



## VARIOUS ASPECTS OF ACNE IN DIFFERENT AGE GROUPS

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**Abstract-** To study the psychosocial, etiological, dietary aspects and treatment of acne among different age groups. A cross-sectional study was conducted in which 200 female patients with acne were assessed by the help of close-ended questionnaires. Out of 200 patients, 49 were of the age group 15-20 years, 77 of the age group 21-25 years, 39 of the age group 26-30 years and 35 of the age group 31-35 years. It was observed that among people of all the age groups, majority was having acne on their face as compared to other body organs. Patients were having both the problems, i.e. excessive hair growth and menstrual disturbances, but irregular periods were most commonly seen in women. Majority of the subjects was found to be depressed by their acne problem. The women of all the age groups were concluded to eat all types of food mostly. Patients of all the age groups were using face wash and cosmetics more as compared to other products. Sun exposure was found to be the most likely factor causing acne. Creams were used by majority of the patients as the treatment of acne, specifically in the age groups of 15-20, 21-25 and 26-30 years. The half population of the age group 26-30 was also using antibiotics. Additionally, most of the women in the age group of 31-35 years were seen to use herbal products. In conclusion, acne is a common disorder among all age groups, with a low rate of moderate to severe acne. Use of certain skin care products, mental state, excessive workload, with sun exposure and certain dietary habits may affect acne severity until and unless proper treatment is carried out.

**Keywords-** survey, psychosocial, etiological, dietary, cross-sectional, acne

### Introduction

Hirsutism (excess hair growth) is a symptom of medical disorders associated with the hormones called androgens. In Polycystic ovary syndrome (PCOS) the ovaries produce excessive amounts of androgens, is the most common cause of hirsutism and may affect up to 10% women. Androgens increases sebum production and which results in oily skin, acne irregular or absent ovulation and menstruation [1].

The prevalence of acne is highest in adolescence because of psychosocial changes. In these patients depression, suicidal thoughts and low self esteem are reported. The psychosocial impact of acne is influenced by numerous factors that are age, severity of disease, social and familial networks and individual personalities. In the cases where the impact on the psychosocial health of the patient is particularly burdensome and effective treatment of acne may result in improvements in self-esteem and self-confidence [2,3]. UV Ultra-violet rays also creates free radicals which are associated with cancer and aging [4]. Psychosocial problems such as low self esteem, anxiety/depression or decrease in social relationships in patients with acne are considered to be due to disorder of self body image. [5]. AV acne vulgaris is a dermatosis that affects both the genders, different ethnicities and all age groups. It has diversified morphological characteristics according to the etiology and age of onset [6,7]. Misconceptions exist in the community regarding factors that exacerbate acne vulgaris. Important factors are stress, dietary pattern, lifestyle and personal hygiene are often erroneously claimed to be important factors [8].

One cause of the emergence of MRSA may be long-term exposure to antibiotics could create pressure on organisms such as *S. aureus*

to become resistant [9]. Research on the effects of hormones and acne continues to flourish and as mechanisms by which they exert their effects on the sebaceous gland and skin are uncovered, the potential for the development for new therapies aimed at the hormonal aspects of acne is possible [10]. Topical retinoid target the microcomedo-precursor lesion of acne. There is now consensus that topical retinoid should be used as the alone or in combination for first-line therapy in mild-to-moderate inflammatory acne and is also a preferred agent for maintenance of therapy. Its effective as it targets the abnormal follicular and inflammatory acne lesions. Their biological effects are mediated through nuclear hormone receptors (retinoic acid receptor RAR and retinoid X receptor RXR with three  $\alpha$ ,  $\beta$ , and  $\gamma$  subtypes and cytosolic binding proteins. Benzoyl peroxide has the advantage to prevent and eliminate the development of *P. acne* resistance. [11] Among herbal products, tannins have natural astringent properties and are used topically to treat acne [12].

### Methodology

In order to investigate whether these common perceptions persist among people of different age groups, a cross sectional survey was conducted. A sample of 200 female patients with either acute or chronic acne was assessed among variable communities of different age groups and evaluated for dermatological products that had been used by the patients previously, psychological problems like depression and stress, dietary intake, life style and medications used for suppressing the severity of acne, using a variety of close-ended questionnaires. All the factors associated with acne were recorded and analyzed using logistic regression.

## Discussion

The acne is most prevalent on face in people of all age groups, among them highest percentage is present in age group 21-30 years [Table-1]. The people have more acne on neck than shoulder and other parts leg, back and foot [Table-2]. The menstrual disorder is present mostly in age group of 26-30 years while the excess hair growth is also present in this age group [Table-3].

