*; r = *effect size*. Male scores are represented in blue and female scores in red, with error bars indicating ± 1 SD from the mean.

Table 6 presents the multiple linear regression results examining the predictive effects of body esteem dimensions on exercise self-efficacy by gender. Across both groups, only functional components of body esteem emerged as significant predictors. Among females, weight-related perceptions significantly predicted exercise self-efficacy, indicating that confidence in body management is linked to greater exercise confidence. Among males, upper body strength was the sole significant predictor, highlighting the role of perceived muscular competence in shaping self-efficacy. In contrast, physical conditioning and attractiveness did not significantly predict exercise confidence in either group. These findings underscore the importance of functional body perceptions over appearance-based evaluations and reveal gender-specific pathways in the development of exercise self-efficacy. Interventions should therefore prioritize strength, competence, and self-mastery to enhance exercise adherence, rather than focusing on aesthetic outcomes.

Table 6 Hypothesis testing

		Stand. Coefficient beta	Adjusted R^2	F	t	p	Decision
Female							
H1	BES→TEXSEFF	-	.148	10.075	-	<.001	ACCEPTED
	PHYCON→TEXSEFF	.099	-	-	.799	.426	REJECTED
	SEXATTR→TEXSEF	-.146	-	-	-1.072	.285	REJECTED
	WEIUBS→TEXSEFF	.439	-	-	3.029	.003	ACCEPTED
Male							
H1	BES→TEXSEFF	-	.183	26.640	-	<.001	ACCEPTED
	PHYCON→TEXSEFF	.010	-	-	0.082	.935	REJECTED
	SEXATTR→TEXSEF	-.014	-	-	-1.161	.872	REJECTED
	WEIUBS→TEXSEFF	.439	-	-	4.239	<.001	ACCEPTED

Note. BES = Body Esteem Scale–Revised; TEXSEFF = Total Exercise Self-Efficacy; PHYCON = Physical Conditioning; SEXATTR = Sexual Attractiveness; WEIUBS = Upper Body Strength.

Table 7 presents the regression analysis of body esteem dimensions predicting exercise self-efficacy among male respondents. Results indicate that upper body strength was the only significant positive predictor, highlighting the importance of perceived muscular competence in shaping exercise confidence. In contrast, physical conditioning and attractiveness were not significant predictors. These findings suggest that male exercise self-efficacy is primarily driven by strength-related perceptions, reflecting sociocultural emphasis on physical capability. Interventions should therefore focus on enhancing functional strength and self-mastery to promote sustained engagement in physical activity.

Discussion

Overview of Findings

This study examined the predictive relationship between body esteem and exercise self-efficacy among Filipino college students, highlighting gender-specific psychological mechanisms. Results showed comparable overall body esteem between males and females, with males scoring higher in upper body strength and females slightly higher in physical conditioning and attractiveness. Males also demonstrated significantly higher exercise self-efficacy across all domains. Regression findings indicated that weight concern predicted exercise self-efficacy among females, while upper body strength was the sole significant predictor among males. These results support the multidimensional nature of body esteem and reveal distinct gender-based pathways in exercise confidence, shaped by sociocultural influences within the Filipino context.

Gender Differences in Body Esteem

The finding that males and females demonstrated comparable body esteem aligns with foundational BES and BES-R research, which suggests that overall body esteem tends to be similar across sexes despite domain-specific variations (Budzisz & Nawrocka, 2016). Consistent with prior results, males scored higher in upper body strength, reflecting the sociocultural emphasis on muscularity and fitness as sources of male body satisfaction, whereas females scored higher in physical conditioning and sexual attractiveness—dimensions often tied to social approval and perceived attractiveness (Budzisz & Nawrocka, 2016). These findings affirm that body esteem supports exercise motivation by enhancing perceptions of competence and appearance, consistent with Bandura’s self-efficacy theory and Self-Determination Theory (SDT), which emphasize competence and autonomy as intrinsic motivators for sustained physical activity. A meta-analysis further indicates that higher body satisfaction predicts greater physical activity participation across genders (Hamid et al., 2023; Lacs, 2025; Regencia et al., 2023). In the Filipino context, body esteem is influenced by gendered cultural ideals—*lakas* (strength) for males and *kagandahan* and *kaayusan* (beauty and orderliness) for females—reflecting the influence of family, peers, media, and collective norms. Studies using the Tripartite Influence Model in Filipino populations show that internalization of societal standards and appearance-based comparisons strongly affect body image and self-worth (Hamid et al., 2023; Lacs, 2025; Regencia et al., 2023). Filipino indigenous psychology offers a complementary framework through *loob* (inner self) and *kapwa* (shared identity), which emphasize holistic self-acceptance and relational harmony over appearance-based validation (Cervantes, 2025). Integrating these indigenous concepts into education—through reflective fitness curricula, media literacy, and culturally responsive health programs—can counteract Westernized beauty ideals and digital media pressures, fostering healthier and more inclusive forms of body esteem among Filipino youth (Abdoli et al., 2025; Cervantes, 2025; Lacs, 2025; Regencia et al., 2023).

