

# A study knowledge and practice of self-Medication for acne among college students in Hubli

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## Abstract

**Background:** Acne is one of the most common disorders encountered among adults. It is well established as a disfiguring disease state with significant loss of self-esteem, social embarrassment, social withdrawal and depression. Quality of life is negatively affected in many patients. The social, psychological and emotional impact of acne, make it a disease to be taken far more seriously than just a cosmetic disability. **Objective:** To determine the prevalence, thoughts, practices and effects of self-medication for acne among college students **Methodology:** A cross sectional study was conducted at Karnataka institute of Medical Sciences from June 2013 to July 2013. The students of P U College and Degree Colleges in the city of Hubli were included in the study. By purposive sampling, a total of 384 subjects were taken into the study. **Results:** Majority of the students were in the age group of 16-18 years (75.8%) followed by 20-22 years (13.8%). Nearly 201 (52.3%) were males and 183 (47.7%) were Females in our study. Among the subjects, 65.6% felt that face is the most commonly affected part .62.5 % of the students opine that acne is most common in age group of 16-20 years. Nearly 27.9 % of the students were not confident about the self-medication they were taking chance and 24.7% were fairly confident. **Conclusion:** This study reveals that acne is still a common occurrence and students have little knowledge about its treatment. Awareness programmes should be held in schools and colleges to impart the knowledge about acne, its pathology, treatment options and hazards of self-medication.

**Key Words:** Acne, Self-Medication, College students, Cosmetic, Quality of Life.

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## INTRODUCTION

Acne is one of the most common disorders encountered among adults. It is well established as a disfiguring disease state with significant loss of self-esteem, social embarrassment, social withdrawal and depression. Quality of life is negatively affected in many patients. The social, psychological and emotional impact of acne, make it a

disease to be taken far more seriously than just a cosmetic disability. <sup>1</sup> Acne develops as a result of blockages in the follicles. Hyper keratinization and formation of a plug of keratin and sebum (a microcomedo) is the earliest change. Enlargement of sebaceous glands and an increase in sebum production occur with increased androgen (DHEA-S) production at adrenarche. The microcomedo may enlarge to form an open comedo (blackhead) or closed comedo. Comedones are the direct result of sebaceous glands' becoming clogged with sebum, a naturally occurring oil, and dead skin cells. In these conditions, the naturally occurring largely commensal bacterium *Propionibacterium acnes* can cause inflammation, leading to inflammatory lesions (papules, infected pustules, or nodules) in the dermis around the microcomedo or comedone, which results in redness and may result in scarring or hyperpigmentation.<sup>2,3</sup> The term 'self-medication' is defined as the use of non-prescription medicines under an individual's own initiative. It is

generally referring to use of non-prescriptive medicines, usually over-the-counter drugs(OTC)to treat a certain minor ailment, by the patient themselves without consulting a medical practitioner and without any medical supervision. Self-medication is a norm in our country. One factor probably contributing to this phenomenon is over the counter sale of almost all medication without any prescription.<sup>4</sup> In practice, we frequently encounter patients with acne deteriorated by topical use of self-medication. Even though acne is a very common problem, there are a lot of myths associated with acne, its cause, exacerbating and relieving factors, and its association with certain foods, cosmetic products and general hygiene.<sup>3</sup> Such wrong believes lead to delayed treatment, mismanagement of problem. Therefore, studying the prevalent myths, how they affect the general management and planning the ways to reduce misconceptions about acne among general population achieves significance.

**Objective:**

To determine the prevalence, thoughts, practices and effects of self-medication for acne among college students

**MATERIALS AND METHODS**

A cross sectional study was conducted at Karnataka institute of Medical Sciences from June 2013 to July 2013. The students of P U College and Degree Colleges in the city of Hubli were included in the study. By purposive sampling, a total of 384 subjects were taken into the study from following colleges

1. Sukruti P. U college -110
2. Chetan P.U college - 60
3. H.S.K college-50
4. Prerana P.U college-59
5. Deshpande foundation -25
6. B.V.B Engineeringcollege-80

Data was collected in a pretested and Semi Structure Questionnaire by the investigator by interview technique. The college was visited after obtaining permission from the Principal of the college and the data was collected from the students who were present in the college on the day of interview.

**RESULTS**

A total of 384 students were interviewed and data was collected from the students and analyzed.

**Table 1: Social Profile of the students**

Profile	Frequency	%	
Age of students in years	16-18	291	75.8
	18-20	37	9.6
	20-22	53	13.8
	>22	3	.8
Gender	Male	201	52.3
	Female	183	47.7
Place	Urban	384	100

Majority of the students were in the age group of 16-18 years (75.8%) followed by 20-22 years (13.8%). Nearly 201 (52.3%) were males and 183 (47.7%) were Females in our study. All the students were from Urban area in our study.

**Table 2: Knowledge of students about acne**

	Frequency	percentage	
Knowledge about the Area of body affected	Face	252	65.6
	Chest	3	0.8
	Back	9	2.3
	Arms	13	3.4
	All of the above	93	24.2
Knowledge about common age of onset	No opinion	14	3.6
	<12 years	14	3.6
	12-16 years	104	27.1
	16-20 years	240	62.5
Knowledge about cause of acne	>20 years	18	4.7
	Hormonal	202	52.6
	Diet	25	6.5
	Stress	27	7.0
	Infections	84	21.9
	Systemic diseases	5	1.3
	Hereditary	18	4.7
No opinion	23	6.0	

Among the subjects, 65.6% felt that face is the most commonly affected part and 24% of them were of the opinion that all the above mentioned parts of the body can be affected 62.5% of the students opine that acne is most common in age group of 16-20 year. 52.6% of the students attributed hormonal changes as the main cause of acne. Infection is another important cause according to 21.9% students.

