

Skin Deep: The Role of Dermatological Health in Social Anxiety, Body Dysmorphic Concerns and Quality of Life

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Abstract: To determine the social anxiety, body dysmorphic concern and quality of life in adults with or without dermatological problems. The cross-sectional study was conducted from July 2021 to January 2022. The study focused on adults with and without skin problems. We gathered data from 100 patients from dermatological clinics in Lala Musa and Kharian (Punjab, Pakistan). Purposive sampling was used for the patient's selection and convenient sampling for healthy adults. Data was collected by using a demographic Performa and self-reporting Interaction Anxiousness Scale (IAS), dysmorphic concern Questionnaire and Dermatology Life Quality Index Scale. Data was analyzed by using SPSS and AMOS 21. Current study involved 200 participants, 123 (61.5%) were women and 77 (38.5%) were men. The findings indicated significant differences in social anxiety levels between adults with dermatological conditions and those without, with means of 34.29 (SD=6.82) and 38.16 (SD=8.35), respectively ($t=-13.20$, $p<0.05$). Adults with dermatological issues exhibited higher levels of social anxiety. Furthermore, concerns related to body dysmorphic disorder were significantly more pronounced in individuals with dermatological problems, showing means of 2.25 (SD=2.84) in the healthy group and 9.54 (SD=4.73) in the affected group ($t=-3.58$, $p<0.05$). Additionally, the quality of life for dermatological patients was notably lower, with mean differences of 1.99 (SD=3.81) and 15.60 (SD=5.96) ($t=-19.22$, $p<0.05$).

Keywords: Interaction Anxiousness Scale (IAS), Dysmorphic Concern Questionnaire (DCQ), Dermatology Life Quality Index Scale (DLQIS)

Introduction

Physical appearance has a profound effect on a person's life, affecting not only their self-perception but also how others perceive them. In many societies, a bright and fair complexion is often associated with better personality, beauty, and even success. On the other hand, skin problems and pigmentation can lead to a negative body image, which affects interpersonal and social behavior.

Healthy skin plays an important role in both physical and mental well-being. Research shows that body image concerns can lead to a variety of psychological problems, including social anxiety, body dysmorphic disorder, depression and low self-esteem. Additionally, the pressure to conform to societal beauty standards can result in unhealthy behaviors, such as extreme dieting, excessive exercise, or eating disorders.

The effects of physical appearance on mental health are further complicated by cultural and social factors. For example, all cultures have different standards of beauty, and individuals who do not conform to these standards may face discrimination and exclusion. This can lead to feelings of alienation, low self-esteem, and decreased mental well-being.

Social anxiety disorder (SAD) is a debilitating condition characterized by excessive anxiety or fear in social situations, driven by concerns about negative evaluation or judgment, as defined by the DSM-5.⁶ Individuals with SAD may avoid stressful situations or experience intense anxiety, which may manifest as panic attacks, sweating, trembling, and gastrointestinal distress. Skin-related conditions, such as severe skin problems or acne, can exacerbate social anxiety, leading to avoidance of social and performance-related situations. SAD can be classified as specific, triggered by specific situations, or generalized,

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triggered by a variety of social situations, highlighting the need for tailored interventions to address this complex condition.

Body dysmorphic disorder (BDD) is characterized by an obsession with minor defects or imperfections in appearance, leading individuals to spend at least an hour a day trying to alleviate these concerns. People with BDD may engage in compulsive behaviors such as repeatedly checking their reflections, over-prepping, or seeking reassurance from others.⁶ A specific subtype, muscle dysmorphic disorder, involves an excessive preoccupation with perceived deficiencies in muscles or strength. Some individuals with BDD may exhibit poor insight or delusional beliefs about their appearance. BDD is often associated with social anxiety, low self-esteem, and perfectionism. Treatment options may include dermatological interventions and surgical procedures, although these are not always effective. BDD affects both men and women and is often associated with other mental health disorders.

Quality of life encompasses an individual's or population's overall well-being, incorporating both positive and negative aspects of existence at a specific time. Skin conditions can significantly impact the quality of life due to associated social stigma.⁷ For instance, acne can cause pain, itching, and psychological distress, ultimately affecting mental health and overall well-being. The concept of quality of life includes factors such as social interaction, life perception, and the ability to meet personal needs, with sources stemming from personal growth, altruism, relationship-building, and adherence to personal values.

Dermatology is the medical field focused on diagnosing and treating conditions related to the skin, hair, and nails in both children and adults.⁸ Skin issues are prevalent and can profoundly affect individuals' lives by causing discomfort, altering appearance, and leading to psychological challenges. Chronic skin conditions may also impose economic burdens and impact employment. It is crucial to address skin problems seriously, as some can pose significant health risks.

