

## The Relationship between Psychological Wellbeing and Body Image in Pregnant Women

### Abstract

**Background:** The aim of the present study was to determine the association between body image and psychological wellbeing during pregnancy. **Materials and Methods:** This descriptive correlational study was conducted on 320 pregnant women who were referred to health centers in Isfahan, Iran, during 2016 and had the inclusion criteria. They were selected by nonprobability convenient sampling. Data were gathered using standard psychological wellbeing and body image satisfaction questionnaires. The data were analyzed using Statistical Package for the Social Sciences software by descriptive and inferential statistical methods. **Results:** The results showed that the mean (SD) score of psychological wellbeing among participants was 77.50 (10.10) and their mean (SD) score of satisfaction with body image was 89.30 (14.60). Moreover, the results revealed a positive and significant relationship between the scores of psychological wellbeing and body image satisfaction ( $r=0.354$ ,  $p < 0.001$ ). The results of regression analysis showed that the two variables of self-acceptance ( $t = 5.6$ ,  $p < 0.001$ ) and personal growth ( $t = 2.06$ ,  $p = 0.04$ ) can predict body image in pregnant women. **Conclusions:** The findings revealed a significant positive relationship between body image satisfaction and psychological wellbeing. Therefore, the training of positive attitude with respect to body image or increasing the level of knowledge on psychological wellbeing can create a positive cycle for these variables, and thus, make the pregnancy more enjoyable and acceptable.

**Keywords:** *Body image, mental health, psychological, pregnancy, wellbeing*

### Introduction

Psychological wellbeing, as one of the important subjects in the present day, is the center of attention of many societies.<sup>[1]</sup> Positive psychology has defined mental health as positive psychological functioning and has conceptualized it in the form of the phrase “psychological wellbeing.”<sup>[2]</sup> In this novel approach toward psychology, contrary to the traditional approach which defines health as lack of an illness, adaptability, happiness, self-confidence, and other such positive characteristics are signs of health, and an individual’s main goal in life is the development of their capabilities.<sup>[3]</sup>

In this respect, models have been provided that view individuals from a positive perspective. Carol Ryff’s six-factor model of psychological wellbeing is one of the most important models in the field of psychological wellbeing. Ryff has defined psychological wellbeing as an endeavor for perfection in realizing the real potential abilities of an individual.<sup>[4]</sup> Ryff has stated

that wellbeing is multidimensional and consists of the dimensions of autonomy, personal growth, environmental mastery, purpose in life, positive relations with others, and self-acceptance.<sup>[5]</sup> These six factors define psychological wellbeing both theoretically and practically.<sup>[6]</sup>

The results of previous studies show that psychological wellbeing and its components have varying status in different stages of life and in relation to demographic characteristics, and various factors can impact the psychological wellbeing level of individuals.<sup>[7]</sup> The experience of pregnancy, with its accompanying profound physical and mental changes in women’s life, affects all dimensions of life including psychological wellbeing.<sup>[8]</sup> Researchers believe that pregnancy, in addition to disruption in psychological wellbeing and mental health, creates the basis for stress, anxiety, and depression during and after pregnancy and future emotional disorders in the child, and increases the risk of behavioral issues in early childhood.<sup>[9]</sup>

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Among the characteristics that undergo change during this period are physical appearance and body image. Studies in this respect have shown that many women undergo substantial changes in weight, body shape satisfaction, and eating habits during pregnancy and the period after childbirth, and these changes can have positive or negative effects on the health of the mother and fetus.<sup>[10]</sup> Today, being slim is considered as one of the criteria of beauty and sexual attraction in some women;<sup>[11]</sup> therefore, increased weight and changes in appearance during pregnancy can result in body image dissatisfaction. The results of the study by Garrusi *et al.*<sup>[12]</sup> on 255 pregnant women showed that 48.7% of subjects were dissatisfied with their body image and that there is a positive and significant relationship between body image dissatisfaction and depression. In addition, Wilson *et al.*<sup>[13]</sup> stated that body image dissatisfaction can have consequences such as anxiety, depression, social isolation, and weakened self-concept and self-esteem. On the contrary, Dotse<sup>[14]</sup> in a study on 100 individuals (56 women and 44 men), with an age range of 12–50 years, found a positive and significant correlation between body image satisfaction and psychological wellbeing.

The majority of previous studies, especially in Iran, have evaluated the relationship of body image satisfaction or dissatisfaction with the negative aspects of mental health, such as depression, or the relationship of body image with psychological wellbeing in individuals with high body mass index (BMI). Thus, the question arises as to whether there is a relationship between body image and psychological wellbeing during pregnancy, which is accompanied with rapid changes in weight and body image. Therefore, the present study was conducted to determine the relationship between body image and psychological wellbeing in pregnant women referring to health centers in Isfahan, Iran.

