



Correlation between Body Image and Depression in Pregnant Women

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ABSTRACT

Introduction: Pregnancy-related body image dissatisfaction is linked to psychiatric conditions like depression. This study examines the relationship between depression and body image in pregnant women and emphasizes the importance of taking mental health into account throughout pregnancy. **Objectives:** The purpose of the study was to establish the correlation between body image and depression in pregnant women. **Materials and Methods:** This cross-sectional study was conducted in Dr Ziauddin Hospital in Karachi from January 2025 to May 2025. Participants were selected through convenience sampling and 100 pregnant women agreed to participate in the study. Socio-demographic details were also gathered. The correlation between body image dissatisfaction and depression was tested using Spearman's correlation coefficient. **Results:** Body image dissatisfaction have a significantly moderate negative relation with depression, with a coefficient of determination of -0.62 and a p-value of 0.001. A correlation was observed between body image satisfaction and depressive symptoms, with women with lower levels of body image satisfaction being higher in depressive symptoms. **Conclusion:** Depression in pregnant women is associated with body image perception. Addressing body image concerns may contribute to improved maternal mental health.

INTRODUCTION

Body image is a person's psychological experience with their physical appearance regarding positive or negative attitudes, feelings, and behaviours (1). That includes the beliefs within the society for the specific culture, their experience, and circumstances that can have some giant consequences for the mental health of a woman during pregnancy. The present state of pregnancy can give different stimuli, and due to the physiological changes that occur in women's bodies during this period, it is expected that they may go through different feelings. Although some may consider these changes as fostering positivity, some females that have negative body image perceptions that result in dissatisfaction and even distress. These are issues that may lead to various psychological problems, such as anxiety, depression and poor self-esteem (2). Interest in the role of body image during pregnancy knows no bounds, especially in its link with mental health status, such as depression. This is even though depression is a prevalent but undertreated condition during pregnancy.

Weight gain, the appearance of stretch marks, and generally gaining weight and altering the body shape during pregnancy are some causes of body dissatisfaction

as people in that society associate the perfect figure with a thin and attractive body shape (3). There are concerns noted that body dissatisfaction during pregnancy increases the chances of developing depression; the problem is that the dissatisfaction leads to feelings of hopelessness and self-negativity (4). Also, body image dissatisfaction and depression exist in parallel, and the effect is made worse by hormonal changes, social pressure, and a woman's previous body experience (5). Even though some women gain confidence in their ability to please their partner and accept their bodies after pregnancy, some experience feelings of worthlessness (6).

This fight is fuelled by the cultural beliefs that have talked about the need to shed pre-pregnancy weight, and this increases the feeling of guilt among women who could not achieve this goal (7). Given these challenges, it becomes essential to establish the relationship between body image and other mental health-related factors like depression before or during pregnancy. Literature reviews carried out in different parts of the world have established the need to cater for pregnant women when they develop body image dissatisfaction. For instance, while studying Pakistani females, a meta-analysis of

quantitative studies revealed a negative relationship between body dissatisfaction and depression and stressed the importance of psychological interventions during pregnancy (8). Similarly, other cross-sectional studies done in different countries, for example, India and Saudi Arabia, have established that disturbed body image has a strong correlation with depression among pregnant women.

Body image dissatisfaction is also associated with self-esteem, amount of social support, and stress of the individual. That is why women with a low level of self-esteem, because of the changes in body shapes, have higher levels of depression (10). On the other hand, women with a higher body appreciation report fewer depressive symptoms and higher subjective well-being on average (11). Several studies have linked body dissatisfaction and depression and demonstrated that people in supportive environments have reduced effects of body dissatisfaction (12)(13). Since the problem of body image dissatisfaction seems to be closely connected with mental health issues during and after pregnancy, it is essential to create interventions that aim at reducing body image distortion and the risk of depression (14). Previous studies have proposed that interventions aimed at improving the boost in body appreciation, self-agency, and constructive attitude towards pregnancy are likely to lessen the damaging psychological outcomes of enlisted body image antidote (15). However, more focused studies are required, especially in the Pakistani context, to clearly understand how these factors interact within the cultural and social environment of the region (16).

Objective

The objective of this study is to investigate the correlation between body image and depression in pregnant women, aiming to understand the impact of body image on maternal mental health.

