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Internalization of the athletic-ideal in a female student sample

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Abstract

The investigation into thin-ideal internalization has been the research focus in the past two decades. A clear relationship between this ideal and disordered eating and body-related disturbances was found. There is a lack of extensive research on the internalization of the athletic ideal and its outcomes in the literature. To fill this knowledge gap, a quantitative cross-sectional survey research study was conducted to determine the extent to which female students from three South African university campuses (n = 476) have internalized the athletic-ideal. Furthermore, this research study investigated the relationship between this internalization, body dissatisfaction, maladaptive eating, and exercise behavior by using four online self-report questionnaires. Results from this research study revealed that internalization of the athletic-ideal is increasing significantly. Furthermore, significant relationships were found between athletic-internalization, obligatory exercise (i.e., compulsive exercise), and dieting, yet yielded a poor relationship with body dissatisfaction. Like other studies, it appears that the athletic- ideal is less detrimental to body dissatisfaction and dieting than the thin-ideal. A stronger association between obligatory exercise was found with the athletic-ideal than the thin-ideal.

Keywords: athletic-ideal, body dissatisfaction, eating disturbances, internalization, obsessive exercise, thin-ideal

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INTRODUCTION AND CONCEPTUALISATION

The female pursuit of what is culturally accepted as the ideal body has been prominent throughout history (Grogan, 2016; Sypeck et al., 2004). Martin (2010) defines the ideal body image as a particular size and shape representing beauty and success within a given culture. A culturally constructed thin-ideal, often promoted by the media, and subsequently internalized by women, is a powerful influence on developing maladaptive eating and exercise behaviors (Thompson & Stice, 2001). Internalization is the act of adopting the attitudes, beliefs, or standards of others as one's own through learning or unconscious assimilation (Colman, 2015). In the current research study, internalization can be described as a cognitive endorsement of the cultural ideal of attractiveness and engagement in behavior to attain this ideal (Homan, 2010; Thompson et al., 1999). When considering studies from 1995 – 2005, it is apparent that the thin-ideal has been dominant as the ideal body type, especially in Westernized countries. The thin-ideal can be described as a thin body with very little adiposity (Grogan, 2016; Homan et al., 2012; Schaefer et al., 2015). Research has shown a clear relationship between this ideal, eating, and body disturbances (Flament et al., 2012; Groesz et al., 2002; Homan, 2010; Stice, 2002; Thompson & Stice, 2001).

There is substantial research indicating that the ideal body has again started to evolve. In addition to this slender frame, the new ideal body also necessitates a toned and muscular appearance (Bordo, 2003; Benton & Karazsia, 2015; Dworkin & Wachs, 2009; Grogan, 2016; Homan, 2010; Homan et al., 2012). As a content analysis of popular women's magazines indicates, the shift from the thin-ideal to a more athletic-ideal is also becoming more apparent in the media (Willis & Knobloch-Westerwick, 2014). This analysis shows an overemphasis on exercise in content and advertisements and confirms that celebrities have adopted this athletic profile. According to Thompson and Stice (2001), the media plays a significant role in propagating an ideal body. One potential danger of media promoting the athletic ideal is that it could be used to hide the promotion of a specific body type and the behaviors required to achieve it under the guise of promoting a healthy lifestyle. Conlin and Bissel (2014) analyzed the content of health/fitness and beauty/fashion magazines and discovered that both types of magazines portrayed health and body image content in a way that emphasized appearance rather than health, which goes against the expectation of a fitness or health magazine.

When it comes to digital media, there is a comparable pattern. Boepple and Thompson (2016) examined the material of websites that endorse a healthy and active lifestyle, commonly known as Fitspiration websites. The authors found that these websites contain similar thematical content to those promoting thinness, including weight stigmatization, dieting messages, and objectifying phrases (i.e., messages that show the body as an observable object, e.g., an image of a woman's body with measuring tape around it).