## Materials and Methods

This descriptive, correlational study was performed on 320 pregnant women referred to nine health centers selected from among the 46 health centers in Isfahan using nonrandom quota sampling method (based on the number of referrals). The subjects were selected through nonprobability convenience sampling from among individuals who had the inclusion criteria. Sampling was conducted during April to August 2016. The sample volume was calculated based on  $Z_1 = 1.96$ ,  $Z_2 = 1.24$ , and  $r$  with a minimum absolute value of 0.2 (an estimation of the correlation coefficient between psychological wellbeing score and different variables). Inclusion criteria consisted of being an Iranian pregnant woman of any gestational age covered by health centers, lack of any recognized mental disorders such as depression and bipolar disorder, and lack of smoking and use of sedatives. Data were collected using Ryff's Psychological Wellbeing (PWB) scale and the Body Image Satisfaction scale.

The PWB scale consists of 18 items scored based on a five-point Likert scale and evaluates the six components of psychological wellbeing (autonomy, personal growth, environmental mastery, purpose in life, positive relations with others, and self-acceptance). The internal consistency of this scale was calculated using Cronbach's alpha in a study by Shahidi *et al.*<sup>[15]</sup> and was reported as 0.72, 0.73, 0.76, 0.52, 0.75, and 0.51 for the components of autonomy, personal growth, environmental mastery, purpose in life, positive relationships with others, and self-acceptance, respectively, and as 0.71 for the whole scale.

The Body Image Rating scale consists of 22 items that assess the satisfaction or dissatisfaction of the individual with her/his body. This scale was designed by Souto and Garcia in 2002.<sup>[16]</sup> The items are scored based on a five-point Likert scale ranging from never to always. The validity and reliability of this scale were approved in the study by Taheri Torbati *et al.*<sup>[17]</sup> Independent *t*-test results showed that this scale has good differential validity and can differentiate between the two groups of good and bad body image ( $p < 0.001$ ). Moreover, Cronbach's alpha showed the acceptable reliability of this scale ( $\alpha = 0.91$ ).<sup>[17]</sup> The collected data were analyzed using descriptive (mean and standard deviation, and frequency distribution) and inferential statistics (Pearson correlation coefficient) using Statistical Package for the Social Sciences software (version 16, SPSS Inc., Chicago, IL, USA).

## Ethical considerations

To observe ethical principles, before beginning the study, written informed consent forms were obtained from the participants and they were assured of the confidentiality of their information and that the results will not be analyzed individually and the participants' personal information will be protected.

## Results

The mean (SD) age, gestational age, number of pregnancies, and number of childbirths of the women was 28.50 (5.01) years, 25.90 (9.90) weeks, 1.80 (0.90), and 0.70 (0.50), respectively. Most participants were housewives (87.2%) and had a diploma of higher educational degree (80.3%). Moreover, the pregnancy was planned in the majority of cases (84.1%).

The mean (SD) psychological wellbeing and body image satisfaction scores of the participants were, respectively, 77.50 (10.10) and 79.30 (14.60). Furthermore, the results suggested a significant positive relationship between psychological wellbeing score and body image satisfaction score ( $p < 0.001$ ,  $r = 0.354$ ). In addition, the results illustrated that body image score had a direct relationship with the components of self-acceptance ( $r = 0.40$ ;  $p < 0.001$ ), positive relationships with others ( $r = 0.20$ ;  $p < 0.001$ ), environmental mastery ( $r = 0.19$ ;  $p < 0.001$ ), purpose in

life ( $r = 0.14$ ;  $p = 0.01$ ), and personal growth ( $r = 0.27$ ;  $p < 0.001$ ). However, it did not have a significant relationship with the component of autonomy ( $p = 0.74$ ).

Multiple linear regression results also showed that, among the scores of the components of psychological wellbeing, self-acceptance and personal growth were, respectively, the best predictors of the body image score, and the scores of the other components were not significant predictors of body image [Table 1].

## Discussion

The aim of the present study was to determine the relationship between psychological wellbeing and body image in pregnant women referring to health centers in Isfahan. The results of the Pearson correlation coefficient showed a significant positive relationship between psychological wellbeing and body image. The results of this study regarding the relationship between psychological wellbeing and body image is in agreement with that of the studies by Dotse,<sup>[14]</sup> Jane Sabik,<sup>[18]</sup> and Winefiel *et al.*<sup>[19]</sup>

Ojha and Kumar<sup>[20]</sup> conducted a study on 223 students and found that body image dissatisfaction reduces individuals' happiness, while body image satisfaction increases self-esteem which increases psychological wellbeing. Their findings were in accordance with that of the present study. Based on the findings of Asgari and Shabaki,<sup>[21]</sup> body image is an essential element of individuals' personality and self-concept which impacts their mental life and views. This image can be positive or negative, can impact the psychological wellbeing of individuals, and can become a source of positive or negative emotions, and thus, affect individuals' quality of life (QOL). High inconsistency in body image impacts social and marital relations, daily activities, interpersonal communication, and familial relationships, which are effective components of QOL.<sup>[21]</sup> On the contrary, individuals with higher psychological wellbeing are more satisfied with their body image. Furthermore, in individuals with a purpose in life and positive feeling toward themselves and their

future, body image dissatisfaction has little effect on their experiences, goals, and values.<sup>[22]</sup>

