

Research Article

Development and Preliminary Psychometric Evaluation of the Height Dissatisfaction Scale

Stefanie Condello¹, Ardavan Khamisi¹, Annika M. Hansson¹, Daniel Talbot^{1,2}

1. Graduate School of Health, University of Technology Sydney, Australia; 2. School of Behavioural and Health Sciences, Australian Catholic University, Australia

Objective: Height dissatisfaction is an emerging aspect of body image associated with a range of psychological and body image concerns. Existing measures are limited by a focus on dissatisfaction with short stature and may not adequately capture dissatisfaction among individuals who wish to be either taller or shorter. This study developed and evaluated the Height Dissatisfaction Scale (HDS), a novel measure of height dissatisfaction.

Method: A total of 473 adults participated, of whom 433 (73.2% women) provided HDS data. Participants completed measures of height dissatisfaction, self-esteem, and eating disorder symptoms, along with reporting their actual and ideal height. Exploratory factor analysis, internal consistency analyses, and correlational analyses were conducted to evaluate the psychometric properties of the HDS.

Results: Exploratory factor analysis supported a dominant general factor underlying the final 12-item scale, accounting for 51.9% of the variance. The HDS demonstrated excellent internal consistency ($\alpha = .92$, $\omega = .93$). Construct validity was supported through associations with actual height, height discrepancy, and the Negative Physical Self Scale-Shortness Subscale. Concurrent validity was supported through associations with eating disorder symptoms and self-esteem. Comparative concurrent validity analyses indicated that the HDS was more strongly associated with eating disorder symptoms and self-esteem than an existing measure of height-related dissatisfaction.

Conclusions: The HDS demonstrated promising reliability and validity as a measure of height dissatisfaction. By assessing dissatisfaction with being either taller or shorter than desired, the HDS addresses limitations of existing measures and may provide a useful tool for future research examining the psychological correlates and consequences of height dissatisfaction.

1. Introduction

Body dissatisfaction refers to negative evaluations of one's physical appearance and is a core component of body image concerns. It is characterized by negative preoccupation with specific body features, such as weight, shape, or muscularity, or with overall appearance^[1]. Research consistently shows that body dissatisfaction is highly prevalent, particularly among adolescents and young adults, with some studies reporting rates as high as 72% in community samples^[2]. While historically viewed as more common in women, recent evidence highlights rising rates among men, especially in relation to muscularity-related concerns^[3].

Past research has predominantly focused on body dissatisfaction relating to body fat and muscularity. Men tend to idealize a muscular physique^{[4][5]}, while women have historically aspired to thinness^[6], though recent trends show a shift toward a "slim-thick" or "fit" body ideal^[7]. However, height has recently emerged as another important, though less examined, dimension of body dissatisfaction.

Height Dissatisfaction

Height dissatisfaction refers to negative perceptions or feelings individuals have about their height, often resulting in a desire to be taller or shorter^[8]. Unlike weight or muscle, height is largely immutable, which may contribute to a unique form of dissatisfaction. Height ideals are predominantly socially constructed: tallness is generally preferred for men, while a moderate height is favored for women^{[9][10]}. Height also carries other cultural connotations, with taller stature being linked to perceptions of attractiveness^[11], competence^[12], and dominance^[13]. Ultimately, height, specifically tall stature, is closely linked to traditional notions of masculinity, often leaving shorter men feeling that they do not measure up to these masculine ideals^[14]. This relationship between shorter stature and greater height dissatisfaction in men has been robustly demonstrated in the empirical literature^{[15][16][17][18][19][20]}.

Women, though less frequently the focus of height research, also experience meaningful levels of height dissatisfaction. Talbot and Mahlberg^[21] found that nearly half of women wished to change their height, with shorter women reporting greater dissatisfaction and a stronger drive for thinness. Similarly, Perkins et al.^[9] found that shorter women reported greater height dissatisfaction and more frequent experiences of heightism. More recently, Talbot and Mahlberg^[19] demonstrated a bidirectional pattern, whereby

shorter women tended to desire greater height and taller women tended to desire less height, with both groups reporting elevated dissatisfaction. Qualitative evidence further suggests that some women experience tallness negatively, perceiving shorter stature as more attractive and tallness as less feminine^[22]. Collectively, these findings suggest that, unlike men, whose height dissatisfaction is predominantly characterized by concerns about being too short, women may experience dissatisfaction at both ends of the height spectrum.

Height Dissatisfaction and Psychological Outcomes

Concerningly, height dissatisfaction has been linked to a range of negative psychological outcomes (for review, see ^[8]). Among men, greater height dissatisfaction is associated with poorer quality of life, height-based discrimination, greater conformity to masculine norms, body image concerns, drive for muscularity, and eating disorder symptoms^{[16][14][18][23]}. Similar associations have been observed among women, with greater height dissatisfaction linked to poorer quality of life, body image concerns, drive for thinness and muscularity, and eating disorder symptoms^{[24][9][21]}.