Gender Differences in Exercise Self-Efficacy

Males’ significantly higher exercise self-efficacy across all ESES domains supports extensive research documenting consistent gender differences in exercise confidence (Bao, 2025; Biber, 2020; Gong & Sheng, 2022; Sheng et al., 2023, 2025; Zhou et al., 2025). This pattern suggests that males generally hold stronger beliefs in their ability to prioritize exercise, resist relapse, and sustain consistent activity levels—differences that persist even after accounting for demographic and behavioral factors (Bao, 2025; Biber, 2020; Gong & Sheng,

2022; Sheng et al., 2023, 2025; Zhou et al., 2025). Self-efficacy remains a central predictor of exercise adherence, with higher confidence fostering greater persistence and resilience. Males' stronger self-efficacy may stem from mastery experiences, early exposure to sports, and positive reinforcement of physical competence, while females' lower self-efficacy may reflect sociocultural constraints, limited access to structured physical activities, and internalized appearance-based concerns—consistent with Objectification Theory, which links body surveillance to reduced confidence in performance contexts. A meta-analysis further confirms that gender disparities in exercise self-efficacy are largely shaped by differential socialization and self-objectification processes (Rodriguez-Solana et al., 2023). In the Philippine context, cultural norms reinforce these gendered patterns: males are encouraged to pursue strength-oriented and competitive activities aligned with *lakas* (vigor and masculinity), whereas females are socialized toward forms of exercise emphasizing grace, aesthetics, and traditional femininity (Masagca, 2024). These expectations, reinforced by familial and peer influences, offer males more athletic opportunities while imposing psychological and structural barriers on females (Masagca, 2024; Sheng et al., 2025; Yu et al., 2024; Zhou et al., 2025). However, social support and communal engagement can mitigate these disparities. Research shows that peer relationships enhance exercise self-efficacy among women by promoting belonging and enjoyment (Bhimla et al., 2021; Sunarti et al., 2024; Zhou et al., 2025), while group-based interventions grounded in *bayanihan* (collective cooperation) effectively boost female exercise confidence through collaboration and mutual encouragement (Bhimla et al., 2021; Sanz-Remacha et al., 2021; Sunarti et al., 2024). Thus, culturally grounded and gender-sensitive programs that emphasize social connection, cooperation, and shared motivation can empower women to overcome sociocultural barriers and foster more equitable exercise confidence.

Predictors of Exercise Self-Efficacy among Females

Weight concern significantly predicted exercise self-efficacy among females, indicating that women who feel confident in managing their weight are more likely to maintain regular physical activity. This finding aligns with evidence that weight management confidence predicts exercise adherence and self-regulation (Annesi, 2018; Jones et al., 2025). Intervention studies confirm that enhancing self-efficacy improves long-term weight outcomes (Silva et al., 2010; Teixeira et al., 2015). In Filipino culture, weight concern reflects ideals linking slimness with *kagandahan* (beauty), discipline, and social success—motivations that may be externally driven and appearance-oriented (Campoamor-Olegario et al., 2025; Rusu et al., 2025). Such extrinsic motivation can reduce intrinsic self-efficacy, framing exercise as validation rather than (Campoamor-Olegario et al., 2025; Kurata et al., 2023). Interventions promoting *kagandahang-loob*—inner beauty and compassion—can reframe exercise as self-care and empowerment. Programs emphasizing realistic goals, body functionality, and diversity enhance satisfaction and mental health (Guest et al., 2019; Jiménez-García et al., 2025; Thøgersen-Ntoumani et al., 2022). Group-based activities inspired by *bayanihan* foster collective motivation while reducing appearance-based comparison (Bhimla et al., 2021; Kurata et al., 2023; Thøgersen-Ntoumani et al., 2022).

