

The predictors of the body appreciation at primiparous and multiparous mothers

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Abstract: The predictors of the body appreciation at primiparous and multiparous mothers on the Romanian population have been insufficiently studied in recent years. This study analyses the relationship between the assessment of the body appreciation, the perceived parental stress, the anxious and avoidant attachment, the perceived social support by family, friends, important persons, consensus, expressing affectivity, dyadic satisfaction, cohesion and dyadic adaptation at 219 primiparous and multiparous mothers in Iasi city, Romania. In the case of primiparous women, the body appreciation positively correlates with the support received from the family, friends and important persons, consensus, dyadic satisfaction, cohesion and dyadic adaptation and negatively correlates to the perceived parental stress, anxious and avoidant attachment. In the case of multiparous mothers, the body appreciation positively correlates with dyadic satisfaction and dyadic adaptation and negatively correlates with the perceived parental stress, anxious and avoidant attachment. Following the prediction analyses we have carried out on primiparous and multiparous women, it was found that the perceived parental stress and anxious attachment predict negatively the assessment of the body appreciation. In future studies, longitudinal research is needed using several comparison groups to determine the direction of the causal link between these variables.

Keywords: Body appreciation, Primiparous women, Multiparous women, Predictors, Birth.

Introduction

Body image has been defined as the sum of perceptions, feelings and thoughts of a person about her/his body, usually characterized by an appreciation of the size of the body, an assessment of its attractiveness and emotions associated with the shape and size of its own body (Garrusi et al., 2012). The discrepancy between the perception of the body (real image) and the desired body (ideal body) may cause dissatisfaction with the person's body, and this can lead to many health problems, such as a low self-esteem, eating disorders and risky behaviours in order to change the body image or body shape (Garrusi et al., 2012).

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Body image is a multifaceted psychological construct that encompasses many different dimensions. In the present study we used a dimension of body image, more precisely body appreciation which is a component of positive body image construct (Tylka & Wodt-Barcalow, 2015). Body appreciation has been characterized by several psychological aspects such as the appreciation of physical features, the appreciation of functionality and bodily health. Also, body appreciation is a positive dimension of body image and focuses on the ability to be grateful for one's own body functionality and does not refer only to the extent that the body fits into certain cultural ideals but rather involves the person's appreciation for what it is capable of doing, for what it represents and for its unique characteristics (Tylka & Wodt-Barcalow, 2015).

Pregnancy is the only moment in a woman's life when weight gain is encouraged and accepted. The relationship between body image, which in this case represents the perception or attitude of women toward their own body and weight concerns in the pre-pregnancy period suggests that body image may be related to weight gain during a pregnancy, a period marked by important physical and psychological changes in their lives (Herring, 2010). Fischman and colleagues (1986) reports that 70% of women are dissatisfied with their weight 6 months after birth and that 39% remain dissatisfied one year after birth. In addition, Baker and colleagues (1999) report that 70% of mothers in the postpartum period follow a four-month diet after birth to lose weight, compared to 53% of the women who did this before pregnancy.

The predictors of body appreciation

Perceived parental stress

The high importance that women attach to the ideal body shape achievement and the non-fulfilment of the new standards can adversely affect self-perception among them. In addition, the higher the standards and the more difficult it is to achieve, the more intense the psychological distress will be felt by women (Quittkat et al.,2019). The findings of the researchers are relevant regarding the links between the perception of being overweight and underweight as well as the existence of an increased risk of psychological morbidity. The discoveries in this field support a psychosocial rather than biological aspect of the psychological experienced stress. Also, the perceptions of weight that deviate from the ideals of society are more and constantly associated with psychological suffering against the real weight itself (Chor,2004). Recent research has found that the negative perception of being overweight among overweight persons reduced the chances of involvement in physical activity during leisure time for health, while the acceptable weight perception among high-weight individuals experienced higher physical activity and closer to those seen among the people with a weight problem (Atlantis & Ball, 2008).

The high perceived parental stress by mothers after birth results in a negative assessment of their body image. In a study performed by Becker and colleagues (2019), it was found that perceived parental stress was a significant mediator for the negative dimensions of the body image. The mediation model explained a good part of the variance of the relations among the dimensions of the body image, the perceived parental stress and the symptoms of depression (Becker et al., 2019). The results of the study performed by Geiger and colleagues (2019) show a relationship between body image and perceived stress. More specifically, for men, the perceptions of their own body and the judgments on perceived appearance were linked to chronic stress and depressive symptoms, while for women, body perceptions were associated with depressive symptoms, and judgments on perceived appearance that had been linked to stress perception and exaggerated responses to biological stress.

