

THEORETICAL MODELS IN POSITIVE BODY IMAGE OF YOUNG ADULT WOMEN: A SYSTEMATIC REVIEW

MODELOS TEÓRICOS NA IMAGEM CORPORAL POSITIVA DE MULHERES JOVENS ADULTAS: UMA REVISÃO SISTEMÁTICA

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ABSTRACT: Body image, which comprises positive and negative perceptions of one's body, is a multifaceted construct. While traditional research has primarily delved into the negative dimensions associated with eating disorders, recent academic efforts have shifted toward understanding the concept of positive body image. This encompasses aspects such as body appreciation and acceptance, as well as embracing broader beauty ideals. Recent investigations have placed an emphasis on exploring predictors and interventions aimed at nurturing a positive body image, particularly among young adult and college women, who are considered vulnerable to developing eating disorders. This highlights the critical need for systematic review studies to comprehensively examine existing theoretical frameworks in this area. The present study adopts a qualitative, exploratory and descriptive approach within the scope of the systematic literature review methodology. The review protocol was initially registered with PROSPERO and PRISMA guidelines were adopted. The databases PubMed, Scopus, Embase, Web of Science and PsycInfo were used to identify original articles that evaluated theoretical models of positive body image specifically in young adult women. The objective was to conduct a systematic review in order to synthesize the theoretical support on positive body image available to young university women. The systematic review yielded a total of 12 studies that met the inclusion criteria. Among the theoretical models identified, the Intuitive Eating Acceptance Model emerged as the most widely supported model in the literature. Variables explored in the context of positive body image models encompassed body appreciation, self-compassion, self-esteem, exercise motivation, intuitive eating, resilience, self-objectification, acceptance of others, family support, social comparison, body mass index, and media influence. Although the Intuitive Eating Acceptance Model demonstrates robust theoretical support, the review identified limitations related to temporal constraints and lack of sampling diversity that warrant further investigation.

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RESUMO: A imagem corporal, que inclui percepções positivas e negativas do próprio corpo, é uma construção multifacetada. Embora a investigação tradicional se tenha debruçado principalmente sobre as dimensões negativas associadas aos distúrbios alimentares, os esforços acadêmicos recentes têm-se orientado para a compreensão do conceito de imagem corporal positiva. Este conceito engloba aspectos como a apreciação e aceitação do corpo, bem como a adoção de ideais de beleza mais amplos. Investigações recentes têm dado ênfase à exploração de fatores de previsão e intervenções destinadas a fomentar uma imagem corporal positiva, particularmente entre as mulheres jovens adultas e universitárias, que são consideradas vulneráveis ao desenvolvimento de perturbações alimentares. Este facto realça a necessidade crítica de estudos de revisão sistemática para examinar de forma abrangente os quadros teóricos existentes nesta área. O presente estudo adopta uma abordagem qualitativa, exploratória e descritiva no âmbito da metodologia de revisão sistemática da literatura. O protocolo de revisão foi inicialmente registado no PROSPERO e foram adoptadas as diretrizes PRISMA. Foram utilizadas as bases de dados PubMed, Scopus, Embase, Web of Science e PsycInfo para identificar artigos originais que avaliassem modelos teóricos de imagem corporal positiva especificamente em mulheres adultas jovens. O objetivo era realizar uma revisão sistemática para sintetizar o apoio teórico sobre a imagem corporal positiva disponível para as jovens universitárias. A revisão sistemática produziu um total de 12 estudos que cumpriam os critérios de inclusão. Entre os modelos teóricos identificados, o Modelo de Aceitação da Alimentação Intuitiva surgiu como o modelo mais amplamente apoiado na literatura. As variáveis exploradas no contexto dos modelos de imagem corporal positiva englobam a apreciação do corpo, a autocompaixão, a autoestima, a motivação para o exercício, a alimentação intuitiva, a resiliência, a auto-objectificação, a aceitação dos outros, o apoio familiar, a comparação social, o índice de massa corporal e a influência dos media. Embora o Modelo de Aceitação da Alimentação Intuitiva demonstre um apoio teórico robusto, a revisão identificou limitações relacionadas com restrições temporais e falta de diversidade de amostragem que justificam uma investigação mais aprofundada.

Palavras-chave: Imagem corporal positiva. Apreciação do corpo. Mulheres jovens. Modelos. Teóricos.

INTRODUCTION

Body image is understood as the mental representation of the body. It is a complex and multifaceted phenomenon which involves both positive and negative aspects (Cash; Smolak, 2011; Tylka; Wood-Barcarlow, 2015). Traditionally, research on body image sought to focus on the negative aspects of the construct, such as body dissatisfaction, perceptual distortion of one's own body, as well as attitudes and risk behaviors for eating disorders. In this sense, studies have advanced with an approach focused on pathologies arising from dysfunctional behaviors, attitudes and feelings related to one's own image (Tylka; Wood-Barcarlow, 2015).

Based on the work of Cash and Pruzinsky (2002), the need to address positive body image was perceived in order to more broadly understand this construct. Thus, qualitative and quantitative research was developed in order to verify the difference between the positive and negative aspects of body image and also the development of positive body image measures. In turn, it was noticed that positive body image has its own definition, distinct from a negative body image. It should be considered that reducing negative body image levels does not automatically establish a positive body image (Tylka; Wood-Barcarlow, 2015).