Existing Measures of Height Dissatisfaction

Research into height dissatisfaction has largely relied on scales developed to assess broader dimensions of body image, with only limited focus on height-specific concerns. To the best of the authors' knowledge, only two published scales include multi-item subscales specifically assessing height dissatisfaction: the Male Body Attitudes Scale (MBAS)^[25] and the Negative Physical Self Scale-Shortness subscale (NPSS-S)^[26]. However, there are significant limitations in both scales, which are discussed below.

MBAS

The MBAS^[25] is a 24-item measure assessing attitudes toward muscularity, body fat, and height. Height dissatisfaction is assessed using only two items: "I am satisfied with my height" and "I wish I was taller." Although widely used, the MBAS was developed primarily for men and assumes dissatisfaction in the direction of wanting to be taller, limiting its applicability to women and individuals who wish to be shorter. Tylka et al.^[25] suggested omitting the latter item when assessing taller individuals, leaving only a single height item. Furthermore, research has found these two items to be uncorrelated, suggesting they may assess distinct constructs^{[27][28]}. Although Ryan et al.^[29] revised the measure (MBAS-R) and

added additional height-related content, height dissatisfaction remains assessed using relatively few items. Consequently, the MBAS may not adequately capture the breadth of cognitive, emotional, and behavioral experiences associated with height dissatisfaction.

NPSS

The NPSS^[26] provides a more comprehensive assessment of body image concerns, including an 11-item Shortness Subscale (NPSS-S) designed to assess dissatisfaction with short stature and related compensatory behaviors. Research using the NPSS-S has shown that shorter individuals report greater body image distress, particularly in contexts where height is associated with social and professional success.

Despite its broader coverage, the NPSS-S remains limited by its exclusive focus on short stature. Several items explicitly assume that respondents perceive themselves as too short (e.g., “The fact that I am short makes me very unhappy”), limiting its applicability to individuals who wish to be shorter. Consequently, although the NPSS-S provides a useful assessment of shortness-related concerns, it may not adequately capture the full spectrum of height dissatisfaction.

2. Aims

Despite growing evidence that height dissatisfaction is associated with body image concerns, eating disorder symptoms, self-esteem, and quality of life, assessment tools remain limited. Existing measures either assess height dissatisfaction using only a small number of items (e.g., the MBAS) or focus exclusively on dissatisfaction associated with short stature (e.g., the NPSS-S). Consequently, current measures may not adequately capture the broader range of cognitive, emotional, and behavioral experiences associated with height dissatisfaction, nor the experiences of individuals who wish to be either taller or shorter than their current height.

Our study aimed to address these limitations through the development of the Height Dissatisfaction Scale (HDS), a novel measure designed to assess height dissatisfaction irrespective of direction. Drawing on existing measures of height-related concerns and broader body image theory, the HDS was developed to assess a range of cognitive, emotional, social-comparative, and behavioral experiences associated with dissatisfaction with one's height.

A secondary aim was to provide preliminary evidence regarding the psychometric properties of the HDS. Specifically, we examined the factor structure, internal consistency reliability, construct validity,

concurrent validity, and comparative concurrent validity of the scale.

3. Methods

Participants and Procedure

A total of 473 participants were recruited from Australian undergraduate psychology courses and the broader community via social media and word-of-mouth. Forty participants did not provide responses to any HDS items and were excluded from HDS analyses, resulting in an analytic sample of 433 participants. Participants ranged in age from 18 to 65 years ($M = 23.14$, $SD = 11.59$). The sample included 317 women (73.2%) and 116 men (26.8%). Mean self-reported height was 165.53 cm ($SD = 8.13$) for women and 179.47 cm ($SD = 7.43$) for men. Nearly half of participants identified as Australian (47.5%).

Participants accessed the study via an online survey. Prior to participation, they were presented with an information sheet and provided informed consent. Two attention-check items were embedded in the survey to ensure data quality. Psychology students received course credit, whereas community participants were not offered compensation. Ethical clearance for the study was obtained from the University of Technology Sydney Human Research Ethics Committee (Approval No. G-35-2024). A debriefing statement was provided at the end of the survey.

Measures

Height Dissatisfaction Scale (HDS)

The HDS was developed to address limitations of existing height-related measures by providing a comprehensive assessment of height dissatisfaction. The final scale comprises 12 items, each rated on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree), with higher scores indicating greater height dissatisfaction. Item 2 is reverse-scored. Descriptive statistics for all items are presented in Table 1.

