

# Mother/daughter attachment and its relationship with body dissatisfaction, aesthetic models and eating behaviors

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*Perception of maternal behaviors and attitudes in daughters and their levels of body satisfaction, eating behavior and influence of body aesthetic models were analyzed. A quantitative, cross-sectional, intentional, non-probabilistic and snowball approach was used. Twenty-two mother/daughter pairs (n = 44) completed the PBI, BSQ, CIMEC and E-TONA. A descriptive statistical analysis, calculation of percentages and correlation coefficients were carried out using the SPSS program. Daughters mainly perceived maternal control without affection (31.8%); in 18.2% both were on a diet; 40.9% of daughters versus 22.7% of mothers showed alteration of body scheme, exhibiting discomfort, in 63.6% and 45.5%, respectively. Maternal overprotection perceived by daughters was statistically significant (r = 0.513, p = 0.015). Levels of body satisfaction in daughters (r = 0.694; p = 0.000), weight concern (r = 0.612; p = 0.002) and body image (r = 0.707; p = 0.000), were correlated directly and significantly with those of mothers and with agents and situations that broadcast the aesthetic model of their mothers (r = 0.544, p = 0.009 and r = 0.625, p = 0.001, respectively). Daughters' perception of a maternal control without affection with over-concern was observed, in addition to alteration of body scheme in mothers and daughters and a significant influence of body aesthetic models.*

**Keywords:** Mother-daughter attachment; adolescence; body dissatisfaction; aesthetic models, eating disorders

## Introduction

In our Western society, education tends to shape our body and adapt it to the requirements and norms of our surroundings, where it takes on a highly relevant function as a cultural mediator <sup>(1)</sup>.

These requirements and norms of the environment become evident starting at a school age, especially concern over body image, which is associated with popularity,

intelligence, success, and rejection of obesity. This phenomenon is observed with greater frequency in women, who focus their ideal on a slender figure, on external appearance, and on this figure translating into social success, which is a trend that is exacerbated during adolescence <sup>(2-4)</sup>. Adolescent population shows greater vulnerability, as their identity is still in process of being built, and they do not yet have their own criteria nor values, which would allow them to escape from the pressure of the current

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aesthetic models associated with striving for an increasingly skinnier body<sup>(5)</sup>.

Proctor et al<sup>(6)</sup> suggest the relevance of analyzing the factors related to life satisfaction in young people, given that evidence demonstrates that this has major implications on their psycho-social and educational functioning. According to Orcasita & Uribe<sup>(7)</sup>, social support constitutes a protection factor in the wellbeing of adolescents, because it provides emotional, material, and informational support, while providing valuable resources to face the risky situations inherent in this stage of the life cycle. Moreover, early experiences young people have with food, and the eating practices of their parents, especially the mother, are fundamental in the eating habits they will develop as individuals<sup>(8)</sup>. Children learn by imitating values, concerns, and behaviors, and it could be suggested that this also occurs with image management and weight, which could constitute a risk factor for developing eating disorders<sup>(9)</sup>.

The mother, specifically, is the primary model and promoter of behaviors, habits, and attitudes related to eating and physical activity in children, which are primarily developed during the pre-school stage. This is because it is during these first five years of life when eating habits, preferences, and aversions to certain food are learned, as well as habits and behaviors related to physical activity that can prevail up until adult life<sup>(10)</sup>. In this regard, McCabe & Ricciardelli<sup>(11)</sup> point out that the attitudes depicted by the mothers on appearance, diet, and exercise in preschoolers conveyed messages to their daughters aimed at losing weight, thus encouraging body image dissatisfaction.

Strober et al.<sup>(12)</sup> have suggested that women display a greater genetic disposition for developing problematic eating behaviors, as well as greater exposure to sociocultural factors. It is important to highlight the influence of communication media as primary promoters of current body ideals<sup>(13)</sup>, and what currently prevails is advocating that "being beautiful is equal to being thin." Because this is many times bio-genetically difficult to achieve, it creates a discrepancy between the actual body size and ideal body size, thus producing body dissatisfaction<sup>(1)</sup>. This factor creates an ideal

model of beauty that is socially established and shared, which translates into significant pressure for society members over the importance placed on being attractive in order to be successful in all areas<sup>(14)</sup>.

Current culture has promoted being thin to such an extent that a large number of adolescents display considerable dissatisfaction with their body shape and weight<sup>(11,15,16)</sup>, thereby triggering a number of inappropriate behaviors related to eating and body weight, which represent a risk for developing an eating disorder<sup>(13)</sup>.

The tripartite model of influence for body image and eating disorders<sup>(17)</sup> indicates that parents, along with the media and peers, play a crucial role in the development of body image and in disorders among adolescents.