Positive body image reflects love and respect for one's own body. This construct involves several facets which include at least nine characteristics: 1) Body appreciation (appreciation of the body beyond appearance, considering health and functionality); 2) Acceptance and love for one's own body (feeling of comfort even when not fully satisfied with the body, avoiding means which alter appearance); 3) Inner positivity (characterized by having body security, optimism, happiness and adaptive behaviors such as helping others); 4) Broad concept of beauty (considering different bodies beautiful, regardless of weight, shape or appearance); 5) Media understanding (awareness of unreal images, being able to filter information to protect the body); 6) Unconditional acceptance of another (feeling special for qualities beyond appearance); 7) Identification of people with a positive body image (relating with people who also have a positive body image); 8) spirituality/religion (respect the body as it was designed); and 9) Listening and taking care of one's body (performing pleasurable activities, taking care of one's own health, seeking prevention and healing behaviors) (Tylka, 2011; Tylka; Wood-Barcarlow, 2015).

Conceptual advances in positive body image have increased efforts to develop studies addressing positive body image predictors (Alleva et al., 2020; He et al., 2020; Koller et al., 2020.), and also of eating disorder prevention interventions which explore positive aspects of body image (Amaral et al., 2019; Hudson et al., 2021; Moffitt et al., 2018; Stice; Presnell, 2007; Wilson et al., 2020).

Promoting a positive body image is pointed out as one of the ways to circumvent developing a negative body image, as well as the dysfunctions developed as a result of it (Tylka; Wood-Barcarlow, 2015). In this sense, one of the populations most covered in studies on the subject is young adult and/or university women, since they constitute an important risk group for developing eating disorders (Alleva et al., 2020; Hudson et al., 2021, Koller et al., 2020; Moffitt et al., 2018, Wilson et al., 2020; Trindade et al., 2019). The increase in these studies has possibly brought theoretical conceptualization proposals of positive body image for young university women, since theoretical models are important for developing more assertive interventions not only for preventing the development of negative body image, but also for promoting a more positive body image. In view of this, the objective of this article was to conduct a systematic review in order to synthesize the theoretical support on positive body image available to young university women.

METHODS

This is a qualitative, exploratory, and descriptive study of the systematic literature review type, registered in the International Prospective Register for Systematic Reviews (PROSPERO) with registration number CRD42021271319, and it followed the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Page et al., 2021)."

The descriptors registered in the Medical Subject Headings (MESH) were initially defined. Then, the descriptors "Young Adult" and "Adult" and their plurals were inserted, as well as "College students" and "University students" using the Boolean operator "OR" to delimit the study population. Next, three descriptors of "Latent Class Analysis", "Models, Theoretical" and "Regression analysis" and all their synonyms separated by the Boolean operator "OR" were inserted in order to find studies that evaluated theoretical models. Descriptors related to Positive Body Image were used to define the theme of the theoretical models, as well as keywords identified in studies in the area: "Body appreciation", "Positive body image", "Body satisfaction", "Body acceptance" and "Body pride", connected through the Boolean operator "OR". The search phrase was created by joining the terms by the Boolean operator "AND". The searches were carried out during the month of August 2021 in the following databases: PubMed, Scopus, Embase, Web Of Science and PsycInfo, adapting the search according to each database. No temporal and idiomatic filters were used; the "advanced search" and "all fields" option were used in the databases which enable this option. This step was performed independently by two authors and a third author was consulted in case of disagreement.

The adopted criteria for article selection were: a) articles which aimed to evaluate a theoretical model of positive body image; and b) studies carried out with young female adults. Articles in which: a) the theoretical model evaluated was not aimed at explaining the development of positive body image; b) individuals of both sexes were evaluated and did not present the analysis separately for women, or whose average age group was not between 18 and 35 years old; and c) languages other than Portuguese, Spanish or English were used were excluded.

The online version of the EndNote tool was used to manage the articles. Duplicate studies were eliminated based on the selection criteria, meaning that they were identified in more than one database. Then, all studies were first selected for inclusion by title and abstract by two independent reviewers (R1, R2). Any disagreements between reviewers were resolved by discussion, and a third reviewer (R3) was consulted if necessary. Data extraction was independently conducted by two authors (R1, R2). The main information was cataloged in an Excel document for better visualization: 1) Authors, year and country; 2) Sample; 3) Purpose of the Theoretical Model; 4) The variables analyzed and respective instruments used. The studies were grouped for synthesis and content analysis based on the similarity between the variables analyzed in the theoretical models.

