BELIEFS AND PERCEPTIONS OF ACNE AMONG STUDENTS OF HAIL UNIVERSITY IN APPLIED AND MEDICAL COLLEGE, KSA

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ABSTRACT

Acne vulgaris is very known and one of the commonest diseases known to humanity, affecting up to 80 to 98% of all teenagers. Acne vulgaris affects teenagers, and persists beyond the age of 25 years in 12% of females and 3-4% of male.**Objective**: To determine the attitude and   beliefs and perceptions of undergraduate medical students regarding acne. Method: It is a cross-sectional study in 180 medical students (aged 16-29yrs) was conducted. A voluntary self administered questionnaire was used to collect data regarding their attitude, behavior and beliefs and perceptions about acne. Both acne and non-acne sufferers were included in the study.**Result**: Of the 630 respondents, 55.9% were sufferers while 44.1% were non-sufferers. 67.0% of the affected believed it to be relieved by frequent face washing and that they should seek treatment. 79.84% students believed in seeking dermatologist advice regarding treatment. Internet and Mass media was the most common source of information. 21.7% of the students believed that hereditary factors and 20.1% believed environmental factors are the major cause of acne. In diet soft drinks (29.2%) is considered the major exacerbating factor. The most significant emotional impact of acne on medical students is embarrassment (26.2%). **Conclusion:** The results of this study pointed out that misconceptions and false beliefs on acne are widespread and enduring among Medical students' too. Health education program on acne is needed to improve their understanding of the condition.

Key Words: Acne Vulgaris, Acne Concepts, Acne Knowledge.

Introduction

Acne is a skin condition that occurs due to the overproduction of oil by the oil glands of the skin. Sebum overproduction is among the most important cause of acne. Keratin plugging and follicular obstruction are other known cause. The oil that normally lubricates the skin gets trapped in blocked oil ducts and results in what we know as pimples, blackheads, and whiteheads on the surface of skin. Sometimes it also includes deeper skin lesions that are called cysts[1]. Various studies on acne prevalence in adolescents show a frequency ranging from 30% to 100%, and have reported up to 91% of male and 79% of female teenagers being affected by acne [2]. In Pakistan acne accounts for about one-fifth of all visits to dermatologists and is common in individuals aged 13-35. Despite the tendency for acne to be treated as a minor ailment, patient with this condition require attention[3].

Acne is a treatable disease, but the treatment usually lasts for many years and it may influence many aspects of patient's life. Information on the knowledge and understanding of acne among undergraduate medical students has only occasionally been reported in the medical literature. In this context, a study was conducted among the students of Medical College to judge their awareness about acne and the beliefs pertinent among undergraduate students.

Objectives

1. **To assess the knowledge of medical students on acne vulgaris**
2. **To determine the beliefs of medical students about acne vulgaris**
3. **To understand the relationship between acne and its effect on medical students**

Methodology

A survey of the adolescent and young adult population (aged 16-29) of Hail university was conducted by means of a self-reported questionnaire. The selection of the college was made to ensure satisfactory representation of various socio-economic groups as students from different areas of the city and all parts of the country belonging to various social strata are enrolled in this college.

Before the distribution of the questionnaire a verbal consent was obtained. The students completed the questionnaire during teaching time, each person being allotted 25 minutes to complete the form. Simple random sample was used. The questionnaire contained questions regarding the knowledge about acne, the factors responsible for this disease along with its symptoms and different modes of treatment plus the emotional difficulties being faced by acne sufferer at the time of this disease. Instructions were given before the distribution of the questionnaire directing pupils with acne to complete all the questions, while pupils stating not to suffer from acne were directed to omit questions regarding the personal management used during acne and the emotional impact of acne. The answers were used to assess the participants' level of acne awareness being a medical

student. The identification of the student was not disclosed, only the data collected from the questionnaire was used. A subsample of 60 students from the same college was evaluated initially to validate the questionnaire and clinical characteristics of acne lesions.

The duration of study was 1st September 30th November 2017.

Results

The total number of study participants was 630, with male to female ratio of 21.6:78.4 (136:494 n). Of these total subjects, 55.9% were sufferers while 44.1% students were non sufferers. Females were more affected than males (78.4% and 21.6%), while (44.85%) males and (43.9%) females were non-sufferers. The age of these students varied from 16 to 29 years, with mean age of 21 and standard deviation of 1.9. The age of study participants as compared with their sex and year of study is shown in figure 1.