The indirect channel of influence of parents, according to the learning model, suggests that children imitate behavior, attitudes, and observable comments on the body made by parents, whether verbal expressions of body dissatisfaction or the use of weight loss strategies. By comparison, the direct channel of parental influence assumes that parents' comments about the physical beauty of their children, such as statements about shape and weight, or encouraging a diet and exercise, affect the child's body image and behavior<sup>(18)</sup>.

In terms of indirect maternal transmission, associations have been found between the mothers' eating behavior and their daughters' weight control strategy, restricted eating, body dissatisfaction, and thinness. Regarding direct maternal transmission, studies have shown associations between maternal criticism related to the daughter's body and encouraging a diet and the daughters' body dissatisfaction, eating problems, attempts to lose weight, unhealthy behavior to control weight, and binge eating<sup>(18)</sup>; as such, the mothers with eating disorders pass down part of the pathology to their daughters<sup>(9)</sup>. In this sense, it has been observed that women have a significant influence over daughters by passing down their body dissatisfaction and leading them to restrictive eating behaviors<sup>(19)</sup>. Cooley et al.<sup>(20)</sup> concluded that the frequency of negative maternal messages demonstrated significant associations with all the concerns over weight/shape, frequency and focus on exercise, and eating disorder symptoms<sup>(21)</sup>.

Many times adolescents stop eating due to family problems, especially with their mothers (such as arguments over losing weight)<sup>(22)</sup>. On the other hand, Neumark-Sztainer et al.<sup>(23)</sup> observed that the girls who were made fun of for their weight were ten times more likely to overeat in comparison with those girls whose family members did not tease them.

Despite the fact that early adolescence entails an exacerbation of body dissatisfaction and of concerns over weight, studies have not sufficiently looked into the effect of maternal conversation on personal weight, including individual diet, as a possible characteristic of mother-daughter attachment<sup>(24)</sup>. In this regard, the best results in terms of healthy aspects surrounding thinness and eating behavior were found when there was limited encouragement and conversation from the mother regarding personal concerns over weight<sup>(24)</sup>.

To this extent, Bowlby<sup>(25)</sup> considers attachment to be the central element in the individualization process, and hypothesizes that the behavior of the child is motivated by gaining closeness and maintaining the availability of the maternal figure. This contribution has been an excellent path to understanding eating disorders, given that various symptoms displayed by these patients (i.e. depression, sense of inefficacy, low self-esteem, alexithymia) appear to be linked to deficiency in the primary bond. Insecure attachment can be a factor of vulnerability for triggering these disorders, and a poor stimulus of personal growth can lead to low self-esteem and body dissatisfaction<sup>(26)</sup>. In light of this, it has been observed that one of the most important etiologic factors in eating disorders is a deficiency in the primary bonding pair<sup>(27-29)</sup>. The aim of this research is to link the perceptions of adolescent daughters with the mothers' behavior and attitudes, along with the levels of body satisfaction, eating behavior, and influence of aesthetic body models in the mother/daughter pair, specifically: (a) describe the type of attachment in terms of the dimensions of overprotection and care that are displayed by the mothers and their adolescent daughters; (b) describe the eating behaviors of the mothers and their adolescent daughters; (c) identify the levels of body satisfaction and influence of aesthetic body models in the

mothers and their adolescent daughters; (d) link the perception of the behaviors and attitudes of the mothers in their daughters with eating behaviors, levels of body satisfaction, and influence of aesthetic body models of mothers and their adolescent daughters; (e) determine whether the perception of overprotection and care of the daughters regarding their mothers is related to their eating behaviors, levels of body satisfaction, and influence of aesthetic body models.

## Material and method

A non-experimental, cross-sectional, and correlational quantitative approach was used<sup>(30)</sup>. Non-probabilistic, snowball sampling was used, while considering inclusion criteria such as: (i) adolescents with an age range of 14 to 19 years old, and (ii) adolescents who live with their mothers. The exclusion criteria were: (i) adolescents with diseases that alter their growth or body weight (such as diabetes, cancer, hyper or hypothyroidism, among others), and (ii) mothers of adolescents who do not know how to read or write, and (iii) mothers who present diseases that alter their body weight (such as diabetes, cancer, hyper or hypothyroidism, among others). The sample size was represented by 22 pairs, for a total of 44 participants. The mean age of the daughters was 16.1 (SD=1.3), whereas the mean age of the mothers was 42.9 (SD=7.7).

Four questionnaires were used for data collection: 1. Parental Bonding Instrument, 2. Body Shape Questionnaire, 3. Influence of Aesthetic Body Models, and 4. E-TONA. All questionnaires were self-administered to the adolescent daughters and their mothers, with a duration of 15-20 minutes for each, in educational establishments with prior institutional authorization.