It is evident that research has primarily focused on investigating the outcomes of pursuing the classic thin-ideal. The lack of research on the athletic-ideal may be attributed to a notion supported by research that women are less inclined than men to subscribe to a muscular appearance (Cafri et al., 2002; Thompson & Cafri, 2007). Despite this notion, preliminary studies are starting to make a connection between the internalization of the athletic-ideal and possible adverse outcomes among women. As expected, these studies are relatively sparse, and findings are often ambiguous. In a longitudinal study of seven months, Homan (2010) found athletic-ideal internalization significantly correlated with body dissatisfaction, dieting,

and compulsive exercise. This study, however, maintained that athletic-ideal internalization can only predict change in compulsive exercise but not body dissatisfaction or dieting. Schaefer et al. (2015) reported that the athletic-ideal did not significantly correlate with body dissatisfaction and found small positive correlations with symptoms of disordered eating somatology. In a more recent study by Bell et al. (2016), the authors also found that body dissatisfaction was not associated with athletic-ideal internalization. These authors, however, maintained in their mediation analysis that athletic-ideal internalization can directly predict compulsive exercise, dieting, and bulimic symptoms.

The studies mentioned above show that body dissatisfaction, disordered eating, and exercise are essential when exploring how the individual is affected in their pursuit of obtaining and maintaining a perceived body ideal. According to Grogan (2016), body image can be seen as an individual's perceptual experience and subjective appearance evaluation. An unfavorable body shape and size evaluation can be described as body dissatisfaction (Grogan, 2006). According to Martin (2010), body satisfaction is achieved when one's current body image is perceived as similar to the idealized body image. Body dissatisfaction is thus often a result of a discrepancy between current and ideal body image. Several studies found that body dissatisfaction was not associated with athletic-ideal internalization (Bell et al., 2016; Homan, 2010; Ramme et al., 2016; Schaefer et al., 2015). When the athletic-ideal is conceptualized as an ideal that includes being toned and muscular in addition to being thin, exposure studies indicated an association with body dissatisfaction (Benton & Karazsia, 2015; Homan et al., 2012; Tiggemann & Zaccardo, 2015; Uhlmann et al., 2018).

An individual with a negative body image is at risk of subscribing to maladaptive behavior, including unhealthy eating behavior and exercise patterns (Levine & Piran, 2004). The pursuit of the ideal body cannot be adequately described without the concept of dieting. According to the American Psychological Association (2013), disordered eating is related to specific measures to control weight, such as fasting, meal skipping, purging, diuretics, laxatives, and diet pills. Studies on eating behavior and athletic-ideal internalization indicate a relationship between this new ideal and disordered eating (Bell et al., 2016; Harrison, 2000; Harrison & Cantor, 1997; Pritchard et al., 2011). As mentioned, Bell et al. (2016) maintained that athletic-internalization can directly predict dieting and bulimic symptoms. Pritchard et al. (2011) reported that a desire to achieve a muscular and athletic body can predict eating-related concerns, specifically obsessive thinking, and guilt about eating. A study by Calogero et al. (2004) found that residents in treatment for an eating disorder showed a high athletic-internalization. Harrison (2000) and Harrison and Cantor (1997) also discovered a relationship between reading fitness magazines and eating disturbances symptoms.

Finally, since the athletic-ideal also incorporates a muscular component, exercise can be considered paramount in pursuing this ideal. The role of exercise in weight loss and achieving a toned appearance is evident in the media as magazines more often feature articles promoting weight loss through exercise than dieting (Luff & Gray, 2009; Willis & Knobloch-Westerwick, 2014). Exercise is generally regarded as a healthy behavior and a vital component of a healthy balanced lifestyle. Research, however, shows that when exercise is motivated by controlling weight or obtaining a more toned appearance, it can be regarded as a risk factor for eating disturbances and body dissatisfaction (Furnam et al., 2002; LePage & Crowther, 2010; Thome & Espelage, 2007). A compulsive exercise routine that dominates daily routine at the expense of other activities can be described as obligatory exercise (Rodgers et al., 2001). Exercising to control weight or to achieve a toned body is a predictor of obligatory exercise (Thome & Espelange, 2007; Pritchard & Beaver, 2011).