The anxious attachment and the avoidant attachment

The anxious attachment styles proved to be associated with a negative body image (Brennan & Shaver, 1995). This attachment style represents a negative view of one's self and a positive view of others. However, people with a secure attachment style have a positive view of both themselves and others. Body image can be an important part of this model itself.

McKinley & Randa (2005), using a group of women in a college and in the community, discovered that body satisfaction is predicted by attachment. For the dimension of attachment of anxiety, lower anxiety levels are associated with a higher satisfaction of their own body. Cash and colleagues (2004b) have found that the secure attachment was linked to body image satisfaction in a sample of male and female students. Rosen (2005) also identified a relationship between attachment and body satisfaction in a sample of Asian and European women (Sandoval, 2008).

Dyadic adaptation

The adaptation between a couple is a comprehensive concept when it comes to the quality of a marriage and may be seen as a general term covering one or both concepts, such as couple satisfaction (which has a cognitive basis involving a relationship of circumstances with a certain standard) and marital happiness (which is based on an efficient assessment) (Lewis & Spanier, 1979). Dyadic adjustment is not similar to couple satisfaction, the adapting couples are not necessarily satisfied with their relationship (Ahmadi et al., 2010). Moreover, according to previous studies, couples can express their satisfaction in their relationship, despite the inconsistency and non-adaptation in their dyadic life (Ahmadi et al., 2010).

A study by Friedman and colleagues (1999) that sought to examine whether there is a link between dyadic adaptation and body image by comparing married or single people concluded that dyadic adaptation is closely negatively related to body dissatisfaction when controlling age, body mass index, self-esteem and gender. Marital status has not been associated with increased levels of body dissatisfaction. In other words, if a person is married or in a relationship does not protect the individual from experience similar levels of body dissatisfaction as people who are not in a relationship (Friedman et al., 1999).

Perceived social support

Body image is a socially built concept that is strongly influenced by social experiences and social support received from loved ones, and social support from family and friends tends to serve as a protective factor in the event of low body image satisfaction. In the study performed by Merianos and colleagues (2012) it was found that persons reporting a low family connection are at high risk to develop an extremely low body dissatisfaction, unhealthy weight control behaviors and depressive symptoms. Family members can adversely affect body image by criticizing the physical appearance of their beloved ones, and their weight, in general. It is not surprising that people, who frequently report conflicts and a lack of attachment to their mothers or fathers, are more likely to have weight concerns. More specifically, women who are criticized emotionally are more likely to develop a negative body image, adopt the cultural ideal of an athletic body, by developing negative eating behaviours and low self-esteem. Both men and women, who feel more pressure from their family and those who want to have an athletic body, tend to have a lower satisfaction of body image, suggesting that family and colleagues can adversely affect their body image (Merianos et al., 2012).

As expected, the assumption that social support is positively linked to body satisfaction was supported in a study performed by Sanford and Donovan (1985) for both dimensions of social support, although belonging showed a stronger correlation than self-disclosure. These results indicate a relationship between an individual's belonging and body image, possibly due to the self-esteem mediation variable between belonging and body image. For example, the feeling of being a valued member of a group (an indicator of belonging) can strengthen one's self-esteem. This idea is corroborated by the literature that linked self-esteem with body image (Sanford & Donovan 1985). In addition, the results indicate that higher levels of self-disclosure predict more positive body images, possibly due to the development of coping mechanisms resulting from confidence in those around them (Cash et al. 2004; Larson et al., 2014).

Studies show that the family environment plays an important role in creating body image. Criticism coming from family related to weight or body

shape, has proved to contribute significantly to dissatisfaction with the body. If a family member puts pressure on an individual to maintain a diet, that person tends to develop a negative body image. The eating habits are predicted by those of the parents and their dissatisfaction with the body too and they should be aware of the impact of the pressure they put on children (Green, 2003).

Aims and hypotheses

The aims of this study were to identify individual and relational predictors of body appreciation in primiparous and multiparous women, to analyse the associations between body appreciation and the other variables involved as well as to analyse the literature in the field.

We proposed two assumptions based on the results of the studies summarized above. The first covers a series of individual variables, and the second, some relational variables as predictors of the assessment of body appreciation.

H1: The perceived parental stress, the anxious and avoidant attachments are predictors of the body appreciation so that the higher the perceived parental stress, anxious attachment and avoidant attachment are, the lower of body appreciation will be.

H2: Dyadic adaptation, consensus, expressing affectivity, dyadic satisfaction, cohesion and perceived social support from family, friends and other important persons are predictors of the body appreciation so that the higher the dyadic adaptation, consensus, expressing affectivity, dyadic satisfaction, cohesion and perceived social support from family, friends and other important persons are, the higher the body appreciation will be.

