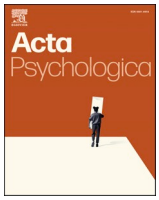
Acta Psychologica 259 (2025) 105355



Contents lists available at ScienceDirect

Acta Psychologica

journal homepage: www.elsevier.com/locate/actpsy





Body image in the workplace: Assessing the impact on self-esteem and employee engagement

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ARTICLE INFO

Keywords:
Positive body image
Negative body image
Social comparison theory
Self-esteem
Workplace attitudinal outcome
Vigor
Work engagement

ABSTRACT

This study investigates the relationship between body image and employee vigor in work engagement, with a focus on self-esteem as a mediating factor. Drawing on social comparison theory, we analyze survey data from 860 U.S. employees using structural equation modeling to assess the impact of positive and negative body image on employee vigor. The findings reveal that positive body image enhances employee vigor, while negative body image directly undermines it. Crucially, self-esteem mediates the negative body image-vigor link, underscoring its role in mitigating harmful effects. By introducing body image into management studies, this research bridges an important interdisciplinary gap, demonstrating its significance in workplace well-being and engagement. The study highlights the need for organizational interventions that foster positive body image and strengthen employee self-esteem to enhance employees' organizational outcomes. While our findings provide actionable insights, the research is limited to U.S. employees, and further exploration is warranted across diverse cultural contexts. Additionally, despite preventive measures, the cross-sectional design poses challenges in establishing causal relationships. Nonetheless, this study contributes to understanding how body image influences work engagement, urging organizations to address this often-overlooked factor in employee well-being strategies.

1. Introduction

In the dynamic landscape of today's corporate world, the perception of attractiveness holds significant meaning, creating a favorable impression during recruitment and potentially opening doors to new employment opportunities. This perception can empower employees, propelling them toward professional success (Chamorro-Premuzic, 2019). If others make these judgments, how does an individual's perception of their body image, partly shaped by a self-comparison process, affect their professional success? In this perspective, the office restroom wall mirror often reflects more than just physical appearance; it mirrors the connection between body image and professional success. Despite the undeniable influence of body image in the workplace, existing literature has not explored the complex link between body image and workplace attitudinal outcomes. Our research, therefore, presents a novel and engaging perspective on this topic.

The oversight in scholarly discussions about the intersection of body image and workplace attitudinal outcomes is evident, underscoring the need for a comprehensive exploration. For instance, body image is linked to adverse consequences like low self-esteem and depression (Hazzard et al., 2021; Kelly & Stephen, 2016; Linardon et al., 2021; Linardon et al., 2022). Numerous studies underscore the robust association between body image and self-esteem. Positive body image, often conceptualized through body appreciation, has consistently been shown to enhance self-esteem (Skorek et al., 2014; Swami et al., 2016; Tylka & Wood-Barcalow, 2015). Individuals who appreciate and respect their bodies tend to internalize fewer negative societal standards, leading to greater self-worth and more stable emotional states (Alleva et al., 2020; Stapleton et al., 2017). Conversely, negative body image, often marked by body surveillance and internalized objectification, has been found to diminish self-esteem, particularly when individuals engage in persistent social comparisons that foster self-devaluation (Fredrickson & Roberts, 1997; McKinley & Hyde, 1996).

Just as body image influences self-esteem, self-esteem in turn plays a critical role in shaping workplace engagement, especially in the form of employee vigor. Research in organizational psychology demonstrates that self-esteem serves as a vital psychological resource contributing to energy, motivation, and resilience at work (Bakker & Demerouti, 2008;

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https://doi.org/10.1016/j.actpsy.2025.105355
Received 27 February 2025; Received in revised form 9 July 2025; Accepted 28 July 2025
Available online 31 July 2025
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Callea et al., 2019; Kertechian & El Farr, 2024). Employees with higher self-esteem report greater psychological availability and commitment, which fuels vigor, a key subdimension of work engagement (Kertechian & El Farr, 2024; Kim & Beehr, 2023). Self-esteem not only buffers individuals against stress but also enhances their capacity to invest in their work roles with enthusiasm and perseverance. Other academic research supports the link between low self-esteem and adverse employee outcomes, emphasizing the need to develop programs to bolster individual self-esteem within organizational contexts (Orth & Robins, 2022; Pierce & Gardner, 2004).

This oversight is also evident in the approach to body image in existing research. For example, a recent study focused narrowly on body fatness and the associated stigma, finding that it was linked to reduced employee performance through the mediating effect of self-devaluation (Johnson et al., 2023). However, body fatness is just one aspect of body image, part of a more comprehensive perspective on an individual's overall body perception (Huo et al., 2023). Body image encompasses an individual's perception, thoughts, feelings, and attitudes toward their body, including appearance and physical attributes. It can be positive, negative, or neutral, shaped by personal experiences, cultural norms, media portrayals, and social interactions. Among the positive aspects is body appreciation, defined as accepting and respecting the body while rejecting media-promoted appearance ideals (Tylka & Wood-Barcalow, 2015).

By analyzing employee behaviors in response to body image satisfaction or dissatisfaction, with a specific focus on body appreciation levels and their impact on employee vigor, we explore the psychosocial triggers within organizational contexts. Our hypothesis posits that individuals with low body satisfaction are likely to experience diminished self-esteem, which can adversely affect employee vigor. Recognizing body image as a significant factor could provide a more comprehensive framework for understanding and fostering employee engagement. The relationship between body images and workplace attitudinal outcomes extends the principles of the social comparison process, integrating this well-established theory in body image studies into organizational dynamics (Greenberg et al., 2007).