Predictors of Exercise Self-Efficacy among Males

Among males, upper body strength significantly predicted exercise self-efficacy, emphasizing the role of perceived physical competence in exercise confidence. This finding aligns with research identifying upper body strength as a determinant of exercise self-efficacy (Amato et al., 2025; Appelqvist-Schmidlechner et al., 2020; Baz-Valle et al., 2019; Delfa-de-la-Morena et al., 2025; Fairchild Saidi & Branscum, 2020; Kekäläinen et al., 2024; Sheng et al., 2025; Zhang et al., 2022). Resistance and circuit training interventions also enhance both physical and psychological self-efficacy (Appelqvist-Schmidlechner et al., 2020; Delfa-de-la-Morena et al., 2025; Zhang et al., 2022). In Filipino culture, physical strength symbolizes masculinity and resilience, making it central to male identity (Masagca, 2024; Pasno, 2025). However, such ideals can create pressure to meet performance-based masculine standards that may undermine well-being (González-Calvo et al., 2025; Martín-Rodríguez et al., 2024; Vassallo et al., 2025). Recent Filipino studies show that masculinity norms predict upper body strength but not holistic fitness, challenging traditional views of male superiority (Masagca, 2024; Pasno, 2025). Programs promoting *pagpapakatao* (human flourishing) can reframe exercise as self-growth rather than competition. Evidence indicates that intrinsic motivation—centered on mastery and enjoyment—sustains exercise and improves mental (Bhagwan Singh Baghel & Dr. Chintan B. Patel, 2025; Granero-Jiménez et al., 2022; Vassallo et al., 2025). Thus, gender-sensitive interventions that celebrate personal progress can reduce masculine performance pressure and foster well-being (Bhimla et al., 2021; González-Calvo et al., 2025; Vassallo et al., 2025).

Implications for Low Body Esteem and Inclusion

Low body esteem can reduce exercise self-efficacy and deter physical activity participation. In Filipino contexts where appearance carries social significance, individuals with low body esteem may experience heightened self-consciousness in public exercise settings. Promoting body neutrality and self-acceptance—focusing on health, functionality, and enjoyment—can help counter this. Inclusive, psychologically safe environments that celebrate body diversity and de-emphasize appearance as a measure of worth are crucial for holistic well-being.

Limitations and Future Directions

Although robust, this study's cross-sectional design limits causal interpretation. Future longitudinal or experimental studies should examine whether body esteem predicts exercise self-efficacy over time or whether

reciprocal effects exist. The use of self-report surveys introduces potential biases such as social desirability and recall error. Incorporating objective measures (e.g., activity trackers) and mixed-method designs can enhance validity. The sample—college students from a single university—also limits generalizability. Future research should include diverse socioeconomic and regional samples and control for potential covariates such as BMI, activity level, and psychological distress.

Conclusions

This study establishes body esteem as a significant psychological determinant of exercise self-efficacy among Filipino college students, while revealing important gender-specific pathways that refine existing theoretical models. Although males and females reported comparable overall levels of body esteem, domain-specific differences shaped how confidence in exercise was formed: males' self-efficacy was primarily influenced by perceptions of upper body strength, whereas females' confidence was more closely associated with weight-related concerns. These findings extend self-efficacy and body image frameworks by demonstrating that the relationship between self-perception and exercise behavior is multidimensional and context-sensitive, particularly within sociocultural environments where gender norms influence how bodies are evaluated and expressed. As such, the study contributes credible and contextually grounded evidence to the literature, emphasizing that exercise confidence is not solely a function of physical capability but also of how individuals cognitively and socially interpret their bodies.

From a practical standpoint, the findings offer actionable directions for advancing physical education and fitness programming. Interventions should adopt a differentiated approach: strength-oriented and competence-based training may enhance exercise self-efficacy among males, while body-positive and weight-neutral strategies may be more effective for females. For institutions and practitioners, this suggests a shift toward psychologically informed and inclusive program design that integrates body image education with physical training, thereby improving engagement and adherence to physical activity. In applied settings such as university fitness programs and wellness initiatives, these insights can inform more targeted and efficient practices that address underlying psychological barriers to participation. Future research should build on these findings through longitudinal and experimental designs, as well as more diverse samples, to strengthen causal inference and expand applicability. Overall, this study provides a foundation for evolving exercise promotion strategies by aligning them with the nuanced psychological and cultural factors that shape student behavior.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the author used ChatGPT, Consensus, and Zotero in order to assist with literature searching, summarizing scientific evidence, organizing references, and improving the clarity and coherence of the manuscript. After using these tools/services, the author reviewed and edited the content as needed and takes full responsibility for the content of the publication.

Conflicts of interest. No Conflict of Interest

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