

Severity of Hand Eczema and Impact Multidimensional Assessment of the Quality of Life

Inas Fadhil Oleiwi¹ and Dr. Raid Najem About²

¹M.B.Ch.B., F.I. B.M.S. (Family Medicine), Ministry of Higher Education and Scientific Research, Jabir Ibn Hayyan University for Medical and Pharmaceutical Sciences, Faculty of Medicine, Lecturer at Department of Family and Community Medicine, Al-Najaf, Iraq.

²M.B.Ch.B., F.I. B.M.S. (Family Medicine), Iraqi Ministry of Health, Babylon Health Directorate, Al-Sadiq Teachings, Hospitals, Babil, Iraq.

Abstract: As defined Hand eczema (HE) is a widespread dermatological condition that severely affects patients' quality of life where our This study sets out to analyze the demographic, clinical, and psychosocial characteristics of hand eczema patients in Iraq and designed according to A cross-sectional study conducted from January 2024 to January 2025 included 280 patients from Al-Najaf Teaching Hospital and Al-Sadr Teaching Hospital in Najaf Governorate, with Participants were 18 years old and above with a clinically established hand eczema diagnosis where in our paper were Excluding conditions were given for active infection currently on immunosuppressants systemically, and complicated skin conditions in addition to Data were collected from structured interviews, medical records, clinical assessments to assess demographic and clinical information, psychological assessment, and quality of life by DLQI in addition to were Eczema severity was assessed by using the SCORAD index, through our outcomes found The average age of participants was 34.2±11.2 moreover The most frequent types of eczema were irritant contact eczema (50.0%) and allergic contact eczema (32.1%), were also Upon assessment of severity, 42.9% were mildly affected, 39.3% moderately affected, and 17.8% severely affected while found also Psychological analysis revealed that 75% reported some anxiety or depression, with 28.6% experiencing moderate to severe symptoms in contrast Diabetes (OR 2.0), smoking (OR 1.8), and food allergen sensitivity (OR 1.6) were established through logistic regression as risk factors associated with an exacerbation of severity so finally The findings warrant increased research on the psychosocial aspect of eczema, with larger samples and randomization of great importance for validating the present study.

Keywords: DLQI, Eczema, QoL, Psychological, Hand, Severity.

INTRODUCTION

The term eczema is defined as an inflammatory skin disorder, clinically characterized by redness, edema, infiltration, vesiculation, exudation, crusting, desquamation (Coenraads, P. J. 2012; Salvador, J. S. *et al.*, 2020) and lichenification. These lesions may occur singly or in association with each other, resulting in the polymorphic clinical picture of eczema (Agner, T., & Elsner, P. 2020; Quaade, A. S. *et al.*, 2021) Histologically, eczema can affect both the dermis and epidermis, resulting in skin spongiosis, intracellular edema, fissures, epidermal keratinization, and perivascular lymphocytic infiltration where The main associated symptoms are itching, burning, and pain. (Yüksel, Y. T. *et al.*, 2024; Scientific Committee of Chinese Dermatologist Association, 2021). So found In clinical practice, a combination of these eczema types is frequently observed, such as irritant contact eczema with irritant atopic dermatitis, which is subsequently grafted onto contact allergy where found through previous study The severity of eczema in the hand is determined by various factors, including the extent of clinical signs, the duration of treatment, the response to treatment, and the level of suffering experienced furthermore Hand eczema that resolves spontaneously, with avoidance of

triggers or with appropriate treatment within three months, is considered acute (Handa, S. *et al.*, 2012) as well as Hand eczema that persists for more than three months or recurs several times (>2 per year) is defined as chronic (Suman, M., & Reddy, B. S. N. 2003) based on The severity of the disease is measured using several grades that consider the extent and intensity of disease signs, such as redness, infiltration, vesicles, fissures/fractures, desquamation, and oedema (Meding, B., & Järholm, B. 2004; Elston, D. M. *et al.*, 2002) through the implementation of adequate preventive and therapeutic measures, the disease frequently fails to respond, often progressing to a chronic or recurrent state, with a multitude of consequences (Moberg, C. *et al.*, 2009) additionally The hands represent a vital organ of expression and communication, as well as being indispensable for domestic and occupational activities while Alterations in their appearance and discomfort in performing activities can result in significant psychological distress, often associated with a diminished quality of life. (Thomson, K. F. *et al.*, 2002) where shown A substantial body of research has demonstrated the profound psychosocial impact that chronic hand eczema has on patients, as well as its considerable societal