To understand these patterns in the workplace, this study draws on Social Comparison Theory (SCT; Festinger, 1954), which posits that individuals evaluate themselves in relation to others, notably when objective standards are lacking. Appearance-related comparisons, especially upward comparisons, have been shown to influence self-perceptions and motivation negatively. In professional environments where visual cues and social evaluations are frequent, such comparisons may underlie how individuals internalize body-related standards. Although this study does not directly measure social comparison tendencies, constructs like body surveillance and body appreciation serve as indirect indicators of these evaluative processes. Thus, SCT provides a critical theoretical lens through which to interpret the psychological consequences of body image on self-esteem and subsequent work engagement.

By integrating SCT with organizational behavior theory, this study examines how the positive and negative dimensions of body image impact work engagement, specifically through the mediating role of self-esteem.

2. From body image to workplace attitudinal outcomes

2.1. Traditional perspective in body image studies

Body image exerts a profound impact on well-being, particularly influencing self-esteem. While often recognized in adolescence, this connection persists throughout the lifespan (O'Dea, 2012). SCT elucidates this relationship, highlighting how individuals comparing themselves to others, particularly in appearance, weight, and body shape, can shape body image perceptions and subsequently influence self-esteem (McComb et al., 2023). Unfavorable comparisons with societal beauty standards, often perpetuated by media and social media, contribute to negative body image and diminished self-esteem (Kross et al., 2013; Vogel et al., 2014).

Positive body image reveals a nuanced perspective. Studies utilizing the Body Appreciation Scale-2 (BAS-2) consistently demonstrate a positive correlation with self-esteem across diverse cultural contexts. Findings from China (Swami et al., 2016), Romania (Swami et al., 2017), the Netherlands (Alleva et al., 2016), Italy (Casale et al., 2021), Brazil (Junqueira et al., 2019), Korea (Lee, 2023), and Poland (Razmus & Razmus, 2017) collectively emphasize this robust relationship (Swami et al., 2023). Self-esteem, the cognitive mechanism underpinning individuals' evaluation of their abilities and characteristics, determines intrinsic self-worth (Rosenberg, 1965). Our research highlights that fluctuations in self-esteem are influenced by individuals' perceptions of their body image, whether positive or negative, and are likely to yield diverse outcomes. Therefore, we posit that:

Hypothesis 1. Employees' positive body image is positively related to self-esteem.

Hypothesis 2. Employees' negative body image is negatively related to self-esteem.

2.2. Direct effects of body images on workplace attitudinal outcomes

Our research aims to uncover a workplace attitudinal outcome that resonates across both organizational and body image domains. We identify vigor, a subdomain of work engagement, as a suitable candidate (Schaufeli et al., 2002, 2006). Both body image and vigor are rooted in subjective feelings, with vigor considered an affect that combines emotions and moods (Shirom, 2011). In management studies, vigor is associated with vitality, physical energy, and resilience (Shirom, 2011), concepts that have long been explored in body image studies (Cash & Pruzinsky, 2002). Shirom's investigations reveal that management-related factors impact employee vigor, with resources such as charisma, expertise, and power being discussed within the organizational context (Shirom, 2007). Physical and mental health are consequences of vigor, as presented in Shirom's study (2007), suggesting a potential link between body image and vigor. Supporting our stance, individuals with positive body images are less likely to engage in harmful behaviors, such as extreme dieting or excessive exercise, driven by a desire to avoid unfavorable social comparisons (Gillen, 2015; Mills et al., 2022; Tylka, 2011). Instead, they tend toward healthful practices, which contribute to improved physical health, increased energy levels, and overall well-being (Homan & Tylka, 2014; Sabiston et al., 2019). A positive body image empowers individuals to prioritize their health over societal comparisons and negative self-perceptions. In line with this, we found one specific study that analyzed the direct effect of negative body image on turnover intention, highlighting the first and substantial impact of body image on workplace attitudinal outcomes (Kertechian & El Farr, 2024). Based on the above, we expect that:

Hypothesis 3. Employees' positive body image is positively related to vigor.

Hypothesis 4. Employees' negative body image is negatively related to vigor.

Self-esteem is pivotal in our context, as it portrays employees as resilient to the impact of negative body image. This heightened self-esteem is a pathway to cultivating positive affect, notably manifested in increased vigor during work engagement. Callea et al.'s (2019) robust findings establish self-esteem as a crucial antecedent of vigor, echoing Schaufeli et al.'s (2006) initial perspective. A recent investigation by Kim & Beehr, 2023 examined the explanatory role of self-esteem in understanding the levels of both vigor and job satisfaction among U.S. employees. This study contributes to the evolving conversation surrounding the integral connection between self-esteem, vigor, and

overall job satisfaction within the field of organizational behavior. Elevated self-esteem, indicative of a positive body image through favorable social comparisons, fosters a heightened sense of self-worth and positivity (Markham et al., 2005; O'Dea, 2012; Stapleton et al., 2017). This positive self-perception enhances self-confidence, self-worth, and overall well-being, directly influencing and improving vigor, particularly among employees (Bakker & Demerouti, 2008; Callea et al., 2019; Lo Presti et al., 2020). High self-esteem has a positive impact on other workplace attitudinal outcomes, such as job satisfaction (Judge & Bono, 2001). Pierce and Gardner's (2004) review of 216 empirical studies reveals that self-esteem is positively related to intrinsic motivation, organizational commitment, and performance. Conversely, individuals with negative self-esteem from an unfavorable body image may experience lower self-confidence and reduced self-worth (Harter, 2000; Henriques & Calhoun, 1999; Markham et al., 2005). This diminished self-esteem can lead to lower levels of vigor and work engagement due to psychological factors such as emotional exhaustion (Maslach et al., 2001) and predict negative emotional states like depression and anxiety (Sowislo & Orth, 2013). While recent studies yield mixed results (Filosa et al., 2023), we posit that:

Hypothesis 5. There is a positive relationship between employee self-esteem and employee vigor.

