# Alexithymia prevalence among patients with chronic dermatological diseases in a tertiary hospital, Saudi Arabia

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Adv Dermatol Allergol 2023; XL (5): 684–687 DOI: https://doi.org/10.5114/ada.2023.129944

#### Abstract

**Introduction:** Alexithymia is a psychological condition characterized by difficulty in identifying and expressing one's emotions, and it has been associated with several physical and mental health disorders.

**Aim:** To determine the prevalence of alexithymia among patients with a range of chronic dermatological diseases in a Saudi public hospital.

Material and methods: 477 patients who were over 14 years old and affected by one of the following chronic skin conditions: psoriasis, atopic dermatitis, acne, alopecia areata, vitiligo, hidradenitis suppurativa, pemphigus vulgaris, chronic urticaria were included in this study. Alexithymia was assessed in these patients by using the Toronto Alexithymia Scale (TAS) which is a widely used, reliable and valid measure of this construct.

Results: Prevalence of alexithymia among chronic dermatological disease patients ranges from 14.8% to 71.4%, with an overall occurrence of 43%. The highest prevalence of alexithymia was found in hidradenitis suppurativa (71.4%) and the lowest in acne (14.8%). Overall, the alexithymia cases were predominantly male (51.7%). The distribution of male and female cases with alexithymia varied among patients with different types of chronic skin diseases, with the highest male prevalence in psoriasis (58.7%) and the highest female prevalence in pemphigus vulgaris (66.7%). Conclusions: Alexithymia is prevalent among patients with chronic dermatological diseases and dermatologists' awareness of how to identify and address alexithymia among their patients can play a vital role in improving treatment adherence and outcomes.

Key words: alexithymia, chronic dermatological diseases, Toronto Alexithymia Scale (TAS).

## Introduction

Alexithymia is a psychological condition characterized by an individual's difficulty in understanding and expressing their emotions, as well as differentiating feelings from physical sensations of emotional arousal [1]. The prevalence of alexithymia is 9–17% for men and 5–10% for women in the general population [2]. Patients with physical illnesses have a higher prevalence of alexithymia, reaching up to 63% [3].

Alexithymia has been linked to changes in sympathetic activity, immunity, and brain activity [4]. It has also been associated with poorer outcomes and higher levels of psychosocial comorbidities [3]. Moreover, Alexithymia has been connected with insecure parental attachment and negative childhood experiences [4]. Due to its association with several medical and psychiatric disorders, researchers have become increasingly interested in studying the impact of alexithymia in dermatology [4].

Though research on alexithymia in the field of dermatology is limited and has produced inconsistent results, some preliminary studies suggest a potential connection between alexithymia and skin conditions such as alopecia areata, psoriasis, atopic dermatitis, vitiligo, and chronic spontaneous urticaria [4].

# Aim

The purpose of this study was to determine how common alexithymia is among patients with chronic dermatological diseases in a Saudi public hospital and to address this issue during dermatological consultations in order to improve patient care and reduce the disease burden.

#### Material and methods

The present study involved a sample of 477 patients who visited the dermatology department at King Khalid

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Received: 30.04.2023, accepted: 29.06.2023.

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Hospital, Najran in Saudi Arabia. The inclusion criteria for this study were patients who were over 14 years old and affected by one of the following chronic skin conditions: psoriasis, atopic dermatitis, acne, alopecia areata, vitiligo, hidradenitis suppurativa, pemphigus vulgaris, chronic spontaneous urticaria. The study was conducted between January 2021 and January 2022, and written informed consent was obtained from all participants before participating in the study.

To assess alexithymia in these patients, all participants completed the Toronto Alexithymia Scale (TAS) [5, 6] in its English version with the assistance of trained medical staff. The TAS is a widely used psychometric to assess alexithymia and has been found to be a reliable and valid measure of this construct [6, 7]. The TAS consists of 20 items, each rated on a 5-point Likert scale, which assesses three sub-dimensions of alexithymia: difficulty in identifying feelings, difficulty in describing feelings, and external orientation (a tendency to focus on the external world rather than on one's own emotions and feelings).

The completion of the TAS took place in a private and secure room to ensure privacy. The privacy and confidentiality of patients' data were maintained throughout the study. Ethical and administrative approvals were obtained from the appropriate authorities to conduct the study.

# Ethical approval

IRB approval was received No. 443-42-42810 on 9 December 2020, Scientific Research Ethical Committee, King Khalid Hospital, Najran, Saudi Arabia.

