

The Prevalence of Vitiligo and its Impact on the Quality of Life of Iraqi Patients

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Abstract: Background: Vitiligo is a skin pigmentation disorder characterised by areas of depigmentation, leaving patients with white patches. **Aim:** This aim of this study is to characterize clinical outcomes and assessed the quality of life related to women patients with vitiligo. **Patients and methods** During the study period, which began on 12 March 2022 and lasted until 26 September 2023, eighty female patients with vitiligo were recruited from the different hospitals in Iraq dermatology outpatient clinics. We also used the DLQI scale to measure the impact of skin conditions on patients' lives and the Beck scale to measure depression levels. **Results** The study analyzed the demographic and clinical data of women patients with vitiligo, a skin condition affecting the skin and hair. The highest prevalence was found in women aged 25-30 years, with 50% of cases. The most common symptoms included depigmented skin, premature graying of hair, loss of color in mucous membranes, changes in retina color, and social and psychological impact. The affected body parts included the head and face in 60% of cases, hands and feet in 44 cases, and the entire body in 40 cases. The disease duration varied, with 5% having a duration of less than one year, 16% between two and four years, 12% between four and eight years, and 8% between eight and twelve years. The study also identified different patterns of progression in the disease, with patients demonstrating improvement in 7.8 ± 8.4, those with no change in disease status, those with slow progression, and those with rapid progression. **Conclusion** Our study showed that vitiligo had a negative impact on female patients in terms of physical and psychological aspects, which reduced their quality of life.

Keywords: Vitiligo; QoL scale; Risk factors; Complications; Disease progression; and Beck scale.

INTRODUCTION

Vitiligo is a common depigmentation disorder. It appears as well-defined white patches of different shapes and sizes on the skin. It affects people of all ages, although it usually starts in childhood [Olasode, O. A, 2007]. Vitiligo is estimated to affect between 0.06 and 2.28% of the world's population. It also affects 2.5% of the Saudi population and accounts for 5-7% of skin disorders seen in hospitals [Silverberg, N. B, 2015; Lilly, E. *et al.*, 2013].

Although the underlying process of vitiligo has been associated with genetic, immunologic, metabolic, and neurologic disorders, its exact nature remains unknown [Papadopoulos, L. *et al.*, 1998]. Psychological stress may still act as a potential trigger for the onset of the disease in susceptible individuals [Salzer, B. A. *et al.*, 1995]. Whereas in other chronic skin ailments, like vitiligo, these can be affected at several levels, including life quality and psychological situation [Parsad, D. *et al.*, 2003]. Vitiligo has a negative impact on quality of life, particularly for young people, women, and people who have lesions on parts of the body that are easily visible [Kent, G. *et al.*, 1996]. As a condition that affects physical

appearance, vitiligo can lower a person's self-esteem and cause depression and anxiety in about half of those affected [Picardi, A. *et al.*, 2000]. These symptoms appear to be due to low self-esteem, distorted body image, and social exclusion [Mattoo, S. K. *et al.*, 2001; Finlay, A. Y. *et al.*, 1994]. Psychosocial effects may lead to non-adherence to treatment, resulting in small improvements and, therefore, more psychosocial effects [Müller, M. J. *et al.*, 2003].

As the onset of vitiligo could lead to feelings of discrimination and fear of offensive comments about their beauty, many, including personality changes or low self-esteem, have been reported in individuals [Karia, S. *et al.*, 2015]. About half of the people with vitiligo develop it before the age of 20, and studies have shown the negative impact this disfiguring condition has on the quality of life of young girls who suffer from it [Saleki, M. *et al.*, 2015 -Aradhya, S. S. *et al.*, 2015]. It affects approximately 1% of the world's population regardless of ethnicity or race [Chan, M. F. *et al.*, 2012]. The lesions usually appear during adolescence or even childhood, with the highest incidence between the ages of 10 and 30, although

they can occur at any time in life [Ramakrishna, P. *et al.*, 2014]. Women tend to seek medical attention more often, mainly because of the cosmetic implications. It has been observed that about 20% of patients with vitiligo have had a family member with vitiligo [Mechri, A. *et al.*, 2006].

In addition, families whose members do not show signs of developing vitiligo-like skin patches are statistically 7 to 10 times more likely to develop vitiligo than other individuals in society [Mattoo, S. *et al.*, 2002]. The quality of life of a person infected with vitiligo can dramatically change depending on the part of the body affected, especially on the face, neck, head, hand, trunk, genitals, and legs, according to the DLQI score [Chan, M. F. *et al.*, 2012]. Moreover, one research in the United Kingdom claimed that 58 percent realized that wounds around the genital organs (non-exposed areas) produce a negative impact [Kota, R. S. *et al.*, 2019].

