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# Academia Open



*By Universitas Muhammadiyah Sidoarjo*

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## **Moderate Knowledge and Attitudes Toward Vitiligo Among University Students in Iraq**

### *Pengetahuan dan Sikap Terhadap Vitiligo di Kalangan Mahasiswa di Irak*

**Kadhim Jawad Awad, kadhim.almadwah@uobasrah.edu.iq, (1)**

*MSc, community of Nursing Department, College of Nursing, University of Basrah, Basrah, Iraq, Iraq*

<sup>(1)</sup> Corresponding author

#### **Abstract**

**Background:** Vitiligo is a depigmenting skin condition characterized by the selective loss of melanocytes, leading to amelanotic, nonscaly, chalky-white macules with distinct borders. Despite its prevalence, public knowledge and attitudes toward vitiligo remain under-researched, particularly in educational settings. **Knowledge Gap:** There is limited research assessing the understanding and attitudes of university students toward vitiligo, particularly in Middle Eastern regions. **Aims:** This study aims to evaluate the knowledge and attitudes of students at Basrah University's Bab Al-Zubair complex regarding vitiligo, using a cross-sectional descriptive design. **Methodology:** A random sample of 300 male and female students participated, responding to a closed-ended questionnaire created from a review of relevant literature. The survey, administered in Arabic, consisted of three parts: sociodemographic characteristics, 16 questions on knowledge, and 7 questions on attitudes toward vitiligo. A three-point Likert scale was used to evaluate responses. **Results:** The majority of participants demonstrated moderate knowledge of vitiligo, with similar findings in their attitudes, as assessed using an arithmetic mean. Expert validation of the questionnaire ensured the clarity and relevance of its content. **Novelty:** This study provides the first comprehensive evaluation of university students' knowledge and attitudes toward vitiligo in Basrah, filling a significant gap in dermatological health education research in the region. **Implications:** Raising public awareness about vitiligo is crucial to improving the psychological well-being, social integration, and self-esteem of those affected by the condition. These findings highlight the need for educational interventions that can foster better understanding and reduce stigma surrounding vitiligo, particularly in academic settings.

#### **Highlights:**

Students showed moderate knowledge and attitudes toward vitiligo.  
Validated questionnaire assessed understanding and perceptions.  
Awareness crucial for social and psychological support of vitiligo sufferers.

**Keywords:** Vitiligo, Knowledge, Attitudes, University Students, Public Awareness

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## Introduction

Melanocyte death is a defining feature of vitiligo, an autoimmune disorder that causes skin depigmentation[1].1% of people worldwide are thought to be affected, irrespective of age, sex, or skin tone[2].

It is a chronic condition that mostly affects the hands and face, resulting in white patches of skin that are infrequently accompanied by additional somatic symptoms as itching[3]. The disease can strike at any age, although it usually starts in childhood or early adulthood between the ages of 10 and 30[4].

The pathogenesis is complex and poorly understood; potential causes include oxidative stress, intrinsic melanocyte abnormalities, and autoimmunity [5]. In addition, concordance in monozygotic twins has been seen, and up to 30% of patients have a good family history, suggesting that a genetic component is definitely involved [6].

A significant portion of patients cannot receive the necessary care, or the duration of treatment effectiveness is often brief. Additionally, the longer the sickness persists and the more times the patient sees their doctor, the worse their quality of life gets[7].Therefore, physically deforming looks cause major psychological issues in day-to-day living [8, 9].

Depending on the individual's health, social and professional circumstances, and psychological state, vitiligo can have widely different psychological effects. Darkly pigmented people are more likely to get vitiligo, which can have significant psychological effects on them. Particularly for people with lesions on exposed skin, these consequences might vary from minor humiliation to a significant loss of confidence and social anxiety [10, 11].

There are several myths about vitiligo that differ depending on where you live in the world. The illness is frequently misunderstood to be communicable, incurable, linked to a particular food or drink, a kind of leprosy, always inherited, and potentially fatal for skin cancer [12]

## Methods

Design of the study:

In November 2022 and May 2023, a descriptive cross-sectional study on attitudes and knowledge on Vitiligo was carried out.

