

IMPACT OF SKIN ALLERGIES ON PSYCHOLOGICAL WELL-BEING, INTERPERSONAL EMOTIONAL REGULATION AND PSYCHOLOGICAL DISTRESS AMONG ADULTS OF SIALKOT-PAKISTAN

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Abstract

Aim of current study was to identify the impact of skin allergies on psychological well-being, interpersonal emotional regulation and psychological distress among of adults of Sialkot-Pakistan. Participants comprised all the adults both males and females, within the age range 18-40 years. The purposive sampling technique was used to collect data with (n=150). Three standardized scales (i) Psychological Well-being scale 18-items (Ryff, 2010) (ii) Interpersonal Emotional Regulation Questionnaire 20-items (Hoffman, Carpenter and Curtiss, 2016) and (iii) Psychological distress 10-items Scale by Kessler et al (1992) were utilized for measuring the variables. Pearson's Correlational Coefficient was employed to find the relationship among Skin Allergies, Psychological well-being, Interpersonal Emotion Regulation and Psychological distress. Results showed insignificance as p value obtained ($p=.17 > 0.05$ level with $r=.11$, $M=69.2$, $SD= 6.4$) for psychological wellbeing, ($p=.37 > 0.05$ significance level with $r=-.074$, $M=64.82$, $SD=11.92$) for Interpersonal emotion regulation and ($p=.02 < 0.05$ significance level with $r=.185$, $M=25.2$, $SD= 9.96$) for Psychological distress. Multiple regression analysis was tested the predictive value of skin allergies towards Psychological well-being, Interpersonal Emotional regulation and Psychological distress suggesting no significant results except on Psychological Distress. Results showing value of $F(1, 148) R^2 = .012$, $p > .05$, $\beta = .11$ on Psychological well-being, $F(1, 148) R^2 = .005$, $p > .05$, $\beta = -.074$ on Interpersonal Emotional regulations and $F(1, 148) R^2 = .034$, $p^* < .05$, $\beta = .185$ on Psychological distress. T-Test was employed to measure Gender Differences. Results showed no significant gender difference in scores of Psychological well-being, interpersonal emotional regulation except Psychological Distress where group means indicated ($M=23.2$ for males, $M=28.3$ for females). Results suggested that females show more psychological distress due to skin allergies than males.

Keywords: Skin Allergies, Psychological Well-being, Interpersonal Emotional Regulation and Psychological Distress.

INTRODUCTION

In developing countries, skin diseases are extremely common. The skin, which is one of the main immunologic organs, is affected by both external and internal stimuli, as well as innate and adaptive immune responses. When something comes into contact with individuals skin, one's immune system feels it is being targeted. It overreacts and creates antibodies to assist in the fight against the invader, which is known as an allergen. An adverse response to an allergen or irritant on the skin is known as a skin allergy. Scaly, itchy skin, bumps, redness, blisters, sores, and rashes are all possible symptoms. It can cover the whole body or only a few places (NIAID. 2015). Allergic reactions can range from plants like poison ivy to dyes and fragrances found in everyday items. Furthermore, pollen, chemical sprays, pigments, fibers, or cigarette smoke may all cause an allergic reaction

when they settle on your skin. Airborne contact dermatitis is a form of dermatitis that affects your eyelids, head, and neck. Since it does not seem to be too different from the other kind, it may be difficult for doctors to diagnose. Kowalski, M.L., Ansotegui, I., Aberer, W. et al (2016) suggested that allergies, also known as allergic disorders, are a category of diseases induced by the immune system's hypersensitivity to usually harmless environmental substances. McConnell, Thomas, H. (2007) explained seasonal allergies, food allergies, atopic dermatitis, allergic asthma, and anaphylaxis are all examples of these conditions (NIAID 2015). Moreover, existence of skin diseases that occur differs from state to state, and even from region to region within a nation, due to various social customs, hygienic practices, ecological factors, and genetics (Sarkar, S. K., 2010).

CONTACT DERMATITIS

Contact dermatitis is a form of skin inflammation. Itchy or dry skin, a red rash, bumps, blisters, and swelling are all possible signs of contact dermatitis. Although the rash isn't contagious or life-threatening, it can be very painful. Contact dermatitis is caused by exposure to allergens (allergic contact dermatitis) or irritants (irritant contact dermatitis) (irritant contact dermatitis). When an allergen or skin irritation is triggered by sunlight, potential toxic dermatitis develops. Patch examination is commonly used to confirm the diagnosis of allergic contact dermatitis (Mowad C. M., 2016).