*1. Parental Bonding Instrument (IVP):* created by Parker et al. (31); it is based on Bowlby's attachment theory, which measures the perception of the behavior and attitude of the parents in relation to the subject in their childhood and adolescence. It contains 25 statements that are comprised of two scales,

care and overprotection, with protocols for both parents. It is comprised of two dimensions. The first one is: care is understood as affection, emotional support, empathy, and closeness, and on the other side, as emotional coldness, indifference, and negligence, thus indicating the presence or absence of this variable. The other dimension: overprotection points to the presence or absence thereof, and is defined as control, overprotection, intrusion, excessive contact, infantilization, and preventing autonomous behavior. Based on the scores obtained in overprotection and care, four attachment categories were created: Optimal, Absent or Weak, Loving Constriction, and Control without Affection. This questionnaire has appropriate reliability represented by a Cronbach's alpha of 0.90<sup>(32)</sup>.

2. *Body Shape Questionnaire (CFC, for its acronym in Spanish)*: it includes 34 questions that assess the psychological concept that is divided into two dimensions: body dissatisfaction and weight concern. It is a self-administered questionnaire with a Likert scale. Its internal consistency corresponds to a Cronbach's alpha of between 0.96 and 0.97<sup>(33)</sup>.

3. *Questionnaire on the Influence of the Aesthetic Body Model (CIMEC, for its acronym in Spanish)*: this measures the influence of the agents and situations that convey the current aesthetic body model through five factors: Factor I: this represents body discomfort reflecting the anxiety to face situations that call one's own body into question; Factor II: this expresses the influence of advertising and questions related to interest in slimming products; Factor III: this indicates the influence of verbal messages related to the interest in articles, books, and conversations on weight loss; Factor IV: this shows the influence of social models based on the interest aroused by the bodies of actresses and models; and, lastly, Factor V: this mentions the influence of social contexts where subjective social pressure is felt regarding eating situations, and social acceptance attributed to being thin. This test is comprised of 40 direct questions and it has an alpha validity coefficient of 0.94, thus demonstrating a satisfactory internal consistency<sup>(34)</sup>.

Furthermore, a structured interview was employed, entitled Interview for the Assessment

of Eating Behavior and Physical Activity in Children and Adolescents, the parents' version, E-TONA Project (E-TONA), which, for purposes of this research, was administered in its version adapted to the self-reporting format, focused on assessing behavioral components of eating habits and the presence of abnormal eating behaviors (such as eating to calm anxiety, hiding food, among other things), as well as doing physical activity. The responses to the different items are ordered based on a dichotomous format or multiple choice<sup>(35)</sup>.

A descriptive statistical analysis was conducted for each of the variables, as well as a calculation of the percentages and correlation coefficients using the program SPSS. Anonymity of all voluntary participants was guaranteed, as well as of the information obtained through the prior submission of informed consents and permission. It is worthy to note that the research was approved by the Ethics Committee of the Universidad Adolfo Ibáñez.

## Results

Based on the scores obtained for overprotection and care by the participants, the following maternal attachment types were prepared in the IVP:

1. Optimal attachment: they obtain high points on the scale for care and low on the scale for overprotection. They are known for being affectionate, empathetic, and emotionally supportive, as well as for promoting independence and autonomy.
2. Absent or weak attachment: they obtain low scores in care and in overprotection. They display emotional coldness, indifference, and negligence, and promote independence and autonomy.
3. Loving constriction: they display high scores in care and in overprotection. They are affectionate, emotionally supportive, empathetic, and demonstrate closeness, on the one hand, but, at the same time, they are controlling, intrusive, with excessive contact, they infantilize, and impede autonomous behavior in their daughters.
4. Control without affection: they obtain low scores in care and high in overprotection. They display emotional coldness, indifference, and negligence, but they are controlling, intrusive,

they have excessive contact, infantilize, and prevent autonomous behavior.

In our study, the adolescent daughters perceived their mothers' behavior and attitude as Control without Affection 31.8% of the time, 9% as Loving Constriction, 6.8% as Optimal Attachment, and 2.3% as Absent or Weak Attachment. The mothers perceived the behavior and attitude of their own mothers as Attachment with Control without Affection 34% of the time, 9.09% as Absent or Weak Attachment, 4.5% as Loving Constriction, and 2.3% as Optimal Attachment.

