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## RESEARCH ARTICLE

### Impact of Counselling on Vitiligo Patients- An Observational Study

Dr. Mohammed Ashfaq Hussain<sup>1</sup>, Afifa Fatima<sup>2</sup>, Akefa Umme Haani<sup>2</sup>, Sadiya Nooreen<sup>2</sup>,  
Dr. Arzeena Jabeen<sup>3</sup>, Dr. Ahmed Minhajuddin<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of Pharmacy Practice, Sultan-Ul-Uloom College of Pharmacy, Hyderabad-500034, Telangana, India.

<sup>2</sup>Students, Pharm D 5<sup>th</sup> year, Sultan- Ul-Uloom College of Pharmacy, Hyderabad- 500 034, Telangana, India.

<sup>3</sup>Central Council for Research in Unani Medicine, Erragadda, Hyderabad- 500 038, Telangana, India.

#### ABSTRACT

**Objective:** To study the impact of patient counselling on vitiligo patient by analyzing the demographic information of patient, by educating the patient about the disease and by improving the quality of life of patients through counselling. **Method:** An observational and active surveillance study was conducted in the central council for research in unani medicine over a period of 6 months. The information obtained was recorded in data collection form and analyzed. **Results:** Descriptive statistical analysis has been carried out to generate the results. Results on categorical measurement are presented in number (%). **Conclusion:** This highlighted the importance of counselling on vitiligo patient by educating the patient about the disease and improving the quality of life.

**Keywords:** Vitiligo, Hypo pigmentary disease, Patient counseling, Patient education, Quality of life

#### ARTICLE INFO

##### Corresponding Author

**Afifa Fatima**

Department of Pharmacy Practice,  
Sultan-Ul-Uloom College of Pharmacy,  
Hyderabad- 500 034, Telangana, India.

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#### 1. Introduction

Vitiligo is the most common hypo pigmentary skin disorder. It is an auto immune disease which is characterized by loss of melanocytes. The body's immune system attacks its own cells or tissues. It has been

associated with concomitant occurrence of a number of other autoimmune diseases. It may occur at any age; although it is a progressive condition which many people experience years or decades without developing new spots.

The prevalence of vitiligo worldwide is 0.5 to 1% and in India it is estimated to be 0.5 to 2.5% [1]. The onset of vitiligo is manifested by the following components:

- Susceptibility of genes that manipulate the auto immune response [2].
- Genetically abnormal melanocytes.
- Environmental and physiological factors that induce oxidative stress and activate the genetic program for melanocyte destruction [3].

Melanocytes of vitiligo patient are incapable of handling oxidative stress, thus resulting in cellular damage. This damage can cause apoptosis in melanocytes sustaining in cellular fragments that may become auto immune targets and turn on an immune response against melanocytes [4]. Alternatively, oxidative stressed vitiligo melanocytes could produce self-antigens and/or cytokines to activate an autoimmune response .It has been suggested that oxidative stress may have a role in vitiligo onset, while autoimmunity contributes towards the disease progression [5]. Vitiligo is not a contagious disease and the cause is yet unknown. Although there is no health complication with this disease but it has a profound and high impact on patient’s quality of life especially among the youth [6]. The patient who exhibit early age of onset, and often face stigmatization during their personal, professional, and psychological development and, girls in particular, are subjected to exclusion from the marital point of view. Almost all patients get stressed about their condition and experience anxiety and depression which lead to low self-esteem and fear of social isolation. People with vitiligo also hesitate to work, marry or participate in social gatherings [7]. The purpose of our study is to improve the patient’s health by improving their quality of life through patient counselling and educating the patients regarding their disease and treatment.

**2. Materials and Methods**

**Study Type:** An observational study.

**Statistical Method:** spss

**Study Duration:**6 months

**Sample Size:** Estimated sample size is 122 patients.

**Study Site:**This study is carried out in inpatient and outpatient setup of dermatology department in CRIUM, Hyderabad.