URTICARIA/HIVES

Urticaria, or hives, is a skin rash of red, raised, itchy bumps. They can also sting or burn. The rash patches tend to move around a lot. They only last a few days and don't cause any long-term skin changes. Just about 5% of cases last longer than six weeks. The issue recurs often (Jafilan, L., & James, C., 2015). Hives are common after an infection or as a reaction to an allergen, such as medicine, insect bites, or food. A cause may be psychological tension, cold weather, or vibration. The cause is unexplained in half of the cases.] Catching hay fever or asthma, for example, is a risk factor. The majority of diagnoses are made on the basis of appearance. In severe cases, corticosteroids or leukotriene inhibitors may also be used in treatment. Hives have been described at least since the time of Hippocrates. About 20% of people are affected by the story (Griffiths, et al., 2016).

ECZEMA

Eczema is a skin disease that makes individuals skin dry with a red or pink color to it. It worsens with extreme temperatures, so it is most common during the winter and the summer. Eczema is common in creases of the body (i.e. the backs of knees, on your eyelids, in between your fingers). Eczema can last for a most of a person's life, but there is a good chance you will outgrow it before you are eighteen. There are three different kinds of eczema: atopic, contact dermatitis, and neurodermatitis. No kind of Eczema is contagious. Some foods or medicines that can start eczema include dairy and gluten. Eczema can be treated with over the counter lotions and prescription steroid creams. In extreme cases, people might find it necessary to receive an oral steroid or steroid shot. Bathing with hot water will make eczema rashes worse (Meding, B, 1990).

PSYCHOLOGICAL PERSPECTIVE OF DERMATOLOGICAL ISSUES

From a physiological perspective, the skin is inextricably related to emotional activities: redness,

pallor, sweating, and scratching may all be symptoms of somatic activation, reflecting a variety of affective feelings. Researchers and clinicians have long been fascinated by the connection between psychological distress and skin changes. Since the human epidermis, unlike many other organs in the body, reacts quickly to mental stress, some scholars sought to prove the “brain-skin connection.” (Paus, Theoharides, & Arck, 2006; Arck et al., 2010).

Furthermore, it was found mental, physical, and emotional stress definitely affects the skin. In stressful conditions, hormones relapse encourages inflammation and the decreasing blood flow to the skin irritating the skin nerves. Skin recruits the immune system to fight, dysregulating the innate immune response. Psychodermatology is a clinic and research discipline that focuses on the relationship between skin and mind. A number of dermatological studies conducted over the last two decades have shown that people with skin conditions such as eczema, contact dermatitis, and hives also have a related psychological issue, which has an effect on their psychological well-being scale. Furthermore, the impacted person's interpersonal emotional regulation is affected. For instance, Gupta and Gupta (2001) have observed that patients with dermatological diseases (like eczema, contact dermatitis and hives) show high rates of Major Depressive Disorder (MDD), Obsessive Compulsive Disorder (OCD), Body Dysmorphic Disorder, irregular interpersonal emotional regulation, Social Phobia, Post-Traumatic Stress Disorder and issues in in psychological well-being. A prevalence of more than 30% was found in patients with acne, pruritus, urticaria and alopecia(Picardi, et al .2000).

RISK FACTORS FOR SKIN RELATED ISSUES:

Depression and anxiety are mostly risk factors for several skin diseases. Treatment with anxiolytics, antidepressants, antipsychotics, and mood stabilizers can be prescribed by the dermatologist after consulting the psychiatrist. Buljan, Buljan and Situm (2005) argue that the treatment of psychodermatologic disorders is almost impossible without a holistic team approach involving psychiatrist, dermatologist and psychologist.. It is critical to note that skin manifestations may provide insight into a patient's internal disease, but there is a paucity of literature on the nature of skin diseases. Early skin disease detection is critical not only for treating patients but also for combating the transmission of contagious diseases. Al-Zoman, A. Y., & Al-Asmari, A. K. (2008). Environmental sanitation, public education, and proper nutrition can all help to minimize the prevalence of skin disorders in every population.

SKIN ALLERGIES AND INTERPERSONAL EMOTIONAL REGULATION

Skin allergies effect interpersonal emotional regulation of the effected person. Emotion regulation, according to Gross (2002) is the mechanism by which people regulate the emotions they have, when they have them, and how they feel and convey them. As a result, this intrapersonal emotion control model assumes that emotions can be controlled at different stages of the emotion generation process, which includes situation selection, situation adjustment, attention deployment, cognitive assessment modification, and response modulation. While there are significant evidences that Emotion regulation process is attached with skin related allergies. People who face certain prolonged illnesses or defects may find it difficult to sustain healthy relationship with others specially adults so, current study would investigate the role of skin related allergies in determining interpersonal emotional regulation among the adults of Sialkot-Pakistan.