PROBLEM STATEMENT

The athletic-ideal can still be considered a relatively new phenomenon and behavior associated with this ideal, and its implication on functioning is unclear as research studies are sparse. There is substantially less published research on the athletic-ideal and its association with eating and body-related disturbances than the thin-ideal. As indicated above, there are often discrepancies in the findings of various studies investigating the athletic-ideal. The sparseness and disparities in research emphasize the need for additional research (Ramme et al., 2016). This research aimed to contribute to previous findings by establishing to what extent participants have internalized the athletic-ideal.

Furthermore, the correlations between athletic-internalization, body dissatisfaction, maladaptive eating, and exercise behavior are explored. It was hypothesized that an athletic-internalization would be favored among participants. A further hypothesis is that an athletic-internalization will positively correlate with body dissatisfaction, maladaptive eating, and exercise behavior.

METHODS

RESEARCH APPROACH AND DESIGN

A quantitative approach with a cross-sectional survey design was used. This design enables a researcher to determine the relationship between variables (Creswell, 2014). This research study aimed to determine whether the athletic-ideal has been internalized and how this internalization is associated with body dissatisfaction, dieting, and compulsive exercise.

POPULATION, SAMPLING, DATA GENERATION

Participants included 476 on-campus female students recruited from the three campuses of the North-West University (NWU) in South Africa: Potchefstroom (n = 373), Mahikeng (n = 50), and Vaal Triangle (n = 53). Participants ranged in age from 18-24, with a mean age of 21.05 years (SD= 1.6). Furthermore, the mean BMI was calculated to be 24.3(SD = 5.6). A majority of the participants were White (67.86%), while 27.1% were Black, 3% were of Mixed ancestry, 1% were Asian/Indian, and less than 1% reported “other” ethnicity. Most participants indicated a language preference for English (46.11 %) or Afrikaans (52.63%). Regarding years of study, 19.79% of participants were in year 1, 25.68 % in year 2, 24.63% in year 3, 23.37% in year 4/Honours, and finally, 6.53% indicated that they were post-graduate. A comparison between the biographical information of the sample group and the total sample population can be found in **Table 1.**

Table 1

Demographics of the Sample Compared to a Population Sample

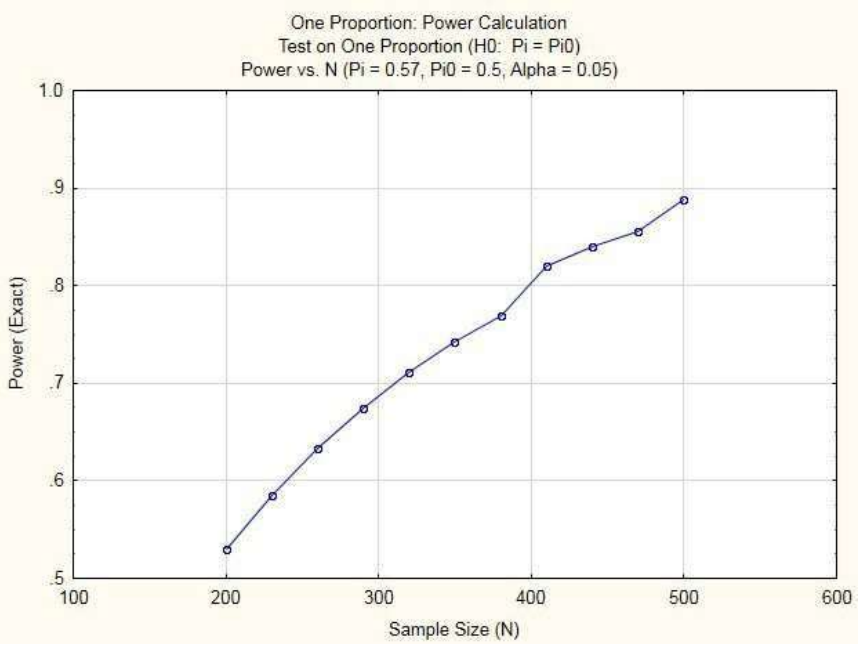
	Population	Sample
N	14603	476
Mean age	20.82	21.05
% Race distribution		
Asian/Indian	1.13	1.05
Black	50.6	27.10
Colored	3.36	3.15
White	44.9	67.86
Other	> 0.1	0.8

