



A CROSS-SECTIONAL STUDY TO ASSESS THE PSYCHOLOGICAL IMPACT OF ACNE VULGARIS AMONG MEDICAL STUDENTS IN CHENNAI.

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ABSTRACT: -

Background: -Acne vulgaris is very common among adult group and it affects them psychologically and socially. Recently many studies substantiate the psychological impacts of acne appearance and proved its related negative emotional reaction among the patients. So its management awareness is very essential.

Aim: -To assess the psychological impact of Acne vulgaris among medical students.

Methods: -A cross-sectional study was conducted among 200 medical students in a medical college of Chennai from April 2021-July 2021.A self-administered questionnaire was given and the results were tabulated and analyzed. The data was entered in excel sheet and analyzed using SPSS software. Ethical committee clearance has been obtained.

Results: In the present study, it shows that acne was more predominant in females (62%) than males (38%).It was also seen that more than 50% of them had associated skin problems. Facial acne as a single site involvement (77%) was the most common type encountered, whereas multiple sites involvement is also seen (face, chest, lower back) in 32% of them. It was also observed that about 30% of the students were affected psychologically and mentally which lowered their self -confidence. They tend to treat the acne since 51%of them are conscious about their self and their appearance in front of others. The management of acne is done by visiting a dermatologist by about 45% and they preferred topical medications.

Conclusion:-It was observed that among the medical students who were affected with Acne one third of them suffered psychologically. Current generation of youngsters are more concerned about their physical appearance and so want to approach a dermatologist at the earliest. Health education aimed at generating awareness about early diagnosis and complete treatment of Acne and life style modifications for its prevention should be encouraged.

Keywords: Face, Treatment, Social effects

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INTRODUCTION: -

Acne Vulgaris is a long-term skin disease that occurs when hair follicles are clogged with dead skin cells and oil from the skin.^[1] It is characterized by blackheads or whiteheads, pimples, oily skin, and possible scarring.^{[2][3][4]} It mostly affects areas of the skin with a lot of number of oil glands, including the face, upper part of the chest, and back.^[5] Acne vulgaris is one of the commonest skin disorders which dermatologists have to treat, mainly affect adolescents, though it may present at any age. Acne by definition is multifactorial chronic inflammatory disease of pilosebaceous units.^[6] Acne has four main pathogenic mechanism—increased sebum productions, follicular hyper keratinization, *Propionibacterium acne (P. acne)* colonization, and the products of inflammation.^[7-10] Acne is not life threatening but severe acne can affect psychological status and social activities.^[1]

Acne vulgaris is a common skin disease with prevalence reaching up to 80% during adolescence.^[11] Major complications of acne are scarring and psychosocial distress which remain long after the active lesions have disappeared.^[12] Its onset in adolescence may add to the emotional and psychological challenges experienced during this period,^[13] and it can lead to the developmental issues of body image, socialization, and sexuality.^[14] Psychological issues such as dissatisfaction with appearance, embarrassment, self-consciousness, lack of self-confidence, and social dysfunction such as reduced/avoidance of social interactions with peers and opposite gender, reduced employment opportunities have been documented.^[15,16,17] Moreover, anxiety and depression are found to be more prevalent among acne patients than controls.^[18,19,20] Acne causes scarring and psychological effects which may cause one to avoid gatherings and group discussions among people.

Acne patients are characterized by a tremendous impairment of quality of life equal to that reported by patients with other chronic diseases such as asthma, epilepsy, diabetes, back pain or arthritis.^[21] Even in mild forms, acne has a detrimental psychological effect on patients.^[22] The way in which patients perceive their skin to be evaluated by others has implications for self-perception and may act as a barrier to participation in public sports and exercise.^[23] It is important to identify and treat the affected teenagers at an early stage in order to reduce the individual impairment of quality of life. In a study, adults who viewed digitally altered photographs of them with or without acne perceived the teenagers with acne as being shy, stressed, unhealthy, while adolescents with clear skin were perceived as being intelligent, happy, trustworthy, healthy and creative.^[24]

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When such an impact about physical appearance is seen among adolescents and young adults it is very crucial to give importance to the treatment of these skin conditions also. Several treatment options are available including topical medications (Retinoid and retinoid-like drugs, Antibiotics, Salicylic acid), Oral medications (Antibiotics, Isotretinoin and herapies (Lasers and photodynamic therapy, Chemical peel, Extraction of whiteheads and blackheads, Steroid injection). The choice of treatment depends on the mentality of the patient and the experience of the treating doctor. One more difficulty noticed commonly is non-completion of treatment and switching doctors very frequently. This in turn contributes to lowering of self -confidence. With all these implications caused due to acne this study was undertaken to assess the prevalence and also management options selected by the students and the psychological impact of it among them.



METHODOLOGY: -

It was a cross sectional study. The study was carried out in a medical college, Chennai. It was conducted during the period April 2021-July 2021. It was done among medical students both undergraduates and postgraduates from all the phases, and sample size of 200 students were recruited in the study during the prescribed study period. A purposive sampling method was used to select the study participants. A pretested structured self-administered questionnaire was used which included questions on knowledge about acne, psychological impact and management of acne vulgaris. Medical students gave consent for the study were included. The data was collected and analyzed using Microsoft excel and SPSS software. The study was approved by the institutional Ethics Committee, Sree Balaji Medical College and Hospital.