LITERATURE REVIEW

Current study aimed to identify the impact of skin allergies on psychological well-being of adult population in Sialkot –Pakistan. Dermatological issues are considered to be related with different psychological issues such as distress, anxiety, depression and poor psychological well-being. Especially in adult hood people show much concern for their beauty and physical health but the prolonged allergies / infections may create a sense of deprivation and displeasure among them in return effecting the mental well-being. Numerous studies have identified similar relationship between dermatological issues and resulting psychological disturbances.

Kim (2005) in a study conducted on the adult males of South Korea explained that atopic dermatitis and psychological distress have an association and skin related allergies enhances the risk of getting into psychiatric problems. People become more prone to develop distress, anxiety, worry and may lose control over social environment because of the allergies. Helmich (2016) also in a study concluded that skin conditions such as eczema, asthma and hay fever do impact on psychological well-being of adults. Similar results were also suggested by (Hon et al., 2015) that skin related diseases such as atopic dermatitis, allergies and other skin related infections are risk factors for depression, anxiety and stress. Moreover, these psychological outcomes may elevate the chances of adopting low self-esteem, low lack of self-confidence, hopelessness and helplessness (Clay, 2015).

Piotrowska (2018) suggested that pollen allergies are one of the significant type of allergies that triggers adverse psychological effects on the mental well-being of individuals. Seasonal allergies are a strong contributor of depression , distress and anxiety among the sufferers as, the changing weather approaches people become more cautious about their allergies and related outcomes. So, weathers, climate change and related infections may be termed as risk factor for the development of psychological ailments among the dermatological patients. (Xie, 2019).

As the adolescents is the transitional stage where certain changes occur among humans ranging from cognitive to behavioral changes. At this stage people specially youngsters become more cautious about their appearances as well as physical health. Because physical appearance is a crucial component for the development of personal , social relationships that are important for sustaining a good social life but unfortunately people with severe allergies and dermatological issues may consider it as a hindrance and try to avoid public get-togethers resulting in aloofness , sadness , less motivated and displeasure from life which is considered as an essential feature of poor psychological well-being as well as poor interpersonal relationships. Xie et al(2019) in study suggested that people with skin related issues and allergies have shown disturbed interpersonal relationship as compared to those with those free of any infection or allergy. Similarly, Halvorsen (2014) in a Meta-Analysis explained that showed that people with eczema have more suicidal ideation and less social interaction than healthy individuals. Additionally, Senra (2014) in a study concluded that that allergy effects interpersonal relationship, decrease sexual desire and reduce work productivity as well as social disliking as compared to healthy individuals. Moreover, an elevated levels of fatigue and mood disturbances are correlated with the onset of allergic episodes (Marshall, 2002) .

METHODOLOGY

HYPOTHESES

H1. There would be a significant relationship between skin allergies , psychological well-being, interpersonal emotional regulation and psychological distress among adults of Sialkot-Pakistan.

H2. Skin allergies would significantly predict decrease in psychological well-being of adults in Sialkot-Pakistan.

H3. Skin allergies would significantly predict decrease in interpersonal emotional regulation of adults in Sialkot-Pakistan.

H4. Skin allergies would significantly predict Psychological distress among adults in Sialkot-Pakistan.

H5. There would be a significant gender difference on the levels of psychological well-being, interpersonal emotional regulation and psychological distress due to skin allergies among adults of Sialkot-Pakistan.

CHARACTERISTICS OF PARTICIPANTS:

Participants for the study includes all the allergic adult patients within the age range 18-40 years of Sialkot Pakistan with different socioeconomic background. By using quantitative research approach Purposive sampling technique was employed to collect data. Sample size of (n=150) was taken which includes males (n=92) and females (n=58). The participants completed the survey questionnaire which contained questions related to psychological well-being, interpersonal emotional regulation and psychological distress.

TOOLS OF MEASUREMENT:

The study utilized three standardized questionnaires.

Psychological Well-being scale -18 Items (Ryff , 2010).