RESEARCH PROCEDURE

The primary researcher developed a secure website with the aid of a local web development company. A demographic questionnaire and four questionnaires that tested the target variables were uploaded to the website. Several security measures were implemented to protect the integrity of participants' information (e.g., specified links sent to participants, unique login usernames and passwords, and data kept secure with 256-bit encryption). The completed website was tested on a pilot group of 9 female students demographically similar to the sample group. The group completed the questionnaires online and was asked to provide feedback on their experience. This feedback was subsequently incorporated into the website's evolution. Access to the participants was obtained via the Institutional Office of the NWU. The contact information of all on-campus female students between the ages of 18-24 (N =14603) was obtained, and these students were emailed a short description of the study. This email also contained their unique username and password to access the website. Some emails were undeliverable due to incorrect email addresses or terminated accounts. After two weeks, a follow-up email was sent out as a reminder to potential participants to complete the questionnaire. The website was closed when the target number of participants was reached (calculated by power correlation, **Figure 1**). The raw data was received from the web developer, and incomplete or partial data were removed from the set. The Statistical Consultation Services of the NWU (Potchefstroom Campus) analyzed the data using the SAS statistical computer package (SAS Institute Inc., 2016). After analysis, the researcher compiled individual reports, and a unique individual report was e-mailed to participants. The report presents the results of the assessments and their interpretations, as well as details on the support services offered to all participants. It also provides instructions on how to access these services.

Figure 1

Power Calculation of Sample Size



DATA COLLECTION

This article explored the relationship between the internalization of the athletic-ideal and three possible harmful outcomes: body dissatisfaction, dieting or problematized eating behavior, and compulsive exercise. Measures were subsequently chosen to assess each of the components mentioned above respectively.

The Sociocultural Attitudes Towards Appearance Scale-4 (SATAQ-4)

The Sociocultural Attitudes Towards Appearance Scale-4 (Schaefer et al., 2015) was designed to measure societal and interpersonal aspects of the appearance ideal. This scale was included to explore whether the South-African female student participants have internalized the new athletic-ideal or still pursue the thin-ideal. This 22-item measure includes two sub-scales assessing Muscular/Athletic internalization vs. Thin/Low Body Fat internalization. Furthermore, the SATAQ-4 contains three sub-scales that assess appearance-related pressures from peers, family, and the media. According to Schaefer et al. (2015), the SATAQ-4 scale scores showed good convergent validity with measures of body image, eating disturbances, and self-esteem. This scale also demonstrated excellent reliability (Cronbach's α = 0.82 - 0.95) in American, Italian, Australian, and English female samples. In the current study, this scale demonstrated good reliability since the Cronbach alpha value for the various subscales of the SATAQ-4 ranged between 0.77 and 0.95.

The MBSRQ-Appearance Scale (MSBSR-AS)

The MSBSRQ-AS is a shorter version of the Multidimensional Body-Self Relational Questionnaire (MBSRQ) and includes scales pertinent to appearance (Cash, 2000). The MBSRQ-AS is a 34-item measure comprising five subscales: appearance evaluation; appearance orientation; overweight preoccupation; self-classified weight, and Body Areas Satisfaction Scale (BASS). The MBSRQ-Appearance Scale is considered a well-

validated measure of body image and provides insight into participants' perceptions of their bodies. According to Brown et al. (1990), the MBSRQ shows satisfactory internal reliability and construct validity. Saules et al. (2009) found good psychometric properties for this scale with an internal consistency of .73 to .89 and test-retest reliability. 74 to .91. There are several body image questionnaires available. The MBSRQ, however, is the most widely used and well-validated (Duncan & Nevill, 2010; Nevill et al., 2015). In the current study, Cronbach's alpha demonstrated good reliability as values for the various sub-scales of the MBSRQ-AS ranged between 0.79 and 0.9.