# Results

In the present study, the overall occurrence of alexithymia was 43.0% among 477 patients with chronic dermatological diseases. Table 1 illustrates the occurrence of alexithymia in patients with different types of chronic dermatological diseases. Among the 8 types of chronic

dermatological diseases, the highest occurrence of alexithymia was found in hidradenitis suppurativa (71.4%) and the lowest in acne (14.8%). However, 37.5% of the 120 patients with atopic dermatitis had alexithymia, while 47.4% of the 97 patients with psoriasis were diagnosed with alexithymia (Table 1).

Table 2 shows the background characteristics of 205 alexithymia cases among patients with chronic dermatological diseases. The alexithymia cases were predominantly male (51.7%). The mean age of male cases was 39.4  $\pm$ 7.8 years, while that of female cases was 41.2  $\pm$ 6.9 years. Of 205 cases, the majority were married (45.4%) and had 9–12 years of education (36.6%). Moreover, 19.5% reported poor economic status, and 21.5% had over 9 years of disease duration.

Table 3 presents the gender distribution of cases diagnosed with alexithymia (n=205) by different types of chronic dermatological diseases. The distribution of male and female cases with alexithymia varied among patients with different types of chronic dermatological diseases. Male alexithymia cases were predominant in patients with psoriasis (58.7%), atopic dermatitis (57.8%), and vitiligo (53.5%), while female alexithymia cases were higher in patients with pemphigus vulgaris (66.7%), acne (62.5%), hidradenitis suppurativa (60%), alopecia areata (58.3%), and chronic idiopathic urticaria (55%).

## Discussion

The results of the present study are consistent with several previous studies in terms of the prevalence of alexithymia in patients with certain types of chronic dermatological diseases, including atopic dermatitis [8, 9], psoriasis [10–12], vitiligo [13], chronic spontaneous urticaria [14], acne [15], alopecia areata [16, 17], and hidradenitis suppurativa [18]. The present study suggests that patients with chronic dermatological diseases attending the dermatology outpatient clinic were suffering from alexithymia, ranging from 14.8% to 71.4%, with an overall prevalence

**Table 1.** Alexithymia among patients with different types of chronic dermatological diseases, King Khalid Hospital, Saudi Arabia

Types of chronic dermatological diseases	Number (%)	Alexithymia	
		Yes (%)	No (%)
Atopic dermatitis	120 (100)	45 (37.5)	75 (62.5)
Psoriasis	97 (100)	46 (47.4)	51 (52.6)
Vitiligo	91 (100)	43 (47.3)	48 (52.7)
Chronic spontaneous urticaria	76 (100)	40 (52.6)	36 (47.4)
Acne	54 (100)	8 (14.8)	46 (85.2)
Alopecia areata	23 (100)	12 (52.2)	11 (47.8)
Pemphigus vulgaris	9 (100)	6 (66.7)	3 (33.3)
Hidradenitis suppurativa	7 (100)	5 (71.4)	2 (28.6)
Total	477 (100)	205 (43.0)	272 (57.0)

**Table 2.** Background characteristics of alexithymia cases among patients with chronic dermatological diseases, King Khalid Hospital, Saudi Arabia

Background characteristics	Category	Number (%)
Gender	Male	106 (51.7)
	Female	99 (48.3)
Marital status	Single	59 (28.8)
	Married	93 (45.4)
	Divorced	42 (20.4)
	Widow	11 (5.4)
Level of education [years]	< 6	28 (13.6)
	6–9	46 (22.4)
•	9–12	75 (36.6)
•	> 12	56 (27.4)
Economic status	Poor	40 (19.5)
	Average	53 (25.8)
•	Good	68 (33.2)
	Very good	44 (21.5)
Disease duration [years]	< 1	28 (13.6)
	1–3	75 (36.6)
•	3–9	58 (28.3)
•	> 9	44 (21.5)
Total		205 (100)

of 43%. This finding is comparable to a range of earlier study reports showing a similar prevalence of alexithymia in patients with alopecia areata (up to 46.7%) [16, 17, 19], acne (up to 54.9%) [15], hidradenitis suppurativa (up to 61.6%) [18], vitiligo (up to 65.4%) [13], atopic dermatitis (up to 66.7%) [8, 9], psoriasis (up to 67.7%) [9–12, 20], and chronic spontaneous urticaria (up to 76.4%) [14].