RESULTS: -

Among the study participants 62% of females and 38% of males had suffered from acne. Table 1 shows that most of them had acne for the first time in adulthood. Face was the commonest part (77.5%) of body affected. White head type being the commonest variety(53.5%) and about two fifth of the participants believed dandruff

to be the cause of Acne. Figure 1 depicts the severity of acne. Majority of them had mild to moderate severity. Figure 2 demonstrates the social effects of Acne among the students. It shows that about one fourth of the study participants had their relationship with families and friends got affected due to acne and about half of them had their self confidence affected due to acne. Figure 3 depicts the percentage of students avoiding social gatherings due to acne on likert’s scale basis. A little less than one fifth of the study participants avoided social gatherings due to Acne. Table 2 shows that about half of the participants (51.5%) underwent treatment as they were conscious about it. Nearly half of the study participants (51.5%) consulted a dermatologist for treatment of acne while 24% of them were involved in self-medication. Table 3 shows the knowledge of causes, preventive measures and newest treatment modalities for acne.

About one third of the study participants (38.5%) believed stress to the causative factor for acne. About half of the study participants (45.5%) were of the opinion that chemical peeling would be beneficial in reducing acne and about three fourth of the study participants opined that washing face frequently would help to prevent the occurrence of acne.

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Table 1: History And Characteristics Of Acne Vulgaris among medical students (n=200)

History and Characteristics	Frequency	Percentage
1st Appearance:		
Childhood	20	10
Adulthood	180	90
Part of body affected:		
Face	155	77.5
Face & Neck	17	8.5
Face & Lower back	13	6.5
All Of The Above	5	2.5



Types of Acne:		
Whitehead	107	53.5
Pustules	29	14.5
Nodules	22	11.0
Papules	15	7.5
Awareness of cause of acne		
Drug Allergy	2	1
Dandruff	80	40
Others	50	25
Not aware	68	34
Associated physical problem:		
Sleep	37	18.5
Headache	34	17
G I Problem	26	13
Skin Problem	103	51.5

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Figure 1: Severity of acne among the students

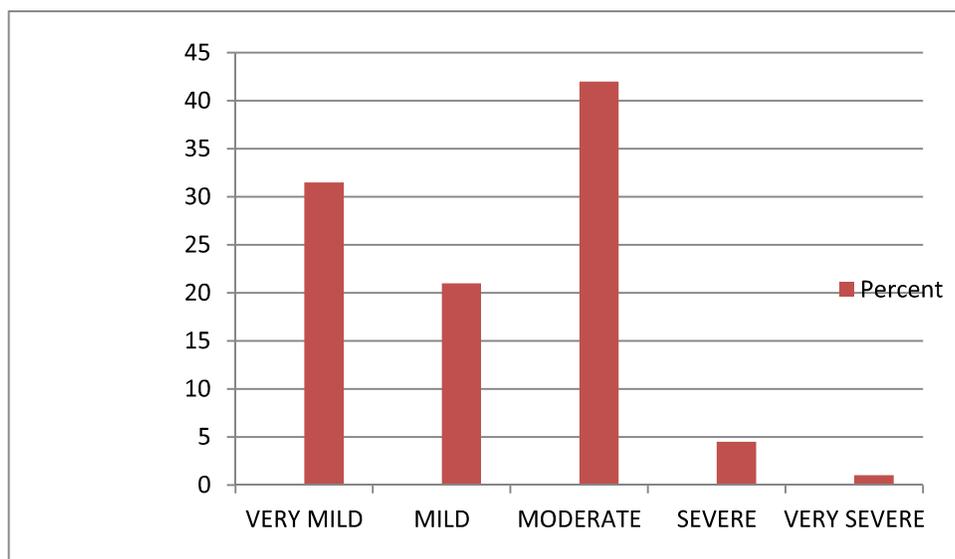
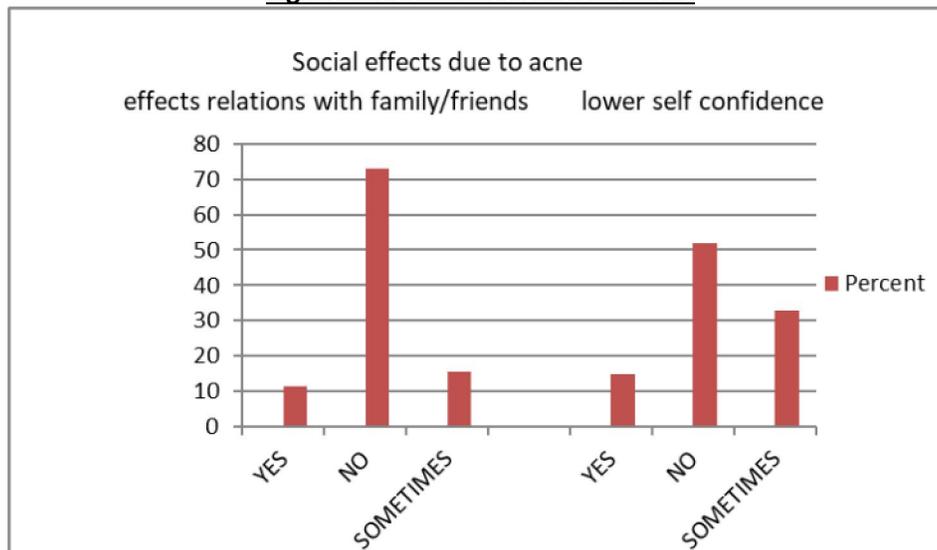