implications, including prolonged absence from work due to illness, job change, or early retirement (Agner, T. *et al.*, 2008) so Furthermore, studies have revealed a negative correlation between the severity of the disease and the quality of life with Hand dermatitis is an inflammatory condition that is characterized in the acute phase by redness, oedema, and, on occasion, vesiculation. In the chronic phase, the predominant changes are infiltration, desquamation, and fissuring, which can result in pain. (Leshem, Y. A. *et al.*, 2015) The condition does not have a unique clinical picture but rather manifests itself in a continuum of severity. (Van Der Roer, N. *et al.*, 2006)

MATERIAL AND METHOD

It was a cross-sectional study assessing demographic, clinical, and psychosocial characteristics of patients who have hand eczema in Iraq. Similar data were collected from a sample of 280 patients from Al-Najaf Teaching Hospital and Al-Sadr Teaching Hospital in Najaf Governorate, Iraq, attending dermatology clinics between January 2024 and January 2025. A convenience sampling method was employed for patient selection with inclusion criteria: 18 years and above, with a clinically confirmed diagnosis of hand eczema by a dermatologist. Exclusion criteria were active infection, immunosuppressive therapy, and underlying skin conditions of a complicated nature.

Data Collection

Through the structured questionnaires, medical records and clinical assessments, data were collected, besides on The questionnaires were used to gather demographic information such as age, sex, educational level, economic status, smoking habits, and past medical history, as well as clinical characteristics and hysteroïd analyses for their association with anxiety and depression) nevertheless also The Dermatological Life Quality Index (DLQI) was used to assess the impact of eczema on the quality of life, and self-report scales assessed sleep disturbance as well as According to the SCORAD index for scoring eczema severity,

the eczema was classified into subcategories irritant contact eczema, allergic contact eczema, atopic dermatitis, and dyshidrotic eczema on the basis of examination and history of the patient while found A severity assessment was also made according to the SCORAD index to quantify the impact of skin symptoms on daily living.

Statistical Analysis

Data analysis was done by utilizing the Statistical Package for the Social Sciences (SPSS) version 25 therefore depend on Descriptive statistics such as mean, standard deviation, frequency, and percentage were employed to summarize the demographic and clinical characteristic distribution in addition to Logistic regression analyzed the odds ratios of several risk factors with eczema severity: hypertension, diabetes, smoking, and food allergies, next The study used Pearson's correlation coefficients to analyze the relationship between clinical severity, quality of life scores, psychological states, and outcomes , more ever Chi-square tests were used to examine associations between variables like gender, education, smoking habits, and eczema severity. Confidentiality was maintained throughout the study.

Limitations

Hand eczema features and impacts in Iraqi patients are essential and informative aspects that derive from a valuable study. Besides, it is important that the reader understands that these results may be different for the general population since a convenient sampling method was used.

RESULTS

The demographics of the participants, including age, gender distribution, and eczema severity, are displayed in this table where The two groups' comparable average ages suggest that their backgrounds were quite similar as well so in paper The findings are strengthened by the equal gender ratios in both groups, which represent a distinct population based on severity levels determined by clinically evaluating eczema.

Table 1- Description of parameters and demographic data on the data of this study

Age	34.2±11.2
Comorbidities	
Diabetes	35 (12.5)
Kidney Disease	20 (7.1)
Other Diseases	30 (10.7)
None	140 (50)
BMI	25.3±5.2
Symptoms	
Itching	240 (85.7%)
Erythema	210 (75.0%)
Dry Skin	230 (82.1%)
Papular Bumps/Weeping	160 (57.1%)
Causes	
Genetic Factors	40 (14.29%)
Immune Dysregulation	60 (21.43%)
Environmental Triggers	110 (39.2%)
Microbiome Changes	70 (25%)
Smoking	
Yes	70 (25.0%)
No	210 (75.0%)
Gender	
Men	130 (46.4%)
Women	150 (53.6%)

Atopic dermatitis and dyshidrotic eczema are less common types that support targeted interventions in addition to The chart shows common eczema subtypes, with irritant contact eczema being the

most common (50%), indicating high exposure to irritants, and allergic contact eczema at 32.1%, indicating sensitization to allergens.