PATIENTS AND METHODS

Setting

Between 12 March 2022 and lasted until 26 September 2023, we studied 80 female patients suffering from vitiligo. This was a comprehensive survey covering all the clinical and demographic information that affected them and was carried out among those who visited the derma outpatient department.

Design and Population

During the 2022–2023 period, we took note of the clinical and diagnostic information of ladies with only vitiligo who participated in this investigation, excluding patients within the age range of 15–30 years, patients with severe medical conditions, and those who had ever suffered from mental problems before they were discovered to be suffering from this type of skin disease.

Data Collection and Recruitment

A questionnaire was conducted that involved collecting assessments to determine the rate of depression using the Beck Depression Inventory (BDI) as a means of assessing depression levels in female patients post-diagnosis. The questionnaire involved 13 symptoms such as feelings of sadness, despair, worthlessness, dissatisfaction, self-reproach, self-hatred, suicidal thoughts or attempts, social withdrawal, indecisiveness, self-changing, work difficulty, fatigue, and change in appetite, scoring between (0–39), which was later classified as normal (0–4), mild (5–7), moderate (8–15), or severe (16 or more). In addition, a Dermatology Life Quality of Life Instrumentation (DLQI) questionnaire was administered to ascertain the impact of skin disorders on the patient's quality of life. The questionnaire comprises ten items addressing a range of topics, including symptoms and feelings, daily activities, leisure, work and school, interpersonal relationships, and treatment. The DLQI scale ranges from 0 to 30, with higher scores indicating that skin conditions have a greater impact on quality of life. A score of 0-1 indicates no effect, 2-5 indicates little effect, 6-10 indicates a significant effect, 11-20 indicates a very large effect, and 21-30 indicates tremendous influence.

STATISTICAL ANALYSIS

Categorical variables were represented as frequencies and percentages. Continuous variables were shown in averages as well as standard deviations (SD). The presence and severity of depression were compared using the Chi-squared test or Fisher's exact test, as applicable, based on demographic and clinical data. All p-values were considered two-tailed. A p-value of less than 0.05 was considered statistically significant. All statistical analyses were performed using the SPSS program, Version 25.0.

RESULTS

Table 1: Identify clinical and demographic characteristics associated with women patients

Characteristics	Number of patients [80]	Percentage [%]
Age		
15 – 19	12	15%
20 – 24	28	35%
25 – 30	40	50%
BMI, Kg/m2		
Underweight	11	13.75%
Normal weight	17	21.25%
Overweight	32	40%
Obesity	20	25%

Comorbidities		
Yes	52	65%
No	28	35%
Hypertension	41	51.25%
Diabetes	15	18.75%
Obesity	47	58.75%
Thyroid disorders	14	17.5%
Rheumatoid arthritis	4	5%
HIV	11	13.75%
Kidney diseases	6	7.5%
Anxiety	30	37.5%
Depression	50	62.5%
Symptoms		
Patches of depigmented skin	18	22.5%
Premature graying of the hair on the affected areas	12	15%
Loss of color in the mucous membranes	6	7.5%
Changes in the color of the retina in the eye	9	11.25%
Social and psychological impact	35	43.75%
Family history		
Yes	24	30%
No	56	70%
Previous surgeries		
Yes	8	10%
No	72	90%
ASA, %		
I	9	11.25%
II	10	12.5%
III	27	33.75%
IV	34	42.5%
Smoking status		
Yes	4	5%
No	76	95%
Education status		
Not in the school	2	2.5%
Primary	4	5%
Secondary	8	10%
University/college	66	82.5%

Table 2: The distribution of affected body parts and depigmented areas, disease duration, and types of vitiligo using the Vitiligo Area Scoring Index (VASI) in a cohort of young patients with vitiligo

Parameters	Number of patients [90]	Percentage [%]
Affected body parts		
Head and face	48	60%
Hands and feet	44	55%
Generalized	40	50%
Depigmented areas		
Mild, (0 – 25)	12	15%
Moderate, (25 – 50)	24	30%
Severe, (> 50)	44	55%
Disease duration		
Less than one year	8	10%
One year to 2	44	55%
2 to 4 years	16	20%