**Table 1-** No of Patient in Different Age Groups

Age group	Number of patients	Percentage of patients (%)
15-20 years	49	24.5
21-25 years	77	38.5
26-30 years	39	19.5
31-35 years	35	7.5

**Table 2-** Location of Acne Among Different Age Groups

Age group	Number of patients			
	Face	Neck	Shoulder	Other (back, leg, foot)
15-20 years	48	5	3	1
21-25 years	76	2	2	2
26-30 years	38	13	9	6
31-35 years	31	10	3	3

**Table 3-** Menstrual Disturbances Among different Age Groups

Age group	Number of patients	
	Irregular periods	Excess hair growth
15-20 years	10	10
21-25 years	35	25
26-30 years	22	15
31-35 years	11	6

**Table 4-** Patient Status About Acne Among Different Age Groups

Age group	Number of patients	
	Depressed	Undepressed
15-20 years	35	14
21-25 years	53	24
26-30 years	37	2
31-35 years	23	12

The females of specified age group are eating all types of diet [Table-5]. According to our study rich carbohydrate diet is making acne bad while proteinacious diet is helpful in controlling acne.

**Table 5-** Types of Food Intake Among Different Age Groups

Age group	Number of patients			
	Junk food	Vegetarian food	Spicy food	All types
15-20 years	2	2	5	40
21-25 years	7	5	11	54
26-30 years	15	5	9	14
31-35 years	5	2	9	25

The trend shows that face washes are being used most. While the later age group of 31-35 years uses cosmetics most [Table-6]. Whitening creams are more common in younger age groups. The sun exposure is seen to be the most prevalent factor causing acne in females. While among age group 15-20 years and 26-30 years depression is count to be second likely factor causing acne and in age group 21-25 years and 31-35 years excessive work load is the second highest factor [Table-7]. The treatment data shows that creams are mostly used because of their easy availability, use and due to effectiveness control of acne. The antibiotics use is most in 15-30 age groups. Hormonal therapy least used and is common in later age groups from 26-35. Herbal and homoeopathic treatment is

also popular among females [Table-8]. As according to our research work creams are widely used for effective control of acne. All aspects of acne in summarized way given in [Fig-2].

**Table 6-** Mostly Used Skin Products Among Different Age Groups

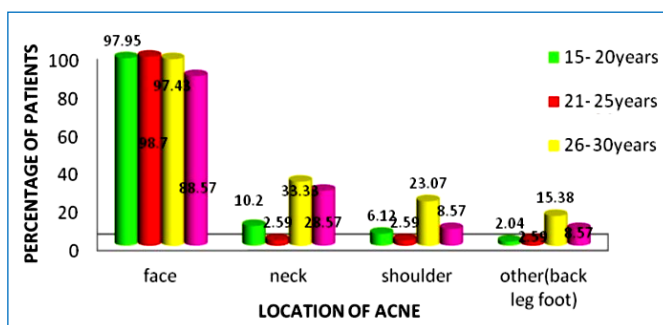
Age group	Number of patients			
	Whitening cream	Cleansing lotion	Face wash	Cosmetics
15-20 years	3	8	35	6
21-25 years	7	19	69	17
26-30 years	16	10	17	17
31-35 years	12	6	27	31

**Table 7-** Factors that Cause Acne Among Different Age Groups

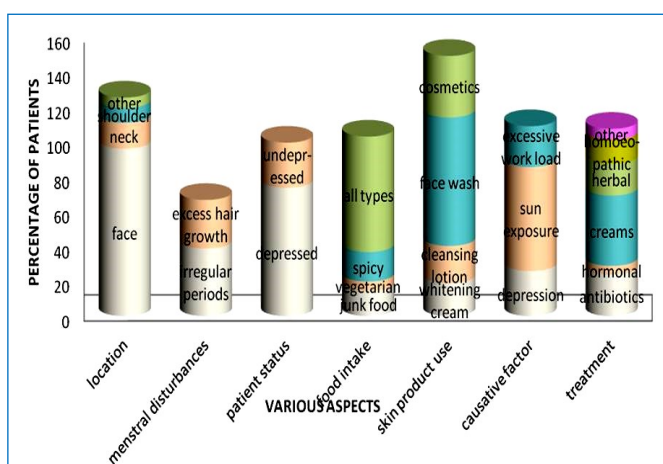
Age group	Number of patients		
	Depression	Sun exposure	Excess work load
15-20 years	9	29	6
21-25 years	15	53	20
26-30 years	16	18	7
31-35 years	12	20	14

**Table 8-** Treatment Among Different Age Groups

Age group	Number of patients					
	Antibiotics	Hormonal therapy	Creams	Herbal	Homoeopathic	Other
15-20 years	13	2	21	3	4	3
21-25 years	19	1	36	11	6	7
26-30 years	12	3	12	10	7	0
31-35 years	4	4	12	13	10	3



**Fig. 1-** Location of Acne Among Different Age Groups



**Fig. 2-** Various Aspects of Acne in Different Age Groups

## Conclusion

We conclude that the acne was the major problem among the females between 15 to 35 years due to dietary, social, maternal, physical and emotional factors.

**Conflicts of Interest:** None declared.

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