



Quality of Life of Eczema Patients and normal people: A comparative study

Anupriya Singh¹, Satya Gopal Jee²

¹ Assistant Professor, Department of Psychology, DAV PG College (BHU), Varanasi, Uttar Pradesh, India

² Professor, Department of Psychology, DAV PG College (BHU), Varanasi, Uttar Pradesh, India

Abstract

Background: Eczema has a significant influence on patient's quality of life. It is now well-documented that psychological distress has a role in the onset, escalation, and persistence of skin disease symptoms. Some patients with visible diseases have expressed high degrees of self-consciousness, and it has been reported that this feeling is associated with avoidant coping mechanisms

Method: The present study was carried out with 108 patients diagnosed with eczema and 112 normal people aged range 18-63 years by using the purposive sample method. A between-group design (The independent sample t-test) was employed to study group differences between persons with eczema and normal control on the quality of life.

Result: Result of the study revealed that there is a significant difference between the eczema patients' group and the normal control group on overall quality of life and also on various dimension of life quality viz., physical symptoms and feelings, daily activities, leisure, work/school, personal relationships, treatment. The result also revealed that eczema patients have poor quality of life in comparison to normal control as high score on DLQI indicates poor quality of life.

Conclusion: From the finding of this study, it appears that persons with eczema have a lower quality of life compared with the normal control. Eczema adversely affects sleep, emotional and mental health, physical activity, and social functioning, which lowers quality of life. Professionals who work with individuals with eczema and their families must be aware of potential psychological issues. A regular quality of life evaluation can affect both the selection and the efficacy of therapy.

Keywords: Quality of Life, Eczema Patients

Introduction

Eczema is a widespread skin disease that results in dry, irritated, red, and itchy skin. It is a common chronic skin condition that can result in recurring infections and a lower quality of life. A person's everyday life quality, as well as an evaluation of their wellness or insufficient wellness, may be referred to as their quality of life. This includes factors like their standard of living and how they interact with their family and community (Lifschitz, 2015). Quality of life is frequently discussed about how a particular illness affects someone's health on a personal level in the context of healthcare. This might be a severe weakness that is not fatal, a fatal sickness that is not terminal, a terminal illness, the expected, normal decline in an elderly person's health, an unanticipated mental/physical deterioration of a family member or friend, or persistent, end-stage illness processes. The lives of patients are significantly impacted by chronic skin conditions such as atopic eczema. However, compared to other more seriously ill conditions like cancer or heart disease, the impact of chronic skin diseases on quality of life (QOL) is frequently underrated. The quality of life of people with eczema has a strong connection to itch and sleep-related problems. When children have severe itching, they might become irritated and unfocused, and parents frequently struggle to stop their kids from scratching (Elliott, Luker, 1997). Lack of sleep makes people drowsy more often during the day and may hinder intellectual growth. One of the main causes of unhealthy family relationships is sleep deprivation (Basra, Shahrukh, 2009). According to a US study, adults with eczema are more prone to experience sleep disturbances, which frequently impair daily activities and workplace productivity (Yu, Attarian, Zee, *et al.*, 2016).

Eczema imposes a significant financial burden (Emerson, Williams, Allen, 2001). Direct medical expenses can be found in the form of prescription drugs, doctor visits, non-prescription items, and other forms of treatment. But it appears that indirect and non-medical costs, such as travel to medical appointments, missed workdays, and additional childcare, account for the majority of the cost of eczema (Fivenson, Arnold, Kaniecki, *et al.*, 2002; Carroll, Balkrishnan, Feldman, *et al.*, 2005); and costs related to changes in lifestyle such as altering one's diet, putting on special attire, utilizing special bed sheets, and buying specialized home goods (such as a dust-mite-resistant vacuum, a humidifier, or a new carpet) (Emerson, Williams, Allen, 2001; Fivenson, Arnold, Kaniecki, *et al.*, 2002). Physician visits frequently result in absences from work, and parents and guardians of children with eczema frequently skip work to attend to their children's medical needs. Due to sleep deprivation and worry, patients (or parents/guardians) frequently exhibit reduced job productivity (also known as presenteeism) (Drucker, Wang, Qureshi, 2016).