Method

Participants

219 mothers from urban and rural environments from the maternities in Iasi, aged between 18-45 years participated the study. The group of participants was divided according to the number of births - primiparous and multiparous. In terms of the number of births, 105 of them had their first child and 114 the second or more births. Relate to studies, in the case of primiparous women, 6 of them have middle school studies, 11 have high-school studies and 88, higher education. In the case of multiparous women, 16 of them have middle-school studies, 26 have high-school studies and 72, higher education. 21,9% of the women at the first birth reported a relationship duration between 1-5 years, 21,9% between 5-10 years and 56,2% over 10 years, 19,3% women at second birth reported a relationship duration between 1-5 years, 35,1% between 5-10 years and 45,6% over 10 years.

The average duration of the couple's relationship from primiparous women was 2,34 years and multiparous women 2,26 years. The place of residence of primiparous women showed that 86,7% of them are from an urban environment and 10,5% of them are from a rural environment. In the case of multiparous women, 71,1% were from an urban environment and 28,9% were from at rural environment. Regarding age, 11 of the primiparous women are aged between 18-25, 45 between 26-35 and 49 over 35 and 14 of the multiparous women are aged between 18-25, 73 between 26-35 and 27 over 35. There were no significant differences between the two groups in terms of age.

Measures

Perceived parental stress – The Parental Stress Scale (PSS) developed by Berry and Jones (1995) as an alternative to the 101-item Parenting Stress Index. The scale provides a measure that considers positive aspects of parenting as well as the negative, stressful aspects traditionally focused on. The PSS instrument consists of 18 items self report scale – items represent positive (emotional benefits, personal development) and negative (demands on resources, restrictions) themes of parenthood. Respondents agree or disagree in terms of their typical relationship with their child or children. The answers PSS-18 may range from 1 to 5 for each question, from strongly disagree, disagree, undecided, agree and strongly agree. The PSS-18 total score is obtained by adding up the scores obtained in all 18 questions. There is no pre-set threshold, high scores indicating a high level and low scores, lower levels of the perceived parental stress. The alpha cronbach value obtained in the current study for the perceived parental stress scale was of .75 indicating good internal consistency of the instrument.

Perceived social support- The Multidimensional scale of Perceived social support (M.S.P.S.S) drafted by Zimet and colleagues (1988) is made up of 12 items on a Likert-type scale, from 1 to 7, for 3 types of social support: family, friends and other important persons. The initial study describes the development of the multidimensional scale based on an indicator called perceived social support (M.S.P.S. – Zimet et al., 1988). For this current study, any average score on a scale between 1 and 2, 9 can be considered as low support; a score of 3 to 5 can be considered as moderate support; a score of 5.1 to 7 can be considered high support. The alpha cronbach value for the perceived support scale was of .93 obtained in the current study, indicating good internal consistency of the instrument.

The anxious attachment and the avoiding attachment- The Experiences in close relationships scale-revised (ECR-R) (Fraley et al., 2000) is a questionnaire that includes 36 items and measures the style of attachment of adults. The instrument includes two subscales corresponding to the avoidant and anxious dimensions of the attachment. The alpha cronbach value for the scale of the

attachment style obtained in the current study was of .90, which indicates a good internal consistency of the instrument. The alpha cronbach value for the subscale of the anxious attachment obtained in the current study is .92, and for the subscale of the avoidant attachment it is .86.

Body appreciation- Body appreciation scale (BAS) (Swami et al., 2017). This instrument is comprised of 10 items and contains a single dimension. The instrument is useful for measuring the positive aspects of the body appreciation (i. e. physical characteristics, acceptance of the body despite its weight, shape or imperfections of the body, respect and attention to the needs of the body through the adoption of healthy behaviors and the self-protection of the body against the rejection of the ideals presented in the media). The items of the BAS instrument are assessed on a Likert scale from 1 to 5 (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always); the average obtained is a general body assessment score. The alpha cronbach value for the scale of the the body appreciation obtained in the current study was of .95.

Dyadic adaptation - Dyadic Adjustment Scale (DAS) (Spanier, 1976) consists of 32 items with different ways of responding and was developed to measure dyadic adaptation. Spanier (1976) defined dyadic adaptation as “a process the result of which is determined by: (1) misunderstandings caused by dyadic differences; (2) interpersonal tensions and personal anxiety; (3) dyadic satisfaction; (4) dyadic cohesion; (5) consensus of problems for the purpose of dyadic functioning”. The DAS instrument consists of different response scales, including ordinal scales, Likert and dichotomous scales. The scores for the individual subscales are obtained by summing up the items that make up each subscale. The resulting score ranges from 0 to 151, with higher scores indicating higher satisfaction within the couple and a lower level of relational distress. The alpha cronbach value for the scale of the assessment of the dyadic adaptation obtained in the current study was .90. For the consensus subscale, the alpha cronbach was .92, for dyadic satisfaction with .82, for cohesion .80, for expressing affectivity .40 and for consensus .92.