3.2 Setting of the study:

The present study was conducted in In Basrah University Bab Al-Zubiar complex.

The sample of the study:

probability (stochastic sample) included Three hundred male and female students from the Bab Al-Zubair complex's institutions took part in the survey by responding to questions.The students themselves completed the questionnaire that was used to gather the samples. In order to fulfil the research objective, an Arabic translation of a questionnaire was created with the intention of evaluating students' attitudes and understanding on vitiligo.

The Study Instrument:

A Closed-end questions questionnaire was used for the purpose of data collection.

questionnaire format, was designed and constructed after reviewing related literatures, and previous studies by the researchers.

The questionnaire consist of

Three parts,the first part consists of 7 items related to Sociodemographic characteristics of the nurses and include: age ,gender ,College name, stages, marital status, residency, training course in dermatology.

second part consist of 16 questions related knowledge toward Vitiligo.

third part consist of 7 questions attitude toward Vitiligo

The Format of a typical three-level likert item, for example, could be

Sever	Medium	Poor
3	2	1



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**Table 1.**

Compute of Arithmetic mean (mean score)

1-We find the range= max value - min value

Range= 3-2=1

2-We find the length of the class= Range ÷ Number of Classes

We use three(3) point likert scale which ranged from(1) up to (3), as shown in the next.

Table 3.1 : three(3) points likert scale

Evaluation

Likert scale	Interval	difference	Evaluation
1	1-1.67	0.67	Poor
2	1.67-2.34	0.67	Medium
3	2.34-3	0.67	Sever

**Table 2.**

3.7 Validity of the questionnaire:

The instrument's capacity to collect the necessary data in unison determines its validity. In order to assess the clarity, relevance, and sufficiency of the questions designed to gauge the study's focus concepts, a panel of experts with more than five years of experience in related fields is used to determine the validity of the content of the early-stage instrument.

The instrument's validity was established by means of an expert panel. They were faculty members from College of Nursing / University of Basrah. We respectfully requested the experts' assessment and feedback on the questionnaire's substance and structure. Certain issues were changed based on the feedback and recommendations provided by the experts listed above, and the views of all experts were taken into account.

## Result and Discussion

4-1 Distribute on of the Variables Related Demographic Characters N=300

Table 4.1.1 descriptive statistics of Demographic Variables			
Percent	F	Variables Classes	Demographic Variables
48.5	146	Medical Colleges	College Name
51.2	154	Human Colleges	
99.7	300	Total	
28.6	86	First	Stages
14.0	42	Second	
24.3	73	Third	
30.6	92	Fourth	
1.7	5	Fifth	
0.7	2	Sixth	
99.7	300	total	Gender
73.8	222	Females	
25.9	78	Males	
99.7	300	Total	Age Intervals
94.7	285	18-25 years	
5.0	15	26-33 years	
99.7	300	Total	

90.4	272	Single	Marital status
9.3	28	Married	
99.7	300	Total	
57.5	173	Rural	Residency
42.2	127	Urban	
99.7	300	Total	
96.7	291	No	Training course in dermatology
3.0	9	yes	
99.7	300	Total	

**Table 3. Distribute on of the Variables Related Demographic Characters N=300**

Table (4-1) displays the percentage of students who completed the questionnaire: 48.5% are enrolled in medical schools and 51.2% are in human institutions. According to the phases, fourth-year students made up the majority of those who participated in the questionnaire. Regarding to the sex reveal the female student involvement the questionnaire were (73.8%) greater than male student (25.9 %).In terms of age, 94.7 percent of the sample fell between the 18 and 25 year age range, while just 5% fell between the 26 and 33 year age range.In reference to marital status, ninety percent of students who completed the questionnaire reported being single, and nine percent reported being married.In terms of residence, the bulk of samples lived in rural areas (57.5%) and in urban areas (42.2%).In reference to dermatological training courses, the majority of samples (99.3%) did not have any, and 3%