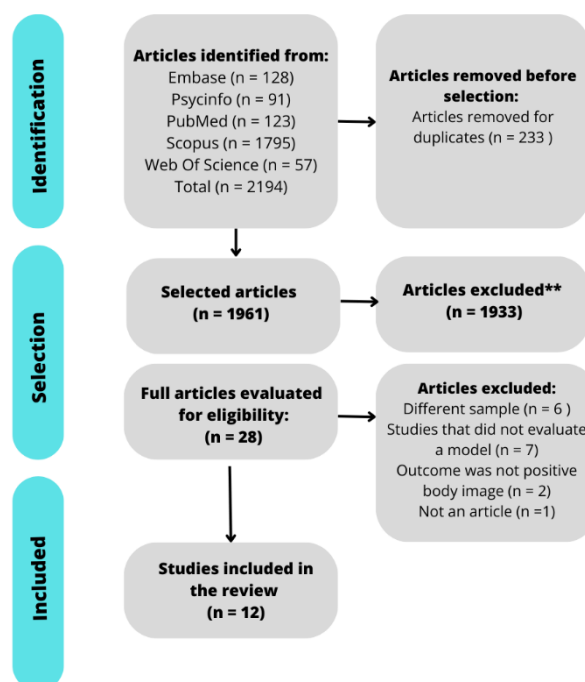
The quality of articles was assessed using the Quality Assessment Tool (QATSDD) (Sirriyeh et al., 2012). This tool has 16 items, 14 of which apply to quantitative studies. Items are evaluated on a scale from 0 to 3, with 0 when the study does not present the item information and 3 when the information is presented in a complete and detailed way in the article. The maximum score is 42 points, for which articles with a score greater than 21 are considered to be of good quality, and those below this value are considered to be of inferior quality (Sirriyeh et al., 2012).

RESULTS

A total of 12 articles were included in the present study for analysis, and the search and selection process is shown in Figure I and are shown in Table I. Some studies were excluded, for example, because they presented a sample whose average age of women was above the limit proposed in the present study or because they only proposed the model but did not evaluate it (Dijkstra; Barelds, 2011; Wood-Barcalow et al., 2010). The Acceptance Model of Intuitive Eating developed by Avalos and Tylka (2006) stood out among the theoretical models identified, being identified by the authors as the first theoretical model of positive body image in chronological order. This model was subsequently tested in different samples, including the

introduction of other important variables identified over the years. These other models are: the Body Appreciation and Gratitude Model (Homan; Tylka, 2018). Intuitive Eating Acceptance and Exercise Motivation Model (Tylka; Homan, 2015), Acceptance Model of Intuitive Eating in college athletes (Hahn Oh et al., 2012) and The Acceptance Model of Intuitive Eating comparing young adult, early adulthood, and middle-aged women (Augustus-Horvath; Tylka, 2011). Other theoretical models were additionally identified: Model to assess Positive Affect associated with Body Appreciation (Marta-Simões; Ferreira, 2020), the Integrated Model of Body Appreciation Predictors (Andrew et al., 2016), Model of Self-Compassion, Attachment Anxiety, and Body Appreciation (Raquel-Bogdan et al., 2016), Model of Self-Compassion, External Shame, and Body Appreciation (Marta-Simões et al., 2016) a Model which evaluates Interpersonal and Intrapersonal variables associated with Body Appreciation (Iannantuono; Tylka, 2012), Model of Self-Worth, Body Surveillance and Satisfaction with Appearance (Overstreet; Quinn, 2012) and the Model of Body Image Resilience (Snapp et al., 2012).

Figure I. review of the systematic process of identification and selection of articles.



Information on the selected studies is presented in Table I. The included articles were published from 2006 to 2020, most of them in the last ten years (N=11; 91.5%). Most of the studies were performed in the United States (N=9; 75%), followed by Portugal (N=2; 16.6%) and Australia, with one study (8.3%). The Body Appreciation Scale was used in most studies to assess body appreciation (N=10; 83.3%). Only two studies used different instruments: The Brief Inventory of Body Image (BIBI) (Overstreet; Quinn, 2012) and Body-Esteem (BE)-Appearance

Subscale (Snapp et al., 2012). Most studies used instruments validated for the population of interest and consolidated in the literature, except for the studies by Andrew et al. (2016) and Avalos and Tylka (2006) who created some instruments to evaluate specific variables in the studies.

Table I: studies included in the review

Authors	Year	Country	Purpose of the theoretical model	Sample	Variables and instruments used
Marta-Simões and Ferreira (2020).	2020	Portugal	Explore which specific type of positive affect had the strongest association with body appreciation.	286 ♀ Age between 18 and 50 years (M = 30,34 ± 9,67).	<p>Demographic variables: sex, age, area of residence, completed years of schooling, height, weight, body mass index (BMI) calculated as weight [kg]/height²[m²].</p> <p>Early memories of warmth and safeness: Early memories of warmth and safeness scale (EMWSS);</p> <p>Types of positive affect: Types of positive affect scale (TPAS);</p> <p>Social Safeness and Pleasure: Social Safeness and Pleasure Scale (SSPS);</p> <p>Body Appreciation: Body Appreciation Scale – 2 (BAS-2).</p>