Skin problems can significantly affect psychological well-being, particularly among younger individuals, leading to social anxiety, body dysmorphic disorder (BDD), depression, poor body image, and a diminished quality of life. For instance, a study on acne vulgaris indicated that visible acne lesions can trigger social appearance anxiety. Patients require integrated psychiatric and dermatological care to effectively address their needs.⁹

A high prevalence of BDD has been observed, especially in those with facial deformities, who experience symptoms of anxiety and depression. It is important for dermatologists to routinely evaluate these patients and refer them to mental health services for comprehensive care.^{10 11} A study conducted in Brazil found that body dysmorphic disorder (BDD) is common among women seeking dermatological care. The study identified an association between BDD and factors such as low family income, a history of domestic violence, and excessive attention to skin care.¹² Other studies have explored the effects of chronic hand eczema on patients' quality of life, anxiety, depression, and social avoidance.¹³

Dermatological conditions can have a profound impact on patients' psychological and emotional well-being, leading to issues such as social anxiety, body dysmorphic disorder, poor body image, low self-esteem, and decreased quality of life. There is less evidence of the research, which assess the mental health of dermatological patient within Pakistan. The aim of present research is to find out social anxiety, body dysmorphic and quality of life in adults with or without dermatological problems. So, current research will highlight the problems related to the mental health of dermatological patients in our society.

Subjects and Method

A cross-sectional study was conducted in Lala Musa and Kharian from 2021 to 2022 after approval by the Ethics Review Committee (PSY/UOG21/1630). The study is descriptive and quantitative in nature, adhering to all recommendations provided by the review board. Ethical considerations, including respect for individual rights and dignity, competence, responsibility, and integrity, were maintained throughout the research process.

The sample comprised 100 dermatological patients and 100 healthy adults. Dermatological patients were selected from dermatological clinics in Lala Musa and Kharian using a purposive sampling technique.

A convenience sampling method was employed to recruit healthy adults without dermatological conditions.

The study included both men and women participants diagnosed with skin conditions, as confirmed by a dermatologist. Dermatological issues had to affect at least 5% of the surface area of the face, feet, or arms for being included in the study. Only individuals aged 18 years or older were included in the sample.

Data collection was conducted after obtaining informed consent from each participant using a demographic form that included information such as age, gender, education, and socio-economic status.

The Social Anxiety Interaction Anxiousness Scale was utilized to measure social anxiety.¹⁴ This self-report measure consists of 15 statements; each rated on a scale. A score of 1 indicates "not at all characteristics of me," 2 indicates "slightly characteristic of me," 3 indicates "moderately characteristic of me," 4 indicates "very characteristic of me," and 5 indicates "extremely characteristic of me." Scores range from 15 to 75, with 15 indicating minimal social anxiety and 75 indicating high social anxiety. The test-retest reliability of the scale is 0.80. The Pakistani version of the Interaction Anxiousness Scale demonstrates a high level of internal consistency ($\alpha = 0.752$) and test-retest reliability (0.835).¹⁵

To assess body dysmorphic disorder, the Dysmorphic Concern Questionnaire was used.¹⁶ It is a 4-point Likert scale ranging from 0 to 3, reflecting severity levels: 0 indicates "not at all," 2 indicates "the same as most people," 3 indicates "more than most people," and 4 indicates "much more than most people." The minimum score is 0, and the maximum score is 21, with higher scores indicating greater impairment in functioning. This scale shows high internal consistency ($\alpha = 0.8$).

The Dermatology Life Quality Index (DLQI) scale, a 10-item, 4-point Likert scale, was used to assess the quality of life in dermatological patients.¹⁷ Scores range from 0 ("not at all") to 3 ("very much"), with a total score between 0 and 30. A score of 0–1 indicates no impact, 2–5 indicates a small effect, 6–10 a moderate effect, 11–20 a very large effect, and 21–30 an extremely large impact on quality of life. The scale shows high test-retest reliability ($\alpha = 0.9$).

The Statistical Package for the Social Sciences (SPSS) and AMOS software were used to conduct analyses, including frequency tables, reliability assessments, and Structural Equation Modeling (SEM) on the study variables.