Item	<i>M</i>	<i>SD</i>	<i>Range</i>
1. I wish my height was different than what it is	3.37	1.56	1-6
2. I feel satisfied with my height*	2.66	1.34	1-6
3. I feel insecure about my height	2.36	1.39	1-6
4. My height negatively affects my attractiveness	2.44	1.41	1-6
5. I avoid situations where my height is noticeable	1.91	1.24	1-6
6. I slouch/adjust posture to appear shorter	1.90	1.26	1-6
7. I try to lose body fat to compensate for my height	2.72	1.69	1-6
8. I try to gain muscle mass to compensate for my height	2.53	1.61	1-6
9. I often compare my height to others	2.97	1.62	1-6
10. My height makes me less competitive romantically	2.48	1.46	1-6
11. My height negatively affects my self-esteem	2.21	1.40	1-6
12. Height influences how others perceive/treat me	2.72	1.58	1-6

Table 1. Descriptive Statistics for the Final 12 Height Dissatisfaction Scale Items (N = 433)

Note. Item 2 is reverse-scored. Original Items 6 (“I wear shoes that make me appear taller”) and 8 (“I have considered or undergone medical procedures to change my height”) were removed following exploratory factor analysis because both demonstrated factor loadings below .30 and are therefore not presented.

Scale development drew on existing measures of height and body-related concerns, including the MBAS and the NPSS-S, as well as broader theoretical frameworks including the Tripartite Influence Model of body image^{[30][31]} and the Cognitive Behavioral Model of Eating Disorders^[32]. Following recommended guidelines for scale development^[33], items were generated to capture a range of experiences associated with height dissatisfaction, including negative self-evaluations, social comparisons, perceived interpersonal consequences, and behavioral responses to dissatisfaction with height.

The final 12-item scale assesses height dissatisfaction across a range of cognitive, emotional, social-comparative, and behavioral experiences (see Supplementary Materials for the full scale and scoring instructions). Importantly, the scale was designed to accommodate dissatisfaction in either direction. Most core cognitive, emotional, and social-comparative items are direction-neutral, while several behavioral items capture specific manifestations of height dissatisfaction. Consistent with the observed factor structure, the HDS is scored using a single total mean score reflecting overall height dissatisfaction, with higher scores indicating greater dissatisfaction with one's height.

Eating Disorder Examination Questionnaire Short (EDEQ-S)

The EDEQ-S^[34] is a 12-item self-report measure derived from the original 28-item Eating Disorder Examination Questionnaire^[35]. The EDEQ-S assesses core eating disorder behaviors and attitudes over the past 7 days. Items are rated on a 5-point scale from 0 (*no days*) to 4 (*every day*), with higher scores indicating greater disordered eating behaviors. The EDEQ-S has demonstrated strong reliability and validity in clinical and non-clinical populations (Cronbach's $\alpha = .91$ in Gideon et al.^[34], and $\alpha = .82$ in the current study).

Negative Physical Self Scale-Shortness Subscale (NPSS-S)

Participants completed the NPSS-S, derived from the original Negative Physical Self Scale^[26]. The Shortness subscale measures negative attitudes toward one's height, specifically short stature. It contains 11 items, rated on a 6-point Likert scale from 0 (*never*) to 5 (*always*), with higher scores indicating greater dissatisfaction with being short. This subscale has been used to assess height-related body image concerns in diverse populations and has shown good reliability ($\alpha = .88$, Chen et al.^[26], and $\alpha = .88$ in the current study).

Brief Rosenberg Self-Esteem Scale (B-RSES)

Self-esteem was assessed using the B-RSES^[36], a 5-item Likert-type measure derived from the original 10-item Rosenberg Self-Esteem Scale^[37]. Items were rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher average scores indicate greater self-esteem. In the present sample, the B-RSES demonstrated strong internal consistency reliability ($\alpha = .81$).

Statistical Analyses

All analyses were conducted using Jamovi (Version 2.6.19). Missing data were handled using listwise deletion. Prior to factor analysis, the suitability of the HDS items for factor extraction was assessed using the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's test of sphericity.

An exploratory factor analysis was conducted to examine the underlying structure of the HDS. Maximum likelihood extraction was used. Parallel analysis and inspection of eigenvalues were used to guide factor retention decisions. Results indicated the presence of a dominant general factor underlying the item pool. Items were evaluated using standard psychometric criteria, including factor loadings, uniqueness values, and conceptual relevance to the construct of height dissatisfaction.

Two items ("I wear shoes that make me appear taller" and "I have considered or undergone medical procedures to change my height") demonstrated comparatively weak psychometric performance, including factor loadings below .30 and high uniqueness values, and were therefore removed in accordance with recommended item-retention criteria^[33]. The final EFA was conducted on the remaining 12 items.

Internal consistency reliability was assessed using Cronbach's alpha and McDonald's omega. Construct validity was examined using Spearman's rho correlations between HDS scores and theoretically relevant variables, including actual height, height discrepancy (ideal minus actual height), another measure of height dissatisfaction (NPSS-S), eating disorder symptoms, and self-esteem. To evaluate whether the HDS demonstrated comparative concurrent validity relative to the NPSS-S in predicting psychological outcomes, Steiger's z tests for dependent correlations were used to compare the magnitude of HDS-criterion correlations with the corresponding NPSS-S-criterion correlations.

4. Results

Descriptive statistics for the 12 retained items are presented in Table 1. All items demonstrated full-range responding and adequate variability. Forty participants did not provide responses to any HDS items and were excluded via listwise deletion.