#### 4-2 Result of the Variables Related Knowledge Characteristics N=300 student

descriptive statistics of knowledge characteristics			
Percent	F	Variables Classes	Knowledge question
18.6%	56	Yes	1_ Vitiligo is a dangerous disease?
26.6%	78	Not sure	
54.8%	165	No	
1.00%	300	Total	
27.9%	84	Yes	2_ Vitiligo is a hereditary disease?
39.5%	119	Not sure	
32.6%	96	No	
1.00%	300	Total	
26.6%	80	No	3_ Vitiligo is a disease of the immune system?
41.9%	124	Not sure	
31.6%	95	Yes	
1.00%	300	Total	
11.3%	34	Yes	4_ Vitiligo is an infectious disease?
24.0%	70	Not sure	
64.8%	195	No	
1.00%	300	Total	
7.0%	19	No	5_ Vitiligo contagious by touching?
21.6%	65	Not sure	
71.4%	215	Yes	
1.00%	300	Total	
2.0%	6	Yes	6_ Vitiligo contagious by air transmission?
23.4%	70	Not sure	
74.8%	223	No	
1.00%	300	Total	
6.3%	19	Yes	7_ Vitiligo contagious by having a meal together?
24.3%	73	Not sure	
69.5%	207	No	
1.00%	300	Total	
14.0%	42	Yes	8_ Vitiligo contagious by sharing things?
26.2%	79	Not sure	

59.8%	178	No	9 Vitiligo is associated with a defect in the internal organs?
1.00%	300	Total	
29.2%	88	Yes	
33.8%	100	Not sure	
36.9%	111	No	
1.00%	300	Total	10 Vitiligo is associated with the habitual intake of certain foods?
29.8%	88	Yes	
33.2%	100	Not sure	
36.9%	111	No	
1.00%	300	Total	
15.3%	44	Yes	11 Vitiligo caused by lack of hygiene?
31.9%	96	Not sure	
52.8%	159	No	
1.00%	300	Total	
19.3%	58	No	
34.8%	103	Not sure	12 Vitiligo caused by unknown etiology?
45.8%	138	Yes	
1.00%	300	Total	
18.6%	56	Yes	
32.6%	96	Not sure	
48.8%	147	No	13 vitiligo is more triggered by exposure to stress?
1.00%	300	Total	
16.6%	50	No	
33.6%	101	Not sure	
49.9%	148	Yes	
1.00%	300	Total	14 Sun exposure aggravates vitiligo?
18.2%	54	No	
32.9%	98	Not sure	
48.9%	147	Yes	
1.00%	300	Total	
27.9%	84	No	16 The surgical option is available for vitiligo?
35.2%	106	Not sure	
36.9%	107	Yes	
1.00%	300	Total	

**Table 4. Result of the Variables Related Knowledge Characteristics N=300 student**

The table displayed the responses from students who participated in the questionnaire on their understanding of Vitiligo, with the majority of students answering this question. Not contagious by air transfer (74.1%) Not communicable by contact (71.4%); not communicable by eating (68.8%)(64.8%) are aware that sharing items does not make one contagious (59.1%). Of them, more than half (52.8%) believe that vitiligo is not a hazardous disease and that poor hygiene is not the cause of the condition. (49.2%) Are aware that exposure to sunlight aggravates vitiligo? Of those who know the disease's cause, 45.8% are aware it is unknown, yet 48.8% believe it is curable. (36.9%) It is not connected to the regular consumption of a particular meal. (36.9%) are aware that it has nothing to do with an internal organ malfunction. Only 31.9% of people are aware that vitiligo is not an inherited condition, whereas 36.2% are aware that surgery is an option for treating the condition. (31.6%) are aware that it is an illness.

descriptive statistics of attitude characteristics			
Percent	F	Variables Classes	Attitude question
21.3%	64	Yes	1 I would sympathize for a patient having vitiligo
17.9%	54	Not sure	
60.8%	181	No	
1.00%	300	Total	
43.5%	131	Yes	2 I would ask vitiligo