Figure 2: Social Effects Due To Acne



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Figure 3: Percentage Of Students Avoiding Functions And Gatherings Due To Acne

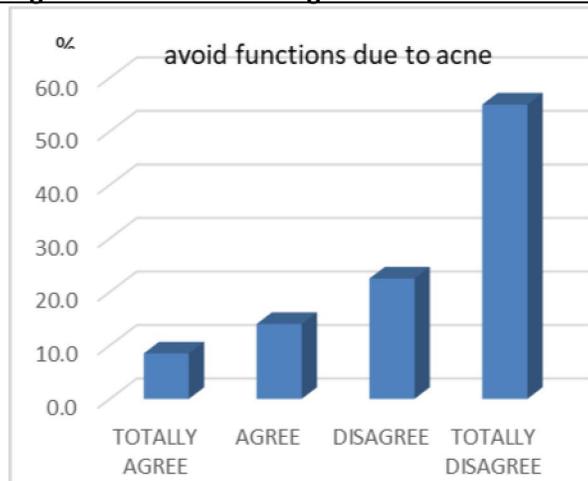


Table 2: Treatment History Of Acne Vulgaris

Questions on treatment	Frequency	Percentage
Reason For Treatment:		
Because of social stigma	7	3.5
Conscious about self	103	51.5
It disturbs your daily life	34	17
You let go of it	56	28



Measures of Treatment:		
Visit a Dermatologist	91	45.5
Self-Medication	48	24
Ask friends/ Family	22	11
None	39	19.5
Mode of Treatment:		
Topical	122	61
Oral	26	13
Other Medication	6	3
None	46	23
Continue in spite of Side Effects		
Yes	56	28
No	95	47.5
once it Subsides	49	24.5

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Table 3: Awareness Of Causes, Novel Treatment Modalities And Prevention Of Acne

Reason For Worsening Acne:	Number	%
Certain Food in any Diet	72	36
Computer Use	4	2
Stress/Worry	77	38.5
Carbonated Beverages	7	3.5
All of the Above	40	20
Latest Treatment of Acne:		
Chemical peels	91	45.5
Light/ laser Devices	48	24
Minor Subcisions	22	11
All of the Above	39	19.5
None		
Daily Activities for Prevention of Acne:		
	143	71.5
Washing Your Face Frequently	13	6.5
Using creams	44	22.0
Cut Down On Junk		



DISCUSSION: -

Acne vulgaris, is a long-term skin disease that occurs when hair follicles are clogged with dead skin cells and oil from the skin. Its prevalence among adolescents is seen majorly. It affects them psychologically and its management is important. Hence the present study was conducted to assess the prevalence, psychological impact and management of acne vulgaris among medical students in Chennai, Tamil Nadu.

The present study showed that, Facial acne as a single site involvement (77%) was the most common type encountered. It was also observed that about 30% of the students are affected psychologically and mentally which lowers their self-confidence. They tend to treat the acne since 51% of them are conscious about their self and their appearance in front of others. The management of acne is done by visiting a dermatologist by about 45% and prefer topical medications.

In a study article Hazarika N et al^[25], it showed that among a study population of 100 patients, females predominated with 56% cases similar to our study where 62% of females were affected. Facial acne as single site involvement was the most common (60%) type encountered, found to be 77% in our study. Grade II acne with 70% patients was the most common clinical type found. In our study also majority of them were in mild to moderate severity. Thirty-seven percent patients were interpreted as moderate effect on patient's life, whereas 29% patients interpreted as very severe effect on their life. In our study 30% of students were affected.

In another study by Adams^[26], 26 adolescents had psychological effects with considerable amount of acne. Psychological sequelae were attributed to the effects of facial acne on appearance.

CONCLUSION: -

It was observed that among the medical

students who were affected with Acne one third of them suffered psychologically. Current generation of youngsters are more concerned about their physical appearance. Significant impact of acne and its effects was noted on emotions, daily activities, social activities, study/work, and interpersonal relationships. Assurance and counseling along with early treatment of acne vulgaris is important to reduce disease-related psychosocial sequelae and increase the efficacy of treatment.

Parents and patients should be adequately educated about the treatment modalities of acne, which takes care of poor adherence to therapy which is a barrier to successful acne treatment. Healthcare professional has to consider psychological and quality-of-life issues while treating an Acne patient.

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Ethical approval: -Study was approved by the Institutional Ethics Committee, Sree Balaji Medical College and Hospital.

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