Short version Psychological Wellbeing (PWB) Scale by Ryff (2010) was used to access the psychological well-being. The test contains 18 likert scale type items with six subscales Autonomy, Environmental Mastery Personal Growth, Positive Relations With Others , Purpose in life and Self-acceptance, responses ranging 1 to 7 on a likert type scale where 1=strongly agree to 7= strongly disagree. The Autonomy subscale items are Q15,Q17, Q18. The Environmental Mastery subscale items are Q4, Q8, Q9. The Personal Growth subscale items are Q11, Q12, Q14. The Positive Relations with Others subscale items are Q6, Q13, Q16. The Purpose in Life subscale items are Q3, Q7, Q10. The Self-Acceptance subscale items are Q1, Q2, and Q5.Q1, Q2, Q3, Q8, Q9, Q11, Q12, Q13, Q17, and Q18 should be reverse-scored. Score is calculated through summing all the responses, and maximum score yields 126 while 18 is minimum.

Interpersonal Emotional Regulation Questionnaire 20 items (Hoffman, Carpenter and Curtiss, 2016).

The Interpersonal Emotion Regulation questionnaire was employed to measure emotional regulation of respondents. The likert type scale contains 20 items divided into six categories including Enhancing, Positive Affect, Perspective Taking, Soothing and Social Modeling. The response ranged from 1=not true for me to 5=extremely true for me. Total score is taken by summing score of all items which yielding 100 for maximum and 20 minimum.

Kessler Psychological Distress 10 Items (Kessler, 1992).

The Kessler psychological distress scale is 10 items scale used for measuring psychological distress. Scale is comprises of 10 questions about the level of anxiety and depressive symptoms a person may have experienced in the past 4 weeks. The scores are measured on a 5 point Likert type Scale ranging from 1= None of the time to 5= All of the time. Scores of the 10 items are then summed, yielding a minimum score of 10 and a maximum score of 50.

RESULT

Frequencies, percentages, mean, and standard deviation were calculated using descriptive statistics. The demographic characteristics of the respondents were taken from a survey created specifically for the purpose. The Social Sciences Statistical Package (SPSS) version 23.0 was used to compute and analyze the sample data. Pearson Product Moment Correlation, Multiple Regression Analysis and the T-test were used to test the hypotheses and evaluate the results.

Table 1
Demographic Characteristics of the Participants (N=150)

Demographic	F	Percentage
Age		
18-22 years	43	28.7
23-28 years	55	36.7
29-34 years	32	21.3
35-40 years	19	12.7
Gender		
Males	92	61
Female	58	39
Educational Qualification		
Educated	134	89
Uneducated	16	11
Residential Status		
Rural	81	54
Urban	68	46
Allergy Type		
Eczema	42	28
Dermatitis	49	32.7
Pollen Allergy	44	29.3
Hives	14	9.3

Table 1 shows the demographic characteristics of participants suggesting that 28.7% of the respondents were between 18 to 22 years old, 36.7 % were between 23 to 28 years, 21.3% were between 29-34 years of age and only 12.7% had age range between 35-40%. Similarly 89% of the population included educated individuals while only 11% were not educated, moreover for the allergies 28% had eczema, 32.7% had dermatitis, 29.3% had Pollen allergies while 9.3% population was suffering from Hives. Majority of the respondents had rural background almost 54% while only 46% had urban residential status.

Table 2: Correlation Matrix of Skin Allergies , Psychological well-being , Interpersonal Emotion regulation and Psychological distress among adult population of Sialkot-Pakistan (N=150)

Scale	1	2	3	4	M	S.D
Skin	-	-	-	-	2.23	1.03
PWB	-	.111	-	-	69.26	6.46
IER	-	-	-.074	-	64.82	11.92
PD	-	-	-	.185	25.2	9.96

Note: PWB=Psychological Well-being, IER=Interpersonal Emotional Regulation, PD= Psychological Distress.

The first hypothesis stated that there will be a significant relationship between Skin Allergies, Psychological well-being, Interpersonal Emotion Regulation and Psychological distress among adult population of Sialkot-Pakistan. Hypothesis has been tested by employing Pearson Product Moment Correlation. Results obtained showed insignificance as result as p value obtained ($p=.17 > 0.05$ level with $r=.11$, $M=69.2$, $SD= 6.4$) for psychological wellbeing, ($p=.37 > 0.05$ significance level with $r=-.074$, $M=64.82$, $SD=11.92$) for Interpersonal emotion regulation and ($p=.02 < 0.05$ significance level with $r=.185$, $M=25.2$, $SD= 9.96$) for Psychological distress. Results were insignificant for two variables, Psychological well-being and Interpersonal Emotional regulation as the p values obtained were larger than the significant levels 0.05. There was a negative correlation found between allergies and interpersonal emotional regulation suggesting a decrease in maintenance of emotions related to people among those whose allergic reactions increase. While Psychological distress has been found significantly related with skin allergies and almost 18% skin allergies trigger distress among young adults.