Exploratory Factor Analysis

An exploratory factor analysis was conducted on the final 12-item HDS using maximum likelihood extraction. Sampling adequacy was excellent, as indicated by a KMO value of .93, and Bartlett's test of

sphericity was significant, $\chi^2(66) = 3325.03, p < .001$, supporting the factorability of the correlation matrix. Inspection of the scree plot and parallel analysis supported the retention of a single factor (see Figure 1). The first eigenvalue (6.24) was substantially larger than all subsequent eigenvalues (0.36, 0.32, and 0.19), indicating the presence of a dominant general factor underlying the item pool. This factor accounted for 51.87% of the total variance.

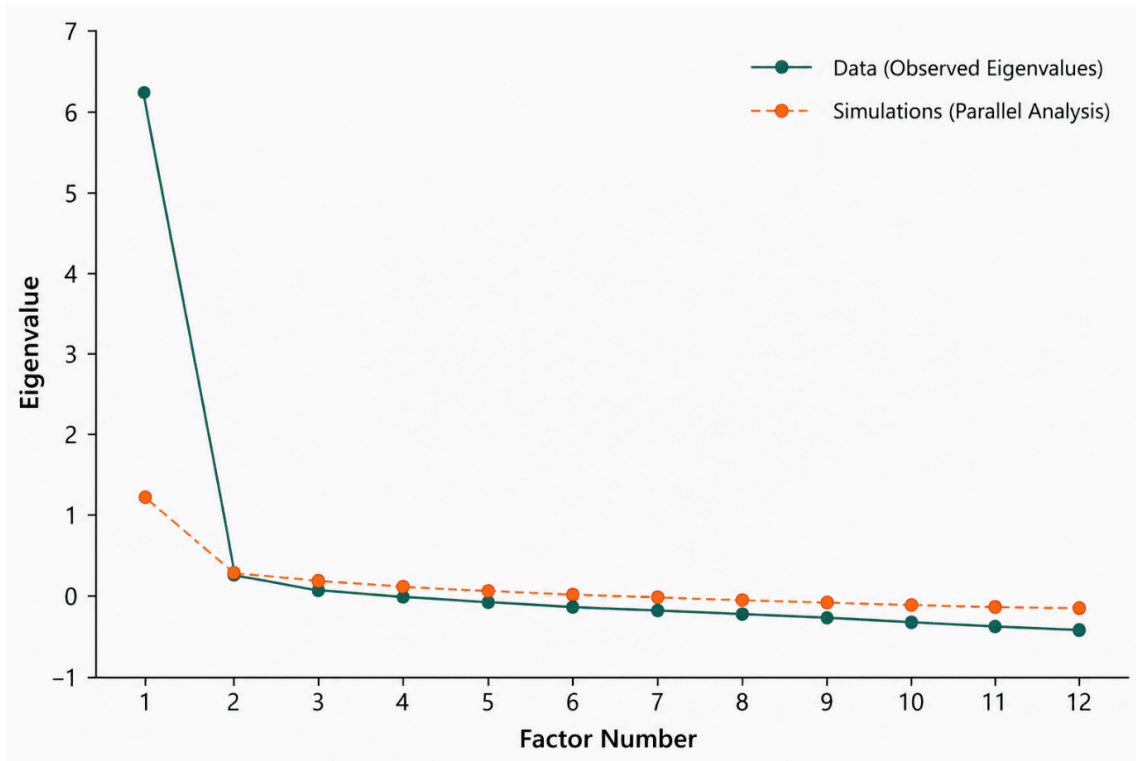


Figure 1. Scree plot and parallel analysis of the final 12-item Height Dissatisfaction Scale. *Note.* Observed eigenvalues are plotted alongside simulated eigenvalues generated through parallel analysis. The pronounced decline following the first factor and the close correspondence between observed and simulated eigenvalues thereafter support the retention of a single dominant factor.

Factor loadings ranged from .41 to .92, with all retained items demonstrating meaningful loadings on the general factor. The strongest loadings were observed for items assessing height-related self-esteem, insecurity, and perceived impacts of height on attractiveness. Although several behavioral items demonstrated comparatively higher uniqueness values, they remained conceptually relevant indicators of height dissatisfaction and were retained in the final scale. Factor loadings and uniqueness estimates for the final 12-item HDS are presented in Table 2.

Item	Factor Loading	Uniqueness
1. I wish my height was different than what it is	.71	.50
2. I feel satisfied with my height (R)	.69	.52
3. I feel insecure about my height	.87	.24
4. My height negatively affects my attractiveness	.85	.27
5. I avoid situations where my height is noticeable	.78	.39
6. I slouch/adjust posture to appear shorter	.41	.83
7. I try to lose body fat to compensate for my height	.55	.70
8. I try to gain muscle mass to compensate for my height	.53	.72
9. I often compare my height to others	.76	.42
10. My height makes me less competitive romantically	.75	.44
11. My height negatively affects my self-esteem	.92	.16
12. Height influences how others perceive/treat me	.66	.57

Table 2. Factor Loadings and Uniqueness Estimates for the Final 12-Item Height Dissatisfaction Scale

Note. Factor loadings are based on a one-factor exploratory factor analysis using maximum likelihood extraction. Uniqueness values represent variance not explained by the retained factor. Item 2 is reverse-scored. Original Items 6 (“I wear shoes that make me appear taller”) and 8 (“I have considered or undergone medical procedures to change my height”) were removed following exploratory factor analysis because both demonstrated factor loadings below .30 and are therefore not presented.