Woman and Tylka (2018)	2018	Estados Unidos	Tested a Acceptance Model of Intuitive Eating linking gratitude, contingent self-worth, social comparison, body appreciation, and intuitive eating.	263 ♀ Age between 19 and 76 years (M = 35,26 ± 12,42)	<p>Demographic variables: sex, age, race/ethnicity, and sexual orientation;</p> <p>Gratitude: The Gratitude Questionnaire-6 (GQ-6);</p> <p>Contingent self-worth: Contingencies of Self-Worth Scale (CSW);</p> <p>Social comparison: Two subscales from the Body, Eating, and Exercise Comparison Orientation Measure (BEECOM);</p> <p>Body appreciation: Body Appreciation Scale - 2 (BAS-2);</p> <p>Intuitive eating: Intuitive Eating Scale (IES).</p>
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Andrew et al. (2016)	2016	Austrália	Examine and integrate a range of predictors suggested by various empirically supported body image frameworks.	<p>266 ♀ Age between 18 and 30 years (M = 20,04 ± 3,07)</p>	<p>Demographic variables: age, race/ethnicity, height, weight and body mass index (BMI) calculated as weight [kg]/height²[m²].</p> <p>Body appreciation: Body Appreciation Scale (BAS);</p> <p>Activities: Ten items addressed sports and physical activities (e.g.,organised sports, running, hiking), and 10 items addressed hobbies or other engaging activities (e.g., playing a musical instrument,arts and crafts, volunteering);</p> <p>Media consumption: Seven items created for the study to assess media consumption;</p> <p>Body acceptance by others: Body Acceptance by Others Scale (BAOS);</p> <p>Self-compassion: Self-Compassion Scale-Short Form (SCS-SF);</p> <p>Autonomy: Measure of Emotional Autonomy</p> <p>Self-objectification: Body Surveillance Subscale of the Objectified Body Consciousness Scale (OBCS);</p> <p>Social appearance comparison. Physical Appearance Comparison Scale (PACS);</p> <p>Thin-ideal internalization: Internalization subscale of the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ).</p>
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Raque-Bogdan et al., (2016).	2016	Estados Unidos	It examined the relationships between maternal attachment anxiety, peer attachment anxiety, romantic attachment anxiety, self-compassion, and body appreciation.	1306 ♀ Age (M = 18,73 ± 2,77).	<p>Demographic variables: age e race/ethnicity.</p> <p>Adult attachment styles: Experiences in Close Relationships – Relationship Structures scale (ECR-RS);</p> <p>Self-compassion: Self Compassion Scale (SCS);</p> <p>Body appreciation: Body Appreciation Scale (BAS).</p>
Marta-Simões et al., (2016)	2016	Portugal	Examine the role of self-compassion in the association between external shame and body appreciation.	111 ♀ Age between 18 and 35 (M = 21,30 ± 2,54).	<p>Demographic variables: age, weight, height, body mass index: was then calculated as weight [kg]/height²[m²].</p> <p>Other as Shamer: Other as Shamer Scale (OAS);</p> <p>Self-Compassion: Self Compassion Scale (SCS);</p> <p>Body Appreciation: Body Appreciation Scale-2 (BAS-2)</p>
Tylka and Homan (2015).	2015	Estados Unidos	Evaluate the Acceptance Model of Intuitive Eating adding two domains of motivation to exercise (functional and appearance).	258 ♀ Physically active women Age between 18 and 47 (M = 19.62 ± 2.87)	<p>Demographic variables: age e race/ethnicity.</p> <p>Body acceptance by others. Body Acceptance by Others Scale (BAOS);</p> <p>Internal body orientation: The Body Surveillance subscale of the Objectified Body Consciousness Scale (OBCS);</p> <p>Exercise motives: The Function of Exercise Scale (FES);</p> <p>Body Appreciation: Body Appreciation Scale (BAS);</p> <p>Intuitive eating: Intuitive Eating Scale (IES)</p>

Iannantuo no and Tylka (2012)	2012	Estados Unidos	To propose an exploratory model of positive body image where body appreciation was examined as a mediator to determine whether body appreciation was responsible for the contributions made by interpersonal and intrapersonal variables to depressive symptoms and intuitive eating.	249 ♀ Age between 18 and 28 (M = 19,1 ± 1,7).	<p>Demographic variables: age, weight, height, body mass index: was then calculated as weight [kg]/height²[m²].</p> <p>Body Appreciation: Body Appreciation Scale-2 (BAS-2);</p> <p>Caregiver eating messages: Caregiver Eating Messages Scale (CEMS);</p> <p>Adult attachment: Experiences in Close Relationships Scale (ECRS);</p> <p>Perfectionism: Almost Perfect Scale-Revised (APS-R);</p> <p>Depressive symptoms: Beck Depression Inventory-II (BDI-II);</p> <p>Intuitive eating: Intuitive Eating Scale (IES).</p>
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Hahn Oh et al., (2012).	2012	Estados Unidos	Investigate the Acceptance Model of Intuitive Eating in university athletes.	160 ♀ Age between 18 and 23 (M = 19.88 ± 1.91)	<p>Demographic variables: age, year in school, primary sport, division of university (Division I or Division II), race/ethnicity, social class, sexual orientation, height, weight, body mass index (BMI) calculated as weight [kg]/height²[m²].</p> <p>Unconditional acceptance. 32-item version of the original 86-item Barrett-Lennard Relationship Inventory (BLRI);</p> <p>Body acceptance by others: Body Acceptance by Others scale (BAOS);</p> <p>Body function: Body Surveillance subscale of the Objectified Body Consciousness scale (OBC);</p> <p>Body Appreciation: Body Appreciation Scale (BAS);</p> <p>Intuitive eating: Intuitive Eating Scale (IES).</p>
Overstrett And Quinn (2012).	2012	Estados Unidos	Investigate whether investing self-worth in certain domains is associated with reduced body surveillance and increased satisfaction with appearance based on the evaluation of a theoretical model and analyzing the difference between races.	337 ♀ 115 black 222 white Age between 17 and 30 (M = 18.86 ± 1.59)	<p>Demographic variables: age, race/ethnicity, height, weight, body mass index (BMI) calculated as weight [kg]/height²[m²].</p> <p>Contingent self-worth: Contingencies of Self-Worth Scale (CSW);</p> <p>Body surveillance: Subscale of the Objectified Body Consciousness scale (OBCS);</p> <p>Body Appreciation: Three items from the Brief Inventory of Body Image (BIBI).</p>