Table 3

Regression analysis for Negative Skin allergies predicting decrease in Psychological well-being among adults of Sialkot-Pakistan (N=150)

Variables	B	SE(B)	β	t	Sig	C.I
Skin Allergies						
Constant	1.002	.90		1.10		
PWB	.018	.013	.11	1.36	.175	-.792-2.796
R ²	.012					
ΔR^2	.006					
F	1.85					

Note: PWB=psychological well-being, β =Beta, SE(B)=Standard error of beta, t=T value, C.I=Confidence Interval. ΔR^2 =Adjusted R square.

For testing the hypothesis, Multiple Regression analysis was employed. Results of Regression analysis showed insignificant regression equation as $F(1, 148) R^2 = .012, p > .05, \beta = .11$. Skin allergies explained only .012% variance in the psychological wellbeing of adults. So, the hypothesis gets rejected and it was found that Skin allergies do not predict decrease in the psychological well-being of the adults in Sialkot-Pakistan.

Table 4

Regression analysis for Negative Skin allergies predicting decrease in Interpersonal Emotional regulation among adults of Sialkot-Pakistan (N=150)

Variables	B	SE(B)	β	t	Sig	C.I
Skin Allergies						
Constant	2.64	.468	-	5.65		
IER	-.006	.007	-.074	-.897	.371	1.72-3.57
R ²	.005					
ΔR^2	-.001					
F	.805					

Note: IER=Interpersonal Emotion Regulation, β =Beta, SE(B)=Standard error of beta, t=T value, C.I=Confidence Interval, ΔR^2 =Adjusted R square.

For testing the hypothesis, Multiple Regression analysis was employed. Results of Regression analysis showed insignificant regression equation as $F(1, 148) R^2 = .005, p > .05, \beta = -.074$. Skin

allergies

explained only .074% variance in the level of interpersonal emotional regulation of adults. So, the hypothesis gets accepted but the value obtained is not significant to create a

major difference in the levels of interpersonal emotional regulation of the adults in Sialkot-Pakistan.

Table 5

Regression analysis for Skin allergies predicting Psychological Distress among adults of Sialkot-Pakistan (N=150)

Variables	B	SE(B)	β	t	Sig	C.I
Skin Allergies						
Constant	1.74	.227	-	7.72		
PD	.019	.008	.185	2.29	.023	1.30-2.19
R ²	.034					
ΔR^2	.028					
F	.805					

Note: PD=Psychological Distress, β =Beta, SE(B)=Standard error of beta, t=T value, C.I=Confidence Interval, ΔR^2 =Adjusted R square.

For testing the hypothesis, Multiple Regression analysis was employed. Results of Regression analysis showed insignificant regression equation as $F(1, 148) R^2 = .034, p < .05, \beta = .185$. Skin allergies predicted 18% of psychological distress among adults. So, the hypothesis gets accepted and results found significant that skin allergies do predict psychological distress among adults of Sialkot-Pakistan.

Table 6

T-Test for Gender Difference in Skin Allergies, Psychological well-being, Interpersonal emotional regulation and Psychological distress among adults of Sialkot-Pakistan (N=150).

Scale		M	SD	F	Sig	t	C.I
SA	Male	2.11	.899	7.65	.089	-1.71	-.634-0.45
	Female	2.41	1.19				
PWB	Male	69.9	5.18	10.82 [-	.095	1.68	.316-3.94]
	Female	68.1	8.01				
IER	Male	66.3	11.37	.29	.056	1.92	[-.095 -
	Female	62.4	12.5				
PD	Male	23.2	9.91	2.60	.002*	-3.18	[-8.37- -
	Female	28.3	9.27				

Note: M=Mean, SD=Standard Deviation, SA=Skin Allergies, PWB= Psychological well-being, IER= Interpersonal Emotional Regulation, PD= Psychological Distress, CI=Confidence Interval.

In order to test the hypothesis t test analysis was employed. Results showed no significant gender difference in Scores of Psychological well-being, interpersonal emotional regulation except Psychological Distress where the examination of group means indicated ($M=23.2, 28.3$ with F value 2.60, $t= -3.18$ at the level of significance $p < 0.05$ with 95% confidence interval. Results suggest that females show more psychological distress due to skin allergies whereas, on Interpersonal emotional regulation and psychological well-being scale both groups were affected almost equally and there was no significant difference found.