Procedure

The instruments used to collect the data were applied to mothers in the maternities in Iasi, several days after giving birth. Before filling in the questionnaire, the topic of research was presented succinctly in order not to influence the answers of the participants; the principle of confidentiality and the importance of sincere responses was emphasized. The selection of the participants was done at random, taking into account the variable number of births in order to allow comparisons to be made between the two groups. The access to institutions and the acceptance of applying the questionnaires was also done with the consent

of the directors in the hospitals. The procedure of the study was approved by The Ethics Committee of the University.

Results

Descriptive data

First, as regards to the perceived parental stress variable, there are no differences between primiparous and multiparous mothers ($t(217) = -1.39$, $p = .32$). Also, for the perceived social support from the family ($t(217) = -1.19$, $p = .30$), friends ($t(217) = -.95$, $p = .36$) and important persons ($t(217) = -1.39$, $p = .27$), there are no differences between primiparous and multiparous mothers. Secondly, as regards the avoidant attachment variable, there are no differences between primiparous and multiparous mothers ($t(217) = 1.93$, $p = .47$). As regards the consensus variable ($t(217) = -1.80$, $p = .05$) and the variable relating to the expression of affectivity ($t(217) = 3.54$, $p = .11$), there are no differences between primiparous and multiparous mothers.

We see that there are significant differences in the anxious attachment ($t(217) = 1.85$, $p < .001$), in the sense that primiparous women ($M = 34.83$, $SD = 15.89$) have a higher level of anxious attachment compared to multiparous women ($M = 31.33$, $SD = 11.90$). There are also significant differences between groups in terms of dyadic satisfaction ($t(217) = -1.79$, $p < .001$), in the sense that primiparous women ($M = 40.48$, $SD = 8.77$) have a lower level of dyadic satisfaction, compared to multiparous women ($M = 42.47$, $SD = 7.68$). There are significant differences in cohesion between the groups ($t(217) = -2.10$, $p < .001$), in the sense that primiparous women ($M = 16.59$, $SD = 3.34$) have a lower level of cohesion compared to multiparous women ($M = 17.42$, $SD = 2.40$). There are significant differences between the groups regarding dyadic adaptation ($t(217) = -1.74$, $p < .01$), in the sense that primiparous women ($M = 117.10$, $SD = 21.58$) have a lower level of dyadic adaptation, compared to multiparous women ($M = 121.57$, $SD = 16.02$). There are significant differences between the groups regarding body appreciation ($t(217) = -2.10$, $p < .001$), in the sense that primiparous women ($M = 36.49$, $SD = 8.18$) have a lower level of body appreciation, compared to multiparous women ($M = 38.59$, $SD = 6.88$) (Table 1).

Table 1. Descriptive indicators for all the variables involved in regression models in the case of primiparous and multiparous mothers

	Primiparous mothers			Multiparous mothers			t	p	df
	N	M	SD	N	M	SD			
1. Parental stress	105	31.42	6.42	114	32.59	5.85	-1.39	.32	217
2. Family support	105	19.61	4.29	114	20.28	3.98	-1.19	.30	217
3. Friend's support	105	17.04	4.82	114	17.68	5.06	-.95	.36	217
4. Important persons support	105	19.83	4.32	114	20.62	4.07	-1.39	.27	217
5. Anxious attachment	105	34.83	15.89	114	31.33	11.90	1.85	.00	217
6. Avoidant attachment	105	36.17	12.08	114	33.13	11.19	1.93	.47	217
7. Consensus	105	48.05	9.94	114	50.28	8.28	-1.80	.05	217
8. Expressing affectivity	105	4.17	.90	114	3.76	.81	3.54	.11	217
9. Dyadic satisfaction	105	40.48	8.77	114	42.47	7.68	-1.7	.02	217
10. Cohesion	105	16.59	3.34	114	17.42	2.40	-2.10	.00	217
11. Dyadic adaptation	105	117.10	21.58	114	121.57	16.02	-1.74	.00	217
12. Body appreciation	105	36.49	8.18	114	38.59	6.88	-2.10	.02	217

Correlations between main variables

In the case of primiparous women (Table 2) as regards body appreciation, it can be seen that there is a significant medium positive correlation with perceived social support from the family ($r = .44$), perceived social support from friends ($r = .45$), perceived social support from important persons ($r = .44$), and that there is a medium negative correlation with perceived parental stress ($r = -.39$) and avoidant attachment ($r = -.30$), a high negative correlation with the anxious attachment ($r = -.58$), and a weak negative correlation with the expression of affectivity ($r = -.22$).