In terms of the pairs, it can be stated that 50% of the cases match with the perception of behavior and attitude of their mother, which suggests the tendency to repeat the type of attachment. They were represented by Control without Affection, whereas the rest is combined between Loving Constriction and Optimal Attachment of adolescent daughters, with Absent Attachment and Loving Constriction for adult mothers (Table 1).

Half of the sample was characterized by an attachment where the mothers are perceived as indifferent with emotional coldness, but simultaneously controlling and intrusive, thus making it difficult to develop autonomous behaviors in different areas of life, as well as achieve greater differentiation with the mother. In Table 2, we can observe the presence of a statistically significant direct correlation between the perception of overprotection of the adolescent daughters and the perception of overprotection of the mothers regarding their own mothers during childhood. This reveals that the mothers of the adolescent daughters are likely imitating the style of overprotection currently with their own daughters, given they observe this behavior in their own childhood with their mothers and caretakers.

The following items correspond to the results when assessing the behavioral components of eating habits, the presence of concrete, abnormal eating behaviors (such as eating to calm anxiety, hiding food, becoming angry when food is rationed). Item 1 investigated the number of meals eaten during the day; Item 2 analyzed the possibility of skipping a meal. 2.1 falls under this item, which refers to which meal specifically is skipped, and 2.2, which

provides pre-established options for reasons why this occurs; Item 3 identifies the amount of participants who snack in between meals during the day; Item 4 describes the behaviors surrounding the way of eating (such as while watching television, to calm anxiety, eating until feeling completely satiated/full, etc.); Item 5 identifies whether the participants are on a diet or not. 5.1 falls under this item, which determines whether the diet is being carried out under medical supervision. 5.2 and 5.3 also fall under this item, which identifies whether the participants have gained or lost weight.

For Item 1, the results for the adolescent daughters show that 63.6% eat breakfast, 72.7% say they eat a snack between breakfast and lunch, 95.5% eat lunch as part of their normal diet, followed by eating a light night-time meal at teatime in 90.9%, and lastly, 36.4% mention eating dinner or full meals at the end of the day. In the results from the mothers for Item 1, it was observed that 86.4% eat breakfast, 72.7% do not eat a snack between breakfast and lunch, 81.8% report eating lunch, 90.9% report eating a light night-time meal at teatime, and, lastly, 63.6% do not eat dinner or eat a full meal at the end of the day. For Item 2, 2.1, and 2.2, the reports from the daughters show that 90.9% skip meals, with breakfast (54.5%) and dinner (50%) being the meals most often skipped, according to the participants, due to not being hungry (68.2%). In comparison, for the mothers on this item, 81.8% skip meals, with the snack between breakfast and lunch (54.5%) and dinner (45.5%) being the meals most often skipped, due to not being hungry (36.4%) and not having time because of work (27.3%). Regarding Item 3, the results from the adolescent daughters indicated that 86.4% snacked between meals, and in the case of their mothers, 68.2% did the same. Likewise, the results from Item 4 for the daughters show behaviors such as eating in front of the television (72.7%), eating until feeling satiated or full (50%), opting for sugary beverages (68.2%), and eating or drinking while walking down the street (72.7%). In their mothers, it was observed that the highest score is for eating in front of the television (63.6%). Lastly, the results from Items 5, 5.1, 5.2, and 5.3 in the adolescent daughters indicate that 18.2% reported following a diet, while 81.8% mention

**Table 1.** Percentage distribution of types of mother/daughter bonding

	C/w/A	L/C	O/P
<b>Adolescents (n)</b>	14	4	3
	31.82%	9.09%	6.82%
<b>Mothers (n)</b>	15	2	1
	34.09%	4.55%	2.27%
<b>pair</b>	C/w/A		
	50%		

C/w/A= Control without Affection

L/C= Loving Constriction

O/B = Optimal Bonding

**Table 2.** Correlation between the dimensions of PBI of the daughters and their mothers

		CD	OD	CM	OM
<b>Care D</b>	Pearson's Correlation	1	-.646**	-0.166	-0.036
	Sig. (bilateral)		0.001	0.46	0.872
	N	22	22	22	22
<b>Overprotection D</b>	Pearson's Correlation	-.646**	1	-0.1	.513*
	Sig. (bilateral)	0.001		0.658	0.015
	N	22	22	22	22
<b>Care M</b>	Pearson's Correlation	-0.166	-0.1	1	0.091
	Sig. (bilateral)	0.46	0.658		0.688
	N	22	22	22	22
<b>Overprotection M</b>	Pearson's Correlation	-0.036	.513*	0.091	1
	Sig. (bilateral)	0.872	0.015	0.688	
	N	22	22	22	22

CD= Care daughter

OD= Overprotection daughter

CM= Care Mother

OM= Overprotection mother

they do not follow a diet. Only 9.1% who are on a diet are doing so under medical supervision. Only 31.8% of participants mention they gained weight, although 68.2% reported they did not gain weight, or they maintained the same weight. On the other hand, 36.4% reported they lost weight, and 63.6% reported they did not lose any weight. Regarding their mothers, 18.2% are on a diet, and 81.8% are not. However, only one pair indicates the same selection, whereas the rest do not coincide in their responses. Lastly, 4.5% of the mothers are on a diet under medical supervision; 31.8% of participants report they did gain weight; nevertheless, 68.2% report they did not gain weight, or they remained the same, but 31.8% lost weight.