**Study Criteria:**

**Inclusion Criteria:**Patients of both sexes, irrespective of age.

**Exclusion Criteria:** Other white similar looking patches like: Piebaldism, Tuberous sclerosis,Ito’s hypomelanosis, Warden burg’s syndrome, Hermanskipudlak syndrome, Menkes syndrome, Ziprkowski- Margolis syndrome, Griscellis syndrome

**Sources of Data:** Patient prescriptions, Patient case sheets Patient data collection form.

**Statistical Methods for Calculation of Knowledge Assessment:**

Descriptive statistical analysis have been carried out using MS excel spread sheet to generate graphs, tables etc., for the study. Results on continuous measurement are presented on mean standard deviation (min-max) and results on categorical measurement are presented in number (%).

**Percentage:**

$$\frac{\text{Relative number}}{\text{Whole number}} \times 100$$

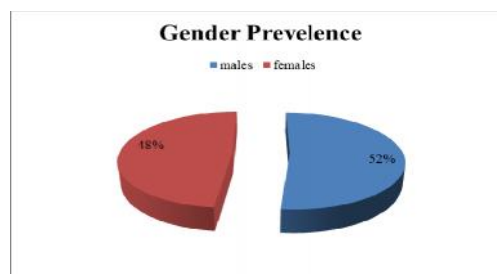
**Mean:**

$$\bar{x} = \frac{\sum x_i}{n}$$

**3. Results and discussion**

**Table 1:** Gender Prevalence

	No. of patients	Percentage
Male	63	52%
Female	59	48%

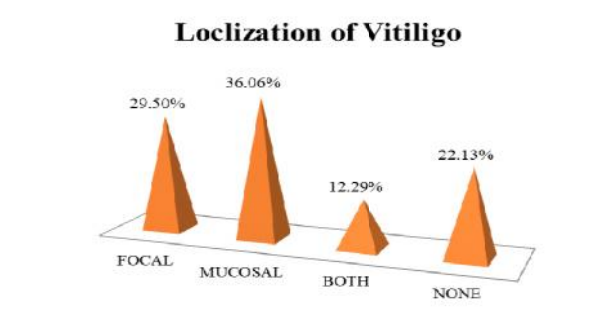


**Fig 1:**The above figure shows the gender prevalence in vitiligo

Out of 122 vitiligo patients, 48% (n=59) of patients were female and 52% (n=63) were male.

**Table 2:** Localiation of Vitiligo

Types	No. of patients	Percentage
Focal	36	29.5%
Mucosal	44	36.06%
Both (focal and mucosal)	15	12.29%
None	27	22.13%



**Fig 2:** Localization of vitiligo

About 29.5% of patients (n=36) have lesions on focal area and 36.06% patients (n=44) have lesions on mucosal area. Lesions on both focal and mucosal area were seen in 12.29% (n=15).

**Table 3:** Triggers of Vitiligo

Triggers of vitiligo	No. of patients	Percentage
Stress	39	31.96%
Pregnancy	4	3.27%
Irritant and chemicals	5	4.09%
Trauma	2	1.63%
Tobacco/ Alcohol	2	1.63%
Infection/ Illness	22	18.03%
Drugs	11	9.01%
No trigger	37	30.32%

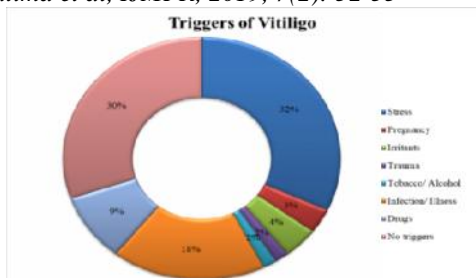


Fig 3: The above chart represents different causes of vitiligo

The above graph depicts the various triggers for vitiligo. The most common trigger was found to be stress which was seen in 31.96% of patients (n=39) and about 30% of patient were not aware of the triggers. The next major trigger was found to be Infection/ Illness (e.g. Jaundice) which was seen in 18% of patients (n=22). Pregnancy, Irritants and chemicals and Drugs was seen in 3%, 4% and 9% of the patients. Trauma and tobacco/ alcohol were seen in 2% of the patients.

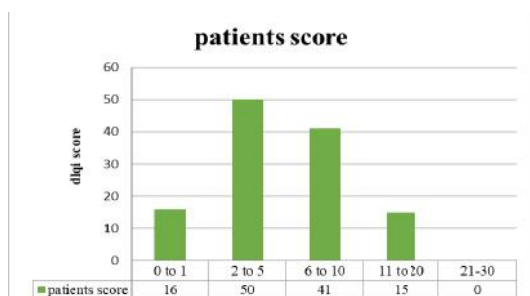


Fig 4: The above graphs shows the DLQI scores of patients obtained in first 3 months

Among 122 vitiligo patients who were counseled during the first 3 months of our study, 56 patients were followed up in the 4th month checking for their scores. 32 patients were followed up in the 5th month for the improvement of their scores. 24 patients were followed up in the 6th month.

