Body Image and Its Impact on Psychological Stress Among Pregnant Women in the Era of Social Media

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ABSTRACT

Physical changes during pregnancy often lead to negative perceptions of body shape or body image, particularly in the era of social media, which reinforces unrealistic beauty standards. Such conditions may increase pregnant women's vulnerability to psychological stress, ultimately affecting maternal health. This study aims to analyze the correlation between body image and psychological stress among pregnant women in the social media era. An analytical approach with a cross-sectional design was employed, involving 66 pregnant women in their first to third trimesters who were active social media users. Data were collected using a modified version of the Body Shape Questionnaire [BSQ-16) and the Perceived Stress Scale [PSS-10). Data analysis was conducted using the Pearson Product Moment correlation test. The results showed that the mean scores for body image and psychological stress were 56.81 and 73.86, respectively. The hypothesis testing yielded a p-value of 0.001, indicating a significant correlation between body image and psychological stress levels among pregnant women. It is therefore concluded that negative perceptions of bodily changes during pregnancy contribute to increased psychological stress in pregnant women in the era of social media.
Keywords: body image; psychological stress; pregnant women; social media

INTRODUCTION

Pregnancy is widely recognized as a critical developmental period marked by profound physical, psychological, and social transitions that require substantial adaptation from women [1]. The physiological and morphological changes that accompany gestation—including weight gain, abdominal enlargement, skin alterations, and shifts in body composition—produce visible transformations in bodily appearance that may influence how pregnant women evaluate and internalize their body image [2]. A negative body image during pregnancy is frequently linked to dissatisfaction with these bodily changes, which can undermine maternal psychological well-being and contribute to emotional distress [3].

In the digital era, the pervasive influence of social media has intensified these concerns. Platforms such as Instagram, TikTok, and Facebook routinely disseminate highly curated images that promote idealized beauty norms and the so-called "maternity ideal," often depicting pregnancy as a state in which women maintain a slim figure, flawless skin, and minimal physical discomfort [4,5]. Such portrayals can heighten social comparison processes, leading pregnant women to evaluate themselves against unrealistic standards. This dynamic may exacerbate negative perceptions of their changing bodies, particularly when the visual content is presented as normative or aspirational. Public figures and influencers who showcase aesthetically idealized pregnancies inadvertently reinforce beauty expectations that are unattainable for most women, thereby amplifying body dissatisfaction among those experiencing natural and significant physical changes.

A growing body of research indicates that pregnant women frequently turn to social media for information, emotional reassurance, and social support. However, this engagement also exposes them to normalized visual content and messages that promote unrealistic ideals regarding the pregnant body [6-9]. During pregnancy, women may be especially vulnerable to the psychological effects of such exposure due to heightened emotional sensitivity, fluctuating hormonal states, and the need to adjust to rapid physical changes [10]. Beyond body-related concerns, pregnant women face additional sources of psychological stress, including worries about pregnancy outcomes, childbirth, fetal health, shifting family roles, and socioeconomic pressures. These stressors may interact with body image concerns, creating a cumulative psychological burden that increases susceptibility to anxiety and depressive symptoms.

International evidence suggests that problematic or excessive social media use during pregnancy is associated with elevated levels of depression, pregnancy-related anxiety, and disordered eating behaviors—pathways often mediated by social comparison, internalization of beauty ideals, and body dissatisfaction [11]. In Indonesia, where digital platform penetration is high, pregnant women commonly use WhatsApp, Instagram, and other platforms to access pregnancy-related information. This widespread engagement indicates that the local social media environment may play a significant role in shaping body image perceptions and influencing maternal psychological well-being [12]. The cultural context, including societal expectations of femininity and motherhood, may further intensify the impact of digital content on pregnant women's self-perception.

If body image disturbances triggered by social media exposure are not adequately addressed, the risk of prenatal depression and anxiety may increase. These psychological conditions have been linked to adverse neonatal outcomes such as preterm birth, low birth weight, and impaired fetal development [13]. Moreover, maternal psychological distress can affect family functioning, parenting readiness, and early bonding processes, underscoring the broader implications for family well-being and the developmental trajectory of future generations [14]. These findings highlight the importance of early identification and intervention to support maternal mental health during pregnancy.