Results

Table 1

Demographic Characters of Adults with Dermatological Problems (N=100)

Variables	Frequency (f)	Percentage (%)
Gender		
Female	65	65%
Male	35	35%
Age		
20–40	89	89%
41–60	10	10%
Above 60	1	1%
Socio-economic status		
Upper	9	9%
Middle	83	83%
Lower	8	8%

Table 1 presents the demographic characteristics of adults with dermatological conditions in a sample of 100 individuals. women comprise 65% of the sample, while men account for 35%. The majority of participants (89%) are within the 20–40 age range, with 10% aged 41–60 and 1% over 60 years old. In terms of socio-economic status, 83% are from the middle class, while the upper and lower socio-economic brackets account for 9% and 8%, respectively. The sample includes individuals aged 18 and above, with those under 18 excluded.

Table 2
Demographic Characters of Adults Without Dermatological Problems (N=100)

Variables	Frequency (f)	Percentage (%)
Gender		
Female	58	58%
Male	42	42%
Age		
20-40	94	94%
41-60	6	6%
Socio-economic status		
Upper	7	7%
Middle	92	92%
Lower	1	1%

Table 2 outlines the demographic characteristics of the sample of 100 adults without dermatological conditions. In this group, women constitute 58%, and men made up 42%. Most participants (94%) fall within the 20-40 age range, while 6% are aged 41-60, with no individuals over 60. Socio-economically, 92% belong to the middle class, 7% are classified as upper class, and 1% fall into the lower socio-economic bracket.

Table 3
Comparison of Social Anxiety, Body Dysmorphic Concern and Quality of Life in Adults with and without Dermatological Problems (N=200)

Variables	Adults without dermatological problems (N=100)		Adults with dermatological problems (N=100)		T	P	Cohen's d
	Mean	Standard Deviation	Mean	Standard Deviation			
IAS	34.29	6.82	38.16	8.35	-13.20	.00	0.50
DC	2.25	2.84	9.54	4.73	-3.58	.00	1.86
DLQI	1.99	3.81	15.60	5.96	-19.22	.00	2.72

Table 3 presents the results, indicating a statistically significant difference in social anxiety levels between adults with and without dermatological conditions ($t = -13.20$, $p < 0.05$). Adults with dermatological conditions experience higher social anxiety compared to those without such conditions. Additionally, there are statistically significant differences in body dysmorphic concerns between the two groups ($t = -3.58$, $p < 0.05$), with dermatological patients exhibiting more dysmorphic concerns than healthy individuals. The mean differences are also notably higher for adults with dermatological conditions ($t = -19.22$, $p < 0.05$), reflecting a lower quality of life among these patients.

Table 4
Levels of Body Dysmorphic, Social Anxiety and Quality of Life in Adults with and without Dermatological Issues (N=200)

Variable	Adults without dermatological problems(N=100)		Adults with dermatological problems(N=100)	
	Frequency	Percentage	Frequency	Percentage
Body Dysmorphic concerns do not present	93	46.5%	48	48%
Body dysmorphic concerns present	7	3.5%	52	52%
Levels of social anxiety				
Mild to moderate level of social anxiety	100	100%	100	100%
Sever level of social anxiety	0	0%	0	0%

Levels of quality of life				
No effect	66	33%	0	0%
Mild effect	25	12.5%	4	4%
Moderate effect	4	2%	12	12%
Very large effect	5	2.5%	62	62%
Extremely large effect	0	0%	22	22%

Amos version 21 was used for Path analysis. Results indicate a strong model fit ($p<.001$).

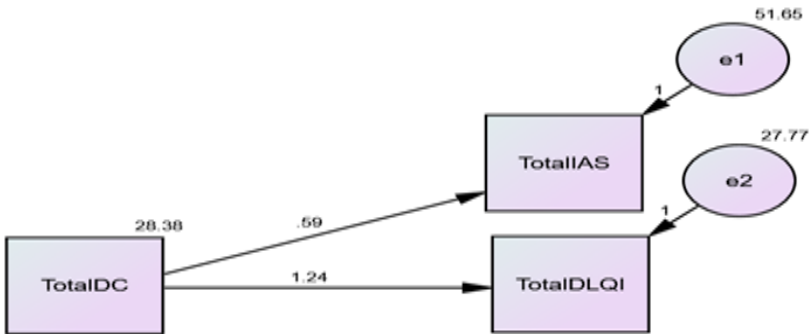
Table 4 shows that among 100 participants, 93 individuals do not exhibit body dysmorphic concerns. In the group without skin issues, only 7 out of 100 have dysmorphic concerns, whereas 52 out of 100 individuals with skin conditions report such concerns. Both groups demonstrate mild to moderate levels of social anxiety, with no individuals reporting high social anxiety. The impact on quality of life varies among adults without skin issues, 66 report no effect, 25 report a small effect, 4 report a moderate effect, and 5 report a very large effect. Conversely, for adults with skin conditions, 62 report a very large effect, 22 report an extremely large effect, 12 report a moderate effect, and 4 report a small effect on quality of life. Overall, all individuals with dermatological conditions experience an impaired quality of life.