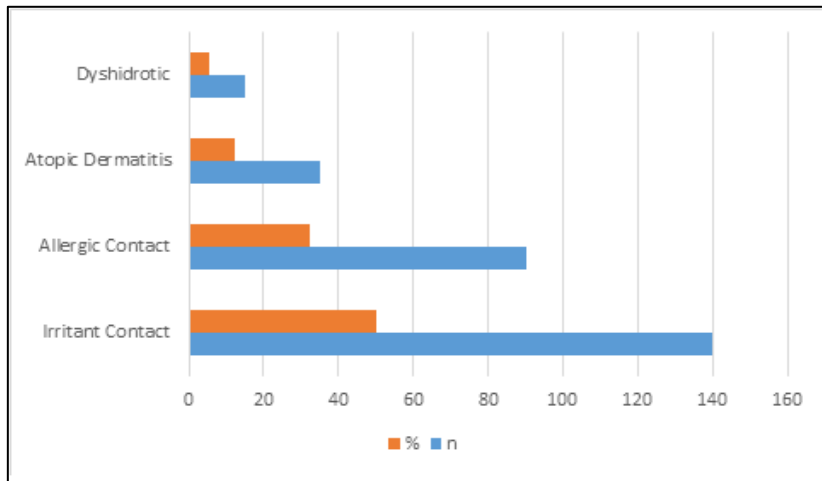


Figure 1: Description of the outcomes of Iraqi patients according to the eczema classification