Reliability

The final 12-item HDS demonstrated excellent internal consistency reliability. Cronbach’s alpha was .92 and McDonald’s omega was .93, exceeding conventional criteria for good reliability. Reliability coefficients are presented in Table 3.

Variable	α	ω	1	2	3	4	5
1. Height	—	—	—				
2. Height Discrepancy	—	—	-.09	—			
3. NPSS-S	.88	—	-.37***	.34***	—		
4. EDEQ-S	.82	—	-.15**	-.02	.13**	—	
5. B-RSES	.81	—	.07	-.02	-.20***	-.48***	—
6. HDS	.92	.93	-.25**	.22*	.61***	.29***	-.32***

Table 3. Correlation Matrix for Height, Body Image, and the Height Dissatisfaction Scale

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; α = Cronbach's α ; ω = McDonald's ω ; HDS = Height Dissatisfaction Scale; NPSS-S = Negative Physical Self Scale-Shortness Subscale; EDEQ-S = Eating Disorder Examination Questionnaire-Short; B-RSES = Brief Rosenberg Self-Esteem Scale; Due to missing data across variables, effective sample sizes varied across correlations ($ns = 398-431$).

Construct and Concurrent Validity

To examine validity evidence for the HDS, correlations were conducted with actual height, height discrepancy, the NPSS-S Shortness Subscale, eating disorder symptoms, and self-esteem. Due to violations of normality across several measures, non-parametric Spearman's rho correlations were used.

As expected, HDS scores were associated with several theoretically relevant constructs. The strongest association was observed between the HDS and the NPSS-S ($r_s = .61$, $p < .001$), providing evidence of convergence with an existing measure of height-related dissatisfaction. HDS scores were also negatively associated with actual height ($r_s = -.25$, $p = .003$) and positively associated with height discrepancy ($r_s = .22$, $p = .015$), indicating that greater height dissatisfaction was associated with being shorter and with a greater discrepancy between actual and desired height.

Concurrent validity was supported by significant associations with psychological outcomes. Higher HDS scores were associated with greater eating disorder symptoms ($r_s = .29$, $p < .001$) and lower self-esteem ($r_s = -.32$, $p < .001$). Together, these findings provide preliminary evidence for the construct and concurrent validity of the HDS. All correlations are presented in Table 3.

Comparative Concurrent Validity

To evaluate whether the HDS demonstrated comparative concurrent validity relative to an existing measure of height concerns (the NPSS-S), Steiger's z tests were conducted to compare the strength of dependent correlations involving each measure and key criterion variables. The NPSS-S demonstrated stronger associations with objective height indices. Specifically, the association between the NPSS-S and actual height was significantly stronger than the corresponding HDS association, $z = 3.03, p < .01$. Similarly, the NPSS-S showed a stronger association with height discrepancy than the HDS, $z = -3.00, p < .01$. In contrast, the HDS demonstrated stronger associations with psychological outcomes. The correlation between the HDS and eating disorder symptoms was significantly stronger than the corresponding NPSS-S correlation, $z = 3.87, p < .001$. Likewise, the HDS demonstrated a stronger negative association with self-esteem than the NPSS-S, $z = -2.94, p = .002$.

5. Discussion

Our study introduced and provided preliminary psychometric evidence for the HDS, a novel 12-item measure designed to assess height dissatisfaction. Unlike previous measures, which have typically focused on dissatisfaction with being short or have assessed height concerns using a limited number of items, the HDS was developed to capture a broader range of height-related concerns, including dissatisfaction with being either taller or shorter than desired. Overall, the findings provide encouraging evidence for the reliability and validity of the HDS as a measure of height dissatisfaction.

Factor Structure and Reliability

Exploratory factor analysis supported the presence of a dominant general factor underlying the HDS item pool. Inspection of the scree plot, eigenvalues, and parallel analysis indicated that the retained items were best represented by a single underlying dimension, accounting for approximately 52% of the variance. This finding suggests that height dissatisfaction may be conceptualized as a broad construct encompassing cognitive, emotional, and behavioral manifestations of dissatisfaction with one's height.

The final 12-item HDS demonstrated excellent internal consistency, with both Cronbach's alpha and McDonald's omega exceeding conventional recommendations for newly developed measures^[38]. Collectively, these findings suggest that the retained items coherently assess a common underlying construct and support the use of a total HDS score as an indicator of overall height dissatisfaction.

