

The Relationship between Body Image and Psychological Stress Levels in Patients at the Dermatology Clinic of Sultan Agung Islamic Hospital

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Abstract:

Body image and psychological stress influence patient well-being in the dermatology clinic. This study analyzes the relationship between body image and psychological stress levels in patients at the Dermatology Clinic of Sultan Agung Islamic Hospital. The study used a cross-sectional design with 100 respondents selected through a total sampling technique. The research instruments were the Multidimensional Body-Self Relations Questionnaire (MBSRQ) subscale questionnaire to measure body image and the Perceived Stress Scale (PSS) to measure psychological stress. Data analysis used the Pearson correlation test. The results showed that most respondents had a positive body image (55%) and moderate psychological stress (82%). The Pearson test produced a p-value of 0.008 with a correlation coefficient of 0.266, indicating a significant positive relationship. This study concludes that positive body image is associated with lower levels of psychological stress. A holistic approach is needed in dermatological services that encompasses patients' physical and psychological aspects.

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INTRODUCTION

Body image represents a complex and deeply personal construct, defined as an individual's subjective perception, thoughts, and feelings regarding physical appearance, functionality, and overall bodily experience (Longhurst, 2022). It emerges from the intricate interplay of internal self-assessment and external social influences, shaping how one views and feels about their body. This multifaceted concept encompasses both the perceptual component – the mental picture one holds of their physique – and the attitudinal component, which reflects the emotional and evaluative stance towards that perceived image. Consequently, body image is not merely a visual representation, but a dynamic psychological state that significantly influences an individual's sense of self and interaction with the world (Merino et al., 2023).

The ramifications of body image perception are profound, directly impacting psychological well-being and social functioning. A positive body image fosters feelings of security, self-acceptance, confidence, and robust self-esteem, as a protective factor for mental health (Artigues-Barberà et al., 2025). Conversely, a negative body image, characterized by pervasive body dissatisfaction, excessive preoccupation with perceived flaws, and heightened self-consciousness, is a potent risk factor for a cascade of adverse psychological outcomes (Dai et al., 2025). Individuals grappling with negative body image often experience intense anxiety, profound shame, and social avoidance. They

are significantly more vulnerable to developing clinical depression and other mood disorders, highlighting their critical role in overall psychological health (Sinha et al., 2024).

This relationship between self-perception and psychological state becomes particularly salient within dermatological conditions. By their very nature, skin disorders are obvious and often directly alter a patient's physical appearance. Conditions such as acne, psoriasis, vitiligo, eczema, or scarring can create a stark dissonance between an individual's internal body image and their external reality (Lakum, 2024). The persistent visibility of these conditions subjects patients to constant self-scrutiny and potential social evaluation, making the dermatology clinic a crucial setting where the psychological impact of altered appearance intersects directly with medical treatment needs (Carniciu et al., 2023).

Psychological stress, conceptualized as the emotional, cognitive, and physiological response arising from a perceived mismatch between environmental demands and an individual's coping resources, is an everyday companion to chronic illness, including dermatological diseases. The stress response involves heightened arousal, negative affective states such as anxiety and irritability, and physiological changes, including increased cortisol levels (Goyal & Prabhu, 2023; Astika et al., 2023). For dermatology patients, stress can stem not only from the physical discomfort and management challenges of their skin condition but also, critically, from the psychosocial burden associated with its visible nature and the resulting impact on their body image and social interactions (Lakum, 2024).

The confluence of visible skin pathology, negative body image, and psychological stress creates a potentially synergistic and detrimental cycle for dermatology patients. Dissatisfaction with appearance due to skin conditions can act as a primary stressor, triggering anxiety about social judgment and leading to withdrawal. This withdrawal, in turn, can exacerbate feelings of isolation and low self-worth, further deteriorate body image perception, and amplify overall stress levels (Zahra et al., 2025). While the individual links between skin disease and stress, and between skin disease and body image, are increasingly recognized, the specific interrelationship and potential bidirectional influence between body image disturbance and psychological stress levels within the unique cultural and clinical context of Indonesian dermatology patients requires deeper, localized investigation (Nabilah et al., 2024).

