EVALUATING THE IMPACT OF SKIN DISEASES ON ANXIETY, DEPRESSION, LONELINESS AND QUALITY OF LIFE

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Abstract

Background/aim: The aim of the current study is to find out the impact of skin diseases (acne, melasma, vitiligo, atopic dermatitis and alopecia) on anxiety, depression, loneliness, and quality of life. *Materials and methods*: Two hundred individuals with a mean age (35.89 ± 10.83) participated in the study. Among these 100 were skin diseases patients, whereas another 100 matched in age, education, and socioeconomic status served as controls (healthy) group. The measures used were a demographic sheet, the hospital anxiety and depression scale (HADS), the Loneliness scale, and the WHO-Quality of life (QOL). Purposive sampling technique was used to collect the data. *Results*: Multiple regression analysis indicates a significant impact of predictor variables (acne, melasma, vitiligo, atopic dermatitis and alopecia) on anxiety ($R2 = .76$, $p < .001$), depression (($R2 = .78$, $p < .001$), Loneliness ($R2 = .65$, $p < .001$), and QOL ($R2 = .58$, $p < .001$). However, alopecia has no significant effect on the outcome variables. *Conclusion*: Acne, melasma, vitiligo, atopic dermatitis, and alopecia have significant effects on anxiety, depression, loneliness, and quality of life. Alopecia has no significant impact on the outcome variables.

Keywords: Anxiety, depression, loneliness, quality of life, skin diseases.

1. Introduction

Skin disorders refer to all the diseases that occur on the skin, mucous membrane, and skin appendages. For instance, the primary symptom of psoriasis is characterized by red scaly skin plaque, and severe itching and recurrent skin lesion are symptoms of atopic dermatitis (Eczema). Both have a negative impact on patients' ability to work, live a normal life, study, and sleep (Henderson et al, 2023). It affects patient's appearances and self-esteem, which leads to psychiatric co morbidities (Picardi, et al,2000). Acne, hair loss, and not only impair a patient's physical appearance as well as their emotional, psychological, and social circumstances. The patients' quality of life is considerably decreased by some chronic skin conditions consequently this lead to develop pessimistic emotion (Balieva, et al,2017). Evidence indicated that skin diseases are associated with substantial comorbidity with mental health conditions. According to a study (Dunn,et al; 2011), the proportion of people with skin conditions who also have psychological illnesses like anxiety ranges from 25% to 43%. Ghajarzadeh et al (2012) discovered that depression was the root of patients' poor quality of life. Traditionally, it was thought that skin diseases had a negligible impact on patients' quality of life. Whereas recently, there has been a widespread acceptance that skin diseases can affect physical, social, and psychological aspects of patients' daily lives, as well as their partners, family, and friends. This study was aimed to understand the prevalence of some common skin diseases e.g., acne, melasma, vitiligo, atopic dermatitis and alopecia on patients of Peshawar (north area of Pakistan) and its association with pathogenesis of depression, anxiety, loneliness and poor QOL.

2. Materials and methods

2.1. Study population

In total, 200 individuals participated in this study. Among these hundreds, individuals diagnosed with chronic skin disease meeting inclusion and exclusion criteria from different outdoor patients of derma wards of Peshawar. Whereas another 100 individuals matched in age, education, and socioeconomic status (SES), served as a healthy control group (without skin diseases). Researchers took this group of participants from the normal population. For this study, demographic data sheet, hospital anxiety and depression scale(Zigmond & Snaith ;1983), reported cronbach alpha α = .64, Loneliness Scale(De Jong-Gierveld & Tilburg; 1999) α = .83, WHO Quality of life(Noerholm,et al; 2004)α = .88 used as a measures. From

March 2022 to July 2022, we conducted this cross-section and study. Purposive sampling technique was used to collect the data. The researchers sought permission from the medical directors of the concerned hospital. We briefed all participants that this study is based on research/educational purpose, and we will keep all data highly confidential. The volunteered participants had a right to the withdraw from this study at any stage. Post written consent, a booklet comprised consent form, demographic sheet (HADS), LS, and WHOQOL was given to the participants. The author guided them wherever they need any help to fill out questionnaires. This study taken all measures regarding ethics and took institutional ethical review board approved (IERB) decision no16338 /Dy/ reg/PGMI.

3. Result

Two hundred individuals with a mean age of 35.89 ± 10.83 years with at least matriculation education participated in the study. Among these, 24% were unmarried, 34% were unemployed, whereas 66% employed. Multiple regression analysis was performed using acne, vitiligo, melasma, atopic dermatitis, and alopecia as independent variables.

Table 1. Multiple regression analysis for predictors of anxiety, depression, loneliness and quality of life among skin diseases patients and healthy controls (N=200).