Construct and Concurrent Validity

Evidence for the validity of the HDS was supported through associations with several theoretically relevant variables. The strongest association emerged between the HDS and the NPSS-S Shortness Subscale^[26], suggesting substantial overlap with an established measure of height-related dissatisfaction while also indicating that the constructs are not identical. HDS scores were also negatively associated with actual height and positively associated with height discrepancy, supporting previous findings that individuals who are shorter and those whose actual height differs more substantially from their desired height tend to report greater dissatisfaction^{[16][18][21]}. Importantly, although the HDS was designed to assess dissatisfaction in both directions, these findings indicate that the scale remains sensitive to concerns commonly associated with wishing to be taller. At the same time, the wording of the items allows the scale to assess dissatisfaction among individuals who wish to be either taller or shorter, potentially broadening its applicability relative to existing measures.

Concurrent validity was further supported through associations with self-esteem and eating disorder symptoms. Individuals reporting greater height dissatisfaction also reported lower self-esteem and greater eating disorder symptomatology. These findings are consistent with broader body image literature demonstrating associations between appearance dissatisfaction, psychological distress, and maladaptive body-related attitudes and behaviors^{[39][40]}. Together, these findings suggest that height dissatisfaction is meaningfully associated with broader indicators of psychological functioning.

Comparative Concurrent Validity

The HDS also demonstrated evidence of comparative concurrent validity relative to the NPSS-S. Although the NPSS-S exhibited stronger associations with objective height indicators, the HDS demonstrated stronger associations with psychological outcomes, including eating disorder symptoms and self-esteem. This pattern suggests that the HDS may capture broader psychological aspects of height dissatisfaction that extend beyond concerns relating to objective shortness.

This distinction may be particularly important given growing evidence that height dissatisfaction is associated with a range of psychosocial outcomes. Previous studies have linked height dissatisfaction with body image concerns, drive for muscularity, drive for thinness, eating disorder symptoms, and reduced quality of life^{[41][16][9][18][21]}. The stronger associations observed between the HDS and

psychological outcomes may therefore reflect the broader scope of the HDS, which assesses subjective dissatisfaction with height rather than focusing exclusively on concerns related to short stature.

Strengths

A key strength of the HDS is its design to accommodate dissatisfaction with being either taller or shorter than desired, extending beyond existing measures that primarily focus on short stature. The scale also incorporates cognitive, emotional, and behavioral manifestations of height dissatisfaction, providing broad coverage of the construct while supporting a unidimensional interpretation. Finally, the HDS demonstrated excellent internal consistency and promising evidence of validity, supporting its utility for future research on height dissatisfaction.

Limitations and Future Directions

Several limitations should be acknowledged. First, the sample was predominantly young and recruited largely from Australia, potentially limiting the generalizability of the findings. Future research should examine the psychometric properties of the HDS across more diverse populations. Second, the cross-sectional design precludes conclusions regarding causal relationships between height dissatisfaction and psychological outcomes. Longitudinal research is needed to clarify these associations over time. Third, although exploratory analyses supported a dominant general factor, further psychometric evaluation is warranted. Future studies should examine the factor structure of the HDS using confirmatory factor analysis in independent samples, establish test-retest reliability, evaluate measurement invariance across demographic groups, and investigate its utility in clinical populations. Finally, although the HDS was designed to accommodate dissatisfaction with being either taller or shorter than desired, the present study did not establish measurement equivalence across these groups, and several behavioral items are direction-specific. Future research should therefore examine the psychometric performance of the HDS separately among individuals who wish to be taller and those who wish to be shorter.

6. Conclusion

Our findings provide preliminary support for the HDS as a reliable and valid measure of height dissatisfaction. The final 12-item HDS demonstrated a dominant general factor, excellent internal consistency, and expected associations with height-related, body image, and psychological variables. By assessing dissatisfaction with being either taller or shorter than desired, the HDS addresses limitations

of existing measures and offers a useful tool for future research examining the correlates and consequences of height dissatisfaction.

Supplementary Materials

Supplementary materials, including the Height Dissatisfaction Scale (HDS) and scoring instructions, are available in the OSF repository linked above.

Statements and Declarations

Funding

No specific funding was received for this work.

Potential Competing Interests

No potential competing interests to declare.

Ethics

This study was approved by the University of Technology Sydney Human Research Ethics Committee (Approval No. G-35-2024). All procedures performed in this study were conducted in accordance with the ethical standards of the institutional research committee and the 1964 Helsinki Declaration and its later amendments. Participation was voluntary, and all participants provided informed consent electronically prior to commencing the survey.

Data Availability

The data and materials for this study are available on the Open Science Framework (OSF) at: [link to be inserted after peer review].

References

1. [△]Grogan S (2021). *Body Image: Understanding Body Dissatisfaction in Men, Women and Children*. Routledge.
2. [△]Fiske L, Fallon EA, Blissmer B, Redding CA (2014). "Prevalence of Body Dissatisfaction Among United States Adults: Review and Recommendations for Future Research." *Eat Behav.* 15(3):357–365.