This study addresses this gap by focusing on patients attending the Dermatology Clinic at Sultan Agung Islamic Hospital in Semarang, Indonesia. The cultural context is vital; societal norms, religious values (reflected in the hospital's Islamic identity), and collectivist tendencies prevalent in Indonesian society may uniquely shape perceptions of appearance, attitudes towards visible differences, and coping mechanisms related to body image and stress. Understanding this dynamic within this specific setting is essential for developing culturally sensitive and practical holistic care approaches that address the physical manifestations of skin disease and the profound psychological sequelae experienced by patients navigating their condition within their community (Dreno et al., 2021).

Therefore, this research aims to empirically analyze the relationship between body image perception and levels of psychological stress among patients seeking care at the Sultan Agung Islamic Hospital Dermatology Clinic. By establishing the nature and strength of this association within this specific population, the findings will provide critical evidence to inform the development of integrated treatment models. Such models could incorporate routine psychological screening and targeted interventions, such as cognitive-behavioral therapy for body image concerns or stress management techniques, ultimately enhancing the overall quality of care, improving patient well-being, and supporting better dermatological outcomes in this underserved aspect of patient management (Chopra et al., 2024).

METHOD

This quantitative study was conducted from May to July 2025, utilizing a cross-sectional design at the Dermatology Clinic of Sultan Agung Islamic Hospital in Semarang. The population consisted of all cosmetic patients in the dermatology clinic, and a total sampling technique was used to obtain 100 respondents. The inclusion criteria included patients undergoing aesthetic treatments and willing to complete the questionnaire, while the exclusion criteria included patients with skin and venereal diseases.

The independent variable was body image, measured using the Multidimensional Body-Self Relations Questionnaire (MBSRQ, 17 items, Likert scale 1–5; scores ≥ 51 positive, < 51 negative). The dependent variable was psychological stress levels, measured using the Perceived Stress Scale (PSS, 10 items; scores: 0–13, low; 14–26, moderate; 27–40, severe). Primary data were obtained through questionnaires, while secondary data were obtained from medical records. Descriptive analysis was employed to describe the characteristics of the respondents, and the Pearson correlation test was used to examine the relationship between body image and psychological stress at a significance level of $p < 0.05$.

This research was conducted in strict adherence to the highest ethical standards, having received formal ethical clearance from the Institutional Review Board of the Faculty of Nursing, Sultan Agung Islamic University, Semarang, Indonesia. Prior to commencement, comprehensive informed consent procedures were rigorously implemented, ensuring all participants received detailed information about the study's purpose, procedures, potential risks and benefits, and their absolute right to withdraw at any stage without consequence. These measures collectively safeguarded participant autonomy, privacy, and well-being, affirming the study's commitment to ethical integrity and respect for human subjects in alignment with international research standards.

RESULT

Respondent Characteristics

The following table shows the characteristics of respondents.

Table 1. Distribution of Respondents by Age, Gender, and Education (n=100)

Characteristics	Frequency	Percentage (%)
Age		
13–28	19	19
29–44	47	47
45–58	34	34
Gender		
Male	40	40
Female	60	60
Education		
Junior high school	20	20
Senior high school	48	48
College	32	32

Most respondents were between 29 and 44 years old (47%). Most of the respondents were women (60%). Most of the respondents had a high school education (48%).

Body Image and Psychological Stress

Table 2. Distribution of Respondents Based on Body Image and Psychological Stress (n=100)

Variable	Frequency	Percentage (%)
Body Image		
Positive	55	55
Negative	45	45
Psychological Stress		
Light	7	7
Moderate	82	82
Heavy	11	11

As many as 55% of respondents have a positive body image. Most respondents experienced moderate stress (82%).

Relationship between Body Image and Psychological Stress

Table 3. Relationship between Body Image and Psychological Stress

Body image	Psychological Stress			Total	P Value	Pearson Correlation
	Light	Moderate	Heavy			
Positive	1	47	7	55	0.008	0.266
Negative	6	35	4	45		
Total	7	82	11	100		

The Pearson correlation test showed a p-value of 0.008 (<0.05) with a correlation coefficient of $r = 0.266$, indicating a significant relationship between body image and psychological stress. A positive correlation with low strength indicates that the more positive the body image, the lower the level of psychological stress, and vice versa.