Levels of body satisfaction were also identified through objective measurements of weight concern and body dissatisfaction. The scores on the body image scale of the daughters ranged between 20 and 94 points, and weight concern ranged between 14 and 79 points. Their mothers obtained a score of 20 to 120 in body dissatisfaction and 14 to 80 in weight concern. 40.9% of the adolescent daughters displayed an alteration in their body schema, and 22.7% in their mothers. It was reported that 15.9% of the adolescent daughters obtained a high score in body dissatisfaction and 20.5% in weight concern; 11.4% and 13.6% of their mothers and 18.2% of the pairs displayed a high score on these variables. The high scores coincide in only 5 pairs (22.7%). However, the participants who scored outside of the cut-off score still present high scores by scales, where they are not necessarily clustered within the body schema alteration; rather, they indicate that they present excessive worry over their physical appearance within the different dimensions (Table 3).

The assessment of the influence of agents and situations that convey the current aesthetic model revealed the following results (Tables 4 and 5).

The highest scales in the adolescent daughters were in Factor I - Discomfort over Body Image (63.6%), followed by Factor II - Influence from Advertising (9.1%), Factor IV - Influence from Social Models (9.1%), and, lastly, Factor III - Verbal Messages (4.5%). There were also combinations present, such as Factors I and II (9.1%), and Factors IV and V (4.5%). In the

Factor I - Discomfort over Body Image (45.5%), followed by Factor II - Influence from Advertising (18.1%), Factor IV - Influence from Social Models (9.1%), and Factor V - Influence from Social Situations (4.5%). The representative combinations were the following: Factors I and II (13.6%) and Factors I and III (9.1%).

There was no statistically significant correlation in the perception of the behavior and attitude of the mothers in their adolescent daughters via the dimensions of care and overprotection in relation to the levels of body satisfaction, influence from agents or situations that convey the aesthetic model, or in the assessment of behavioral components of eating habits. However, in the dimension of care reported by the daughters, we are able to see a statistically significant inverse correlation ( $r = -0.646$ ;  $n = 22$ ;  $p = 0.001$ ) in terms of the perception of overprotection, meaning that whereas the perception of care increases, the vision of overprotection regarding their mothers decreases, and vice versa. Furthermore, the perception of overprotection by the daughters of their mothers was directly statistically significant ( $r = 0.513$ ;  $n = 22$ ;  $p = 0.015$ ) in relation to the mothers' own vision of overprotection they held of their own mothers, which demonstrates the trend to put oneself in a more intrusive parental role that hinders the autonomous behavior of their daughters. On the other hand, the assessment of levels of body satisfaction in the adolescent daughters shows a statistically significant direct correlation with that made by the mother ( $r = 0.694$ ;  $n = 22$ ;  $p = 0.000$ ). Regarding the sub-scales, weight concern by the daughters shows a statistically significant direct correlation with the same factors answered by the mother ( $r = 0.612$ ;  $n = 22$ ;  $p = 0.002$ ), and a similar phenomenon occurs with body image ( $r = 0.707$ ;  $n = 22$ ;  $p = 0.000$ ). This shows us that when body satisfaction increases or decreases in the adolescent daughters, so does the mother's satisfaction, whether regarding a decrease or increase in weight concern, or higher or lower acceptance of body image. At the same time, a statistically significant direct correlation is observed between the score for body satisfaction as well as the influence of agents and situations that convey the aesthetic model, both in the

results from the adolescent daughters ( $r = 0.809$ ;  $n = 22$ ;  $p = 0.000$ ) and in their respective mothers ( $r = 0.625$ ;  $n = 22$ ;  $p = 0.000$ ). The items for the adolescent daughters that are correlated with those of their mothers were: Factor I – Discomfort over Body Image ( $r = 0.495$ ;  $n=22$ ;  $p =0.019$ ), as well as Factor III – Influence of Verbal Messages of the daughters with Factor I ( $r = 0.482$ ;  $n=22$ ;  $p = 0.023$ ), II ( $r = 0.514$ ;  $n=22$ ;  $p = 0.014$ ), III ( $r = 0.563$ ;  $n=22$ ;  $p = 0.006$ ), IV ( $r =0.562$ ;  $n=22$ ;  $p =0.006$ ), and V ( $r = 0.473$ ;  $n=22$ ;  $p = 0.026$ ), of their mothers. This indicates that weight concern and acceptance of body image increases or decreases in proportion to the influence of advertising, social models, social situations, and verbal messages that convey the unattainable beauty ideal, which would seem