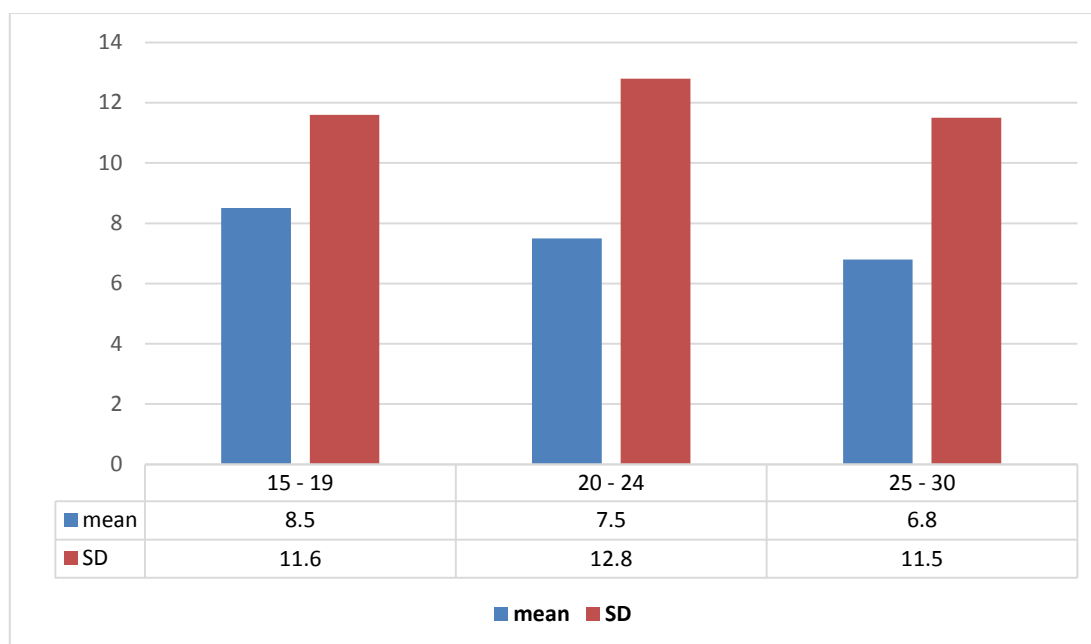
Higher than four years	12	15%
Types of vitiligo		
Mucosal vitiligo	4	5%
Nonsegmental	60	75%
Segmental vitiligo	16	20%

Table 3: Complications associated with Vitiligo in young patients

Complications	Number of patients [90]	Percentage [%]
Psychological distress	4	5%
Social stigma	5	6.25%
Sunburn and skin cancer risk	11	13.75%
Ocular complications	8	10%
Autoimmune disorders	12	15%
Total	40	50%

Table 4: The quality of life from Vitiligo to patient's quality of life is assessed through (the DLQI) Dermatology Quality of Life Index, which measures skin disorders' impact on patients

Items	Number of patients [80]	Percentage [%]
No impact (0 - 1)	4	5%
Little effect (2 - 5)	8	10%
Considerable effect (6 - 10)	16	20%
Very significant effect (11 - 20)	24	30%
Exceptionally huge effect (21 - 30)	28	35%

**Figure 1:** Assessment outcomes of skin phototype of women patients according to age using the Fitzpatrick scale**Table 5:** Assessment of the level of psychological aspect effect on women patients

Items	Mean	SD
Self-conscious	51.3	9.3
Anxious	45.4	8.6
Depressed	56.7	7.4
Angry	61.8	5.8
Embarrassed	63.7	8.6
Frustrated	44.4	7.6

Table 6: Determining the aspects of disease progression for patients with vitiligo

Disease progression	Mean	SD
Improving	7.8	8.4
No change	8.5	6.2
Slowly progressive	9.7	10.4
Rapidly progressive	6.5	7.1

Table 7: Identification of risk factors affected on young patients with Vitiligo

Risk factors	OR	CI 95%
Sex [female]	3.2	0.8 – 7.9
Family history	2.7	0.3 – 5.6
Autoimmune disorders	1.4	0.7 – 1.9
Patches of depigmented skin	2.2	1.8 – 3.5
Response to previous treatments	3.0	2.7 – 9.4
Sunburn and skin cancer risk	5.4	2.6 – 12.3
Disease duration from 1 year to 2 years	3.7	2.4 – 5.7
Psychological distress	5.8	3.1 – 9.4
Head and face	4.6	2.2 – 7.4
Premature graying of the hair on the affected areas	7.6	2.5 – 9.7
Anxiety	1.3	0.4 – 4.5
Depression	0.8	0.3 – 5.2