Eczema has a significant influence on patients' quality of life. The quality of life of those who have eczema is impacted by a wide range of variables. However, fewer studies have been found examining the quality of life of eczema patients. Therefore, it is necessary to examine the quality of life of eczema patients.

Objective of the Study

- To assess and compare the quality of life of persons with eczema and normal control.

Hypothesis

- There would be a difference in quality of life between persons with eczema and normal control.

Methodology

Sample

The present study was carried out with 108 patients diagnosed with eczema and 112 normal people aged range 18-63 years (mean age=35.89, SD=10.36) by using the purposive sample method. The eczema patients have been taken from Sir Sunderlal hospital, B.H.U. Varanasi, and Ananya skin clinic, Bhikharipur Varanasi.

Research design

A between-group design was employed to study group differences. The independent sample t-test was used to compare the differences in the level of quality of life between persons with eczema and normal controls.

Tool

- Dermatology Life Quality Index (DLQI):** The DLQI questionnaire, first introduced by Finlay and Khan, in 1994 [9] was used as the study instrument for this study.

DLQI is a validated questionnaire that grades QoL by assessing the following domains: (a) physical symptoms and feelings (questions 1 and 2), (b) daily activities (questions 3 and 4), (c) leisure (questions 5 and 6), (d) work/school (questions 7), (e) personal relationships (questions 8 and 9), and (f) treatment (question 10). Each question is scored as “very much” (score 3), “a lot” (score 2), “a little” (score 1), and “not at all” (score 0), keeping in mind the problems faced the previous week due to the disease. The final DLQI score is the sum of all scores (range 0–30). High scores indicate poor QoL.

Analysis of data

An independent sample t-test was computed to find the difference between persons with eczema and normal control on the quality of life.

Result

To examine the difference in the quality of life between persons with eczema and normal control, an independent sample t-test was calculated which is presented in table 1 and mean scores are graphically displayed in figure 1

Table 1: Summary of independent sample t-test comparing the two groups (persons with eczema and normal control) on different dimensions of quality of life

Dimensions of quality of life	Groups				t-values (df=218)
	Persons with seczema (N=108)		Normal control (N=112)		
	Mean	SD	Mean	SD	
Physical symptoms and feelings	4.02	1.30	0.50	0.72	24.64***
Daily activities	3.54	1.12	0.31	0.60	26.50***
Leisure activities	3.79	1.11	0.43	0.65	27.08***
Work/school	2.39	1.10	0.05	0.22	21.67***
Personal relationships	2.37	1.08	0.30	0.59	17.45***
Treatment	2.03	0.73	0.14	0.35	24.23***
Total DLQI	18.17	5.05	1.75	2.53	30.28***