DISCUSSION

The demographic profile of respondents—predominantly females aged 29–44 with high school education—aligns with established patterns in dermatological care utilization. This concentration among productive-age adults likely reflects heightened health awareness and socioeconomic capacity to access services during the peak of career and family responsibilities. The pronounced female majority highlights well-documented gender disparities in skincare-seeking behavior, which may be driven by societal pressures that emphasize female appearance, greater vulnerability to visible skin conditions (such as acne and melasma), and cultural norms that encourage women to prioritize aesthetic concerns. Furthermore, the prevalence of high school education suggests that foundational health literacy plays a role in proactive care-seeking. However, it also indicates a need for culturally tailored health education to address nuanced body image perceptions within this educated yet non-specialist cohort (Nguyen et al., 2024).

Notably, while 55% of respondents reported a positive body image—a finding consistent with resilience in chronic conditions—nearly half (45%) experienced negative body image, signaling a critical unmet psychological need. This duality highlights that dermatological visibility inherently challenges self-perception, even among those who are generally satisfied with their appearance. A positive body image likely functions as a protective buffer, correlating with enhanced coping and life satisfaction, as observed in the broader literature (Almeida et al., 2024). However, the substantial minority with negative body image remains at elevated risk for anxiety, social withdrawal, and

depression, necessitating targeted psychological screening and early intervention within dermatology workflows. This highlights the insufficiency of medical treatment alone; holistic care must address skin disease's psychosocial "invisible burden" (Waite et al., 2023).

The predominance of moderate psychological stress (82%) among clinic attendees is unsurprising yet clinically significant. Dermatological conditions often entail diagnostic uncertainty, prolonged treatment trajectories, visible disfigurement, and social stigma, creating a chronic stress burden distinct from acute illnesses. Patients frequently grapple with fears of progression, treatment side effects, and social judgment, amplifying anxiety even when clinical severity is mild. This pervasive moderate stress level—though not yet severe—represents a critical window for preventive psychological support. Unaddressed, it may escalate into clinical anxiety or depression, impair treatment adherence, and worsen dermatological outcomes through stress-induced inflammatory pathways (Mar & Rivers, 2023).

Critically, bivariate analysis revealed a statistically significant, positive correlation between body image and psychological stress ($p = 0.008$; $r = 0.266$). While the correlation coefficient indicates a modest relationship, its significance ($p < 0.01$) robustly supports the hypothesis that negative body image exacerbates psychological stress in this population. This finding validates the theoretical framework, wherein appearance-altering skin conditions disrupt self-perception, triggering distress through mechanisms such as social comparison and internalized stigma (Gibson et al., 2020). Importantly, it suggests that interventions improving body image (cognitive restructuring, acceptance-based therapies) could concurrently mitigate stress—a dual-benefit strategy for optimizing patient well-being. The correlation's modest strength also implies other factors (e.g., disease severity, social support) mediate this relationship, warranting future multivariate exploration (Ahmed et al., 2025).

These results underscore an urgent imperative for integrating psychological support into routine dermatological nursing practice. Nurses, as frontline caregivers, are uniquely positioned to implement brief, evidence-based interventions: screening for body image distress using validated tools (DAS-5), providing psychoeducation on appearance coping strategies, teaching stress-reduction techniques (mindfulness, diaphragmatic breathing), and facilitating timely referrals to mental health specialists (Brownstone et al., 2021). At Sultan Agung Islamic Hospital, such programs could be contextualized within Islamic principles of *tawakkul* (trust in God) and self-compassion, enhancing cultural resonance. Ultimately, embedding body image and stress management into dermatology care pathways promises improved psychological outcomes, treatment adherence, and clinical efficacy, advancing the hospital's mission of holistic, patient-centered care (Graubard et al., 2021).

CONCLUSION

Most respondents were women aged 29–44 with a high school education. Most patients had a positive body image, although some patients still had a negative body image, potentially increasing psychological stress. Most patients experienced moderate levels of psychological stress, confirming that dermatology patients face not only physical problems but also psychological distress. Analysis showed a significant relationship between body image and psychological stress levels, with a low correlation strength, indicating the need for a holistic care approach encompassing both physical and psychological aspects of patients.

Patient education is needed to increase mental health awareness and maintain a positive body image. Hospitals are encouraged to develop counseling and education programs for psychological stress management integrated into skin care. As healthcare professionals, nurses must provide

empathy and psychological support to help patients improve their well-being. Future research is recommended to explore social, economic, and longitudinal factors better to understand the relationship between body image and psychological stress.

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CONFLICT OF INTEREST

The author declares that there is no financial or non-financial conflict in the implementation and reporting of this research.

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