The Eating Attitudes Test (EAT-26)

The Eating Attitudes Test (Garner et al., 1982) is a standardized self-report measure designed to measure symptoms of eating disorders. This test was included to promote understanding of participants' eating behavior. This 26-item measure is an abbreviated form of the original EAT-40 (Garner & Garfinkel, 1979). The measure includes three subscales: Dieting, Bulimia and Food Preoccupation, and Oral control. Furthermore, this scale also includes five behavioral questions to identify behavior symptoms that could reflect an eating disorder. Garner et al. (1982) maintain that the EAT-26 is reliable and valid and can be used in clinical and non-clinical populations. To demonstrate internal reliability, an alpha coefficient of .95 was reported by Garner and Garfinkel (1979). Internal reliability of this measure among student-athletes was found by Lane (2003), with an alpha coefficient of 0.79 (Lane, 2003). In this study, the Cronbach's alpha was found to be 0.86, demonstrating good reliability.

The Obligatory Exercise Questionnaire (OEQ)

The Obligatory Exercise Questionnaire (Pasman & Thompson, 1988) explicitly explores exercises the individual feels required to undertake. This questionnaire was included to gain insight into possible maladaptive attitudes and perceptions about exercise. This 20-item questionnaire assesses the three components of obligatory exercise: frequency and intensity, negative emotionality, and preoccupation with exercise. According to Pasman and Thompson (1988), the OEQ demonstrated good internal consistency (0.96) and good test-retest reliability (two weeks, 0.96). This measure obtained a Cronbach's alpha of 0.9 in the present study, demonstrating strong reliability.

ETHICAL CONSIDERATIONS

Ethical approval was obtained from the Health Research Ethics Committee (HREC) of the NWU Faculty of Health Sciences (Ethics number: NWU-00026-16-A1). Written consent was also obtained from the Dean of Students of each campus. Informed consent information about the project was provided before participants could access the online questionnaires on the site. After confirmation that they had read, understood, and consented to the project, access to the questionnaires was granted. To protect the emotional well-being of all participants, a support telephone service was always available. A de-brief document was made available to the participants after completing the questionnaires.

RESULTS

Descriptive statistics and reliability indices for SATAQ-4, MSBSR-AS EAT-26, and OEQ were calculated and presented in **Table 2** and **Table 3**.

As indicated in **Table 2**, the measures and their respective sub-scales were reliable, achieving reliability coefficients that are deemed statistically acceptable (Aron et al.,2009; Pietersen & Maree, 2009). Confirmatory factor analyses indicated construct validity for all sub-scales of the SADAQ-4 and the sub-scales appearance evaluation and self-classified weight of the MBSRQ-AS. Construct validity is obtained when only one factor is extracted, accounting for a relatively high percentage of the total variance (60% or higher). The values of the commonalities of the different items in the construct need to be substantial (e.g., higher than 0.4). Although construct validity could not be determined for the other indices, inferences could still be made due to acceptable internal consistency reliability found on these measures.

Table 2

Reliability Indicators of Measure Indices

Measure	Variable	Cronbach Alpha
SADAQ-4	Thin_low_body_fat	.77
	Muscular_athletic	.87
	Family Pressures	.88
	Media Pressures	.95
	Peer Pressures	.92
MBSRQ-AS	Appearance_evaluation	.90
	Appearance_orientation	.79
	Overweight_occupation	.79
	Body_areas_satisfaction	.84
	Self_classified_weight	.81
EAT - 26	Dieting_scale	.87
	Bulimia_nd_food	.69
	Oral_control	.61
	All items	.85
OEQ	All items	.90

The SADAQ-4 indicated a mean of 16.96 for the thin-ideal and 15.14 for the athletic-ideal. The effect size of the difference in means (i.e., dividing the difference by the standard deviation of thin-ideal as reference) was calculated using Cohen's d, resulting in a value of d= 0.39. Cohen (1988) considers this to be a small effect. Furthermore, 32.77 % of the sample indicated a preference for the athletic-ideal. What is meant by a clear preference is that these participants scored higher on the athletic-ideal-internalization subscale than on the thin-ideal internalization subscale.