DISCUSSION

The study enrolled demographic and clinical data of women patients. The age group with the highest prevalence was 25–30 years, with 50% of cases. The BMI (kg/m²) of the patients was as follows: underweight (11 cases), normal weight (17 cases), overweight (32 cases), and obese (20 cases). The rate of patients with comorbidities was 52 cases. The most prevalent diseases were hypertension (4 cases) and anxiety (30 cases). The most common symptoms were patches of depigmented skin (18 cases), premature graying of the hair on the affected areas (12 cases), loss of color in the mucous membranes (6 cases), changes in the color of the retina in the eye (9 cases), and social and psychological impact (35 cases). There were reported cases of 1 obesity, 47 cases of anxiety, and 50 cases of depression. Depigmented skin patches (18 cases), premature graying of the hair in these areas (12 cases), absence of color in mucous membranes (6 cases), change in color of the eye retina (9 cases), and social/psychological consequences (35 cases), were most commonly observed. The diagnosis of parts of the body affected, it was found out that the head and face have been involved in 60% of cases, while hands and feet have been involved in 44 cases, and in 40 cases, the whole body is involved. The depigmented areas were found to consist of mild cases (12 cases), moderate cases (24 cases), and severe cases (44 cases). The disease duration was found to be as follows: 5% of patients had a duration of less than one year, 16% had a duration

of between two and four years, 12% had a duration of between four and eight years, and 8% had a duration of between eight and twelve years. The classification of patients according to the type of widespread vitiligo, which included mucosal vitiligo, was 5%, non-segmental vitiligo was 75%, and segmental vitiligo was 20%.

Additionally, our findings identified the prevalence of complications in patients, including 40 cases. The most common factors were autoimmune disorders, with 12 cases, followed by sunburn and skin cancer risk, with 11 cases; ocular complications, with 8 cases; psychological distress, with 4 cases; and social stigma, with 5 cases. The assessment of quality of life in patients with vitiligo revealed that 28 cases exhibited an exceptionally large effect, 24 cases exhibited a very significant effect, 16 cases exhibited a considerable effect, 8 cases exhibited a little effect, and 4 cases exhibited no impact. The results of the evaluations indicated that the skin phototype of women patients based on age was as follows: patients aged 15 to 19 years had a mean score of 8.5 ± 11.6 , patients aged 20 to 24 years had a mean score of 7.5 ± 12.8 , and patients aged 25 to 29 years had a mean score of 6.8 ± 11.5 . Furthermore, we identified the level of psychological aspects, which included the most common factors: angry (61.8 ± 5.8), depressed (56.7 ± 7.4), embarrassed (63.7 ± 8.6), and self-conscious (51.3 ± 9.3). Furthermore, our findings indicated that the disease exhibited different patterns of progression.

The proportion of patients who demonstrated improvement was 7.8 ± 8.4 ; those with no change in disease status were 8.5 ± 6.2 ; those with a slow progression were 9.7 ± 10.4 , and those with a rapid progression were 6.5 ± 7.1 .

Last studies showed vitiligo as a dermatological condition characterised by the loss of skin pigmentation in discrete areas. It affects an estimated 1% of the global population, with women being particularly susceptible. The physical manifestations of vitiligo, including depigmented patches on the skin, can have a profound impact on a woman's self-esteem and body image. This can, in turn, lead to feelings of shame and self-doubt. [Beck, A. T. et al., 1972 – Alibrahim, O. A. et al., 2010]

A French study found that apart from having psychological implications, vitiligo is a skin condition that is faced by women and can lead to faced stigma and discrimination. Wherefore, the highly publicized beauty norms mostly highlight smooth skin, making these women feel segregated or marginalized. This may cause a lot of social harm to them. [Al Rashed, A. S. et al., 2019]

Moreover, A Spanish study indicated that women with vitiligo may have a hard time to come across appropriate makeup products to hide depigmented patches or constraints when it comes to selecting garments which can cover affected parts, which in turn makes them feel more embarrassed and disappointed. [Kostopoulou, P. et al., 2009]

Vitiligo can have a profound impact on the lives of women patients, affecting their physical appearance, emotional health, and social life. It is, therefore, crucial for women with vitiligo to have access to support systems, resources, and healthcare experts who can assist them in coping with the difficulties brought about by this skin disorder. [Ahmed, A. et al., 2018]

CONCLUSION

Iraqi women patients suffer extensively due to the impact of vitiligo on their lives because it has a lot of social stigma, discriminative practices, and psychological distress coupled with that phenotype. Vitiligo causes self-disparagements.

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