2.3. Indirect effects of body images on workplace attitudinal outcomes

In body image research, self-esteem consistently emerges as a significant mediator, illuminating the link between body image perceptions and various psychological and behavioral outcomes (Brechan & Kvalem, 2015; Duchesne et al., 2017; O'Dea, 2012; Pehlivan et al., 2022; Skorek et al., 2014; Sundgot-Borgen et al., 2020). This mediation extends to management studies, where self-esteem plays a pivotal role in explaining how organizational emotional states and broader psychological conditions influence workplace attitudinal outcomes (Bani-Melhem et al., 2023; Callea et al., 2019; Ferris et al., 2009; Ghosh et al., 2012; Kusluvan et al., 2022; Srivastava et al., 2020). Self-esteem plays a crucial role in understanding the causal pathways through which a positive body image fosters enhanced psychological well-being and adaptive behaviors. Its inclusion as a mediating variable enhances the explanatory power of models and offers a more granular understanding of relational dynamics. This study aims to enrich the discourse by detailing the link between body image and workplace outcomes, with self-esteem as a shared mediating factor. A positive body image promotes self-acceptance and contentment, leading to higher self-esteem, which is associated with improved psychological well-being, healthier lifestyle choices, and greater life satisfaction. Therefore, we expect the following:

Hypothesis 6. Self-esteem mediates the relationship between positive body image and vigor. As such, a higher level of self-esteem should increase the influence of positive body image on vigor.

Hypothesis 7. Self-esteem mediates the relationship between negative body image and vigor; thus, a higher level of self-esteem should buffer the negative influence of negative body image on vigor.

3. Methodology

Despite the study's initial limitations, the cross-sectional design serves as a foundational stepping stone for exploring the workplace impact of body image. This inaugural investigation is crucial for uncovering potential connections, which will prompt further exploration and organizational discussions. Our choice of Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4 is based on its growing popularity and dual functionality for model explanation and prediction (Hair et al., 2019). This aligns with the need for academic research to expand theoretical frameworks and professionals' pursuit of actionable insights. PLS-SEM proves robust for our study, allowing hypothesis testing, handling complex models efficiently, and contributing to both theory development and practical application (Hair et al., 2019). This methodological choice reflects our commitment to a comprehensive exploration of the relationship between body image and workplace attitudinal outcomes.

3.1. Participants

The survey was conducted via SurveyMonkey in November 2023, utilizing built-in validation filters to ensure data quality and reduce inconsistent responses. The final sample consisted of 860 U.S. employees, comprising 446 men, 413 women, and one individual who identified as "other." Among the participants, 55 % held supervisory roles, while 45 % did not, offering a balanced view of both managerial and non-managerial experiences. The average age of respondents was approximately 39.9 years.

Also, participants represented a diverse range of industries. The largest group worked in technology (25 %), followed by manufacturing (20 %) and healthcare (20 %). Other sectors included finance (10 %), education (10 %), and smaller proportions in pharmaceuticals (5 %), retail (5 %), and entertainment (5 %). This industry spread enhances the generalizability of the study across varied professional contexts. Detailed demographics are available in the appendix.

3.2. Instruments

3.2.1. 3-item BAS-2SF (Tylka et al., 2022)

We employed the BAS-2 in its short form (BAS-2SF) as a key instrument to gauge positive body image. This concise 3-item scale measures individuals' attitudes toward their bodies, capturing aspects of acceptance and respect. Participants responded on a spectrum from strong disagreement to strong agreement with statements like "I respect my body" or "I feel love for my body." The BAS-2SF's psychometric properties, as validated by Tylka et al. (2022), ensure reliability in assessing body appreciation, with our study yielding a Cronbach's alpha value of 0.91.

3.2.2. 8-item Objectified Body Consciousness Scales (McKinley & Hyde, 1996)

Our study incorporated the 8-item Surveillance subscale of the Objectified Body Consciousness Scale (OBCS), a tool developed by McKinley and Hyde in 1996, which focuses on the negative aspects of body image. This subscale assesses objectified body consciousness, reflecting the internalization of external evaluations of the body. Items like "I often think about how I look" measure the internalization of societal beauty standards. Initially, the OBCS showed acceptable reliability ($\alpha = 0.71$), but after removing items #5 and #6 with loadings below 0.50, its internal consistency substantially improved ($\alpha = 0.90$). This refinement enhanced both reliability and validity, indicating an increase in precision and robustness of the OBCS in our study. The adjusted OBCS also demonstrated an improved average variance extracted (AVE), from 0.55 to 0.60, further supporting its validity in capturing the intended constructs.

3.2.3. Multidimensional Self-Esteem questionnaire – EMES 16 (Barbot et al., 2019)

We employed the 3-item self-esteem-related emotions subscale from the Multidimensional Self-Esteem questionnaire (EMES-16). This comprehensive tool gauges various facets of self-esteem, with the emotional subscale delving into how self-esteem interplays with emotional states. An example item is "In general, I trust myself." Assessing feelings of self-worth and emotional stability, this subscale provides nuanced insights into the emotional dimensions of self-esteem within body image studies. To ensure reliability, we excluded the reverse-coded item #2, "I am often worried," resulting in a notable improvement in Cronbach's alpha from 0.69 to 0.80.