A mean of 13.64 was found for the indices of media pressures and a mean of 10.45 and 10.10 on family and peer pressures, respectively. The standardized differences between mean media pressure and each of the family and peer pressures were 0.59 and 0.65, respectively (both a medium effect). However, the standardized difference between family and peer pressure was small (0.07).

Pearson correlation coefficients were calculated between the SADAQ-4 and the various sub-scales of the MSBSR-AS, EAT-26, and OEQ. These correlations can be seen in **Table 4**.

Table 3

Descriptive Statistics of the Sample and Measures

Variable	N	Mean	Std Dev
Age	473		1.60
Current Weight	473		13.42
Highest Weight	466		15.71
Lowest Weight	469		10.95
Ideal weight	471		10.58
Height	463		11.06
BMI	461		5.63
Thin_low_body_fat	476		4.71
Muscular_athletic	476		4.93
Family_pressures	476		4.85
Peers_pressures	476		4.72
Media_pressures	476		5.44
Dieting_scale	476		7.54
Bulimia_nd_food	476		2.60
Oral_control	476	2.99	3.06
Eating binges	476	0.23	0.42
Self-induced vomiting	476	0.08	0.26
Laxatives, diet pills & diuretics	476	0.27	0.44
Exercised <60 minutes daily	476	0.05	0.22
Lost more than 9kg	476	0.11	0.30
OEQ	476		11.20
Appearance_evaluation	476		6.48
Appearance_orientation	476		7.05
Overweight_occupation	476		4.13
Body_areas_satisfaction	476		6.77
Self_classified_weight	476	6.67	1.48

Note. Please note that on the Thin_low_body_fat subscale, item b4 was omitted to increase reliability; the scale of it was, however, adjusted to be comparable with Muscular_athletic and literature.

The existence (given by a p-value) and strength (given by the coefficient r between -1 and +1) of a linear relationship between two variables are determined by using Pearson correlation measures (Cohen, 1988). A conclusion can be made that a correlation exists between two variables when the outcome is significant. Correlation values were interpreted using guidelines suggested by (Cohen, 1988): an absolute value of 0.1 is classified as small; an absolute value of 0.3 is classified as medium, and a value of 0.5 is classified as large.

Correlations between the SADAQ-4 and the indices of the MSBSR-AS were calculated to explore the relationship between the two ideals and body satisfaction. Small correlations were found between athletic-ideal internalization and appearance evaluation, appearance orientation, overweight preoccupation, and body area satisfaction. The thin-ideal internalization showed a medium correlation with all appearance evaluation, appearance orientation, body area satisfaction, and self-classified weight. A large correlation was found between thin-ideal internalization and overweight pre-occupation.

Table 4

Pearson Correlation Coefficient of SATAQ-4 with EAT-26, OEQ, and MSBSR-AS

	Thin-ideal	Athletic-ideal	Family pressures	Peer Pressures	Media pressures
Dieting_scale	***0.58	**0.38	0.37	0.40	0.46
Bulimia_nd_food	**0.30	*0.17	0.37	0.34	0.34
Oral_control	0.05	0.05	-0.03	0.01	0.03
Behavior_A: Eating binges	*0.22	*0.11	0.27	0.25	0.22
Behavior_B: Self-induced vomiting	*0.18	0.05	0.22	0.20	0.18
Behavior_C: Laxatives, diet pills & diuretics	*0.27	*0.18	0.19	0.28	0.28
Behavior_D: Exercised more than 60 minutes daily	*0.15	*0.23	-0.00	0.10	0.06
Behavior_E: Lost more than 9kg	0.02	-0.04	-0.03	0.02	0.03
OEQ	**0.41	***0.58	0.21	0.21	0.25
Appearance_evaluation	**-0.48	*-0.18	-0.49	-0.48	-0.50
Appearance_orientation	**0.32	*0.10	0.23	0.30	0.38
Overweight preoccupation	***0.55	*0.24	0.49	0.52	0.53
Body_areas_satisfaction	**-0.43	*-0.11	-0.43	-0.45	-0.50
Self_classified_weight	**0.34	0.07	0.53	0.46	0.39