**Table 3: Opinion of students on few aspects about acne**

Knowledge	Opinion						Total
	Yes	%	No	%	No opinion	%	
Effect on quality of life	180	46.87	196	51.04	8	2.09	384
Cause emotional disturbance	234	60.93	143	37.2	7	1.87	384
Acne a disease	82	21.35	300	78.12	2	0.53	384
Acne communicable	94	24.47	266	69.27	24	6.26	384

Acne affected the quality of life of nearly half of the subjects. Nearly 60% of the subjects felt that acne could cause emotional disturbance. Majority of them believe that acne is not a disease and is not communicable. Majority of the students believed that chocolates, oily food, cosmetic products, workload, seasons, pre-menstrual period and masturbation increase acne while, milk and milk products decrease acne. A considerable number of subjects believe fairness creams (25.5%) and moisturizers (14.3%) exacerbate acne while many others believe that cosmetic products don't affect the severity of acne

**Table 4: Responses of students on self-medication**

		Frequency	Percentage
Motivation for treatment	Self-Motivated	143	37.2
	Family	80	20.8
	Friends	66	17.2
	Advertisement	76	19.8
	No Opinion	19	5
Initiation of self-medication	As soon as noticed	98	25.5
	When acne increase in number	202	52.6
	On advice of family and friends	51	13.3
	Others	19	4.9
	No opinion	14	3.6
Practice of Self Medication	Yes	353	91.9
	No	31	8.1
Reason for self-medication	Acne is a trivial problem	68	17.7
	Convenient	63	16.4
	Treatment is expensive	31	8.1
	Others	48	12.5
	No opinion	144	37.5
	Not applicable	30	7.8
Belief in self-medication	Safe And Effective	146	38
	Harmful And Dangerous	63	16.4
	No Opinion	145	37.8
Source of Self Medications	Not Applicable	30	7.8
	Pharmacy	213	55.5
	Friends	15	3.9
	General Store	53	13.8
	Home	52	13.5
	No Opinion	21	5.5
Result of Self Medication	Not Applicable	30	7.8
	Cured	53	13.8
	Controlled	168	43.8
	Exacerbated	14	3.6
	No Effect	62	16.1
	No Opinion	57	14.9
	Not Applicable	30	7.8

37.2% of the students were self-motivated for self-medication but family, friends and advertisement also played role in motivating some students. 52.6% of the students started treatment after acne significantly increased in number Self-medication for acne is highly prevalent with nearly 91.9% of the students practicing it. Main reason for students to self-medicate was the fact that they believed acne was a trivial problem and convenient to self-medicate. Approximately 38%

of the students believed that self-medication was safe and effective before starting the treatment. Nearly 55.5% of the students procured the medications from the pharmacy and 13.8% procured from general stores. Only 3.6% informed that acne was exacerbated by self-medicated.

**Table 5: Confidence in self- medication**

Opinion	Frequency	Percentage
Fairly	95	24.7
Very much	29	7.6
No second thoughts	28	7.3
Not confident, I just took a chance	107	27.9
Not applicable	30	8.1
No opinion	95	24.4
<b>Total</b>	<b>384</b>	<b>100</b>

Nearly 27.9 % of the students were not confident about the self-medication they were taking chance and 24.7% were fairly confident.

## DISCUSSION

Acne is a very common condition. This study supports the already known fact that acne is common problem for adults. Regarding the beliefs about the acne, our study shows that hormones (52.6%) were accurately identified by majority of the students as a causal factor of acne followed by infection (22%) but familial disease was not clearly identified as was found in study in UK <sup>5</sup> where 81% of variance of the disease was attributable to genetic factors and only 19% to environmental factors. In the study done in Faisalabad <sup>6</sup> the age group of the study subjects were similar to our study findings which confirms the prevalence of acne in these age group across the world. Increasing incidence of self-medication has been documented throughout the world by the large population based studies and national health survey. We have very little data if at all to document this trend in our population. The results have shown an alarmingly high incidence of self-medication (92%). This is much higher than (77%) reported in similar study on acne patients in other studies.<sup>6,7,8</sup> A population based study in Spain revealed a 12.3% incidence of self-medication for dermatologic problem.<sup>9</sup> In the study done on students is Sind Medical College, Karachi <sup>10</sup> also obtained similar results regarding using of Self-medication for the treatment of acne The likely explanation for this high incidence among the students in our study is probably the lack of regulation on over the counter sale of medication. The result of this study showed that unfortunately a significant number of students felt that frequent face washing did relieve acne which may be due to misconception that washing face frequently will keep the skin clean and free of oil and dirt, however Kimball *et al.* suggested in his paper that washing the face more often does not significantly improve acne.<sup>11,12,13</sup>

## CONCLUSION AND RECOMMENDATIONS

This study reveals that acne is still a common occurrence and students have little knowledge about its treatment. Further studies are required to highlight this situation and steps should be taken to impart more rational knowledge among the students. Awareness programmers should be held in schools and colleges to impart the knowledge about acne, its pathology, treatment options and hazards of self-medication. Further studies are required to highlight the situation and steps should be taken to impart more dermatologic knowledge among general public. Over the counter sale of drugs should be strictly regulated to reduce dispensing of drugs without proper prescription.

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