3.2.4. 3-item Vigor subscale of the Utrecht Work Engagement Scale (Schaufeli et al., 2006)

In our study, we also employed the 3-item Vigor subscale of the Utrecht Work Engagement Scale in its short form and obtained it from the original 17-item UWES (Schaufeli et al., 2002). This subscale is specifically designed to measure the vigor aspect of work engagement. Example items from this subscale include statements like "At my work, I feel bursting with energy" and "When I get up in the morning, I feel like going to work." These items are intended to capture the levels of energy, resilience, and mental resilience an individual experiences in their work environment. The Vigor subscale of the UWES is particularly valuable in assessing the dynamic aspect of work engagement, reflecting the enthusiasm and energy employees bring to their work tasks.

Harman's single-factor test revealed a total variance of 47.77 %, below the 50 % threshold, suggesting no significant common method bias. Multicollinearity checks indicated no issues, supporting the stability of the data.

4. Results

4.1. Data analysis

We began the analysis with descriptive statistics, correlation matrices, and mean comparisons to explore relationships between variables and identify preliminary patterns. These initial steps provided a foundation for understanding the data structure and informed our modeling strategy. We then applied Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4, given its suitability for models involving latent constructs and mediation. This approach allowed us to examine both direct and indirect effects in the proposed model. To ensure validity, we conducted Harman's single-factor test (47.77 % variance, below the 50 % threshold), assessed multicollinearity (VIF < 3), and evaluated measurement reliability and validity using composite reliability, AVE, and the Fornell-Larcker criterion. Bootstrapping with 5000 resamples was used to test the significance of path coefficients.

4.2. Correlations and means comparisons

Table 1 suggests a pattern where positive psychological constructs like body appreciation, self-esteem, and vigor are interrelated (ranging from $r = 0.64$ to $r = 0.70$) and negatively associated with objectified body consciousness (ranging from $r = -0.55$ to $r = -0.65$). The significant correlations indicate robust relationships between these variables.

Note 1. In the diagonal, the means for each variable are presented, with the corresponding standard deviations shown in parentheses.

Note 2. BAS-2 = Body Appreciation Scale-2, OBC = Objectified Body Consciousness; SE = Self-Esteem; V = Vigor.

We subsequently performed an Analysis of Variance (ANOVA) to examine the effects of gender and Body Mass Index (BMI) on the studied variables. This statistical approach enabled us to determine whether significant differences in the dependent variables were associated with gender and BMI categories.

The results revealed a statistically significant higher score on the OBC-S for women compared to men, suggesting a more pronounced tendency among women to monitor their appearance ($F = 103.885$; $p < .001$). The effect size, as an η^2 of 0.11, indicates a substantial variance in appearance monitoring behaviors between genders. Inversely, for the BAS-2, the results indicated a statistically significant higher score for men compared to women, showing a greater tendency among men to perceive the positiveness of their body ($F = 13.456$; $p < .001$). Additionally, the effect size, as indicated by an η^2 of 0.01, indicates a slight variance in positive body image perception.

Additionally, the results demonstrated that individuals with a BMI exceeding the recommended range, thus falling outside the 18–24.9 range, reported significantly higher scores on the OBC-S ($F = 35.316$; $p < .001$). As indicated by an η^2 of 0.04, the effect size suggests a modest but notable variance in OBC-S scores among those outside the recommended BMI indices. This suggests that individuals with a BMI outside the recommended range tend to have a higher level of OBC-S. This could imply a greater preoccupation or negative perception of their bodies, which is more pronounced in this group than in those within the recommended BMI range. The findings present an expected contrasting scenario concerning the mean differences observed on the BAS-2. Individuals whose BMI falls within the recommended thresholds demonstrated superior scores on the BAS-2 ($F = 72.388$; $p < .001$). Furthermore, the effect size, denoted by an η^2 of 0.09, indicates a moderate degree of variance in BAS-2 scores based on BMI categorization within the recommended range. This means that individuals within the recommended BMI range tend to have a higher appreciation of their bodies, suggesting a more positive body image and possibly a healthier relationship with their physical selves.

These initial preliminary analyses provide foundational evidence of the potential benefits for organizations in encouraging and supporting a positive body image among employees.

4.3. Goodness-of-fit

In PLS-SEM, assessing goodness-of-fit is vital for model validation, construct reliability, theory enhancement, and practical implications. Our results indicate strong factor reliability, with composite reliability ranging from 0.81 to 0.95 and Cronbach's Alpha scores from 0.79 to 0.91, meeting Nunnally and Bernstein's (1994) standards. Convergent validity is confirmed by Average Variance Extracted (AVE) scores exceeding the recommended threshold of 0.5, ranging from 0.68 to 0.85. As detailed in Table 2, these findings confirm the internal consistency and convergent validity of the constructs, aligning with established criteria (Bagozzi & Yi, 1988).

Discriminant validity was confirmed by comparing the square roots of Average Variance Extracted (AVE) values with inter-construct correlations, meeting Fornell and Larcker's (1981) criterion. The Heterotrait-Monotrait (HTMT) ratio of correlations, ranging from 0.66 to 0.86, adhered to Henseler et al.'s (2015) threshold of 0.85. These results provide strong evidence supporting the distinctiveness and differentiation of the examined constructs, confirming their discriminant validity (Tables 3 and 4).