Also, the body appreciation has a positive, medium correlation with dyadic satisfaction ($r = .41$), consensus ($r = .46$), cohesion ($r = .36$) and dyadic adaptation ($r = .45$) (Table 2).

Table 2. Bivariate correlation between the main study variables by primiparous women (N=105)

	1	2	3	4	5	6	7	8	9	10	11
1. Parental stress	—										
2. Family support	-.37**	—									
3. Friends support	-.35**	-.72**	—								
4. Important persons support	-.33	-.89**	-.65**	—							
5. Anxious attachment	.47**	-.53**	.45**	-.59**	—						
6. Avoidant attachment	.11	-.43**	-.42**	-.51**	-.57**	—					
7. Consensus	-.29*	.64**	.53**	.67**	-.56**	-.65*	—				
8. Expressing affectivity	.13	-.57**	-.40**	-.60**	.40**	.38**	-.49**	—			
9. Dyadic satisfaction	-.42**	.66**	-.45**	.73**	-.58**	-.52**	.80**	-.47**	—		
10. Cohesion	-.33**	.54**	.41**	.65**	-.51**	-.59**	.80**	-.49**	.73**	—	
11. Dyadic adaptation	-.37**	.67**	.50**	.73**	-.60**	-.63**	.95**	-.48**	.92**	.86**	—
12. Body appreciation	-.39**	.44**	.45**	.44**	-.58**	-.30*	.46**	-.22*	.41**	.36**	.45**

Note. N = 105; * $p < .05$; ** $p < 0.01$

In the case of multiparous women (Table 3), as regards the body appreciation, it can be seen that there is a low significant positive correlation with dyadic satisfaction ($r = .22$) and dyadic adaptation ($r = .24$) and that there is a low negative correlation with the perceived parental stress ($r = -.19$), anxious attachment ($r = -.21$) and avoidant attachment ($r = -.04$). The perceived parental stress correlates positively with the avoidant attachment ($r = .18$) and the expression of affectivity ($r = .29$) and correlates negatively with consensus ($r = -.37$), dyadic satisfaction ($r = -.24$), cohesion ($r = -.24$), dyadic adaptation ($r = -.35$). (Table 3).

Hypothesis testing

In the Step Wise multiple linear regression, we first analysed primiparous women and then multiparous women. Independent variables in the first case of primiparous women were: perceived parental stress, anxious attachment, perceived social support from the family, perceived social support from important persons, consensus, dyadic satisfaction and cohesion, the dependent variable being the body appreciation. The Step Wise multiple linear prediction analysis excludes the variables specific to the dyadic adaptation (consensus, dyadic satisfaction, cohesion) as they do not significantly contribute to the explanation of the body appreciation model.

In the first model we included the perceived parental stress to explain the model of the body appreciation. The equation for the prediction of the body appreciation, in the case of primiparous women when perceived parental stress is introduced, has the following items: R^2 adjusted is .148, which means that the model explains 14,8% of the cases. The introduction in the equation of the first variable (perceived parental stress) significantly improves the prediction of the model. The F test values (Anova) and the coefficients of significance with p values lower than 0.05 confirm that the model is valid (Table 4). The constant of the model is 52.27, which means that the body appreciation starts from a threshold of 52.27. The perceived parental stress explains the body appreciation in a negative sense ($B = -.50$, $p = <.001$), indicating that primiparous mothers with higher levels of perceived stress have lower levels of body appreciation (Table 5).

In the second model we introduced the anxious attachment in addition to the perceived parental stress. The equation for the prediction of the body appreciation in the case of primiparous women, when anxious attachment is introduced, has the following items: R^2 adjusted is .347, which means that the model explains 34.7% of the cases. The introduction in the equation of the second variable (anxious attachment) significantly improves the prediction of the model, compared to the first model. The F test values (Anova) and the coefficients of significance with p values lower than 0.01 confirm that the model is valid (Table 4). The constant of the model is 51.64, which means that the body appreciation

starts from a threshold of 51.64. The anxious attachment explains the body appreciation in a negative sense ($B = -.26, p < .001$), indicating that primiparous mothers with higher anxious attachment have lower levels of body appreciation (Table 5).