*p<.05, **p<.01, ***p<.001

Note: Higher scores denote poor quality of life

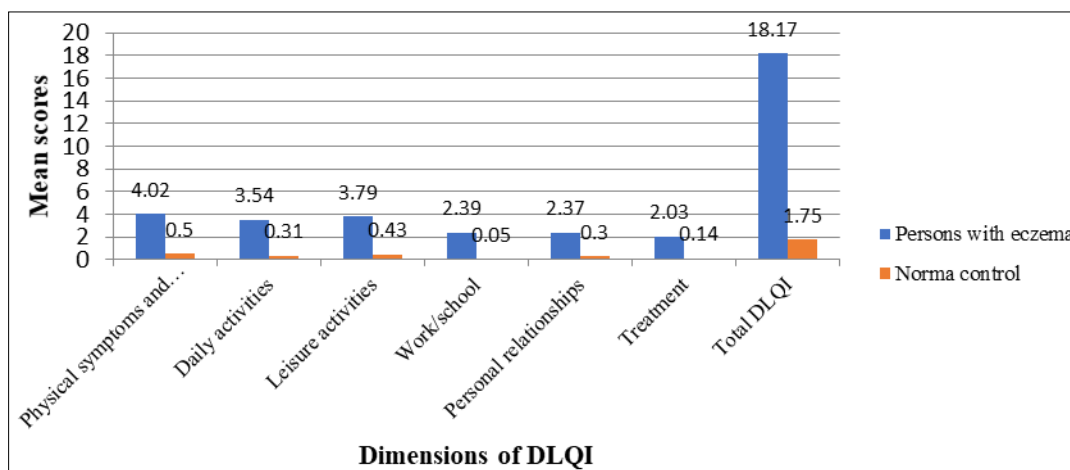


Fig 1: Comparison of mean scores of the two groups (persons with eczema and normal control) on different dimensions of quality of life.

Table 1 and figure 1 shows analysis of quality of life between persons with eczema and normal control. Analysis of physical symptoms and feelings revealed that there is a significant difference ($t(218) = 24.64, p<.001$) between the eczema patients’ group (mean=4.02, SD= 1.30) as compared to the normal group (mean= 0.50, SD= 0.72). Analysis of daily activities shows that there is a significant difference ($t(218) = 26.50, p<.001$) between the eczema patients’ group

(mean= 3.54, SD= 1.12) as compared to the normal group (mean= 0.31, SD= 0.60). Regarding the analysis of leisure activities, it has been found that there is significant difference ($t(218) = 27.08, p<.001$) between eczema patients’ group (mean= 3.79, SD= 1.11) as compared to the normal group (mean= 0.43, SD= 0.65). Analysis of work/school dimension of life quality revealed that there is significant difference ($t(218) = 21.67, p<.001$) between the

eczema patients' group (mean= 2.39, SD= 1.10) as compared to the normal group (mean= 0.05, SD= 0.22). Analysis of personal relationships revealed that there is significant difference ($t(218) = 17.45, p < .001$) between the eczema patients' group (mean= 2.37, SD= 1.08) as compared to the group of normal control (mean= 0.30, SD= 0.59). It is clear from analysis of treatment that there is significant difference ($t(218) = 24.23, p < .001$) between the group of eczema patients (mean= 2.03, SD= 0.73) and group of normal control (mean= 0.14, SD= 0.35). Analysis of total DLQI revealed that there is significant difference ($t(218) = 30.28, p < .001$) between the eczema patients' group (mean= 18.17, SD= 5.05) and normal group (mean= 1.75, SD= 2.53). These results revealed that eczema patients have poor quality of life in comparison to normal control.

Discussion

Eczema significantly lowers patient's QOL as measured by psychological, social, physical, and functional variables since it affects relationships and everyday activities (Coutanceau, Stalder, 2014; Rehal, Armstrong, 2012). Adult individuals with eczema might suffer from a wide range of problems. Simple daily tasks might be restricted by eczema. Depressive and anxious feelings, as well as elevated body consciousness, are linked to a decreased quality of life in people with eczema (Oh, Bae, Park, *et al.*, 2010; Wittkowski, Richards, Griffiths, Main, 2004).

The objective of the study was to assess and compare the quality of life of the persons with eczema and the normal control. In the view of previous studies, it was hypothesized that there would be a difference in the quality of life between the persons with eczema and the normal control. The finding of the present study supported the corresponding hypothesis. The result displayed in Table 1 indicates that there is a significant difference between the eczema patients' group and the normal group on various dimensions of quality of life. It was also found that the eczema patients showed poor quality of life, poor physical symptoms and feelings, poor daily activities, poor leisure, poor work/school, poor personal relationships, and poor treatment as compared to the normal control group. The present findings corroborated the previous studies (Potocka, Turczyn-Jablonska, & Kiec-Swierczynska, 2008; Silverberg, Gelfand, Margolis, Boguniewicz *et al.*, 2018; Ejaz, Rao, Manzoor, & Niaz, 2015; Ghaderi, & Saadatjoo, 2014; Mozaffari, Pourpak, Pourseyed, Farhoodi, *et al.*, 2007; Holm, Wulf, Stegmann, & Jemec, 2006; Shariat, Nasiri Kalmarzi, Abaei Hasani, Goodarzi, Hasanzadeh, Ataee, *et al.*, 2018; Al-Hoqail, 2009; Manzoni, Pereira, Townsend, Weber, Nagatomi, & Cestari, 2012; Abolfotouh, Al-Khowailed, Suliman, Al-Turaif, Al-Bluwi, & Al-Kahtani, 2012; Coghi, Bortoletto, Sampaio, Andrade Junior, & Aoki, 2007; Hossny, Shousha, Wassif, & Hana, 2020; Huang, Choo, Smith, & Apfelbacher, 2022; Charan, Peter, & Pulimood, 2013; Kosaraju, Reddy, Vadlamani, Sandhya, Kalasapati, Maganti, & Mary, 2015) [1, 2, 6, 7, 8, 10, 11, 12, 13, 14, 17, 18, 20, 23, 24]. Possible explanation for this finding is that the sleep, emotional and mental health, physical activity (PA), and social functioning are all negatively impacted by eczema, which lowers quality of life (Koszorú, Borza, Gulácsi, Sárdy, 2019) [115-16].