Figure 1: Age of the Study Participants with Year of Study
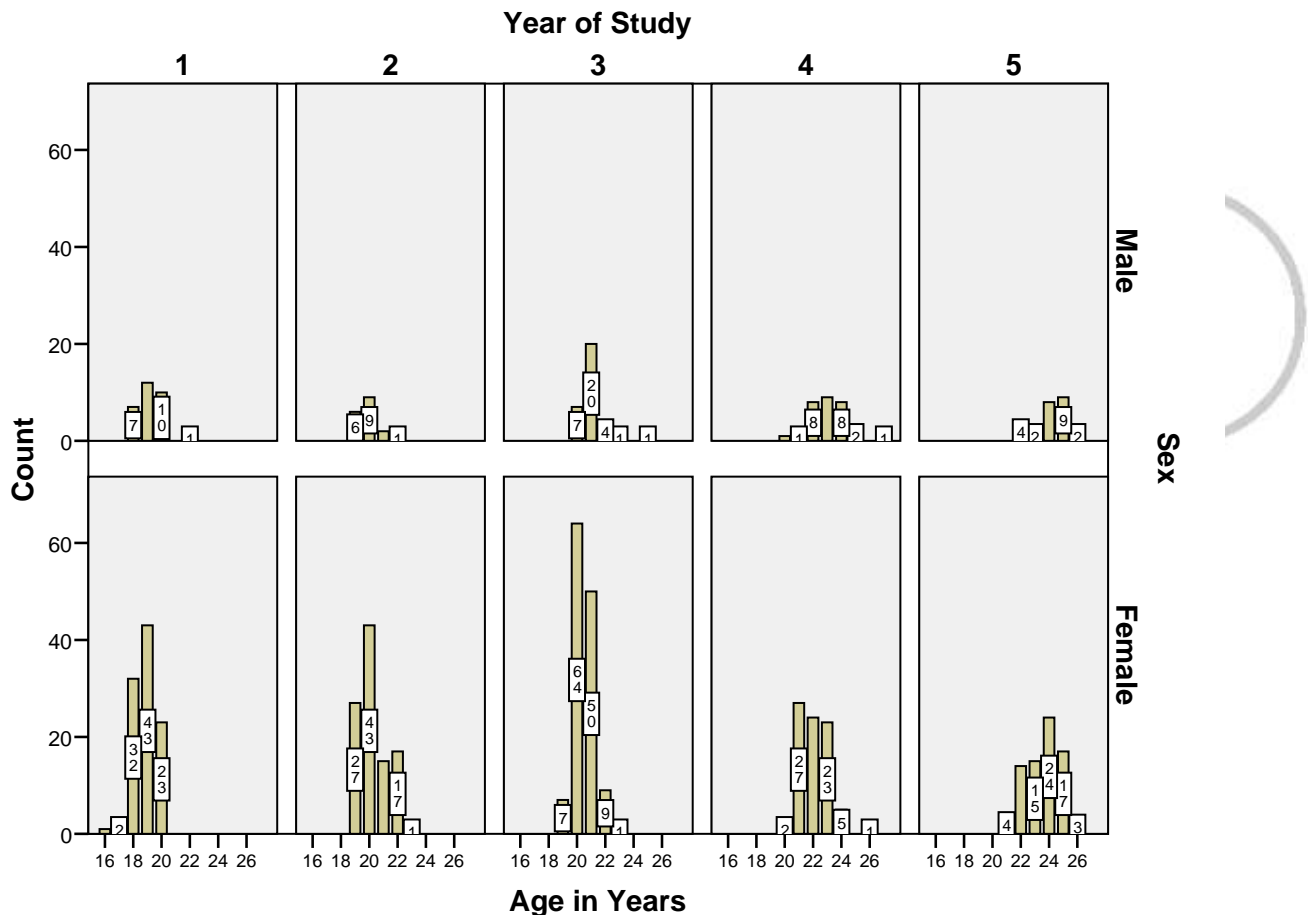
It was found that most of the students (62.5%) believed acne to be a hormonal disorder. While others (32.4%) thought it to be an infectious disease, a cosmetic disease (19.5%), an inflammatory disease (13.8%), a familial disease (9.4%), and least of all (8.3%) thought it to be a contagious disease.

In the population studied, out of 352 acne sufferers, 53.1% believed hot/sunny weather to affect acne; while on the other hand of the 278 non sufferer students, 45.7% picked hot/sunny weather.

According to 61.3% of the study subjects, the most bothering feature of acne is acne spots, while 24.6% believed it to be the painful pimples, 13.2% acne lesions and only 1% didn't thought any of them to have any physical consequence.

The emotional impact on the medical students suffering from acne was mostly embarrassment (26.2%), followed by depression (19.0%), frustration (17.0%), bad self image (12.7%,) anger (10.6%), social withdrawal (8.7%), while 18.4% sufferers didn't feel acne to cause any emotional impact on them.

There is majority opinion that acne is common in oily skin (95.7%) then in dry skin (2.5%) and least of all in normal skin (0.8%), while 6 students (1.0%) did not have any idea.

According to the results, the main contributors to the occurrence of acne are hereditary factors (21.7%), emotional stress (20.1%), environmental factors (18.6%) and hormonal imbalance (15.4%); while 24.2% didn't know.

The source of information regarding acne among the medical students was mainly through mass media (33.7%), followed by friends (23.8%), physicians (19.8%), medical books (15.1%) and others (7.6%); and the year-wise response is shown in table 1.