Table 3. Bivariate correlation between the main study variables by multiparous women (N=114)

	1	2	3	4	5	6	7	8	9	10	11
1. Parental stress	—										
2. Family support	-.17	—									
3. Friends support	.03	.39**	—								
4. Important persons support	-.16	.67**	.39*	—							
5. Anxious attachment	-.15	-.47**	-.22*	-.47**	—						
6. Avoidant attachment	.18*	-.49**	-.25*	-.54**	.55**	—					
7. Consensus	-.37*	.54**	.30**	.57**	-.39*	-.45**	—				
8. Expressing affectivity	.29*	-.38*	-.27*	-.50**	.45**	.56**	.61**	—			
9. Dyadic satisfaction	-.24*	.37**	.06	.49**	-.38*	-.48**	.49**	.37*	—		
10. Cohesion	-.24*	.48**	.21*	.47**	-.43*	-.50**	.63**	.41**	.51**	—	
11. Dyadic adaptation	-.35*	.55**	.24*	.62**	-.46*	-.55**	.87**	.54**	.82**	.75**	—
12. Body appreciation	-.19*	.11	-.01	.06	-.21*	-.04*	.22	.15	.22*	.11	.24*

Note. N = 114; * $p < .05$; ** $p < 0.01$

In the third model we introduced the perceived social support from the family and the perceived social support from the important persons, in addition to the perceived parental stress and the anxious attachment. The equation for the prediction of the body appreciation in the case of primiparous women, when the perceived support from the family and the perceived support from important persons are introduced, has the following items: R^2 adjusted is .355, which means that the model explains 35,5% of the cases. The introduction in the equation of the two variables (the perceived social support from the family and the perceived social support from important persons) does not significantly improve the prediction of the model when compared to the second model because $p > .05$.

The F test values (Anova) and the coefficients of significance have p values $> .05$. Since this value is greater than .05, it means that the regression equation at this stage does not fully explain the extent of the variance of the body appreciation (Table no. 4).

The final model (Table no. 5) indicates that both the variable of the perceived parental stress ($B = -.50$) and the anxious attachment ($B = -.26$) are negative predictors. All predictions were significant at the 1% level. The regression equation could be expressed by the equation: perceived parental stress = .14 + (.34) anxious attachment.

The reason why I used .05 level and not .01 level for significance testing in regression is because the values obtained in the study are much closer to the 95% confidence threshold which means that $p < .05$ is more appropriate to use in this case.

Table 4. The summary of the body appreciation prediction models for primiparous mothers

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig F Change
1	.39	.15	.14	7.55	.156	19.08	1	103	0
2	.60	.36	.34	6.61	.204	32.42	1	102	0
3	.61	.38	.35	6.57	.02	1.62	2	100	.202

The independent variables in the second case of multiparous women were: perceived parental stress, anxious attachment, perceived social support from the family, perceived social support from important persons, consensus, dyadic satisfaction and cohesion, the dependent variable being the body appreciation. The Step Wise multiple linear prediction analysis excludes the variables specific to the dyadic adaptation (consensus, dyadic satisfaction, cohesion) as they do not significantly contribute to the explanation of the body appreciation model.

Table 5. Standardized and non-standardized coefficients for the prediction of the body appreciation in the case primiparous mothers

Model	B	Std. Error	Beta	t	p
(Constant)	52.27	3.69	0	14.14	
1 Parental stress	-.50	.11	-.39	-4.36	.00
(Constant)	51.64	3.23		15.94	.00
2 Parental Stress	-.19	.11	-.14	-1.65	.10
Anxious attachment	-.26	.04	-.51	-5.69	.00
(Constant)	43.27	6.01		7.19	.00
3 Parental Stress	-.15	.11	-.12	-1.32	.18
Anxious attachment	-.22	.05	-.44	-4.21	.00
Family support	.38	.34	.20	1.11	.26
Important persons support	-.08	.36	-.04	-.22	.82

In the first model we included the perceived parental stress to explain the model of the body appreciation. The equation for the prediction of the body appreciation in the case of multiparous women, when perceived parental stress is introduced, has the following items: R^2 adjusted is .031, which means that the model explains 3,1% of the cases. The introduction in the equation of the first variable (perceived parental stress) significantly improves the prediction of the model. The F test values (Anova) and the coefficients of significance with p values < 0.05 confirm that the model is valid (Table.6). The constant of the model is 46.21, which means that the body appreciation starts from a threshold of 46.21. The perceived parental stress explains the body appreciation in a negative sense ($B = -.23$, $p < .001$), indicating that multiparous mothers with higher levels of perceived stress have lower levels of body appreciation (Table 7).