Psychological problems can affect both adults and children who have eczema. Behavior issues in children with eczema may include increased dependence, fearfulness, and sleep

issues. Skin conditions may significantly impair one's social, sexual, and professional lives, as well as their professional and social activities (Krueger, Koo, Lebwohl, *et al.*, 2001; Gelfand, Feldman, Stern, *et al.*, 2004). Patients with visible skin diseases frequently feel separated from society, have trouble accepting their appearance, and become fatigued by their suffering from the condition and the rejection they receive from their peers. Typically, this causes social isolation and a progressive separation. When dealing with dermatological issues, a person must first manage their emotional responses and then deal with limitations in their daily (work, family, and social) lives. Each disease worsens over time and negatively impacts the quality of life both on a physiological and a mental level (Sarwa, *et al.*, 1996). Therefore, not only in dermatological patients but also in other patients, it is important to monitor the patient's mental health and self-image since they both play a significant role in determining their quality of life (Potocka *et al.*, 2008) [20].

Conclusion

From the finding of this study, it appears that persons with eczema have a lower quality of life compared with the normal control. This finding supported the earlier studies that multiple factors affect the quality of life among persons with eczema. Eczema adversely affects sleep, emotional and mental health, physical activity, and social functioning, which lowers quality of life. Patients who have lower levels of self-acceptance believe that their quality of life is also lower, so self-image is important in determining the quality of life. All of these factors lead to emotional, physical, psychological, social and cognitive effects. To properly evaluate treatment activities, it is essential to analyze the relationship between a disease and quality of life. A regular quality of life evaluation can affect both the selection and the efficacy of therapy. It also reduces the time needed for patients to understand their risk factors and complications, making it easier to refer them to a specialist.

Reference

1. Abolfotouh MA, Al-Khowailed MS, Suliman WE, Al-Turaif DA, Al-Bluwi E, Al-Kahtani HS. Quality of life in patients with skin diseases in central Saudi Arabia. *International Journal of General Medicine*, 2012, 633–642.
2. Al-Hoqail IA. Impairment of quality of life among adults with skin disease in King Fahad Medical City, Saudi Arabia. *Journal of Family, Community Medicine*, 2009;16(3):105–109.
3. Behring S. Everything you need to know about eczema. *Healthline*, 2021.
4. Bronkhorst E, Schellack N, Motswaledi MH. Effects of childhood atopic eczema on the quality of life. *Current Allergy and Clinical Immunology*, 2016;29(1):18–22.
5. Bronkhorst E, Schellack N, Motswaledi MH. Effects of childhood atopic eczema on the quality of life. *Current Allergy and Clinical Immunology*, 2016;29(1):18–22.
6. Charan UP, Peter CD, Pulimood SA. Impact of hand eczema severity on quality of life. *Indian Dermatology Online Journal*, 2013;4(2):102.
7. Coghi S, Bortoletto MC, Sampaio SAP, Andrade Junior HFD, Aoki V. Quality of life is severely compromised in adult patients with atopic dermatitis in Brazil especially due to mental components. *Clinics*, 2007;62:235–242.