Variance Inflation Factor (VIF) analysis revealed no significant concerns regarding multicollinearity. Outer model VIF values ranged from 1.77 to 4.134, while inner model VIF values varied from 1.76 to 2.49. All values remained comfortably below the accepted threshold of 4 and the critical threshold of 5 in a formative model, ensuring that

Table 1
Descriptive statistics and correlations.

	BAS-2	OBC	SE	V
Body Appreciation Scale-2	5.39 (1.44)			
Objectified body consciousness	−0.65**	3.24 (1.50)		
Self-esteem	0.70**	−0.56**	5.64 (1.27)	
Vigor	0.64**	−0.63**	0.65**	4.86 (1.65)

Table 2
Construct reliability and validity.

	Cronbach's alpha	rho_A	rho_c	AVE
Body Appreciation Scale-2	0.907	0.910	0.942	0.844
Objectified body consciousness	0.904	0.906	0.926	0.677
Self-esteem	0.794	0.805	0.906	0.829
Vigor	0.909	0.913	0.943	0.846

Table 3
Discriminant validity (Fornell-Larcker Criterion).

	BAS-2	OBC	SE	V
Body Appreciation Scale-2 (BAS-2)	0.919			
Objectified body consciousness (OBC)	−0.657	0.823		
Self-esteem (SE)	0.705	−0.565	0.910	
Vigor (V)	0.643	−0.627	0.657	0.920

Note 1. BAS-2 = Body Appreciation Scale-2, OBC = Objectified Body Consciousness; SE = Self-Esteem; V = Vigor.

Table 4
Discriminant validity (Heterotrait-Monotrait Ratio – HTMT).

	BAS-2	OBC	SE	V
Body Appreciation Scale-2 (BAS-2)				
Objectified body consciousness (OBC-S)	0.723			
Self-esteem (SE)	0.829	0.664		
Vigor (V)	0.705	0.689	0.768	

Note 1. BAS-2 = Body Appreciation Scale-2, OBC = Objectified Body Consciousness; SE = Self-Esteem; V = Vigor.

multicollinearity was not an issue in this study (Hair et al., 2019).

4.4. Direct effects

The Body Appreciation Scale-2 (BAS-2) exhibits a robust negative correlation with the Objectified Body Consciousness Scale (OBC-S) (B = −0.66, $t = 29.23$, $p < .001$), confirming the reliability of responses and emphasizing the distinct psychological orientations of positive body appreciation and objectified body consciousness (i.e., negative orientation). Hypothesis 1 is substantiated, indicating that positive body image significantly enhances employees' self-esteem (B = 0.59, $t = 14.96$, p < .001). Hypothesis 3 confirms a positive correlation between positive body image and work vigor (B = 0.20, $t = 5.10$, p < .001). Negative body image (OBC-S) supports Hypotheses 2 and 4, indicating a negative relationship with self-esteem (B = −0.18, $t = 5.09$, p < .001) and a negative influence on vigor (B = −0.30, $t = -0.80$, p < .001), respectively. Hypothesis 5 reveals a positive relationship between self-esteem and organizational vigor (B = 0.35, $t = 9.59$, p < .001). We controlled for age and gender, and no significant impact of these demographic factors on vigor has been established, emphasizing the stability of the observed relationships in the model concerning age and gender. Overall, these results highlight the connections between body image, self-esteem, and vigor, underscoring the multifaceted nature of these constructs in the workplace context (Fig. 1).

4.5. Indirect effects

Our research examines the pivotal role of self-esteem, a crucial link between body image and mid-level management. Focusing on the impact of self-esteem on the relationships between positive body image and workplace vigor, as well as negative body image and workplace vigor, our study reveals partial mediation. The positive path from positive body image (BAS-2) to vigor remains significant but is slightly reduced (B = 0.203; $t = 8.650$, p < .001; 95 % CI = [0.17; 0.24]), signifying partial mediation. Similarly, the negative path from negative body image (OBC-S) to vigor is still significant but diminishes, indicating partial mediation (B = −0.062; $t = 4.24$, p < .001; 95 % CI = [−0.09; −0.04]). This provides nuanced insights into the interplay of body image perceptions and workplace vigor, confirming partial support for hypotheses 6 and 7.