Snapp et al., (2012).	2012	Estados Unidos	To investigate the theoretical model of body image resilience, examining the associations between these factors and how they contribute to well-being and positive body image.	301 ♀ Age between 17 and 23 (M = 19; $\pm 0,50$)	<p>Demographic variables: date of birth and race/ethnicity;</p> <p>Body Image: Appearance Subscale of the Body-Esteem (BE);</p> <p>Family of Origin Support: Perceived Social Support-Family Scale (PSS-Fa);</p> <p>Perceived Sociocultural Pressure: Perceived Sociocultural Pressure Scale;</p> <p>Superwoman Ideal: The Superwoman Scale;</p> <p>Physical Self-concept: Physical Self-Description Questionnaire;</p> <p>Active Coping: The Active Coping subscale of the COPE Inventory;</p> <p>Wellness-balance: The Perceived Wellness Survey.</p>
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Augustus-Horvath and Tylka (2011).	2011	Estados Unidos	<p>Evaluated the Acceptance Model of Intuitive Eating by adding the body mass index investigated with emerging (ages 18–25, n 318), early (ages 26–39 years, n 238), and middle (ages 40–65 years, n 245) adult women.</p>	<p>Total sample: 801 ♀</p> <p>Emerging women (n=318): age between 18 and 25 (M=19,47 ± 1,90)</p> <p>Early women (n=238): age between 26 and 39 (M=32,63 ± 4,06)</p> <p>Adult Women (n=245): age between 40 and 65 (M=51,38 ± 7,07)</p>	<p>Demographic variables. Age, ethnic identification, socioeconomic status, highest education level completed, school status (if applicable), and relationship status.</p> <p>Perceived social support: The 24-item Social Provisions Scale (SPS);</p> <p>Body acceptance by others. The Body Acceptance by Others Scale (BAOS);</p> <p>Resisting an observer's perspective of the body. Body Surveillance subscale of the Objectified Body Consciousness Scale;</p> <p>Body appreciation. Body Appreciation Scale (BAS);</p> <p>Intuitive eating. Intuitive Eating Scale (IES).</p>
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Avalos and Tylka (2006).	2006	Estados Unidos	<p>Evaluate a Theoretical Model of Body Appreciation divided into two studies:</p> <p>Study 1: perform an initial examination of model fit and assess whether the hypothetical paths are maintained with university women;</p> <p>Study 2: Determine whether the results of Study 1 can be extended to another sample of female college students and also recruit a larger sample to use latent variable structural equation modeling (SEM) to assess the acceptance model and its pathways.</p>	<p>Study 1: 181 ♀ Age between 17 and 55 (M=20.24, \pm 5.17).</p> <p>Study 2: 416 ♀ Age between 17 and 50 (M=19.92, \pm 4.60).</p>	<p>Demographic variables. Age.</p> <p>Perceived unconditional acceptance from the most influential other: The 36-item version of the original 86-item Barrett-Lennard Relationship Inventory (BLRI)</p> <p>Body acceptance by others: A measure was developed for the purposes of the present study. The Body Acceptance by Others Scale (BAOS) was created by modifying items from the Perceived Sociocultural Pressures Scale (PSPS)</p> <p>Body function: Body Surveillance subscale of the Objectified Body Consciousness Scale (OBC);</p> <p>Body appreciation: Body Appreciation Scale (BAS);</p> <p>Intuitive eating: Intuitive Eating Scale (IES).</p>
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Note: M=Average age; ♀ = female sex; \pm SD.
Source: Constructed by the author.

DISCUSSION

The present systematic review aimed to synthesize the main findings on positive body image in young female university students from studies that evaluated theoretical models. The results showed the existence of several models that seek to understand the development of positive body image, either as the main construct, or also theoretical models which analyzed the development of other factors relevant to this construct. From the analysis of studies through content analysis, the discussion was subdivided into: 1) Theoretical models evaluated; and 2) Main limitations of the studies and possible advances.

THEORETICAL MODELS EVALUATED

Among the theoretical models evaluated, the Acceptance Model of Intuitive Eating (Avalos; Tylka, 2006) has been an important reference in studies on the subject. In addition to the original study, four other studies included in this review were based on this model for the assessment of positive body image, modifying it and/or adding other factors identified as relevant over the years (Augustus-Horvath; Tylka, 2011; Hahn Oh et al., 2012; Homan; Tylka, 2018; Tylka; Homan, 2015).

Other models in addition to these were included, evaluating the influence of factors such as resilience, self-compassion, self-worth, family and romantic relationships on positive body image.