DISCUSSION

The purpose of the present study was to assess the impact of skin allergies on interpersonal emotional regulation, psychological wellbeing and psychological distress among adult population of Sialkot. First hypothesis of the study stated that there would be a significant relationship between skin allergies, psychological well-being, interpersonal emotional regulation and psychological distress among adults of Sialkot-Pakistan. The results were insignificant for both variables Psychological well-being and Interpersonal Emotional Regulation whereas, on the variable Psychological distress the results found significant as ($p=.02 < 0.05$ with $r = .185$, $M=25.2$, $SD= 9.96$). The conclusion made through these result is that skin allergies on a whole create distress, anxiety and decrease in mental well-being because studies have supported the idea that any physical ailment has the ability to trigger negative psychological outcomes. As, such people gets expose to a frequent spells of allergic reactions such as eczema, hives, dermatitis and pollen allergy specifically, people may become more prone to feel distress due to ever preceding seasonal allergies.

Second hypothesis of the study stated that skin allergies would significantly predict decrease in psychological well-being of adults in Sialkot-Pakistan. Result showed no predictive relationship between skin Allergies and overall psychological well-being of the effected. People who had long exposure to allergies either seasonal or non-seasonal, they may develop tolerance related to their medical condition. They end up accepting their allergic selves and easily get adapted to their intimate environment. Although decreased psychological well-being has been found associated with poor medical conditions but the recent researches support the idea that the sense of no control over some of the medical condition may demolish the sense of effected psychological well-being. Zhang, X. J. et al., (2019) in a study found that Skin cancer, psoriasis, and eczema are all observable medical conditions that have a substantial psychological and social effects on patients. By having appropriate conversations and interactions with patients, the dermatologist may play a vital role in helping to mitigate this effect, positively affecting the patient's health and quality of life and psychological well-being. Furthermore, if patients assisted in having to cope with their condition and developing the skills necessary to reduce the psychosocial effects of their condition, they may be better prepared to go out into the world and pursue a more meaningful life. In Pakistan where we have a joint family system and people may get their social support from their intimate family members, it is considered that people may easily get over the negative outcomes (Poor psychological well-being) created by the prolonged medical conditions such as skin allergies. Family and friend's supports works as a tonic to the effects. It enhances the patient's sense of control over their environment as well as the availability of good medical facilities could be a good prognostic factor.

Third hypothesis H3 of the study assumed skin allergies would significantly predict decrease in interpersonal emotional regulation of adults in Sialkot-Pakistan. Results found has also shown the negative relationship between both variables, although not significant. Interpersonal emotional regulations is normally a two way process, in terms of demand and responsibility. People try to maintain them through proper commitment and dedication. Medical health is also a factor that contributes in the upheavals related to social relations. Declined medical health specially when it is relevant to any infection or vial disease people usually avoid social interactions. Body shaming, bullying and associated low self-esteem and confidence may bring adverse effects. So, it becomes hard for a patient to stay in a situation / environment where

people as well as a person itself starts feeling neglected or avoided. This brings a decrease in social associations. Picardi. et al., (2005) also suggested that patients with psoriasis, eczema, skin cancer, and other skin diseases are more likely to face chronic stress, which can lead to social dysfunction. Infection has a greater impact on daily life; helplessness cognitive processes are more common; infection acceptance and perceived benefits are lower; and social support is lower.

As a result of the analysis, there is a negative link between skin allergies and interpersonal emotional regulation. Moreover, as the prevalence of skin allergies rises, patients' interpersonal emotional regulation declines or suffers. As patients with skin diseases had lower perceived social support and higher attachment-related avoidance which ultimately causes lower interpersonal emotional regulation in patients.

Fourth hypothesis of study stated that skin allergies would significantly predict Psychological distress among adults in Sialkot-Pakistan. Significant results were found against the hypothesis. Studies suggest that physical illnesses are strong contributor for the emergence of psychological illnesses. Skin is a vital organ for communication throughout the life cycle. So patients with skin disease (eczema, atopic dermatitis and hives) standard of living is influenced by both physical and psychosocial factors.

Verhoeven, et al., (2007) also indicated that the moderate to serious mental illness and psychological distress are triggered by a variety of physical or chronic illnesses. In addition to the seriousness of the clinical condition, physical symptoms of itch, pain, and fatigue are considered severe chronic stressors in patients with skin diseases, contributing to increased psychological distress. Furthermore, Evers., et al. (2005) indicated that the subjective social stigma and other disease-related effects on daily life have been shown to be potential stressors and contributors to depressive symptoms in people with chronic skin diseases. Moreover, gender differences were also assessed in this study which showed no difference in gender on both variables psychological well-being and interpersonal emotional regulation whereas, on psychological distress variable females has scored quite higher than males which concludes that females get more distressed due to skin allergies as compared to males.