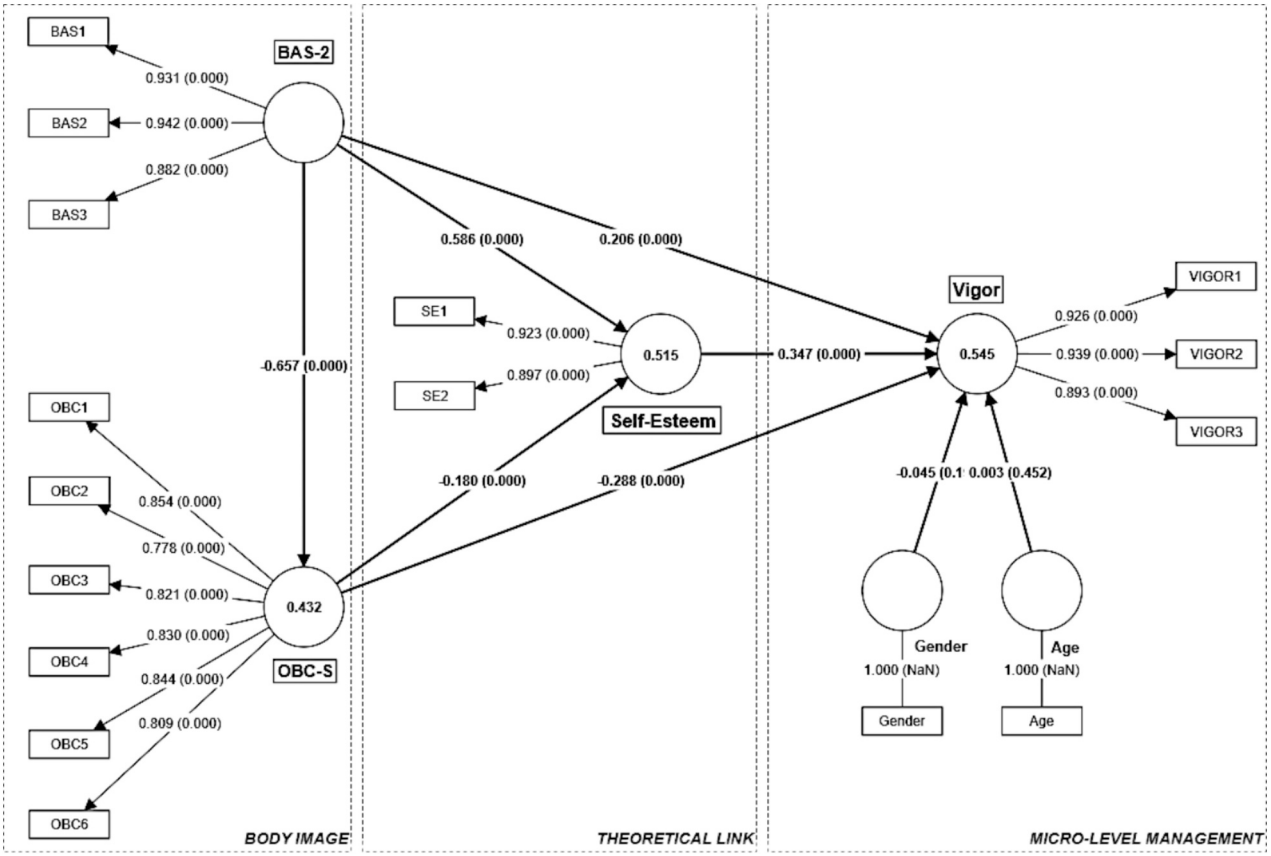


Fig. 1. Bootstrapping path coefficient and (*p*-values), outer weights and (p-values), Adjusted R-square, and control variables.

5. Discussion

Our study reveals a robust link between positive body image (as measured by the BAS-2) and heightened work engagement vigor. Employees with positive self-perceptions exhibit increased energetic involvement in the workplace. This correlation aligns with existing literature emphasizing the connection between positive body image and self-esteem. We affirm this link, extending to show a positive correlation between self-esteem and vigor. Conversely, negative body perceptions, as measured by the OBC-S, were negatively correlated with self-esteem and employee vigor. Notably, self-esteem emerges as a mitigating factor, reducing the adverse impact of negative body image on work vigor.

Hypotheses 1 and 2 posited that a positive body image would have a positive influence on self-esteem, while a negative body image would have an adverse effect on self-esteem. Our findings strongly support these hypotheses. Positive body image, as measured by the BAS-2, demonstrated a significant positive relationship with self-esteem, whereas negative body image, as measured by the OBC-S, exhibited a significant negative relationship. These results align with previous research emphasizing the central role of body image in shaping self-esteem (Skorek et al., 2014; Tylka & Wood-Barcalow, 2015). Individuals with positive body image tend to exhibit higher self-esteem due to favorable self-perceptions. In contrast, those with negative body image perceptions often experience reduced self-esteem, likely tied to self-devaluation and internalized societal standards.

Hypotheses 3 and 4 explored the direct effects of body image on vigor, a subdomain of work engagement. The findings confirm that positive body image is positively associated with vigor, supporting Hypothesis 3, while negative body image negatively impacts vigor, supporting Hypothesis 4. These results underscore the significance of body image as a psychological factor influencing workplace energy and engagement. Employees with positive body image may experience increased energy and resilience, possibly due to their healthier lifestyle choices and positive self-perceptions. Conversely, employees with negative body image may experience reduced vigor due to psychological stress and emotional exhaustion.

The relevance of Kertechian and El Farr (2024) extends this discussion. Their research demonstrated that negative body image impacts turnover intention through **perceived discrimination**, highlighting how workplace experiences can amplify the adverse effects of body image. While our study focuses on vigor and identifies self-esteem as a key pathway, these complementary findings suggest that body image influences multiple attitudinal and behavioral outcomes in the workplace, both directly and indirectly. Together, these studies highlight the systemic consequences of negative body image, from diminished engagement to increased turnover intention.

Hypothesis 5 proposed a positive relationship between self-esteem and vigor, which was strongly supported by the data. Self-esteem emerged as a significant predictor of vigor, reflecting its role as a psychological resource that enhances employees' energy and engagement at work. These findings align with research by Callea et al. (2019) and Kim and Beehr (2023), which identified self-esteem as a driver of work engagement and resilience. Employees with high self-esteem are more likely to feel confident and motivated, which enables them to maintain higher energy levels and a greater commitment to their work tasks.

Hypotheses 6 and 7 addressed the mediating role of self-esteem in the relationship between body image and vigor. The results confirm partial mediation for both positive and negative body image. For positive body image, self-esteem significantly mediated its relationship with vigor, though the direct effect of positive body image on vigor remained significant. This suggests that other factors, such as social support or workplace inclusivity, may also contribute to the relationship between positive body image and engagement. Similarly, self-esteem partially mediated the relationship between negative body image and vigor, with negative body image continuing to exert a direct adverse effect. These findings echo Kertechian and El Farr (2024), emphasizing that body image can affect workplace outcomes through multiple pathways.