Theoretical models based on the “Acceptance Model of Intuitive Eating”

The “Acceptance Model of Intuitive Eating” (Avalos; Tylka, 2006) tested the influence of unconditional acceptance and body acceptance by others as perceived by women on the appreciation of body functionality and consequently on body appreciation and intuitive eating. The model evaluation showed that women who perceived themselves to be unconditionally accepted had higher scores in the perception that their bodies are accepted by others, and this perception was a predictor of body appreciation. Furthermore, when women emphasized the functionality of their bodies more than appearance, they maintained positive feelings towards them. Therefore, they ate according to the signs of satiety, meaning they maintained an intuitive diet. In turn, the influence of the perception of body acceptance by other people on intuitive eating was explained by a positive body orientation (valuation of functionality and body appreciation).

The study by Augustus-Horvath and Tylka (2011) advanced by adding the Body Mass Index (BMI) to the structure of the “Acceptance Model of Intuitive Eating” and investigated its applicability in women of different age groups: young adults (among 18 and 25 years old), adults (between 26 and 39 years old) and middle-aged women (between 40 and 65 years old). The model was adjusted to all age groups and the relationships observed in the original study were maintained. The authors also identified that an increase in perceived social support (as it replaced the perception of unconditional acceptance) was associated with higher levels of perceived body acceptance by others. When women perceived that their bodies were accepted, they were resistant to adopt an observer’s perspective of their body. In other words, these women valued the functionality of the body more than the appearance, adopting an intuitive eating when they were not concerned about how their bodies looked to other people.

BMI was not directly related to body appreciation in this model, but this was mediated by other people's acceptance of the body. This fact demonstrates that BMI will not necessarily predict a greater body value by women, but rather how much their bodies are accepted by other people. In addition, BMI was not a direct predictor of intuitive eating among young adults, although it was for other age groups. The authors' rationale is that as they age, women tend to trust their bodies less in their ability to regulate food intake. In addition, women who showed greater resistance to being vigilant in relation to their bodies showed greater body appreciation. Overall, the strength of relationships was weaker in young adult women than in other age groups, demonstrating that perhaps young adults have other influencing factors which were not addressed in the model.

The authors Hahn Oh et al. (2012) tested the model in university athletes, also controlling for relationships by BMI. In this study, women who appreciated their bodies and were more concerned with functionality and less with appearance were also able to intuitive eating, even those who had a lower perception that others accept their bodies. This result showed that athletes manage to adopt positive behaviors (such as intuitive eating) even when perceiving criticism about their bodies.

The authors also analyzed body acceptance by others in relation to coaches and teammates, who played a similar role in the model, compared to everyone else (parents, media and friends), demonstrating the importance of these relationships for women young athletes. When comparing women who practice "non-lean" and "lean" sports and body acceptance by others, it was shown that there is a difference with regard to the media with women practicing "non-lean" sports perceiving a greater acceptance of their bodies by the media compared to "lean" sport practitioners (i.e., sports requiring lower body weight or physical leanness, such as swimming and gymnastics).

Tylka and Homan (2015) evaluated the model in relation to exercise motivation, adding two domains, namely: external exercise motivation related to appearance and internal exercise motivation related to functionality. In view of this, women are more likely to engage in exercise for internal motivation when they perceive that their bodies are unconditionally accepted by others, valuing the functionality of the body and contributing to body appreciation and intuitive eating. On the other hand, the model showed that women who have a low ability to focus on the functionality and sensations of their bodies, called internal body orientation, have greater motivation to exercise for appearance. Thus, the model highlighted the importance of regular exercise with a focus on motivation related to functionality rather than appearance in order to develop a more positive body image.

More recently, the “Acceptance Model of Intuitive Eating” was analyzed by Homan and Tylka (2018), who included gratitude in order to investigate variables that could be better developed through interventions. The authors argue that gratitude is an intrapersonal and modifiable factor, meaning that it is subject to intervention, differing from the interpersonal variables of “perception of unconditional body acceptance” and “perception of approval from others”, included in the first version (Avalos and Tylka, 2006). These variables are considered to be more difficult to be promoted by interventions, as they involve developing desirable behaviors for third parties. Thus, focusing on evaluating the role of concern for appearance and the approval of others in the model, “investing their self-worth in their appearance” and “investing their self-worth for the approval of others” were also included as variables. In addition, two other variables related to social comparison behaviors were also added: “appearance comparison” and “eating comparison”.

The model showed that grateful women tend to have a greater appreciation for their bodies and also a lower investment of self-worth in appearance. Similarly, they showed less comparison of body and eating. In turn, body appreciation was associated with greater intuitive eating. Gratitude and intuitive eating were associated, mediated by body appreciation, demonstrating that this is an important construct in the development of positive behaviors.