Anxiety						
		95% CI			collinearity Statistic	
Variable	B	LL	UL	Sig	Tolerance	VIF
Constant	15.486	14.831	16.142	0.001		
Acne	-5.569	-6.778	-4.36	0.001	0.836	1.197
Vitiligo	-5.757	-6.953	-4.56	0.001	0.728	1.373
Melasma	-5.605	-6.845	-4.365	0.001	0.655	1.526
Atopic dermatitis	-6.127	-8.989	-3.266	0.001	0.974	1.027
Alopecia	-0.534	-1.983	0.915	0.468	0.748	1.336
R2 =.764						

Depression						
		95% CI			collinearity Statistic	
Variable	B	LL	UL	Sig	Tolerance	VIF
Constant	15.462	14.797	16.13	0.001		
Acne	-6.5	-7.732	-5.269	0.001	0.836	1.197
Vitiligo	-6.025	-7.732	-4.807	0.001	0.728	1.373
Melasma	-5.942	-7.244	-4.68	0.001	0.655	1.526
Atopic dermatitis	-6.552	-9.467	-3.637	0.001	0.974	1.027
Alopecia	-0.279	-1.755	1.197	0.71	0.748	1.336
R2= .783						

Loneliness						
		95% CI			collinearity Statistic	
Variable	B	LL	UL	Sig	Tolerance	VIF
Constant	9.881	9.432	10.33	0.001		
Acne	2.723	1.895	3.552	0.001	0.836	1.197
Vitiligo	3.589	2.77	4.409	0.001	0.728	1.373
Melasma	2.999	2.149	3.849	0.001	0.655	1.526
Atopic dermatitis	3.555	1.593	5.517	0.001	0.974	1.027
Alopecia	-0.691	-1.685	0.303	0.172	0.748	1.336
R2= .657						

Quality of life

Variable	B	95% CI		Sig	collinearity Statistic	
		LL	UL		Tolerance	VIF
Constant	61.033	58.416	63.649	0.001		
Acne	11.419	6.522	16.247	0.001	0.836	1.197
Vitiligo	14.328	6.552	19.104	0.001	0.728	1.373
Melasma	15.394	10.444	20 .345	0.001	0.655	1.526
Atopic dermatitis	14.713	3.287	26.139	0.001	0.974	1.027
Alopecia	-1.82	-7.607	3.967	0.172	0.748	1.336
R2 = .534						

4. Discussion

The findings identified acne, melasma, vitiligo, and atopic dermatitis may trigger depression, anxiety symptoms among skin diseases patients. These finding are in line with the study conducted by Guo et al (2020) suggests that acne, psoriasis and atopic dermatitis may lead to depression and anxiety. Palatsidaki et al. (2023) reported depression, anxiety, QOL importance in patients with melasma. Acne, acne related QOL and depression were reported by adolescent and young adults (Tasneem et al; 2023). Because of their susceptibility to different psychosocial stressors, such as perceived stigma and negative self-image, people with chronic skin disorders may be more prone to depression and anxiety than the general population. In the present study, melasma cases were 72% reported as the second highest skin diseases, causing depression, anxiety, among skin diseases patients. Another study (Nowowiejska et al., 2022) estimates depression, anxiety, and Poor QOL in melasma patients. Kanish, et al. (2017) also concluded that 84% depression, anxiety among melasma patients. Depression, anxiety, poor QOL and lineless in patients with acne and melasma are because both mostly occur on the face. Indeed, one explanation could be that the face is related to cosmetic beauty part of our body for which we valued a lot of others' opinion. The positive and negative judgment may trigger depression and anxiety among the skin diseases sufferers. Naseer, et. al (2021) suggests a vitiligo effect on both physical and mental status of the skin diseases patients. Yew et al. (2022) reported after a population-based study that individuals with skin diseases are more prone to develop depression, anxiety, social isolation, loneliness and lower QOL. The present study shows no significant results for alopecia as a predictor of depression, anxiety, loneliness and QOL. These findings are contrary to the existing literature, e.g., Boghossian, et al (2015) reported depression and anxiety among alopecia patients. Similarly, Marahatta et al. (2020) revealed anxiety and depression are common in alopecia patients. Our finding is not in line with the previous studies may be because we accepted alopecia as a normal physical trait predominately in men population. However, limited sample size and reported alopecia cases may challenge the solidity of the findings.

5. Conclusion

The results of the current study connote the importance of the skin diseases with anxiety, depression, loneliness and quality of life. Our findings suggest that acne, melasma, vitiligo has a significant impact on anxiety, depression, loneliness and QOL. Whereas no significant statistical relationship of alopecia with outcome variables. Acne, followed by melasma and vitiligo, reported as more prevalent skin diseases. The findings of the present study established the significance of psychotherapeutic interventions for the skin diseases patients.

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