found between the assessment of behavioral components of eating habits and the assessment of body image, nor for the influence of agents and situations that convey the aesthetic model in relation to the objectives proposed in this research study. However, there is a statistically significant inverse correlation with the subscale for overprotection of the daughters ( $r = -0.554$ ;  $n = 22$ ;  $p = 0.007$ ), and in the mothers ( $r = -0.569$ ;  $n = 22$ ;  $p = 0.006$ ). This indicates that the more the participants perceived their caretakers as being overprotective, the lower the score was regarding abnormal eating behaviors, which was an external control related to their behaviors and lower autonomy towards them. Using the dimensions of care and overprotection, the results do not point to the presence of a

**Table 3.** Calculation of percentages of BSQ of mothers and daughters

	<b>With alteration of Body Schema</b>	<b>Without alteration of Body Schema</b>
<b>Daughters</b>	9	13
	40.90%	59.10%
<b>Mothers</b>	5	17
	22.70%	77.30%
<b>Pair</b>	5	17
	22.70%	77.30%

With alteration = With alteration of body schema

Without alteration = Without alteration of body schema

to result in increasing their body discomfort. Regarding the sub-scales that measure body satisfaction assessment, weight concern reported by the adolescent daughters displays a statistically significant direct correlation with influence from agents and situations that convey the aesthetic model of their mothers ( $r = 0.544$ ;  $n = 22$ ;  $p = 0.009$ ), as well as of themselves ( $r = 0.807$ ;  $n = 22$ ;  $p = 0.000$ ). Likewise, the worry over body image reported by the daughters displays a statistically significant direct correlation with influence from agents and situations that convey the aesthetic model of their mothers ( $r = 0.625$ ;  $n = 22$ ;  $p = 0.001$ ), and of themselves ( $r = 0.761$ ;  $n = 22$ ;  $p = 0.000$ ). Lastly, no statistically significant correlation was

statistically significant correlation regarding the perception of behavior and attitude of the mothers in their adolescent daughters in terms of body satisfaction, influence from agents and situations that convey the aesthetic model, nor in the assessment of behavioral components of eating habits (Tables 4 and 5).

## Discussion

The most significant findings from our study are related to the following topics:

**(a) Predominance of the overprotection dimension.**

In half of our sample, the pairs coincide with the

**Table 4.** Calculation of percentages by CIMEC factors

	F1	F2	F1 + F2	F3	F1 + F3	F4	F4 + F5	F5
<b>Daughters (n)</b>	14	2	2	1	0	2	1	0
<b>%</b>	64	9.1	9.1	5		9.1	4.5	
<b>Mothers (n)</b>	10	4	3	0	2	2	0	1
<b>%</b>	46	18.2	13.6		9.1	9.1		5

perception of behaviors and attitudes regarding their respective mothers, and the most typical attachment was Control without Affection, where the mothers were perceived as indifferent and emotionally cold but also controlling and intrusive, with difficulty in developing autonomous behaviors in the different areas of their lives, as well as the tendency to have greater differentiation with the mother.

**(b) Abnormal eating behaviors.**

The presence of concrete, abnormal eating behaviors was observed, such as the daughters skipping meals due to not being hungry, just like the mothers, as well as ignorance regarding the quantity and quality of food consumed and its nutritional quality; therefore, whether the participants go hungry or eat in excess at meals is disregarded. Nevertheless, the findings show that the daughters eat between meals just like the mothers. Thus, it could be stated that snacking throughout the day appears to produce a feeling of not being hungry when it is time to eat in a more structured manner. At the same time, behaviors are also demonstrated in the daughters and the mothers that reinforce the disconnect of feeling satiated when eating food, as well as eating in front of the television, and eating/drinking while walking, which are behaviors that make it impossible to lend full attention to the context and feelings while eating.

**(c) Alteration of body schema**

An overall alteration in body schema was reported, both in adolescent daughters and in their mothers, which was based on the cut-off score. It is necessary to mention that only five pairs coincide in their scores. Nevertheless, the rest of the sample displayed alterations in

the sub-scales in assessment of body image and weight concern, in both the adolescent daughters and their mothers; this means that weight concern and body image is a reality affecting both groups of participants.