8. Ejaz A, Rao SE, Manzoor A, Niaz A. Quality of life assessment in chronic skin disorders. *Journal of Pakistan Association of Dermatologists*,2015;25(2):86–89.
9. Finlay AY, Khan GK. Dermatology Life Quality Index (DLQI) a simple practical measure for routine clinical use. *Clinical and Experimental Dermatology*,1994;19(3):210–216.
10. Ghaderi R, Saadatjoo AS. Quality of life in patients with hand eczema as health promotion a case control study. *Acta Dermatovenerologica Croatica*,2014;22(1):32–39.
11. Holm EA, Wulf HC, Stegmann H, Jemec GBE. Life quality assessment among patients with atopic eczema. *British Journal of Dermatology*,2006;154(4):719–725.
12. Hossny EM, Shousha GA, Wassif GO, Hana SM. A study of health-related quality of life in pediatric atopic dermatitis. *Egyptian Journal of Pediatric Allergy and Immunology*,2020;18(2):61–69.
13. Huang J, Choo YJ, Smith HE, Apfelbacher C. Quality of life in atopic dermatitis in Asian countries a systematic review. *Archives of Dermatological Research*,2022;314(5):445–462.
14. Kosaraju SKM, Reddy KSR, Vadlamani N, Sandhya L, Kalasapati L, Maganti S, Mary A. Psychological morbidity among dermatological patients in a rural setting. *Indian Journal of Dermatology*,2015;60(6):635.
15. Koszorú K, Borza J, Gulácsi L, Sárdy M. Quality of life in patients with atopic dermatitis. *Cutis*,2019;104(3):174–177.
16. Koszorú K, Borza J, Gulácsi L, Sárdy M. Quality of life in patients with atopic dermatitis. *Cutis*,2019;104(3):174–177.
17. Manzoni APDDS, Pereira RL, Townsend RZ, Weber MB, Nagatomi ARDS, Cestari TF, *et al.* Assessment of the quality of life of pediatric patients with the major chronic childhood skin diseases. *Anais Brasileiros de Dermatologia*,2012;87:361–368.
18. Mozaffari H, Pourpak Z, Pourseyed S, Farhoodi A, Aghamohammadi A, Movahadi M, *et al.* Quality of life in atopic dermatitis patients. *Journal of Microbiology Immunology and Infection*,2007;40(3):260–264.
19. Nemeth V, Evans J. Eczema. *StatPearls*, 2022.
20. Potocka A, Turczyn-Jablonska K, Kiec-Swierczynska M. Self-image and quality of life of dermatology patients. *International Journal of Occupational Medicine and Environmental Health*,2008;21(4):309–317.
21. Schmid-Ott G, Steen T. Skin disorders and quality of life. *International Encyclopedia of Rehabilitation*, 2010.
22. Schonmann Y, Mansfield KE, Hayes JF, Abuabara K, Roberts A, Smeeth L, *et al.* Atopic eczema in adulthood and risk of depression and anxiety a population-based cohort study. *The Journal of Allergy and Clinical Immunology in Practice*,2020;8(1):248–257.
23. Shariat M, Kalmarzi RN, Hasani SA, Goodarzi E, Hasanzadeh J, Ataee P, *et al.* The impact of atopic dermatitis on the quality of life of children in Sanandaj Western Iran. *International Journal of Pediatrics*,2018;6(1):7003–7011.
24. Silverberg JI, Gelfand JM, Margolis DJ, Boguniewicz M, Fonacier L, Grayson MH, *et al.* Patient burden and quality of life in atopic dermatitis in US adults a population-based cross-sectional study. *Annals of Allergy Asthma & Immunology*,2018;121(3):340–347.
25. Talamonti M, Galluzzo M, Silvaggio D, Lombardo P, Tartaglia C, Bianchi L. Quality of life and psychological impact in patients with atopic dermatitis. *Journal of Clinical Medicine*,2021;10(6):1298.
26. Wikipedia. Quality of life. Wikipedia, 2017.