The mediating pattern of results highlights the explanatory role of self-esteem within the model, suggesting that it transmits the psychological effects of body image on work-related engagement. Rather than operating independently or in parallel with body image constructs, self-esteem appears to play a sequential role in shaping how individuals' evaluations of their physical appearance translate into motivational workplace outcomes. These findings are consistent with prior research, which identifies self-esteem as a key psychological resource that mediates the relationship between personal traits and job attitudes (Callea et al., 2019; Kim & Beehr, 2023). The mediating function of self-esteem also aligns with the logic of Social Comparison Theory, as individuals internalizing appearance-related evaluations are likely to experience shifts in self-worth that affect their workplace behaviors.

5.1. Theoretical significance

We apply SCT to uncover self-evaluation dynamics, grounded in Festinger's seminal work. A positive body-self cultivates an aversion to comparisons, fostering elevated self-esteem and correlating positively with workplace vigor. Conversely, body comparisons lead to diminished self-esteem, negatively impacting workplace engagement. Adapted to body image, SCT highlights the pivotal role of self-esteem in influencing employees' workplace vigor, particularly in the face of negative body perceptions. We argue that habitual body comparisons diminish work engagement, transcending traditional SCT applications in professional contexts. Our interpretation highlights the enduring impact of SCT on workplace dynamics, shedding light on the connection between body image, self-esteem, and work vigor.

Specifically, our findings support our proposed model, which suggests that positive body image and reduced body surveillance lead to improved self-esteem, in turn enhancing work engagement and vigor. From the perspective of social comparison theory (SCT), this pathway reflects how individuals evaluate themselves in relation to perceived workplace norms, particularly physical appearance standards, and how those evaluations shape their self-concept and motivation. SCT posits that frequent upward comparisons on appearance may result in self-devaluation and internalized objectification (Festinger, 1954; Fardouly & Vartanian, 2016), which aligns with our finding that negative body image components, such as body surveillance, undermine self-esteem. Our use of both the Body Appreciation Scale (Tylka & Wood-Barcalow, 2015) and Objectified Body Consciousness Scale (McKinley & Hyde, 1996) captured this dynamic, showing that internalized appearance monitoring has real consequences for workplace engagement.

This self-evaluative loop is critical in modern organizational settings, where visual culture and professional appearance standards often intensify comparison processes. Skorek et al. (2014) found that appearance-based social comparisons significantly predicted lower self-esteem, especially in achievement-oriented domains, a pattern mirrored in our findings. Moreover, the link between self-esteem and work vigor aligns with the JD-R model (Bakker & Demerouti, 2008), which identifies self-esteem as a personal resource that not only buffers against demands but actively fuels motivation. Callea et al. (2019) and Kim and Beehr (2023) also support this mechanism, identifying self-esteem as a core predictor of energy and persistence at work. Recent work by Kertechian and El Farr (2024) similarly emphasizes the impact of negative body image in the workplace, showing that body dissatisfaction can heighten perceived discrimination and predict turnover intention. While their outcome differs from ours, the mediating role of psychosocial stress supports our findings, reinforcing the view that body image concerns can affect key occupational outcomes through self-evaluative and affective mechanisms.

By extending SCT into the combined domains of body image and workplace engagement, we contribute to the theoretical understanding of how employees' internalized comparisons influence their energy,

resilience, and workplace behavior. This study enriches the organizational behavior literature by integrating insights from body image research, demonstrating the adaptability of SCT to interdisciplinary inquiries. Practically speaking, this highlights not only the individual psychological cost of negative body image in professional contexts but also the opportunity to enhance engagement by addressing the body-related social comparisons employees face daily.

5.2. Organizational implications

Negative body images can have a significant impact on overall health and quality of life (Bucchianeri & Neumark-Sztainer, 2014). We assert that the workplace is not immune to these effects, emphasizing the need for proactive measures to cultivate positive body images among employees. While developing specific individual-level interventions, like media literacy training (McLean et al., 2016), may pose challenges, our focus is on crafting more general interventions, such as training sessions or workshops on positive body images. These initiatives should be infused with corporate social responsibility (CSR) initiatives, aligning with the idea that businesses must actively contribute to the overall well-being of their stakeholders. Organizations that embrace CSR-related policies, including those addressing body image, stand to gain positive outcomes, shaping companies as virtuous entities in the eyes of their employees (Carroll, 2016). Drawing insights from studies on the efficacy of body image interventions (e.g., Tylka & Wood-Barcalow, 2015), we contemplate implementing body appreciation workshops to enhance employee well-being.

5.3. Body Appreciation Workshops

Organizations seeking to enhance the well-being of employees struggling with negative body image can employ a transformative solution: Body Appreciation Workshops (BAW). Aligned with positive psychology principles and drawing inspiration from Wood-Barcalow et al.'s (2021) comprehensive framework, BAW fosters self-acceptance and mental well-being. These workshop propositions are particularly aligned with Seligman's PERMA model (Seligman, 2018), which identifies five pillars of well-being: Positive emotion, Engagement, Relationships, Meaning, and Accomplishment. Engagement, in particular, refers to the deep psychological connection and absorption individuals experience when involved in meaningful tasks, a critical component of employee vigor. Therefore, BAW can positively influence work involvement and interpersonal relationships (Meyer & Allen, 1991), while also contributing to a supportive organizational climate, increased job satisfaction, and improved overall performance.