Table 6. The summary of the body appreciation prediction models for multiparous mothers

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.19	.039	.031	6.77	.039	4.60	1	112	.034
2	.27	.075	.058	6.68	.036	4.27	1	111	.041
3	.28	.079	.045	6.72	.004	.24	2	109	.783

In the second model we introduced the anxious attachment in addition to the perceived parental stress. The equation for the prediction of the body

appreciation in the case of multiparous women, when anxious attachment is introduced, has the following items: R^2 adjusted is .058, which means that the model explains 5,8% of the cases. The introduction in the equation of the second variable (anxious attachment) significantly improves the prediction of the model compared to the first model.

Table 7. Standardized and non-standardized coefficients for the prediction of the body appreciation in the case multiparous mothers

Model	B	Std. Error	Beta	t	p
(Constant)	46.2	3.6		12.81	.00
1 Parental Stress	-.23	.10	-.19	-2.14	.03
(Constant)	48.5	3.73		13.01	.00
2 Parental Stress	-.20	.10	-.17	-1.83	.06
Anxious attachment	-.11	.05	-.19	-2.06	.04
(Constant)	50.7	6.73		7.52	.00
3 Parental Stress	-.20	.11	-.17	-1.85	.06
Anxious attachment	-.12	.06	-.21	-1.97	.05
Family support	.07	.22	.04	0.33	.74
Important persons support	-.15	.21	-.08	-0.69	.48

The F test values (Anova) and the coefficients of significance with p values $< .05$ confirm that the model is valid (Table 6). The constant of the model is 48.55, which means that the body appreciation starts from a threshold of 48.55. The anxious attachment explains the body appreciation in a negative sense ($B = -.11$, $p < .001$), indicating that multiparous mothers with higher anxious attachment have lower levels of body appreciation (Table 7).

In the third model we introduced the perceived social support from the family and the perceived social support from the important persons in addition to the perceived parental stress and the anxious attachment. The equation for the prediction of the body appreciation in the case of multiparous women, when the perceived social support from the family and the perceived social support from important persons are introduced, has the following items: R^2 adjusted is 04, which means that the model explains 4,5% of the cases. The introduction in the equation of the two variables (the perceived social support from the family and the perceived social support from important persons) does not significantly improve the prediction of the model compared to the second model, because $p > .05$.

The F test values (Anova) and the coefficients of significance have p values $> .05$. Since this value is greater than .05, it means that the regression equation at

this stage does not explain, to a significant extent, the variance of the body appreciation variable and the validity of the model (Table 6).

The final model (Table 7) indicates that both the variable of the perceived parental stress ($B = -.23$) and the anxious attachment ($B = -.11$) are negative predictors. All the predictions were significant at the 1% level. The regression equation can be expressed by the equation: perceived parental stress = $.031 + (.058)$ anxious attachment.

The reason why I used .05 level and not .01 level for significance testing in regression is because the values obtained in the study are much closer to the 95% confidence threshold which means that $p < .05$ is more appropriate to use in this case.

Discussions

The objectives of this study were to identify individual and dyadic predictors of body appreciation in primiparous and multiparous women, to analyse the associations between body appreciation and the other variables involved as follows- perceived parental stress, anxious and avoidant attachment, dyadic adaptation, consensus, expressing affectivity, dyadic satisfaction, cohesion and perceived social support from family, friends and other important persons as well as to analyse the literature in the field.

Statistical results on correlations and predictions among the analyzed variables showed the following:

In the case of primiparous women, as regards the body appreciation, the results of our study show that there is a significant positive association with the perceived social support from the family, friends and important persons.

The higher the support received from family, friends, and important persons are, the higher the body appreciation will be, and the lower the perceived social support from them is, the lower the body appreciation will be. As we know, body appreciation is a socially built concept that is strongly influenced by social experiences and social support, received from loved ones and social support from family, friends and important persons tend to serve as a protective factor in the event of low body appreciation satisfaction. The role of social support is a very important one for women who have recently given birth, who at that time needed the support of people close to them, both physically and emotionally (Merianos et al., 2012). The results obtained by us are supported by studies in the field. For example, in the study conducted by Merianos et al., 2012 it has been found that persons reporting a low family connection are at high risk of developing an extremely low body appreciation, unhealthy weight control behaviors and depressive symptoms (Merianos et al., 2012).