3. [△]Murray SB, Brown TA, Lavender JM, Nagata JM, Keel PK (2020). "The Evolving Nature of Weight Dissatisfaction and Eating Behaviors Among Men: Secular Trends Among College Men Across Four Decades." *J Abnorm Psychol.* **129**(8):824.
4. [△]Groves V, Ridley BJ, Cornelissen PL, Maalin N, Mohamed S, Kramer RS, McCarty K, Tovée MJ, Cornelissen K (2023). "Men's Perception of Current and Ideal Body Composition and the Influence of Media Internalization on Body Judgements." *Front Psychol.* **14**:1116686.
5. [△]Talbot D (2023). "Beyond Desirable in North America: An Examination of Actual and Ideal Body Preferences, and Body Attractiveness Preferences in a Heterosexual Sample of Men and Women from the USA." *Discov Psychol.* **3**(1):42.
6. [△]Warren CS, Akoury LM (2020). "Emphasizing the "Cultural" in Sociocultural: A Systematic Review of Research on Thin-Ideal Internalization, Acculturation, and Eating Pathology in US Ethnic Minorities." *Psychol Res Behav Manag.* 319–330.
7. [△]McComb SE, Mills JS (2022). "Eating and Body Image Characteristics of Those Who Aspire to the Slim-Thin, Thin, or Fit Ideal and Their Impact on State Body Image." *Body Image.* **42**:375–384.
8. ^{a, b}Schmidt NP, Talbot D (2025). "Standing Tall or Falling Short: A Narrative Review of Height Dissatisfaction and Psychological Outcomes." *PLOS Ment Health.* **2**(11):e0000497.
9. ^{a, b, c, d}Perkins T, Hayes S, Talbot D (2021). "Shorter Women Are More Dissatisfied with Their Height: An Exploration of Height Dissatisfaction in Australian Women." *Obesities.* **1**(3):189–199.
10. [△]Yancey G, Emerson MO (2016). "Does Height Matter? An Examination of Height Preferences in Romantic Coupling." *J Fam Issues.* **37**(1):53–73.
11. [△]Pazhoohi F, Garza R, Kingstone A (2023). "The Interacting Effects of Height and Shoulder-to-Hip Ratio on Perceptions of Attractiveness, Masculinity, and Fighting Ability: Experimental Design and Ecological Validity Considerations." *Arch Sex Behav.* **52**(1):301–314.
12. [△]Blaker NM, Rompa I, Dessing IH, Vriend AF, Herschberg C, Van Vugt M (2013). "The Height Leadership Advantage in Men and Women: Testing Evolutionary Psychology Predictions About the Perceptions of Tall Leaders." *Group Process Intergr.* **16**(1):17–27.
13. [△]Stulp G, Buunk AP, Verhulst S, Pollet TV (2015). "Human Height Is Positively Related to Interpersonal Dominance in Dyadic Interactions." *PLoS One.* **10**(2):e0117860.
14. ^{a, b}O'Gorman B, Sheffield J, Griffiths S (2019). "Does Masculinity Moderate the Relationship of Height with Height Dissatisfaction? Findings from an Internet Forum for Short Statured Men." *Body Image.* **31**:112–119.

15. [△]Bogaert AF, McCreary DR (2011). "Masculinity and the Distortion of Self-Reported Height in Men." *Sex Roles*. 65(7):548–556.
16. [△][♂][♀][♂]Griffiths S, Murray SB, Medeiros A, Blashill AJ (2017). "The Tall and the Short of It: An Investigation of Height Ideals, Height Preferences, Height Dissatisfaction, Heightism, and Height-Related Quality of Life Impairment Among Sexual Minority Men." *Body Image*. 23:146–154.
17. [△]Mo QL, Bai BY (2023). "Height Dissatisfaction and Loneliness Among Adolescents: The Chain Mediating Role of Social Anxiety and Social Support." *Curr Psychol*. 42(31):27296–27304.
18. [△][♂][♀][♂]Talbot D, Mahlberg J (2023). "Exploration of Height Dissatisfaction, Muscle Dissatisfaction, Body Ideals, and Eating Disorder Symptoms in Men." *J Am Coll Health*. 71(1):18–23.
19. [△][♂][♀]Talbot D, Mahlberg J (2026). "Too Tall, Too Short: Gendered Height Ideals and the Bi-Directionality of Height Dissatisfaction in Australian Adults." *Sexuality & Culture*. 1–13.
20. [△]Watt M, Ricciardelli LA (2012). "A Qualitative Study of Body Image and Appearance Among Men of Chinese Ancestry in Australia." *Body Image*. 9(1):118–125.
21. [△][♂][♀][♂]Talbot D, Mahlberg J (2024). "An Examination of the Relationship Between Height, Height Dissatisfaction, Drive for Thinness and Muscularity, and Eating Disorder Symptoms in North American Women." *Curr Psychol*. 43(29):24346–24354.
22. [△]Alleva JM, Mangel LC, Zigmantaitė G, Piran N, Tanious R, Mayer M, van Lil L, Peters ML, Tylka TL (2025). "Enough is Enough: Development of the Enough is Enough Scale and a Program to Increase Enough is Enough Among Women with a Negative Body Image." *Body Image*. 55:101967.
23. [△]Wang YH, Wang YL, Ly M, Nichol M, Misener K, Libben M (2022). "Factorial Validity, Reliability, and Measurement Invariance of the Negative Physical Self Scale in a Sample of Men Residing in North America." *Psychol Assess*. 34(11):1036.
24. [△]Amin S, Ly M, Misener K, Brown N, Libben M (2024). "Validation of the Translated Negative Physical Self Scale in a Sample of Asian Women Living in Canada." *PLoS One*. 19(5):e0301184.
25. [△][♂][♀][♂]Tylka TL, Bergeron D, Schwartz JP (2005). "Development and Psychometric Evaluation of the Male Body Attitudes Scale (MBAS)." *Body Image*. 2(2):161–175.
26. [△][♂][♀][♂][♀]Chen H, Jackson T, Huang X (2006). "The Negative Physical Self Scale: Initial Development and Validation in Samples of Chinese Adolescents and Young Adults." *Body Image*. 3(4):401–412.
27. [△]Kozłowska MA, Talbot D, Jonason PK (2023). "The Napoleon Complex, Revisited: Those High on the Dark Triad Traits Are Dissatisfied with Their Height and Are Short." *Pers Individ Differ*. 203:111990.