Note. * Small correlation; ** medium correlation; *** large correlation

The following results indicate the relationship between the internalization of the thin and athletic-ideal and possible maladaptive eating behavior. A medium correlation was obtained between athletic-ideal internalization and dieting. Small correlations were found with athletic-ideal internalization, bulimia, and food preoccupation. Concerning the behavioral questions of the EAT-26, small correlations were found with eating binges, the use of laxatives/diet pills/diuretics, and exercising more than 60 minutes a day to control weight. The thin-ideal internalization showed a large correlation with dieting and a medium correlation with bulimia and food preoccupation. Concerning the behavioral questions of the EAT-26, a small correlation was found between eating binges, self-induced vomiting, the use of laxatives/diet pills/diuretics, and exercising more than 60 minutes a day to control weight.

With regard to internalization and obligatory exercise, large correlations were obtained between athletic-ideal internalization and obligatory exercise. The thin-ideal internalization showed a medium correlation with obligatory exercise.

DISCUSSION

Recent research studies suggested a change in what is considered the ideal female body; in addition to slenderness, the current ideal female body should also be toned, creating an athletic appearance (Benton & Karazsia, 2015; Dworkin & Wachs, 2009; Grogan, 2016; Homan, 2010; Homan et al., 2012). The first aim of this study was to establish to what extent participants have internalized this new athletic-ideal. The present study shows that the athletic-ideal is gaining popularity among this sample of the South-African female student population, as 32.77 % subscribed to the athletic-ideal. The results, however, indicate that the classic

thin-ideal can still be considered more popular amongst the sample, as indicated by a mean of 16.96 for the thin-ideal and 15.14 for the athletic-ideal, with a standard deviation of 0.36. It is evident, however, that there is a decrease in the standardized difference between the thin-ideal and athletic-ideal in the current study compared to other studies. In validating and developing the SATAQ-4, Schaefer et al. (2015) also found that women preferred the thin-ideal internalization but reported larger standardized differences between the thin and athletic-ideal.

Thin-ideal internalization has been the focus of research in the past few decades. Several studies have indicated a clear relationship between the thin-ideal and the adverse outcomes of body dissatisfaction, disordered dieting, and exercise (Flament et al., 2012; Groesz et al., 2002; Homan, 2010; Stice, 2002; Thompson & Stice, 2001). The current study aimed to contribute to the body of literature that explores if there is a similar relationship between athletic-ideal internalization and body dissatisfaction, disordered eating, and exercise behavior.

Body satisfaction is important to consider when evaluating the outcome of body-ideal internalization. Benton and Karzasia (2015) found that exposure to an ideal that can be considered toned (i.e., both thin and somewhat muscular) significantly influences body satisfaction. These authors maintain that the influence can be compared to the thin-ideal. Most studies, however, found a minimal association between body dissatisfaction and the athletic-ideal. Subsequently, this ideal is deemed less detrimental to body satisfaction than the internalization of the thin-ideal (Bell et al.,2016; Homan, 2010; Ramme et al., 2016; Schaefer et al., 2015). Similarly, this study demonstrated poor associations between the athletic-ideal and body dissatisfaction indices. A strong correlation between body dissatisfaction and the thin-ideal internalization was found. Significant relationships between the thin-ideal internalization and all five sub-scales of the MBSRQ-AS were evident (medium and strong correlations). Athletic-ideal internalization, on the other hand, only showed small correlations with appearance evaluation, overweight preoccupation, and body area satisfaction. It is important to note that the body area satisfaction sub-scales are a standard measure of body satisfaction often used in research articles (Cash, 2000). As mentioned above, this study found a small negative correlation between body areas' satisfaction and athletic-ideal internalization, indicating a relatively weak association between athletic-internalization and body dissatisfaction.