This study aims to analyze the relationship between body image and psychological stress levels among pregnant women who actively use social media in the digital era. The findings are expected to provide an evidence-based foundation for healthcare professionals to design and implement integrated body-image counseling and psychosocial support programs within antenatal care services. Furthermore, the results may inform reproductive health policy recommendations related to media literacy, digital health education, and preventive interventions targeting psychological stress among pregnant women in primary healthcare settings. Strengthening these strategies may contribute to improved maternal mental health outcomes and enhance the overall quality of antenatal care.

METHODS

This study employed an analytical quantitative approach with a cross-sectional design. The research was conducted from September to October 2025 at the Atika Midwifery Private Practice in Madiun Regency. The study population consisted of all pregnant women who were recorded as receiving antenatal care services at the facility during the data collection period, including those in their first, second, and third trimesters. Pregnant women with severe cognitive impairments or specific medical conditions that could hinder their ability to participate actively in the study were excluded to ensure the validity and reliability of the data obtained.

Sampling was carried out using a purposive sampling technique, with inclusion criteria specifying that participants must have access to social media, be capable of independently completing the research instruments, and provide informed consent to participate. Based on these criteria, a total sample of 66 pregnant women was obtained. This sampling strategy was selected to ensure that the participants represented the population of interest—namely, pregnant women who actively engage with social media and are therefore relevant to the study's conceptual framework.

In this research, body image was designated as the independent variable, while psychological stress levels among pregnant women were positioned as the dependent variable. Data collection was conducted directly with respondents using standardized instruments. Body image was assessed using the 16-item version of the Body Shape Questionnaire (BSQ-16), which evaluates perceptions and concerns related to body shape. Psychological stress was measured using the 10-item Perceived Stress Scale (PSS-10), a widely used instrument for assessing perceived stress levels during pregnancy. Both instruments were accompanied by a demographic questionnaire to capture respondent characteristics such as age, gestational age, education level, and social media usage patterns.

The collected data were first analyzed descriptively to provide an overview of respondent characteristics and distribution patterns of the study variables. Subsequently, inferential analysis was performed using the Pearson Product Moment correlation test to examine the relationship between body image and psychological stress. This analysis included interpretation of the strength and direction of the correlation to provide a more comprehensive understanding of the association between the variables [15-17]. The use of Pearson correlation was deemed appropriate due to the continuous nature of the variables and the study's objective of identifying linear relationships.

RESULTS

Based on Table 1, the study findings indicate that the majority of respondents were aged 20–35 years (81.8%), had completed senior high school education, were housewives (60.6%), were in the third trimester of pregnancy (62.1%), and reported using social media for 1–3 hours per day (48.5%). Based on the data analysis presented in Table 2, the mean body image score was 56.81 (SD = 11.04), while the mean psychological stress score was 73.86 (SD = 13.55). The Pearson correlation analysis demonstrated a correlation coefficient (r) of 0.998 with a p-value of 0.001. The p-value of 0.001 indicates a statistically significant relationship between body image and psychological stress among pregnant women in the social media era ($p < 0.05$). Furthermore, the correlation coefficient (r = 0.998) suggests an extremely strong positive correlation between the two variables. This implies that changes in body image scores are closely associated with changes in psychological stress levels. In other words, body image is significantly related to psychological stress among pregnant women exposed to social media.

Table 1. Demographic, obstetric, and social media exposure characteristics of pregnant women

Characteristics	Category	Frequency	Percentage
Age	< 20 years	4	6.1
	20–35 years	54	81.8
	> 35 years	8	12.1
Education level	Senior high school	54	81.8
	Other levels*	12	18.2
Occupation	Housewife	40	60.6
	Employed (private sector/self-employed)	26	39.4
Gestational age	Second trimester	25	37.9
	Third trimester	41	62.1
Social media use intensity	< 1 hour/day	7	10.6
	1–3 hours/day	32	48.5
	> 3 hours/day	27	40.9

Table 2. Correlation analysis between body image and psychological stress among pregnant women in the social media era

Statistic	Body image	Psychological stress
Mean	56.81	73.86
Minimum	38	50
Maximum	79	99
Standard deviation	11.04	13.55
Correlation coefficient	-	0.998
p-value	-	0.001

DISCUSSION

The findings of this study demonstrate that body image has a significant impact on psychological stress among pregnant women in the era of social media. These results indicate that negative perceptions of one's body during pregnancy are not merely transient reactions to physical changes but represent a broader psychological experience that is strongly correlated with increased symptoms of anxiety, depression, and overall psychological distress in pregnant women. Consequently, body image emerges as an important determinant of maternal mental well-being. Pregnancy, as a developmental stage characterized by substantial hormonal, anatomical, and physiological changes, renders women particularly vulnerable to psychosocial stressors, including those related to body dissatisfaction and self-perception [18]. The anatomical and physiological adaptations that occur throughout gestation may substantially influence how women perceive and evaluate their bodies.