Other theoretical models evaluated

Iannantuono and Tylka (2012) explored a model that aimed to assess the development of positive body image based on some interpersonal variables (Restrictive/critical caregiver eating messages, and attachment anxiety and avoidance) and intrapersonal variables (maladaptive and adaptive perfectionism, high standards and order perfectionism⁷), intuitive eating, depressive symptoms and body appreciation. The model evaluation showed that the lower the maladaptive perfectionism, attachment anxiety and restrictive eating messages from caregivers, the greater the appreciation of the body by the young women, and also the higher the scores of intuitive eating. These results were mediated by body appreciation, demonstrating how these variables are linked to women’s intuitive eating and highlighting the importance of this dimension of positive body image. When considering attachment anxiety and maladaptive and high-standard perfectionism, body appreciation was not significantly associated with depressive

⁷ Note: perfectionism is a multidimensional construct composed of maladaptive and adaptive facets. Individuals with a high level of maladaptive perfectionism set unrealistic standards for themselves, causing a discrepancy between those standards and the ability to achieve them. In contrast, adaptive perfectionism is divided into “high standards” and order, the former setting ambitious but realistic goals which become motivational and encouraging, the latter referring to issues related to order and organization (Rice et al. 1998).

symptoms. Depressive symptoms were inversely related to intuitive eating, but there was no association when considering body appreciation, restrictive eating messages and attachment anxiety. The authors emphasize that the fact that the correlations between body appreciation, intuitive eating and depressive symptoms are not as strong and stable, as observed between body dissatisfaction and bulimic symptoms, demonstrate that body appreciation is not the opposite of body dissatisfaction in the same way. Intuitive eating also cannot be defined as simply the lack of symptoms of an eating disorder.

Overstreet and Quinn (2012) tested a model that explores the way in which the seven self-worth contingencies (domains in which the individual invests their self-esteem) are associated with body surveillance and satisfaction with appearance. The authors found that investing self-esteem in the appearance and approval of others was associated with greater body surveillance and negatively associated with satisfaction with appearance. Family support and God's love were associated with bodily satisfaction. Family support was positively associated with satisfaction with appearance for white women, but not for black women. God's love was also indirectly related to body satisfaction. Academic competence had an indirect effect with satisfaction only in white women. The results showed that the domains in which women invest their self-esteem are those that are important to them, and investing in some domains, such as the appearance and/or approval of others, can be harmful, while investing in God's love and family support domains can play a beneficial role.

Another model included in the present study is the "Body Image Resilience Model", proposed by Choate (2005) and evaluated by Snapp et al. (2012) in university students. The authors investigated whether family support and low levels of pressure to achieve the ideal of thinness were related to rejection of the "superwoman ideal", with the "positive physical self-concept" and the adoption of "active coping skills", in addition to well-being. The study showed that women who presented greater family support and perceived less sociocultural pressure rejected the superwoman ideal, had a greater physical self-concept, greater active coping and a consequent increase in general well-being and body appreciation. The results showed that when family social support is greater, young women experience less perceived sociocultural pressure, increasing body appreciation.

Self-compassion was also the focus of some models. In the first, Marta-Simões et al. (2016) investigated the role of self-compassion in the relationship between external shame and body appreciation in young adults of both genders. Among the women evaluated, BMI and external shame were negatively correlated with body appreciation and positively with self-

compassion. External shame presented both a direct and indirect correlation with body appreciation, mediated by self-compassion.

In the study by Raque-Bogdan et al. (2016), self-compassion was related to maternal attachment anxiety, peer and romantic attachment anxiety and body appreciation. The study showed that these relationships (maternal, peer and romantic) influence the body image of university students. Self-compassion was positively related to body appreciation and also mediated the link between peer attachment and romantic attachment anxiety to body appreciation.

The influence of relationships was also analyzed in the study by Marta-Simões and Ferreira (2020), who explored the associations between positive memories of past affiliative experiences (early memories of warmth and safeness), valuing the body, current experiences of safeness and connectedness within social interactions (social safeness and pleasure) and positive affection experiences. Women who had childhood memories of safeness had current experiences of safeness and connection within social interactions. Current social safeness was the variable which showed the highest correlation with body appreciation, demonstrating that when women feel safe in the social context in which they live, they tend to appreciate their bodies. Women who reported higher memory scores of a safe childhood showed a positive affect related to safeness/contentment, associated with greater current feelings of social safeness and pleasure, demonstrating that women who experienced a childhood with emotionally safe relationships with close people can influence the development of secure attachment and emotional regulation in youth. The results of the model underscore the importance of interpersonal factors in positive body image and safe, loving relationships in childhood and adulthood.

In turn, the study by Andrew et al. (2016) explored several predictors already evaluated in previous theoretical models. The authors demonstrated that greater body appreciation was significantly related to greater perception of body acceptance by others and self-compassion, and less appearance-based media consumption, self-objectification, social comparison and internalization of the thin ideal. When evaluating participation in sports and hobbies, it was identified that these did not present a correlation with body appreciation, although greater participation in sports was indirectly associated with body appreciation through lower self-objectification levels. Women who consume more appearance-based media reported lower body appreciation and were linked to social comparison and internalization of the thin ideal. Greater body acceptance by others and self-compassion were associated with greater body

appreciation. The association of self-compassion with body appreciation was mediated by lower self-objectification, social comparison, and internalization of the thin ideal.