Regarding disordered eating, a moderate relationship between athletic-internalization and the dieting sub-scale was found during this research study. A weak correlation was found with behavioral symptoms such as using laxatives, diet pills, and diuretics to control weight and eating binges. Bell et al. (2016) also found a small but significant relationship between bulimic symptoms and athletic-internalization that was replicated in this study. The dieting sub-scale of the EAT-26, among others, explores dietary behavior that includes avoiding specific foods, awareness of calorie intake, guilt after eating, and a fear of weight gain. The relationship between this sub-scale and athletic-internalization suggests that these behaviors are also present among individuals with this ideal, although to a lesser extent than thin-ideal. As mentioned above, research has shown a clear relationship between the thin-ideal and problematic eating behavior (Flament et al., 2012; Groesz et al., 2002; Homan, 2010; Stice, 2002; Thompson & Stice, 2001). In this research study, thin-ideal internalization showed a large correlation with dieting and a medium correlation with bulimia and food preoccupation.

This research study found the strongest correlation between athletic-ideal internalization and obligatory exercise. This finding is supported by literature: studies either reported a significant correlation or found that athletic-ideal internalization can predict obligatory exercise (Bell et al., 2016; Homan, 2010; Pritchard et al., 2011). This relationship indicates that women who internalize an athletic-ideal could be at risk of developing a maladaptive relationship with exercise. This can include experiencing negative emotions such as guilt, irritability, and a depressed mood if they miss an exercise session or dangerous behavior like exercising despite being advised not to. However, it is essential to note that when an individual exercises for fitness reasons and not to control weight, obligatory exercise is not necessarily linked to the abovementioned risks (Adkins & Keel, 2005; Homan, 2010). The reasons for exercise can subsequently be seen as an important factor to consider when inferences are made from the correlation between athletic-internalization and obligatory exercise.

It is evident that, although the athletic-ideal internalization has indicated a relationship between the outcomes mentioned above, there is still a stronger relationship between the outcomes of maladaptive eating and body dissatisfaction and the thin-ideal. The obligatory exercise, however, showed a more significant relationship with the athletic-ideal.

RECOMMENDATIONS AND LIMITATIONS

A significant limitation when explaining the relationships between the ideals and various outcomes is that the measures used to explore the relationships were developed on the premise and construct of the classic thin-ideal. A recommendation for future research is thus the development and validation of a measure exploring the athletic-ideal internalization in more depth. The implication of this is a doubt whether researchers are investigating the most relevant concepts in this field. The characteristics of disordered eating in the conventional sense have been compiled and created following the pursuit of the thin-ideal. This highlights the need for further investigation into the behavior applied in the pursuit of the athletic-ideal and determines the extent to which they vary in comparison to behavior associated with the thin-ideal. The strong relationship with obligatory exercise emphasizes the need to explore the relationship with the athletic-ideal and exercise in more depth. This is salient since it is indicated that participants' reasons for exercise influence risk factors. A measurement assessing these reasons can significantly contribute to understanding the relationship between disordered exercise and athletic-internalization.

CONCLUSION

This research study demonstrated that the athletic-ideal is gaining popularity among this female South African student sample. Furthermore, it demonstrated significant associations with athletic-ideal, obligatory exercise, and dieting behavior. The poor association between body dissatisfaction and athletic-ideal found in literature was confirmed. Similar to previous research, the results of this study appear to support the notion that the athletic-ideal is not as detrimental as the classic thin-ideal phenomenon. Despite the weaker relationships with body dissatisfaction and dieting, Bell et al. (2016) claim that the athletic-ideal should be seen as unrealistic and a problematic ideal to pursue. Furthermore, Bell et al. (2016) found that body satisfaction did not mediate eating and exercise disturbances. This implies that, although several studies have found that body

dissatisfaction is not as affected as with the thin-ideal, the athletic-ideal can still be as detrimental in areas of disturbed eating and exercise. This research study highlighted the need for more in-depth studies to explore how the athletic-ideal influence dieting and exercise behavior to pursue this ideal.

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

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