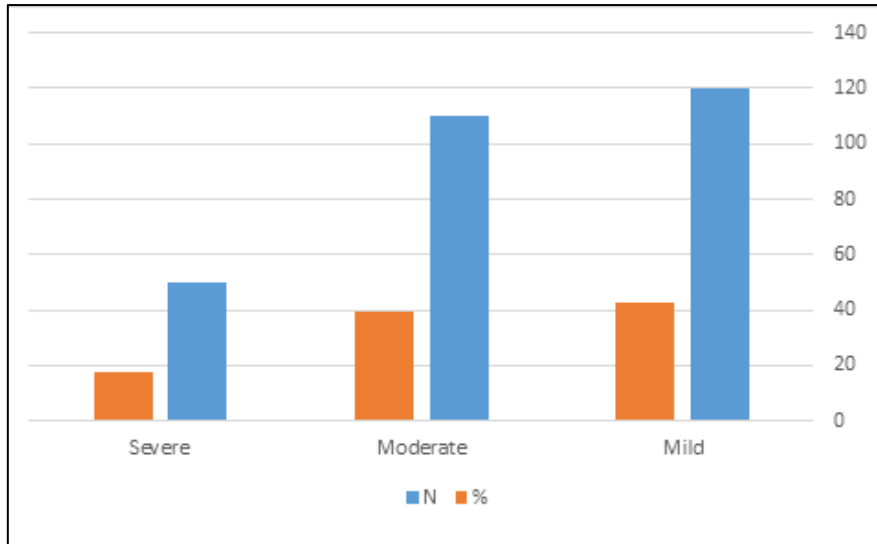


Figure 2: Distribution of Patients According to SCORAD Classification

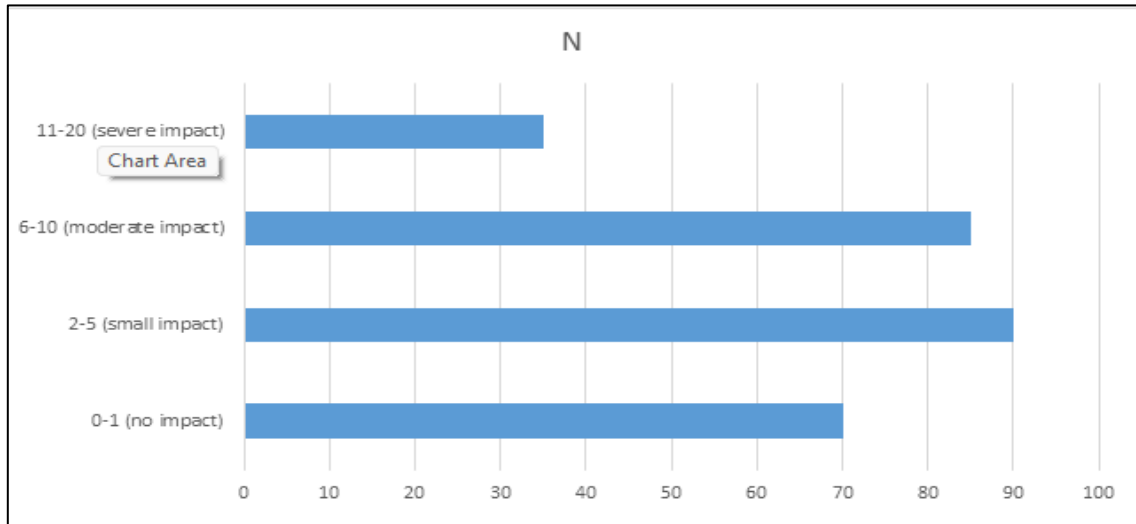


Figure 3: Iraqi patients' outcomes according to the quality of life standard (DLQI) Scale

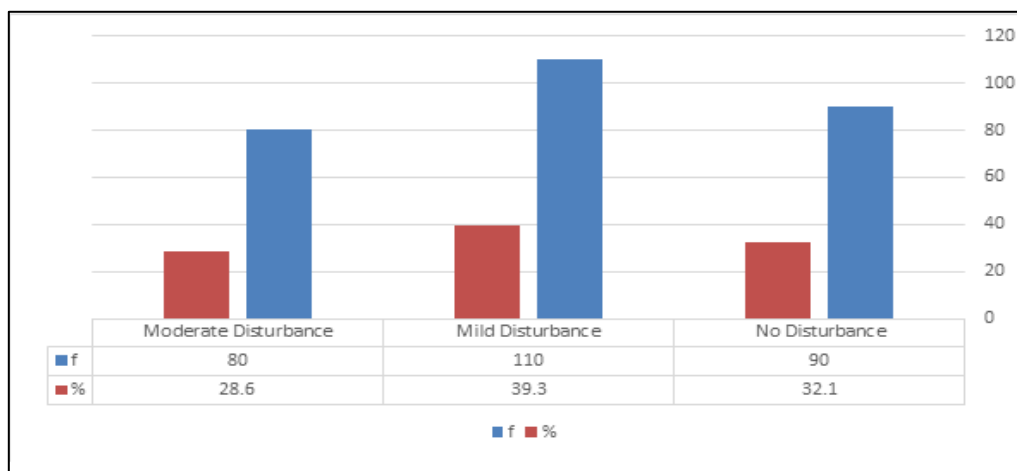


Figure 4: Evaluating Health Outcomes for Patients According to Sleep Disturbance

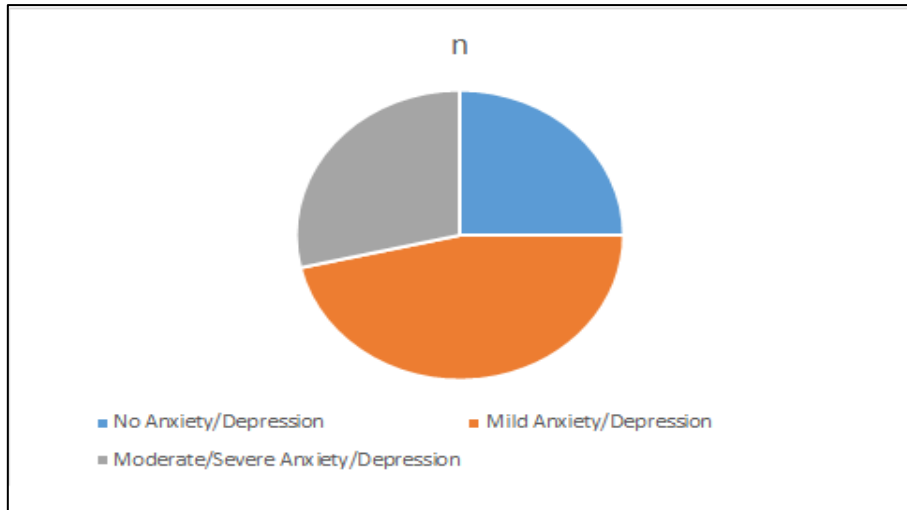


Figure 5: Describe the impact of eczema on Iraqi patients in terms of fear and anxiety.