By helping individuals develop a more accepting and appreciative view of their bodies, BAW can enhance emotional resources, promote social connection, and support the pursuit of meaningful goals, thus activating several PERMA dimensions. Implementing BAW yields organizational benefits, fostering a positive culture, enhancing job satisfaction, and boosting overall performance. Research by Diener and Biswas-Diener (2008) supports the idea that interventions promoting positive self-perception contribute to employee satisfaction and engagement. Organizations can create cohesive teams, reduce turnover, and bolster overall effectiveness by prioritizing well-being. Collaborating with mental health professionals, promoting BAW through internal channels, and integrating workshops into regular programs ensures continuous support for cultivating positive self-perception. Broadening the scope, wellness workshops that emphasize mental health and body positivity, alongside educational initiatives that challenge societal norms, provide a holistic approach to employee well-being. Evaluating participants' body appreciation levels before and after BAW engagement ensures the efficacy of these interventions, contributing to a healthier and more vibrant workplace environment.

5.4. Limitations and future research

Despite insightful findings, this study has limitations. The cross-sectional design hinders the establishment of a causal relationship and generalizability due to a predominantly male sample and self-report biases. Modifications to the Objectified Body Consciousness Scale may impact comparability, and the use of SurveyMonkey and compensation strategies might influence responses. While Partial Least Squares Structural Equation Modeling is robust, alternative methods could offer different perspectives. Additionally, the reliance on the Body Appreciation Scale-2 (BAS-2) and Objectified Body Consciousness Scale (OBC) may not fully capture the multifaceted nature of body image. Future research should investigate broader dimensions of body image and organizational outcomes.

From a theoretical perspective, this study adopted SCT as the foundational framework to explore how self-evaluation and body comparisons shape workplace vigor and self-esteem. However, other theoretical frameworks, such as Self-Determination Theory (SDT), could have been used to examine the motivational processes underlying body image perceptions. For instance, SDT's focus on fulfilling basic psychological needs, such as autonomy, competence, and relatedness, could provide a complementary lens for understanding how body image influences intrinsic motivation and engagement at work. Similarly, the Conservation of Resources (CoR) theory, which focuses on resource gain and loss, could provide insights into how body image may act as a psychological resource or stressor, affecting employees' resilience and performance. These alternative perspectives may open new avenues for future research and offer a broader understanding of body image in organizational contexts.

More practically, a dedicated study could validate the efficacy of a proposed Body Appreciation Workshop (BAW) at the organizational level. Acknowledging these limitations informs a nuanced interpretation and suggests avenues for refining future research.

6. Conclusion

Our study examined the relationship between body image and workplace attitudinal outcomes, unveiling crucial insights into self-perception dynamics at work. The robust link between positive body image (BAS-2) and heightened work engagement highlights the pivotal role of self-perception in professional endeavors. Conversely, negative body perceptions (OBC-S) correlate with lower self-esteem and work vigor, emphasizing the detrimental impact on professional engagement. Rooted in the Social Comparison Theory, our findings elucidate how positive body-self fosters self-esteem and work engagement. Conversely, appearance comparisons diminish self-esteem, affecting work vigor. Organizational intervention through Body Appreciation Workshops, aligned with positive psychology, proves strategic for fostering positive self-perception and overall well-being. The integration of positive psychology principles, exemplified by Body Appreciation Workshops, offers a holistic approach to employee well-being and organizational success, aligning with established theories on well-being, commitment, and workplace effectiveness. As organizations aim for a positive workplace culture, such interventions emerge as a strategic imperative for sustained success.

CRediT authorship contribution statement

Kevin S. Kertechian: Writing – original draft, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Hadi El-Farr:** Writing – review & editing, Supervision, Software, Resources, Funding acquisition, Conceptualization.

Compliance with ethical standards

The auto-declaration from the relevant institutional review board

indicated that no further action was required.

Funding

No funding was received for conducting this study.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Kevin S. Kertechian reports financial support was provided by Rutgers The State University of New Jersey. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgment

This research was made possible in part with support from an International Collaborative Research Grant from Rutgers Global at Rutgers, The State University of New Jersey.

Appendix A

Indicator	Size	Percentage
Age		
18 to 23	31	3.60
24 to 29	83	9.65
30 to 35	129	15
36 to 41	128	14.88
42 to 47	248	28.84
48 to 53	128	14.88
54 to 59	56	6.51
60 to 65	29	3.37
66 and above	28	3.27
Managing employees		
Yes	660	76.74
No	200	23.26
Sector		
Technology	140	16.28
Healthcare	134	15.58
Finance	56	6.51
Energy	17	1.98
Entertainment	17	1.98
Manufacturing	188	21.86
Transportation	33	3.84
Hospitality and Tourism	24	2.79
Environmental Services	6	0.70
Legal Services	12	1.40
Pharmaceuticals	5	0.58
Education	70	8.14
Media	2	0.23
Retail	46	5.35
Agriculture	11	1.28
Other	99	11.51
Years of experience		
1 to 5	186	21.63
6 to 10	253	29.42
11 to 15	101	11.74
16 to 20	89	10.35
21 to 25	83	9.65
26 to 30	62	7.21
31 to 35	28	3.26
36 to 40	26	3.02
41 to 45	16	1.86
46 to 50	8	0.93
>51	8	0.93

Data availability

The data supporting this study's findings are available from the corresponding author upon reasonable request.

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