It is obvious that alexithymia is more common among patients with chronic dermatological diseases than in the

general population. This may be due to the chronic nature of the skin conditions, which can cause substantial stress and anxiety. Additionally, the physical symptoms of the diseases, such as itching, burning, and pain, can interfere with a person's ability to process emotions. Hence, alexithymia can negatively impact the quality of life of patients with chronic dermatological diseases.

The current study presents the gender distribution of alexithymia cases among patients with different types of skin diseases, with male cases being predominant in patients with psoriasis, atopic dermatitis, and vitiligo, and female cases being higher in patients with pemphigus vulgaris, acne, hidradenitis suppurativa, alopecia areata, and chronic spontaneous urticaria. Similar to the present study results, the gender of the patients was found to influence the prevalence of alexithymia in patients with chronic spontaneous urticaria [14] and hidradenitis suppurativa [18, 21], with a higher occurrence in female patients than that in male patients. In contrast, the gender of the patients was not found to be associated with alexithymia in patients with alopecia areata [16, 19] and acne [15]. Another study with a clinical sample of 250 patients reported a positive association between alexithymia and the female sex among patients with psoriasis [20], which is also not in agreement with the results of the present study.

However, the present study did not explore the influence of other socio-demographic factors such as age, marital status, education level, economic status, and disease duration in the occurrence of alexithymia among patients with different types of chronic dermatological diseases. The prevalence of alexithymia among patients with psoriasis was not influenced by age, geographic location, and disease duration, as reported in earlier studies [10–12, 20, 22]. Similarly, a case-control study found that there was no association between alexithymia and age, gender, education level, income, disease severity or duration in patients with acne [15].

**Table 3.** Gender distribution of alexithymia cases by different types of chronic dermatological diseases, King Khalid Hospital, Saudi Arabia

Types of chronic dermatological diseases	Cases diagnosed with alexithymia		
	Male (%)	Female (%)	Total (%)
Atopic dermatitis	26 (57.8)	19 (42.2)	45 (100)
Psoriasis	27 (58.7)	19 (41.3)	46 (100)
Vitiligo	23 (53.5)	20 (46.5)	43 (100)
Chronic spontaneous urticaria	18 (45.0)	22 (55.0)	40 (100)
Acne	3 (37.5)	5 (62.5)	8 (100)
Alopecia areata	5 (41.7)	7 (58.3)	12 (100)
Pemphigus vulgaris	2 (33.3)	4 (66.7)	6 (100)
Hidradenitis suppurativa	2 (40.0)	3 (60.0)	5 (100)
Total	106 (51.7)	99 (48.3)	205 (100)

Because this study was conducted in a local public hospital in Saudi Arabia, the results may not be considered representative of the general population across the country. The study only included eight types of chronic dermatological diseases, and the results may not generalize to patients with other types of skin conditions. The present study mainly considered the gender of the patients. Other demographic factors such as race, ethnicity, and cultural background could have some impact on the results. The current study was a cross-sectional in nature, which only provided a snapshot of the data at a specific point in time. The results may not reflect the true trajectory of alexithymia in chronic dermatological diseases over time or its causes.

Based on the findings of the present study, it can be recommended that future researches should focus on understanding the underlying mechanisms linking alexithymia to chronic dermatological diseases. This could lead to the development of effective interventions and treatments for patients with chronic dermatological diseases who also suffer from alexithymia. Furthermore, more diverse studies could be conducted to explore the potential impact of socio-demographic factors on the prevalence of alexithymia among patients with chronic dermatological diseases. This would allow for a more comprehensive understanding of the prevalence of alexithymia among patients with chronic dermatological diseases, and how it may vary among different types of dermatological diseases. This would also help to determine if alexithymia is a risk factor for certain types of chronic dermatological diseases. Overall, the findings of these studies highlight the importance of addressing the mental health of patients with chronic dermatological diseases and the potential benefits of developing interventions aimed at improving their emotional well-being.

## **Conclusions**

Our study concluded that alexithymia is prevalent in the Saudi Arabian context among patients with chronic dermatological diseases. So, it is very important to be considered when treating patients with chronic dermatological diseases. Dermatologists' awareness of how to identify and alexithymia among their patients can play a vital role in improving treatment adherence and outcomes.

## Acknowledgments

To the head of the department who facilitated the conduction of this study.

### Conflict of interest

The author declares no conflict of interest.

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