Women pay more attention to their bodies, compared to men, and are dominated by their body image more than men. This issue is more pronounced in pregnant women. Pregnancy is a challenge of psychological adjustment, and reaching a desirable weight gain which insures the health of the fetus can be affected by body image satisfaction. During the 40 weeks of pregnancy, the body of the mother changes drastically.<sup>[12]</sup> These rapid changes may cause the mother to reevaluate her body image. She may have a positive view toward these changes, consider them as natural and caused by the pregnancy, and, due to its transience, still be satisfied with her body image. Nevertheless, these rapid changes may cause a negative body image, and consequently, reduced self-esteem, self-belief, self-acceptance, and self-worth in some mothers. A positive body image in pregnant women increases their self-confidence and, through the creation of positive emotions, increases their positive relations with others, self-acceptance, environmental mastery, and purposefulness, and thus, results in increased psychological wellbeing.

The results of the present study also illustrated the lack of a significant relationship between body image score and the score of the component of autonomy. This finding was in agreement with that of the study by Chung.<sup>[23]</sup> It seems that today individuals consider employment and increasing of skills as strategies to gain autonomy, and body image satisfaction plays a more subtle role in women's independence.

The results of multiple regression analysis showed that, among the scores of the components of psychological wellbeing, self-acceptance and personal growth scores were the best predictors of body image. Chung found that self-acceptance and environmental mastery were the strongest predictors of body image.<sup>[23]</sup> These findings are in agreement with that of the present study in terms of the variable of self-acceptance, but are not in accordance with the present study in terms of the variable of environmental mastery. Pregnancy conditions, the feeling of motherhood, and presence of individuals who continually support the mother may cause her to have less need for environmental mastery during pregnancy.

In explanation of the results of the present study, it can be stated that self-acceptance and personal growth are effective components that can create the basis for other components; therefore, it can be concluded that an individual who has accepted her/himself and has achieved personal growth may be better able to connect with others and lead a purposeful life. Self-acceptance is a perception that provides individuals with awareness of their strengths and weaknesses and a realistic view of their abilities, through which and by the development and improvement of their activities, they can achieve a positive view of

**Table 1: Multiple linear regression analysis in the prediction of body image using components of psychological wellbeing**

Group dimensions of psychological wellbeing	Raw coefficients	Standardized coefficients (β)	t	p
Self-acceptance	1.69	0.34	5.60	<0.001
Positive relation with others	0.09	0.02	0.34	0.73
Environmental mastery	0.34	0.06	1.07	0.28
Purpose in life	0.13	0.03	0.46	0.65
Personal growth	0.65	0.13	2.06	0.04
Autonomy	0.005	0.001	0.02	0.99

themselves.<sup>[14]</sup> Pregnancy is most often considered as a strength which will result in the reinforcement of the sense of femininity and self-acceptance<sup>[24]</sup> that can result in body image satisfaction.

Personal growth represents the individual's constant participation in activities and resolution of issues in order to expand his/her abilities.<sup>[14]</sup> It seems that individuals, who have achieved personal growth and a clear view of themselves, have a high mental performance and have achieved growth in different aspects of life such as pregnancy.<sup>[25]</sup> These individuals have a better view of themselves, are less concerned with changes in their appearance, and are satisfied with their body image. The majority of the participants in the present study considered the changes in their appearance as part of the process of pregnancy. They spoke of God's wisdom, accepted themselves as a pregnant individual, and were satisfied with their physical appearance. In Iran, both in terms of culture and religion, pregnancy is considered as a holy and precious period and this may increase the body image satisfaction and psychological wellbeing of pregnant women. The present study is a starting point for the performance of more comprehensive and practical studies. Moreover, the performance of studies with the aim to analyze and assess the different aspects of body image and the effects of negative body image during pregnancy and after childbirth seems necessary. The limitation of this study was that data on the mothers' medical history were obtained through asking the participants themselves and there may have been cases that the women were unaware of.

## Conclusion

It can be concluded that body image is one of the factors related to psychological wellbeing during pregnancy. Hence, it is recommended that this issue be taken into consideration in the provision of pregnancy care and planning for the improvement of the mental health of pregnant women. Moreover, for the creation and maintenance of a positive body image during pregnancy, women must be provided with information on physical changes during pregnancy and after childbirth in order to help them better accept changes in their body and prevent the formation of unrealistic expectations during pregnancy and after childbirth.

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## Conflicts of interest

Nothing to declare.

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