The reason behind these results could be that females are normally much concerned about their beauty and physical appearances and exposure to such infectious diseases such as eczema, dermatitis etc. Creates a sense of inferiority and low self-esteem, ultimately raising the idea of deprivation which results in causing distress among females. The cognition of being avoided and neglecting at public places may worsen the situation. So, it can be stated that skin allergies have the ability to significantly predict psychological distress among females more than males. Roustan, G., & Sirgo, A. (2004) found women to have significantly higher symptoms of depression and anxiety than males due to skin allergies.

Zachariae, R., (2004) also directed that young female patients with skin disease are more distressed than adult male patients. Cultural norms, which can lead to women's dissatisfaction with their appearance, may also contribute to psychological distress in women more than in men. Women, for example, are more conscious of their appearance than men and make upward social distinctions about their bodies, but not about their realms.

CONCLUSION AND FUTURE DIRECTIONS

Study concluded that skin allergies, psychological well-being, interpersonal communication and

psychological distress are related but there is no predictive relationship among them. Good medical facilities, access to resources and social acceptability has might build resilience among people to easily cope up with the effected medical health conditions and related psychological outcomes. Psychological distress is a risk factor for allergic patients but learning good coping skills as well as health management may reduce the distress level among the sufferers. The study has checked the impact of skin allergies on overall psychological well-being and interpersonal emotional regulation but future studies could be conducted on addressing the individual factors in detail either psychological well-being or IER. Moreover , cross cultural studies / comparisons on the basis of different demographic characteristics can also be conducted. Depression, stress and other disorders can also be studied with relation to particular skin allergies. Moreover, biological and neurological aspects of the issue can also be investigated.

REFERENCES

1. Amorim-Gaudêncio, C., Roustan, G., & Sirgo, A. (2004). Evaluation of anxiety in chronic dermatoses: Differences between sexes. *Revista Interamericana de Psicologia/Interamerican Journal of Psychology*, 38(1).
2. Arck, P., Handjiski, B., Hagen, E., Pincus, M., Bruenahl, C., Bienenstock, J., & Paus, R. (2010). Is there a 'gut-brain-skin axis'?. *Experimental dermatology*, 19(5), 401–405. <https://doi.org/10.1111/j.1600-0625.2009.01060.x>
3. Al-Zoman, A. Y., & Al-Asmari, A. K. (2008). Pattern of skin diseases at Riyadh Military Hospital. *Egypt Dermatol Online J*, 4(2), 4-14.
4. Buljan, D., Buljan, M., & Situm, M. (2005). Psychodermatology: a brief review for clinicians. *Psychiatria Danubina*, 17(1-2), 76-83.
5. Dhabhar F. S. (2000). Acute stress enhances while chronic stress suppresses skin immunity. The role of stress hormones and leukocyte trafficking. *Annals of the New York Academy of Sciences*, 917, 876–893. <https://doi.org/10.1111/j.1749-6632.2000.tb05454.x>
6. Duman, K., Ozdemir, Y., Yucel, E., & Akin, M. L. (2014). Comparison of depression, anxiety and long-term quality of health in patients with a history of either primary closure or Limberg flap reconstruction for pilonidal sinus. *Clinics (Sao Paulo, Brazil)*, 69(6), 384–387.
7. Evers, A. W. M., Lu, Y., Duller, P., Van Der Valk, P. G. M., Kraaimaat, F. W., & Van De Kerkhof, P. C. M. (2005). Common burden of chronic skin diseases? Contributors to psychological distress in adults with psoriasis and atopic dermatitis. *British Journal of Dermatology*, 152(6), 1275-1281.
8. "[Environmental Allergies: Symptoms](#)". *NIAID*. 22 April 2015. Archived from [the original](#) on 18 June 2015. Retrieved 19 June 2015
9. Griffiths, Christopher; Barker, Jonathan; Bleiker, Tanya; Chalmers, Robert; Creamer, Daniel (2016). *Rook's Textbook of Dermatology, 4 Volume Set* (9 ed.). John Wiley & Sons. p. Chapter 42.3. [ISBN 9781118441176](#).
10. Gross J.J. (2002). Emotion regulation: affective, cognitive, and social consequences. *Psychophysiology*, 39(3), 281–291. <https://doi.org/10.1017/s0048577201393198>
11. Gupta, M. A., & Guptat, A. K. (2001). The use of antidepressant drugs in dermatology. *Journal of the European Academy of Dermatology and Venereology : JEADV*, 15(6), 512–518. <https://doi.org/10.1046/j.1468-3083.2001.00278.x>