MATERIALS AND METHODS

Study Design: Cross-sectional Study.

Study setting: The study was done in the Obstetrics and Gynecology department of Dr. Ziauddin Hospital in Karachi, Pakistan.

Duration of the study: The research was done from January 2025 to May 2025.

Inclusion Criteria

The eligible participants in this study were pregnant women who were at least 28 weeks pregnant and have provided written and verbal consent. All participants attended the health care facility and consented to be the part of study.

Exclusion Criteria

Any woman with a significant physical deformation or major depressive disorder or any woman who has experienced any physical or mental trauma in the past month was eliminated from the study.

Methods

Data was gathered with the help of a questionnaire that consists of the Beck Depression Inventory (BDI), Body Image Questionnaire (BIQ), and socio-demographic questionnaire. BDI was utilized to confirm the level of

depression of the participants, and the BIQ was used to measure body image satisfaction of the participants. The socio-demographic form ask questions requiring responses concerning age, weight, height, gestational age, marital status, education, employment and family income. Only after receiving permission from the Ethical Review Committee of Dr. Ziauddin Hospital was the participants be approached and informed about the details of the study. Each willing participant gives their written and verbal consent before they was enrolled for the study. The researcher also administer questionnaires where necessary, clarify questions, and offer assistance if required. SPSS software, version 23, was used for data analysis. At a significance level of 0.05, descriptive statistics like frequency tables and inferential statistics like t-tests were utilized to compare the degree of depression and body image.

RESULTS

The main aim of the study was to determine the correlation between perception of body image and depression among pregnant women. In the study, 100 pregnant women agreed to fill out BIQ and BDI regarding their socioeconomic status, perception of body, and depression scores. Statistical analysis was done through Statistical Product and Service Solutions (SPSS) version 23.

Table 1

Socio-Demographic Characteristics of Participants

Characteristic	Frequency (%)	
Age (years)	18-25	30 (30%)
	26-35	45 (45%)
	36-45	25 (25%)
Marital Status	Married	90 (90%)
	Single	10 (10%)
Employment Status	Employed	50 (50%)
	Unemployed	50 (50%)
Education	High School or below	20 (20%)
	Graduate	50 (50%)
	Post-graduate	30 (30%)

Most of the participants were married (90%), and 74.0% had a high school education or above. The largest age group of most women was 26-35 years, with an employment rate of half of its participants.

Table 2

Depression Levels in Pregnant Women (BDI Scores)

BDI Score Range	Frequency (%)
Normal (1-10)	30 (30%)
Mild Depression (11-16)	40 (40%)
Moderate Depression (17-30)	20 (20%)
Severe Depression (31-40)	10 (10%)

During the BDI evaluation, the results showed that 30% of the participants had normal levels of depression, and 40% had a diagnosis of mild depression. A further 20% described themselves as having moderate depression, and only 10% had high levels of depression.

Table 3

Body Image Satisfaction (BIQ Scores)

BIQ Score Range	Frequency (%)
High Satisfaction (81-95)	20 (20%)
Moderate Satisfaction (51-80)	50 (50%)
Low Satisfaction (19-50)	30 (30%)

The mean scores of Body Image Questionnaire was found low as 20% participants had high body image satisfaction and 50% had moderate satisfaction while 30% had low body image satisfaction.

Correlation between Body Image and Depression

The relationship between BIQ and BDI was examined using the Spearman correlation test. This was demonstrated by the association between depression as well as body image satisfaction that was negative with a coefficient value of -0.62 and $P < 0.01$, indicating that women with lower levels of body image satisfaction also had higher levels of depression. In addition, the results for the analyses performed according to the ages and employment status revealed higher rates of depression and lower levels of body image satisfaction among younger and unemployed women. However, these differences that have emerged did not differ significantly.