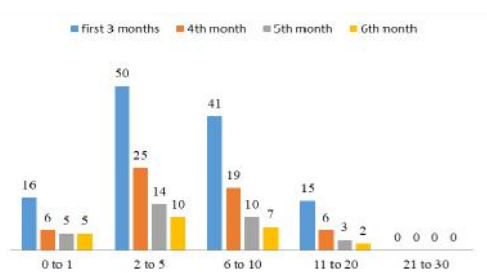


Fig 5: The above graph shows comparison of DLQI scores of patients of all 6 months

Table 4: Comparison of DLQI scores

DLQI	Scores in first 3 months	Scores of 4 <sup>th</sup> month	Scores of 5 <sup>th</sup> month	Scores of 6 <sup>th</sup> month
0-1	16	6	5	5
2-5	50	25	14	10
6-10	41	19	10	7
11-20	15	6	3	2
21-30	0	0	0	0

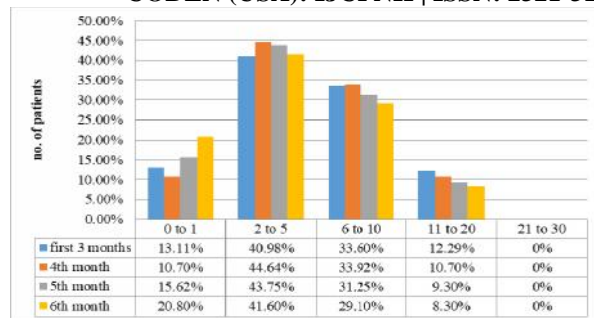


Fig 6: The above picture shows comparison of DLQI scores and improvement of scores of patients after counseling during 6 months

Among 122 patients who were counseled during the first 3 months of our study, 56 patients were followed up in the 4th month checking for their scores. In the 5th month, 32 patients turned up for the counseling. Then in the 6th month, 24 patients were counseled. The results of which are as follows:

- Out of 122 patients, follow up was done for 56 patients with scores 6 to 20 (dlqi).
- In the first 3 months, 15 patients score was from 11- 20 (dlqi) and after 6 months of counselling only 2 patients score was from 11- 20 (dlqi).
- In the first 3 months, 41 patients score was from 6- 10 (dlqi) and after 6 months of counselling only 7 patients score was from 6- 10 (dlqi).
- The counselling was done for all 122 patients. The complete follow up, counselling and improvement was seen in 24 patients.

#### 4. Conclusions

Approximately 30 years ago vitiligo was considered as a progressive disease in all patients and was exclusively treated by medical therapies. Vitiligo is a common acquired disorder occurring in about 1 % of the world population. It is presented as patchy white de pigmented lesion which gradually progresses over years. It occurs at any age but 70-80 % of the cases occur below 30 years of age. Vitiligo is an important skin disease having major impact on quality of life of patients. Many of them feel distressed and stigmatized by their condition. Society greed's vitiligo patients in much the same way as it does to anyone else to appear to be different. They are starred or subjected to whispered comments, antagonism, insult or isolation. The chronic nature of the disease, long term treatment, lack of uniform effective treatment and unpredictable course of disease is usually very demoralizing to patients suffering from vitiligo. It is important to recognize and deal with psychological components of the disease to improve their quality of life and to obtain a better treatment response. The urban population was more prone to vitiligo because of behavioral changes like food eating habits, sedentary lifestyle, environmental changes and mainly stress. In our study, thirty two percent of the patients had stress which is a triggering factor of vitiligo. Our study stresses the importance of counselling and assurance along with the treatment, which may help in reducing the disease related anxiety and stress. Bottom line, vitiligo has a profound

effect on the quality of life of patients although it is not life threatening. Improving the physician inter personnel skills with the vitiligo patients, increases patient's satisfaction and therefore may have a positive effect on adherence to the treatment protocol and thus better outcome of the treatment.

**Conflict of Interest:** There are no conflicts of interest

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