12. Hofmann, S. G., Carpenter, J. K., & Curtiss, J. (2016). Interpersonal Emotion Regulation Questionnaire (IERQ): Scale Development and Psychometric Characteristics. *Cognitive therapy and research*, 40(3), 341–356. <https://doi.org/10.1007/s10608-016-9756-2>
13. Jafilan, L., & James, C. (2015). Urticaria and Allergy-Mediated Conditions. *Primary care*, 42(4), 473–483. <https://doi.org/10.1016/j.pop.2015.08.002>
14. Kowalski, M.L., Ansotegui, I., Aberer, W. *et al.* Risk and safety requirements for diagnostic and therapeutic procedures in allergology: World Allergy Organization Statement. *World Allergy Organ J* 9, 33 (2016). <https://doi.org/10.1186/s40413-016-0122-3>
15. Meding, B. (1990). Epidemiology of hand eczema in an industrial city. *Acta dermato-venereologica. Supplementum*, 153, 1-43.
16. Mowad C. M. (2016). Contact Dermatitis: Practice Gaps and Challenges. *Dermatologic clinics*, 34(3), 263–267. <https://doi.org/10.1016/j.det.2016.02.010>
17. McConnell, Thomas H. (2007). *The Nature of Disease: Pathology for the Health Professions*. Baltimore, MD: Lippincott Williams & Wilkins. p. 159. [ISBN 978-0-7817-5317-3](https://doi.org/10.1016/j.det.2016.02.010)
18. Nedorost, Susan T. (2012). *Generalized Dermatitis in Clinical Practice*. Springer Science & Business Media. pp. 1–3, 9, 13–14. [ISBN 9781447128977](https://doi.org/10.1016/j.det.2016.02.010). Archived from the original on 15 August 2016. Retrieved 29 July 2016.
19. Picardi, A. *et al.*, (2005). Stress, social support, emotional regulation, and exacerbation of diffuse plaque psoriasis. *Psychosomatics*, 46(6), 556-564.
20. Paus, R., Theoharides, T. C., & Arck, P. C. (2006). Neuroimmunoendocrine circuitry of the 'brain-skin connection'. *Trends in immunology*, 27(1), 32–39. <https://doi.org/10.1016/j.it.2005.10.002>
21. Ryff, C. D. (1995). Psychological Well-Being in Adult Life. *Current Directions in Psychological Science*, 4(4), 99–104. <https://doi.org/10.1111/1467-8721.ep10772395>
22. Sarkar, S. K., Islam, A. K. M. S., Sen, K. G., & Ahmed, A. R. S. (2010). Pattern of skin diseases in patients attending OPD of dermatology department at Faridpur Medical College Hospital, Bangladesh. *Faridpur Medical College Journal*, 5(1), 14-16.
23. ["Types of Allergic Diseases"](https://doi.org/10.1016/j.it.2005.10.002). NIAID. 29 May 2015. Archived from [the original](https://doi.org/10.1016/j.it.2005.10.002) on 17 June 2015. Retrieved 17 June 2015
24. Verhoeven *et al.*, (2007). Prevalence of physical symptoms of itch, pain and fatigue in patients with skin diseases in general practice. *British Journal of Dermatology*, 156(6), 1346-1349.
25. Walker, S. L., Shah, M., Hubbard, V. G., Pradhan, H. M., & Ghimire, M. (2008). Skin disease is common in rural Nepal: results of a point prevalence study. *British Journal of Dermatology*, 158(2), 334-338
26. Zachariae, R., Zachariae, C., Ibsen, H. H., Mortensen, J. T., & Wulf, H. C. (2004). Psychological symptoms and quality of life of dermatology outpatients and hospitalized dermatology patients. *Acta dermato venereologica*, 84(3), 205-212. <https://doi.org/10.1080/00015550410023284>
27. Zhang, X. J., Wang, A. P., Shi, T. Y., Zhang, J., Xu, H., Wang, D. Q., & Feng, L. (2019). The psychosocial adaptation of patients with skin disease: a scoping review. *BMC public health*, 19(1), 1404. <https://doi.org/10.1186/s12889-019-7775-0>