**(d) Influence from aesthetic body models**

The influence of advertising, of social models, of social situations, and of verbal messages that convey the ideal of unattainable beauty promote excessive weight concern in the participants as well as the difficulty to accept one's body image. As such, the values and ideals related to body image are disseminated to society, basically through communication media, where advertising presents a number of images that can trigger worry over thinness, body dissatisfaction, frustration over weight, fear to not fit in with the social standard, and, thus, greater risk of suffering from an eating behavior disorder in the population by comparing one's body figure with advertising images of ideal patterns of thinness, which are attributed to attractiveness, happiness, popularity, and success<sup>(36)</sup>. The aforementioned reaffirms what was presented by Behar<sup>(1)</sup>, who mentions that the predominant body aesthetic ideal currently preaches that "being beautiful is equal to being skinny," which many times is bio-genetically difficult to attain, thereby producing a discrepancy between the actual body size and the ideal body size, and also leading to body dissatisfaction, which can result in a greater or smaller degree of body image distortion.

**(e) Overprotection as an external regulator**

It is worth highlighting that the reference of significant figures in early childhood is pivotal in forming an identity, self-esteem, and body image throughout the development of the

**Table 5.** Descriptive statistics of CIMEC factors

	F1 H	F2 H	F3 H	F4 H	F5 H	F1 M	F2 M	F3 M	F4 M	F5 M
<b>N</b>	22	22	22	22	22	22	22	22	22	22
<b>Valid</b>	22	22	22	22	22	22	22	22	22	22
<b>Lost</b>	0	0	0	0	0	0	0	0	0	0
<b>Mean</b>	7.14	4.14	2.14	3	2.32	6.09	4.64	1.45	2.27	2
<b>Median</b>	7	2.5	2.5	3	2	5	3	1	2	1.5
<b>Mode</b>	4	0	3	2	3	1st	0	0	1	0
<b>Standard deviation</b>	4.2	4.62	1.49	1.512	1.393	5.218	5.169	1.683	2.229	1.826
<b>Minimum</b>	1	2								
<b>Maximum</b>	0	0	0	1	0	0	0	0	0	0
	15	16	5	6	6	16	16	6	8	6

(x= 7.14; SD= 4.2) F1 Daughters	(x=6.1; SD=5.2) F1 Mothers
(x= 4.14; SD= 4.6) F2 Daughters	(x=4.6; SD=5.1) F2 Mothers
(x= 2.14; SD= 1.4) F3 Daughters	(x=1.4; SD=1.7) F3 Mothers
(x= 3.00; SD= 1.5) F4 Daughters	(x=2.3; SD=2.2) F4 Mothers
(x= 2.32; SD= 1.3) F5 Daughters	(x=2.00; SD=1.8) F5 Mothers

X= Mean SD= Standard Deviation

daughters<sup>(37)</sup>.

Therefore, it was fundamental to learn about the perception of the behavior and attitude of the mothers in their daughters, which was defined by the predominance of overprotection in the mothers, which acts as an external regulator in relation to abnormal eating behaviors, and also at the same time impedes the autonomy of the daughters and differentiation with the mothers, to the extent that the daughters internalize the messages from media regarding beauty ideals. Thus, some authors<sup>(19, 38, 39)</sup> have found that mothers have significant influence over daughters by conveying to them they are dissatisfied with their own body.

## Conclusions

Although a statistically significant correlation was not observed in our research study for the perception of behavior and attitude of the mother with body dissatisfaction and influence of aesthetic body image, there are quite noteworthy correlations in the perception the daughters have of their mothers regarding the dimension of care, which, the higher it is, the lower the perception of overprotection was. Furthermore, mothers and daughters coincide in the most representative attachment bonding that is typified by great overprotection. This reveals a tendency in the mothers to bond in an indifferent manner, and with affective coldness, but at the same time they are controlling and intrusive. A correlation was also discerned between greater body dissatisfaction and greater influence from body aesthetic models between the daughters and their mothers, which alludes to the presence of alteration in body image both of the daughters and the mothers.

Although there was no correlation between the attachment of mothers and daughters and the analyzed variables, it is interesting to consider female self-esteem in the 21st century as a topic of study, which is constructed through trans-generational messages from the family and the influence of communication media as well as social media.

The study constraints basically involve, first of all, the fact that only the perception of behaviors and attitudes of the mothers were assessed, meaning the perception of care and

overprotection of the daughter towards the mother and vice versa, of the mother towards her own mother, which, when ultimately analyzing the data, demonstrated the need to discover the perception of the mother towards their own daughters, which represents a gap due to the lack of evidence it reveals on this topic and that it limits knowledge on the mutual bond.