Table 2: Description of logistic regression parameters to identify risk factors in this study on patients

	OR(C)%	P VALUE
High Blood Pressure	1.2(0.8-1.8)	0.093
AGE	0.9(0.5-1.4)	0.036
Smoke	1.5(1.1-1.9)	0.002
Diabetes	1.6(1.23-1.66)	0.001
Depression	2.2(1.7-3.1)	<0.001

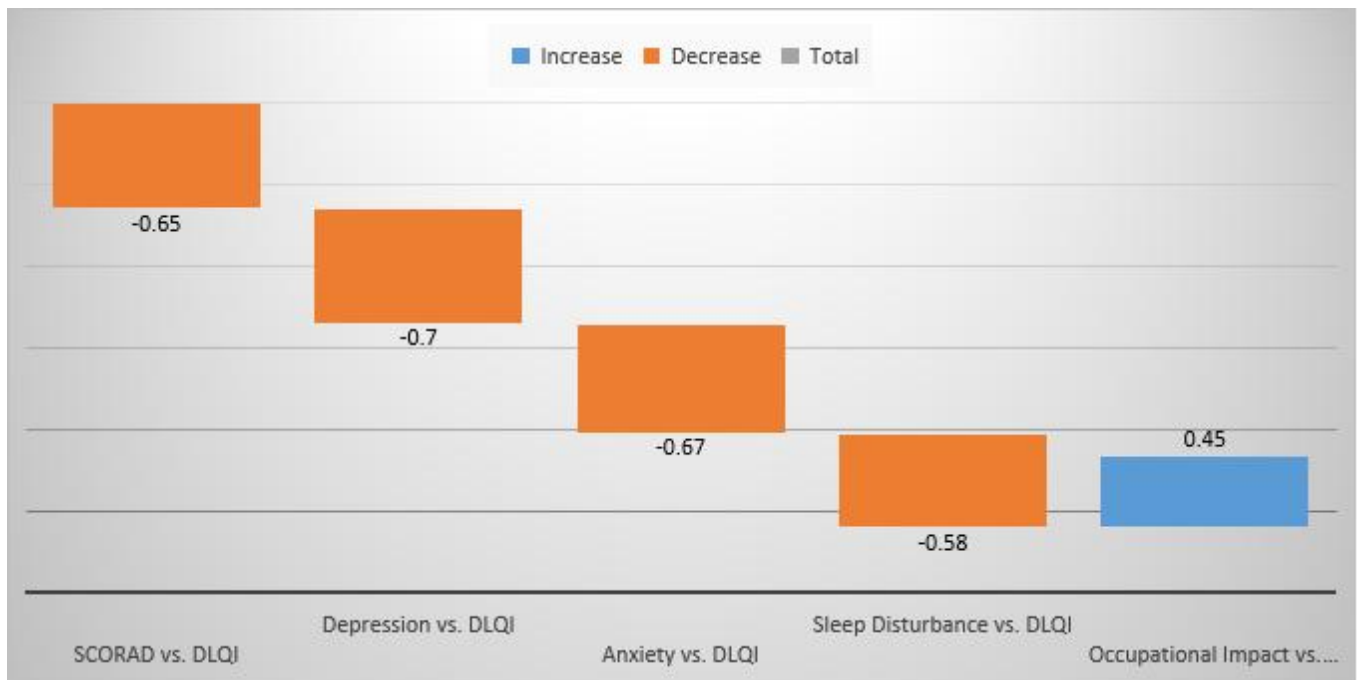


Figure 6: assessment outcomes according to Pearson Correlations between Variables