DISCUSSION

This research outcome reveals the correlation between self-esteem and depression among pregnant women and expectant mothers. This is in line with other research which points to poor body image during pregnancy as a significant predictor of psychological problems such as depression (6, 9). Pregnancy brings about several physiological changes, including weight changes, marking or appearance of stretch marks, and skin alterations that cause most pregnant women to be dissatisfied with their bodies. Such changes adversely affect a woman's appearance, causing her to get irritated, lose self-confidence, or become anxious. Being socially undesirable is socially undesirable to many people, especially in cultures that easily relate to the physical aspect of beauty. It was ascertained in other studies that dissatisfaction causes emotional distress and the basic feelings of depression (3, 5). This cycle of body image influencing depression is further developed by hormonal changes and the psychological pressure of approaching motherhood, which leads to more negative attitudes towards one's body (7, 8).

Through the assessment of respondents, 40% of the participants were found to be mildly depressed, while 30% had normal depression levels. These results are similar to the global statistic for depression in pregnant women, which is estimated at a range of 10-20% (4). It was shown that pregnancy does increase a woman's incidence of mental health issues such as depression, particularly during childbirth. This indicates that pregnant women, due to hormonal fluctuations, can easily be depressed, especially when giving birth (12). In the same respect, pregnant women have discomforts that come with the pregnancy, such as fatigue, nausea, backache, and weight changes, and these may lead to feelings of dissatisfaction with one's body (10, 11). Surprisingly, the study also established that body image perception was positively associated with depression among pregnant women. This is consistent with other studies that have shown that women with negative attitudes towards their bodies had higher depression scores (6). These negative perceptions of body image cause feelings of anxiety, low self-esteem and defeat,

which in turn leads to depression. Furthermore, body image issues have been associated with eating disorders that have adverse effects on one's mental health, amplifying depressive symptoms (9, 10). In pregnancy, whereas some women accept and adjust to the physical changes occurring to their bodies, others undergo a lot of anxiety. It also explored the moderating effect of social support on the relationship between body image and depression. According to the research studies, ladies who said they got more social support from their husband or their families or friends had more positive scores on body satisfaction rating and lower depression scores. Social cognitive theory posits that social support is critical in enabling women to manage physical changes during pregnancy and thus decrease the chances of developing depression (8).

It also established other factors, such as demographic factors, that would determine the connection between body image and depression. That is, younger women and unemployed women attained significantly lower body satisfaction scores and were identified as having higher rates of depression. This finding partially supports the findings that young women, as a group, were more at risk of developing body dissatisfaction, and they were also most vulnerable to developing depression during pregnancy (12). Young women are most susceptible to societal pressure to look attractive and pervert conventional beauty, mainly due to a lack of resources to deal with these issues (11). Therefore, body image perception influences fetal monitoring in pregnant women and must be considered in antenatal care. As for maternal mental health, postpartum adjustment is significant, and the connection between figure perception and depression in prenatal women should be investigated. Prenatal care and scrutiny of physical and mental health is crucial when a woman is pregnant, or whether she is planning to become pregnant, or within a year after childbirth. Thus, psychological counseling, formal counseling and education regarding body image could also decrease the rate of depression in mothers and have a positive impact on the general well-being of this individual (13). Also, programs such as body appreciation in pregnancy, which involves practicing self-compassion, may help pregnant women increase their body image satisfaction and reduce depressive symptoms (14).

It is now fitting to point out some limitations of this study. First, the study design was cross-sectional, meaning it measured the correlation between body image and depression only at one point in time. More research is required that would track participants' experience of body image and depression over and during pregnancy as well as in the postpartum phase. Furthermore, the study used the subjective assessment of depression levels and body image, which prevents reaching objective results. More objective assessments should be included in subsequent studies, which can consist of clinical ratings or interviews, to have more insightful results about the occurrence of the issue.

CONCLUSION

The present research aims to establish that there is a correlation between pregnant women and body image

that causes depression. This pattern suggests that there is a reciprocal relationship between body image satisfaction and depressive symptomatology in that women with lower levels of body image satisfaction report higher levels of depressive symptoms. These findings are indicative of the need to incorporate issues to do with body image in antenatal care since high levels of body dissatisfaction might pose a threat to the psychological well-being of the expectant woman. In addition, there is a part of the interaction with the moderating effect of self-

esteem, social support, and age in the relationship between body image and depression. Measures that strengthen and encourage a healthy perception of body image alongside counseling for pregnant females could help in preventing depression. Because pregnancy outcomes may be affected by mental health and body image concerns, healthcare should seek to maximise maternal and infant health through screening for and treating these issues.

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