Another constraint was the small sample size, given this makes it hard to generalize the results as representative of what is occurring between mothers and daughters. This is due to the lack of response from the other institutions that were voluntarily contacted but did not participate in the study, as well as to incomplete information in certain administrative instruments, which only allowed 44 questionnaires from 22 pairs to be deemed valid.

The same thing occurs at the socioeconomic level, and it would be interesting to unveil the reality at different levels, as well as be able to establish comparisons between them, given that the majority of the data come from an institution that belongs to a lower socioeconomic stratum, with the exception of four cases that belonged to middle-upper socioeconomic levels.

Lastly, it is worthy noting that although the presence of the father was not considered as part of the research nor the sample, it began to emerge as a need as the result of the influences of the body aesthetic models, specifically in the dimensions of verbal messages along with social situations and models, which had high predominance in the presence of body discomfort, a topic that should be included in future research studies in relation to the influence of male parenting in the lives of adolescent daughters.

Regarding future guidelines, we can mention that one element that could be relevant to consider is the need to perform interventions aimed at the female gender, so as to break underlying structures of pressure that push them to reach an ideal figure through social models, which is identifiable as one of the factors that causes discomfort surrounding body image, both in the adolescent daughters and in their mothers. Finally, another aspect that is worthy of measure is the perception and attitude triggered in the mothers by their daughters.

**Table 6.** Pearson's Correlation for BSQ and PBI between mothers and daughters

	BSQ D	BSQ M	IC D	PP D	IC M	PP M	PBI C D	PBI S D
BSQ - D		r = 0.694 p < 0.01	r = 0.972 p < 0.01	r = 0.960 p < 0.01	r = 0.662 p < 0.01	r = 0.702 p < 0.01		
BSQ - M	r = 0.694 p < 0.01		r = 0.735 p < 0.01	r = 0.595 p < 0.01	r = 0.984 p < 0.01	r = 0.971 p < 0.01		
IC - D	r = 0.972 p < 0.01	r = 0.735 p < 0.01		r = 0.867 p < 0.01	r = 0.707 p < 0.01	r = 0.735 p < 0.01		
PP - D	r = 0.960 p < 0.01	r = 0.595 p < 0.01	r = 0.867 p < 0.01		r = 0.560 p < 0.01	r = 0.612 p < 0.01		
IC - M	r = 0.662 p < 0.01	r = 0.984 p < 0.01	r = 0.707 p < 0.01	r = 0.560 p < 0.01		r = 0.912 p < 0.01		
PP - M	r = 0.702 p < 0.01	r = 0.971 p < 0.01	r = 0.735 p < 0.01	r = 0.612 p < 0.01	r = 0.912 p < 0.01			
PBI - C-D								r = 0.646 p < 0.01
PBI - S-D							r = 0.646 p < 0.01	
PBI - C-M								
PBI - S-M								r = 0.513 p < 0.05
PBI D								r = 0.530 p < 0.05
PBI M								
CIMEC - D	r = 0.809 p < 0.01		r = 0.761 p < 0.01	r = 0.807 p < 0.01				
CIMEC - M	r = 0.625 p < 0.01	r = 0.868 p < 0.01	r = 0.655 p < 0.01	r = 0.544 p < 0.01	r = 0.889 p < 0.01	r = 0.797 p < 0.01		
E-TONA - H								r = -0.554 p < 0.01
E-TONA - M								

**Table 7.** Pearson's Correlations for PBI, CIMEC, and E-TONA between mothers and daughters

	PBI C M	PBI S M	PBI D	PBI M	CIMEC H	CIMEC M	E-TONA D	E-TONA M
BSQ - D					r = 0.809 p < 0.01	r = 0.625 p < 0.01		
BSQ - M						r = 0.868 p < 0.01		
IC - D					r = 0.761 p < 0.01	r = 0.655 p < 0.01		
PP - D					r = 0.807 p < 0.01	r = 0.544 p < 0.01		
IC - M						r = 0.889 p < 0.01		
PP - M								
PBI - C - D								
PBI - S - D		r = 0.513 p < 0.05	r = -0.530 p < 0.05				r = -0.554 p < 0.01	
PBI - C - M								
PBI - S - M			r = 0.600 p < 0.01	r = 0.723 p < 0.01			r = -0.569 p < 0.01	
PBI D		r = 0.600 p < 0.01						
PBI M	r = 0.753 p < 0.01	r = 0.723 p < 0.01						
CIMEC - D							r = 0.445 p < 0.01	
CIMEC - M		r = 0.459 p < 0.05			r = 0.445 p < 0.05			
E-TONA - D		r = 0.569 p < 0.01						
E-TONA - M								

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