DISCUSSION

Hand eczema is a widespread skin disorder and considerably affects the quality of life of patients as well as The study's findings accentuate the deep and broad-reaching impact of hand eczema on patients' physical, emotional, and social perspectives where also A multidimensional

assessment protocol involving clinical severity, psychological, and QoL measures describes the complex interplay inherent to this disease and through results We found that many patients presented with moderate to severe hand eczema: 57.1% had SCORAD classifications demonstrating at least moderate symptoms with noteworthy

impairment in QoL, illustrated by the distribution of Dermatology Life Quality Index (DLQI) scores from the present study affirms that skin conditions mostly have different levels of impacts on the patient's quality of life, while The study found that 21.4% of participants experienced no impact on their quality of life due to their skin condition, while 35.7% experienced mild challenges in coping, 28.6% experienced moderate impact, and 14.3% experienced a significantly severe effect, with a DLQI score of 11-20 furthermore This subgroup represents those who will be largely affected by their skin condition in all the three life domains, creating a need for more clinical intervention and support to get them functioning again , shown our results Data suggests treatment preference for quality-of-life impairment severity, with highly impacted individuals requiring multidisciplinary treatment for visible signs and psychosocial consequences, and early intervention for moderate impacts as well as based on Anxiety and depression were reported among our study group, with 75% affected, with moderate-to-severe symptoms reported by 28.6% additionally This mental aspect resonates with prior findings demonstrating an association of skin diseases with varying mental health problems also accordance a systematic review found that chronic skin conditions, including eczema, are often associated with increased levels of anxiety and depression due to negative body image and social stigma but Moreover, our study reinforces the need for providers caring for hand eczema patients to do so in a holistic manner, combining dermatological interventions with psychological assistance, was noticed from study a strong negative correlation between SCORAD and DLQI scores, indicating worsening hand eczema and a decrease in daily living quality of life (QoL). The study also found that 72% of UK participants experienced severe QoL deprivation from eczema, with increased DLQI cores associated with more severe cases, according to logistic regression analysis established diabetes as an important risk factor for the severity of eczema (OR 2.0) , were also The finding complements that of a large cohort study, which said that most comorbidities, including diabetes, worsened inflammatory skin diseases then Since skin health is related to systemic diseases, it needs a multicore integrated care approach to systemically address both systemic and physical health , as well as The cohort study showed that patients with eczema have a higher frequency of co-morbidities, diabetes among them, which aggravates the severity of inflammatory

skin diseases so The cohort study showed a considerable relations between eczema and several adverse health results, including food allergies and asthma, which showed increased risk by adjusting hazard ratios for these conditions in individuals with eczema (Amerio, P. *et al.*, 2024) therefore with Psychological burdens along with clinical symptoms should pay more attention to such case management while Insights from future studies should lean towards longitudinal studies that would unravel the causal relationships existing between clinic severity, psychological factors, and QoL, thus leading to better and more targeted interventions.

Shown outcomes Holistic approaches are crucial for improving hand eczema patients' wellness by considering both physical and psychological aspects where also 75% of patients experienced anxiety or depression, indicating an increased risk of psychological comorbidity in chronic skin conditions like hand eczema Such confluence of data attests to the fact that emotional burden with skin disorders is a general feature noted across various studies, whereas UK study shows that nearly 80 % of eczema patients suffer from psychological distress; this distress is directly linking to their skin condition, and emotional burden-that is the common thread running through various studies , next Our findings substantiate this by quantifying the anxiety and depression prevalence in our results (Penzer-Hick, R. *et al.*, 2021) with this consistency adds strength to the arguments for including mental health support in the management of hand eczema to promote holistic care for instance this study has implicated diabetes as a major risk factor influencing hand eczema severity, with an odds ratio of 2.0 and This, together with previous research, proves that comorbidities worsen inflammatory skin diseases, as seen with a cohort of participants in a large-scale analysis that portrayed a similar association between diabetes and increased eczema severity (Halvorsen, J. A. *et al.*, 2014).

CONCLUSION

In order to improve treatment and patient outcomes, the study highlights the impact of hand eczema on quality of life and the necessity of management integration with dermatological and psychological therapies, especially for diabetes.

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