From a physiological perspective, stress responses triggered by negative body image may intensify activation of the hypothalamic–pituitary–adrenal [HPA] axis, leading to elevated cortisol secretion as part of the body's adaptive response to perceived psychological threats [19]. When such activation becomes chronic, prolonged cortisol dysregulation may occur, which has been shown to adversely affect sleep quality, energy metabolism, and nutritional balance in pregnant women [20]. Sustained elevations in maternal cortisol levels have also been associated with unfavorable pregnancy outcomes, including preterm birth and low birth weight. Therefore, the relationship between body image and psychological stress should not be viewed solely as a psychosocial concern but rather as an issue with significant obstetric and clinical implications.

Weight gain, abdominal enlargement, breast hypertrophy, and dermatological changes during pregnancy constitute normal physiological adaptations necessary to support fetal development. However, these morphological transformations may also alter maternal self-perception and body image. Research on body image among pregnant women suggests that such morphological changes can be associated with heightened concerns regarding physical appearance [21]. Some women interpret these changes positively, viewing them as natural indicators of fetal growth and maternal adaptation, thereby demonstrating constructive psychological adjustment. This is reflected in empowerment-based interventions conducted in Indonesia, where body adaptation programs were reported to improve acceptance of body image during pregnancy [22].

Nevertheless, in the contemporary social media environment, many pregnant women are frequently exposed to highly curated visual content portraying "ideal pregnancies" and "perfect" body standards. Such portrayals often promote unrealistic expectations and foster social comparison processes, which may trigger feelings of inadequacy and dissatisfaction with one's own body [23]. Emerging evidence indicates that the intensity of social media use is positively associated with body image dissatisfaction; the more frequently individuals engage with social media, the greater the likelihood of experiencing body dissatisfaction [24]. This mechanism appears particularly pronounced among pregnant women. Studies involving women in the third trimester have shown that increased social media use exacerbates negative body image perceptions and is correlated with disordered eating attitudes as well as elevated psychological distress [25].

Body dissatisfaction during pregnancy has consistently been linked to higher levels of psychological stress, anxiety, and depression. Several studies report that pregnant women who experience negative body image are more vulnerable to emotional distress compared to those who

accept bodily changes more positively [25]. Thus, the interaction between pregnancy-related physical transformations and social media pressures creates a psychosocial context in which body image becomes highly susceptible to perceptual distortion. This distortion, in turn, increases the risk of psychological stress among pregnant women.

This phenomenon warrants serious attention from maternal healthcare professionals. Preventive and supportive strategies, including body acceptance education, media literacy programs, and psychosocial counseling, have demonstrated potential in enhancing self-acceptance and promoting healthier psychological adaptation to bodily changes during pregnancy. Such interventions may serve as important mitigation strategies to reduce psychological risk and improve overall maternal well-being.

Despite its contributions, this study has certain limitations. The cross-sectional design permits only the observation of associations between body image and psychological stress at a single point in time, precluding causal inference. Future research employing longitudinal or cohort designs is recommended to examine changes in body image perception and psychological stress levels throughout the course of pregnancy, thereby providing a more comprehensive understanding of temporal dynamics and potential causal pathways.

CONCLUSION

Body image is significantly associated with psychological stress among pregnant women in the era of social media. Intensive exposure to social media, particularly to content portraying idealized body standards during pregnancy, tends to reinforce social comparison processes and exacerbate negative body image perceptions. This dynamic may hinder maternal psychological well-being. Therefore, efforts to improve maternal health should address not only the physical aspects of pregnancy but also psychosocial and digital influences that may affect maternal mental health.

Ethical consideration, competing interest and source of funding

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