MAIN LIMITATIONS AND POSSIBLE ADVANCES CITED BY THE AUTHORS

According to the limitations mentioned by the authors, some points deserve to be highlighted. First, the studies showed that the cross-sectional methodology has been a limitation when interpreting the results due to the fact that the data were only collected in one moment, and therefore it is not possible to establish causal relationships. Even when the model shows good fit, it is still possible that other unmeasured variables are driving the observed relationships, or even that the relationships occur in different directions, or are bidirectional. It may be that a variable which appears to be a mediator from a cross-sectional analysis does not appear that way in a longitudinal analysis and vice versa (Maxwell et al., 2011). Although this is a gap recognized by scholars on the subject, no longitudinal study was found in accordance with the inclusion criteria adopted in the present review. It seems that the difficulty in conducting longitudinal studies is a factor that has influenced the choice for cross-sectional studies, as they allow a representative sample and in a shorter time. Therefore, it is known that longitudinal designs should be explored in an attempt to fill the gaps cited in the studies, enabling scientific progress in this area.

The second most common point among the limitations mentioned by the authors included in this review refers to the sample. Most of the studies included in the present review were directed to women, university students and whites. This factor impairs the external validity of the study and therefore care must be taken when interpreting the results, as it is not possible to generalize them to women of other ethnicities and socioeconomic levels, such as working-class women. It is known that women at this life stage go through numerous events and changes and that they have high body dissatisfaction which put them at greater risk for developing image and eating disorders (De Souza; Alvarenga, 2016; Frank et al., 2016). Although it has been shown that women in general are at risk for these disorders (Burke et al., 2021), studies need to be extended to more diverse samples. As the focus of the present study was to evaluate the models in young adult women, age and gender will not be considered as a limitation for discussion, since other more comprehensive studies exist, but they were discarded as they did not fit the criteria. In any case, the scope and heterogeneity of the sample prove to be a general weakness of the studies.

Another issue which is not controlled in studies, but extremely relevant when assessing body image in women refers to pregnancy. Investigating whether a woman is or has been

pregnant was mentioned by Augustus-Horvarth and Tylka (2012) who considered that pregnancy can contribute to the difference in body image between ages. In addition, the control of this variable was also suggested by Iannantuono and Tylka (2012) as well as BMI and relationship state. Although this variable was highlighted as a limitation, even if only by these authors, it was not controlled in any study included in the present review. It is known that body image in pregnant women is a relevant factor and that negative body image can be associated with depression, low self-esteem, inadequate diet and greater weight gain. In addition, pregnancy can alter positive experiences in relation to one's own body, proving to be a protective factor for developing depression (Przybyła-Basista et al., 2020) and for promoting psychological well-being (Fahami et al., 2018), which may be associated with the change in the social role of women during this life phase (Davis; Wardle, 1994; Duncombe et al., 2008).

Regarding the sample specifics, gender issues were not controlled in the studies, acknowledging the complexity beyond the traditional male-female binary. Gender issues constitute crucial variables to be addressed, as advocated in literature within the field (Mantey et al., 2021; Hadland et al., 2014). Moreover, attention should be given to other marginalized groups, including women with disabilities, various ethnicities, and diverse socioeconomic backgrounds.

Only one of the studies reported the sample size as a limitation (Marta-Simões et al., 2016), and in fact this was the study with the smallest number of young women analyzed among all of the studies analyzed; although the authors pointed this out as a limitation, the sample presented was consistent with what is indicated in the literature. Although the sample size is an important factor in evaluating theoretical models, few studies presented information on the recommendations that justify the sample size of the study Augustus-Horvath and Tylka (2011), Avalos and Tylka (2006), Homan and Tylka (2018), Iannantuono and Tylka (2012), Marta-Simões et al. (2016) and Tylka and Homan (2015).

Lastly, an important limitation observed by us refers to the use of scales without the proper more robust psychometric analyses, such as exploratory and confirmatory analyses. In the study by Andrew et al. (2016) two specific instruments were created to assess physical activities performed by women and media consumption. Avalos and Tylka (2006) also created a specific instrument for their study based on another pre-existing instrument, although they presented some analyzes indicative of validity. Most of the studies were concerned with using valid instruments for the population studied, indicating that good research practices have been conducted in the area.

Advances in the area are necessary, such as a longitudinal design, evaluation in different samples, whether due to ethnic, racial, age, or sexual differences, among other characteristics which may be relevant in the face of changes in relation to these constructs, and also the use of instruments which have been validated for the study population.

CONCLUSION

The present study sought to synthesize the existing theoretical models of positive body image for the population of young women. According to the studies found, it was observed that the “Acceptance Model of Intuitive Eating” was the most used, with most of the research performed in the North American population, demonstrating that there is a gap in research conducted in other countries, such as in Latin American countries.

Studies have shown that the development of positive body image, mainly manifested by body appreciation, has been related to positive feelings and behaviors, such as gratitude, self-compassion, self-esteem, intuitive eating, exercise, and healthy relationships with family members, romantic partners, and friends. Demonstrating the importance of cultivating these positive feelings and behaviors and enjoying healthy relationships to promote a more positive body image and prevent image and eating disorders.

In order to seek advances in the literature, it is necessary that studies which evaluate theoretical models of positive body image are carried out in different populations, of different ethnicities, economic classes and age groups, in addition to varying the methodological designs, including and controlling other variables, in order to investigate other not yet consolidated factors which may be related to developing positive body image.

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