28. [△]Talbot D, Jonason PK (2025). "Intrasexual Envy, Jealousy, and Competitiveness Are Associated with Height and Height Dissatisfaction." *Evol Behav Sci*.
29. [△]Ryan TA, Morrison TG, Roddy S, McCutcheon J (2011). "Psychometric Properties of the Revised Male Body Attitudes Scale Among Irish Men." *Body Image*. 8(1):64–69.
30. [△]Tylka TL (2011). "Refinement of the Tripartite Influence Model for Men: Dual Body Image Pathways to Body Change Behaviors." *Body Image*. 8(3):199–207.
31. [△]Van den Berg P, Thompson JK, Obrowski-Brandon K, Coover M (2002). "The Tripartite Influence Model of Body Image and Eating Disturbance: A Covariance Structure Modeling Investigation Testing the Mediation Role of Appearance Comparison." *J Psychosom Res*. 53(5):1007–1020.
32. [△]Fairburn CG, Cooper Z, Shafran R (2003). "Cognitive Behaviour Therapy for Eating Disorders: A "Transdiagnostic" Theory and Treatment." *Behav Res Ther*. 41(5):509–528.
33. [△]Boateng GO, Neilands TB, Frongillo EA, Melgar-Quiñonez HR, Young SL (2018). "Best Practices for Developing and Validating Scales for Health, Social, and Behavioral Research: A Primer." *Front Public Health*. 6:149.
34. [△]Gideon N, Hawkes N, Mond J, Saunders R, Tchanturia K, Serpell L (2016). "Development and Psychometric Validation of the EDE-QS, a 12 Item Short Form of the Eating Disorder Examination Questionnaire (EDE-Q)." *PLoS One*. 11(5):e0152744.
35. [△]Fairburn CG, Beglin SJ (2008). "Eating Disorder Examination Questionnaire." *Cognitive Behavior Therapy and Eating Disorders*. 309:313.
36. [△]Monteiro RP, Coelho GLH, Hanel PH, de Medeiros ED, da Silva PDG (2022). "The Efficient Assessment of Self-Esteem: Proposing the Brief Rosenberg Self-Esteem Scale: RP Monteiro et al." *Appl Res Qual Life*. 17(2):931–947.
37. [△]Rosenberg M (1965). *Society and the Adolescent Self-Image*. Vol. 11. Princeton, NJ: Princeton University Press.
38. [△]Kline P (2015). *A Handbook of Test Construction (Psychology Revivals): Introduction to Psychometric Design*. Routledge.
39. [△]Foster L, Lundh LG, Daukantaitė D (2024). "Disordered Eating in a 10-Year Perspective from Adolescence to Young Adulthood: Stability, Change, and Body Dissatisfaction as a Predictor." *Scand J Psychol*. 65(1):32–41.
40. [△]Jones H, McIntosh VV, Britt E, Carter JD, Jordan J, Bulik CM (2022). "The Effect of Temperament and Character on Body Dissatisfaction in Women with Bulimia Nervosa: The Role of Low Self-Esteem and Depression." *Eur Eat Disord Rev*. 30(4):388–400.

41. ^ΔFavaro A, Tenconi E, Degortes D, Soave M, Zanetti T, Nardi MT, Caregaro L, Santonastaso P (2007). "Association Between Low Height and Eating Disorders: Cause or Effect?" *Int J Eat Disord.* **40**(6):549–553.

Supplementary data: available at <https://doi.org/10.32388/Z9TTZH.2>

Declarations

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.