Also, the body appreciation has a positive, important correlation with dyadic satisfaction, consensus, cohesion and dyadic adaptation. The studies in the field suggests the same direction of positive association between these variables by the fact that when women assess their body appreciation in a positive way and perceive themselves as physically attractive, they will have healthy couple relationships (Shaheen et al., 2016). As Shaheen and colleagues (2016) show in the study they conducted there is a relationship between couple satisfaction and body appreciation. The partner's perception, assessment and appreciation of weight and body appreciation have significant effects on couple satisfaction or on the dissatisfaction of a person. More accurate, women's body appreciation depends on the perception of their partners and in other words, if they are satisfied with their body weight and shape, they develop a more positive body appreciation (Shaheen et al., 2016).

The body appreciation negatively correlates with the perceived parental stress. Thus, the higher the perceived parental stress, the lower the body appreciation will be. Therefore, the high perceived parental stress by mothers after birth results in a negative assessment of the body appreciation. This result can be explained by a study performed by Becker and colleagues (2019), where it was found that perceived parental stress was a significant mediator for the negative dimensions of the body appreciation and this mediator explained the relations among the body appreciation, the perceived parental stress, but also the symptoms of depression (Becker et al., 2019).

The body appreciation also correlates negatively with the anxious attachment and avoidant attachment. Therefore, as the anxious attachment is high, the perception of the body appreciation will be a negative one. Since people with an anxious attachment show constant insecurity and fears, their body appreciation is seriously affected. As can be seen, the anxious attachment styles are associated with a negative body appreciation (Brennan & Shaver, 1995).

The avoidant attachment correlates negatively with the body appreciation. An explanation that the avoidant attachment correlates negatively with the body appreciation might be that people with an avoidant attachment will tend to have fewer social relations with the people close to them and therefore the risk of comparing themselves with others in the perceived body appreciation increases, and thus the body appreciation will be negative. Sharpe and colleagues (1998) found that women with an insecure attachment, respectively avoidant, are more concerned about a better physical condition of the body. The authors suggest that the avoidant attachment often leads women to the internalization of the social standards to achieve self-worth and social acceptance. Reviewing this literature, Ward and colleagues (2000) discovered that the insecure attachment is associated with the alimentation problems in both clinical and non-clinical populations and leads to a negative body appreciation.

The perceived parental stress in the case of primiparous women explains the body appreciation in a negative direction, indicating that primiparous mothers with higher perceived parental stress have lower levels of body appreciation. The anxious attachment also explains the body appreciation in a negative direction, indicating that primiparous mothers with higher anxious attachment have lower levels of body appreciation.

In the case of multiparous women, as regards the body appreciation, it can be seen that there is a significant positive correlation with dyadic satisfaction and dyadic adaptation. The studies in the field have shown that there is a relationship between couple satisfaction and body appreciation. Women's body appreciation affects more romantic relationships than that of men and, in addition, when women perceive that their partners are satisfied with their body weight and shape, they develop a more positive body appreciation (Shaheen et al., 2016).

The body appreciation negatively correlates with the perceived parental stress in the case of multiparous women, indicating that the level of the body appreciation is lower in multiparous mothers after birth when the perceived parental stress is higher. In the study conducted by Geiger and colleagues (2019) it can be seen that is a relationship between the body appreciation and the perceived parental stress. The results show that for women, body perceptions are associated with depressive symptoms and judgments on their appearance. Also, these symptoms have been linked to stress perception and exaggerated responses to biological stress.

As in the case of primiparous mothers, in that of multiparous mothers, the body appreciation negatively correlates with anxious attachment and avoidant attachment. The study conducted by Brennan and Shaver (1995) indicate that anxious attachment is associated with a negative body appreciation. Furthermore, Sharpe and colleagues (1998) suggest that women with an insecure or an avoidant attachment are much more interested about their physical condition of the body. The perceived parental stress in the case of multiparous women explains the body appreciation in a negative direction, indicating that multiparous mothers with higher perceived parental stress have lower levels of body appreciation.

The anxious attachment also explains the body appreciation in a negative direction, indicating that multiparous mothers with higher anxious attachment have lower levels of body appreciation.

Limits

This study had several limits. First, the measurement of the body appreciation used in this study was well validated for the general population, but not specifically for women who have recently given birth. Future research should be carried out with measurement tools that have been specifically validated for this category of participants.

The cross-sectional nature of this study was another significant limit. Therefore, it is impossible to establish causal links among the variables, as no information on the temporal precedence was collected. The performance of longitudinal studies is particularly important given that the existing longitudinal data provide mixed results in the evolution of the dissatisfaction of the body appreciation during pregnancy and postpartum period.

Conclusions

Following the prediction analyses we carried out on primiparous and multiparous women, the following were found: the perceived parental stress, and the anxious attachment predict the body appreciation. Thus, when the perceived parental stress is high, the body appreciation will be negative and when the anxious attachment is high, the body appreciation will also be negative.

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