Table 5
Model Fit Summary of Structure Equation Modeling (N=200)

NFI	TLI	CFI	GFI	RFI	P-value
	.928	.988	.985	.916	.01

Table 5 presents the model fit summary, outlining the goodness of fit for the current Structural Equation Modeling (SEM) analysis.¹⁸ The model demonstrates a strong relationship among the variables. The fit indices—NFI, CFI, GFI, and RFI—are 0.98, 0.98, 0.98, and 0.91, respectively, all of which exceed the recommended threshold of 0.90. These results indicate that the model is well-fitted.

Figure 1
Structure Equation Modeling (Path Analysis) for social anxiety, body dysmorphic and quality of life



Note. DC=Dysmorphic concern, IAS= interaction anxiety scale, DLQI= dermatology life quality index

Discussion

This research compares social anxiety, body dysmorphic concerns, and quality of life among adults with and without dermatological conditions. Skin issues can significantly impact an individual's life, influencing interpersonal relationships and social behaviors. Patients with dermatological problems often avoid social situations and experience low self-esteem, resulting in a diminished quality of life. While there is some existing research on skin conditions in Pakistan, it remains insufficient.

The results indicate statistically significant differences in social anxiety, body dysmorphic concerns, and quality of life between adults with and without dermatological conditions. Specifically, adults with dermatological problems exhibit higher levels of social anxiety compared to their counterparts ($t = -13.20$,

$p < 0.05$). Additionally, dermatological patients demonstrate greater body dysmorphic concerns than those without such conditions ($t = -3.58$, $p < 0.05$). Furthermore, there is a significant difference in quality of life, with dermatological patients reporting a lower quality of life than those without dermatological issues ($t = -19.22$, $p < 0.05$).

The literature supports these findings. Research has shown that individuals with acne experience higher levels of depression, social anxiety, general anxiety, social withdrawal, and negative thoughts, along with lower self-esteem compared to a control group. These findings are consistent with the current study's emphasis on social anxiety in individuals with acne.¹⁹ Furthermore, another study found that dermatological patients often experience significant body dysmorphic concerns, which contribute to psychological problems and reduced quality of life. This suggests a strong link between body dysmorphic disorder (BDD) symptoms and the overall health of individuals with skin conditions.²⁰

Social anxiety, body image concerns, and quality of life were compared in adults with and without skin conditions. The results indicate significant differences in social anxiety, body image concerns, and quality of life between these two groups. Various cultural factors may influence the study results. Individuals may be more tolerant of physical pain than of the stigma associated with their appearance. People with skin conditions often face stigma and rejection in their social circles, which can lead to emotional distress. As a result, individuals may be more willing to tolerate physical pain rather than face social repercussions.

The results also indicate that the goodness of fit of the indicators for the proposed structural equation modeling (SEM) model is satisfactory. The values for NFI, TLI, CFI, GFI, RMR, and RFI are 0.976, 0.958, 0.979, 0.956, 0.026, and 0.950, respectively, all falling within an acceptable range.²¹ This suggests that the model is well-fitted and demonstrates that body dysmorphic concerns predict social anxiety and quality of life. Specifically, for each unit increase in Dysmorphic Concerns (DC), the social anxiety increases by 0.586, and dermatological quality of life increases by 1.236. A higher DLQI score indicates a poorer quality of life.

Skin conditions significantly impact an individual's mental health, increasing dysmorphic concerns in adults, which in turn heightens social anxiety and contributes to a diminished quality of life. The model utilized in this study exhibited good fit indices, indicating a robust relationship between the variables. However, there are limitations, including reliance on self-reported questionnaires and restricted generalizability due to cultural and sample size constraints. We recommend future studies should employ larger and more diverse samples, incorporate culturally relevant measures, and explore additional psychological factors associated with dermatological conditions.

Conclusion

The findings revealed that adults with dermatological conditions exhibited higher levels of social anxiety compared to those without such conditions. Additionally, they reported greater body dysmorphic concerns and a reduced quality of life. The study identified significant differences in these variables between individuals with and without dermatological conditions.

Dermatological problems cause mental health problems in adults. It leads to body dysmorphic concerns and social anxiety in adults. Along with treatment of dermatological problems, mental health problem should also be cured. Different psychological intervention should make to overcome psychological problems. This study has implications for counselor, physicians, caregivers and for the patients themselves.

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