20.6%	61	Not sure	patients about their disease
35.9%	107	No	
1.00%	300	Total	
52.3%	157	No	3_ I stare patients with vitiligo?
21.9%	65	Not sure	
25.9%	77	Yes	
1.00%	300	Total	
26.9%	81	Yes	4_ I would avoid shaking hands with a vitiligo patient
23.2%	69	Not sure	
49.9%	149	No	
1.00%	300	Total	
31.7%	94	No	5_ I would eat food prepared by a vitiligo patient
33.6%	101	Not sure	
34.9%	104	Yes	
1.00%	300	Total	
12.8%	37	Yes	6_ I would marry a vitiligo patient
20.9%	63	Not sure	
66.4%	199	No	
1.00%	300	Total	
12.3%	37	Yes	7_ As an employer, I would hire a vitiligo patient?
20.9%	63	Not sure	
66.8%	199	No	
1.00%	300	Total	

**Table 5. descriptive statistics of attitude characteristics**

table shown The majority of participants (66.1%) expressed willingness to hire a patient with vitiligo as an employer; more than half (60.1%) expressed sympathy for patients with vitiligo; and more than half (52.2%) did not look at vitiligo.(35.5%) would enquire about the condition from vitiligo patients, (34.6%) would accept food made by vitiligo patients, (26.2%) would have to shake hands with vitiligo patients, and 12.3% would not be married to a vitiligo patient.

#### 4-4 Mean Score for Acknowledge Question

Acknowledge question	Mean score (M.S)	Ass.
1_ Vitiligo is a dangerous disease?	2.35	Good
2_ Vitiligo is a hereditary disease?	2.03	Medium
3_ Vitiligo is a disease of the immune system?	2.04	Medium
4_ Vitiligo is an infectious disease?	2.53	Good
5_ Vitiligo contagious by touching?	1.34	Poor
6_ Vitiligo contagious by air transmission?	1.24	Poor
7_ Vitiligo contagious by having a meal together?	2.62	Good
8_ Vitiligo contagious by sharing things?	2.44	Good
9_ Vitiligo is associated with a defect in the internal organs?	2.07	Medium
10_ Vitiligo is associated with the habitual intake of certain foods?	2.07	Medium
11_ Vitiligo caused by lack of hygiene?	2.37	Good
12_ Vitiligo caused by unknown etiology?	2.26	Medium

13_ vitiligo is more triggered by exposure to stress?	2.29	Medium
14_ Sun exposure aggravates vitiligo?	2.32	Medium
15_ There is a treatment for vitiligo?	2.30	Medium
16_ The surgical option is available for vitiligo?	2.05	Medium

**Table 6. Mean Score for Acknowledge Question**

## Discussion

The vitiligo patient is the person most exposed to bullying, and society views skin diseases in general, and vitiligo disease in particular, as a view that contains fear and anxiety about the idea of infection and lack of contact, and this is a very wrong idea.

Most skin diseases are not contagious, and the worst thing that a vitiligo patient encounters is that people are afraid to greet him.

While vitiligo is a non-communicable disease, it does not need any precautions other than protection from the sun, and it does not need any infectious precautions for those in contact with the house, not even from friends.

Discussion knowledge of the student:

In this study, 54% showed that vitiligo is a non-dangerous disease, which is almost convergent with the study conducted in India in 2021 (17,13,14), which showed 79%, also that vitiligo affects the immune system, 36%, and this percentage is not consistent with the study. conducted in India (18,15) by 85%, in contrast to the study conducted in Ethiopia, which showed 12% (22), and 45% indicated that the causes of vitiligo are unknown or unknown, and this does not correspond to the study conducted in India (16) is 86%, while the study of Ethiopia showed 32%. Treatment for vitiligo was 99% On the complete opposite with the study of Ethiopia (18), where it showed 16%, and this percentage is very low and does not correspond to our study, unlike the study of India 68%, there is a cure for vitiligo (17)...

## Conclusion

comprehensive evaluation of the information of the Vitiligo medium. The general evaluation of attitudes towards Vitiligo was deemed moderate

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