Table 1: Source of Knowledge about Acne among the Medical Students

SOURCE	First Year		Second Year		Third Year		Fourth Year		Final Year	
	N	%	N	%	N	%	N	%	N	%
Physician	30	22.9	22	18.2	34	20.7	22	19.6	17	16.7
Mass Media	44	33.6	48	39.7	54	32.9	35	31.3	31	30.4
Friends	30	22.9	24	19.8	38	23.2	35	31.3	23	22.5
Medical Books	17	13.0	15	12.4	20	12.2	17	15.2	26	25.5
Others	10	7.6	12	9.9	18	11.0	3	2.7	5	4.9

The reported exacerbating factors of acne by year-wise distribution are shown in table 2.

Table 2: Aggravating Factors of Acne.

FACTORS	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		FINAL YEAR	
	N	%	N	%	N	%	N	%	N	%
Stress	35	26.7	42	34.7	62	37.8	48	42.9	48	47.1
Diet	51	38.9	60	49.6	83	50.6	53	47.3	59	57.8
Spicy Food	74	56.5	76	62.8	110	67.1	71	63.4	64	62.7
Junk Food	50	38.2	50	41.3	47	28.7	35	31.3	41	40.2

Soft Drink	11	8.4	12	9.9	20	12.2	06	5.4	9	8.8
Chocolate	40	30.5	50	41.3	68	41.5	41	36.6	44	43.1
Sleeping Habits	09	6.9	19	15.7	11	6.7	15	13.4	22	21.6
Skin Hygiene	76	58.0	63	52.1	108	65.9	69	61.6	59	57.8

The treatment methods as followed by the sufferers of acne and advised by non sufferers of acne are shown in table 3.

Table 3: Treatment Strategy of Acne as followed by the Medical Students

TREATMENT	SUFFERERS		NON SUFFERERS	
	n	%	n	%
Students in favour of treatment	306	86.9	264	95.0
Face washing	236	67.0	169	60.8
Dermatologist consultation	272	77.3	231	83.1
Home remedies	57	16.2	37	13.1
Pharmacy treatment	09	2.6	05	1.8
Advice from a friend	07	1.9	01	0.35
Ever advised other	232	65.9	136	48.9
Acne cream	115	32.8	75	27.0
Skin cleanser	123	34.9	81	29.1
Lotions	36	10.2	34	12.2

Consider acne a transitory condition	38	10.8	06	2.2
No treatment	75	21.3	70	25.2
Don't know	02	0.6	18	6.5

Regarding complications related to acne, 50.2% of the students believed it to be scar, followed by fungal infection (18.6%), eczema (7.8%) and ulcer (5.2%).

Discussion

Acne is a very common condition. This study supports the already known fact that acne is a common problem for adults. Of the 630 students 55.9% reported that they had acne. The prevalence of acne in females was higher than that in males. Regarding the knowledge about acne causation, this study showed that hormones were clearly identified by the majority of the students as a causal factor of acne, followed by infection; but the familial disease was not clearly identified as was found in a study in UK were 81% of variance of the disease was attributable to genetic factors and only 19% to environmental factors and a further British case-control study found a significantly greater risk of adult acne in relatives of patients than in relatives of controls [4].

Almost 80% of the students' preferred medical advice from a dermatologist as opposed to the study conducted in the UK, where less than a third of participants with definite acne had sought medical advice[5]. This could indicate medical students' increasing awareness that acne is a treatable medical condition. Regarding the non prescription products used, the skin cleanser was highly advocated followed by acne creams; but it was surprising to know that some students were still in favour of no treatment for acne. Nijsten et al[6] have also confirmed in their study of low treatment utilization in acne. The results of our study showed that a significant number of medical students felt the frequent face washing could relieve acne, which may be due to the misconception that washing face frequently will keep the skin clear and free of oil and dirt. However, Kimball et al[7] suggested in their paper that washing the face more often does not significantly improve acne, in fact dermatologist often warn that over washing and excessive scrubbing can irritate and exacerbate the condition by aggravating the sebaceous glands.

Some investigators have found that acne exacerbates in winter, whereas the condition often improves during the summer months[8]. However, the findings of this study were completely opposite as almost 50% of the students believed hot/sunny weather to be the main culprit, this may be due to hot and humid climate of Karachi.

It seems that the appearance of the skin affects the patient's overall body image[9]

as the result of this study also shows that the significant psychological impact of acne is low self image. Acne results in embarrassment, depression, frustration, anger and social withdrawal. The results were similar with patients from Nigeria[10].

In this study mass media was found to be the most frequently used source to gain knowledge about acne followed by friends, family physician and medical books. However in other studies, the most frequently reported sources of information about acne were TV, followed by parents, friends and magazines[11]. These result reflected that the important role of medical education is missing and there is lack of dermatological knowledge among the undergraduates. This lack of knowledge directly affects the rights of patients since these graduates will be the future doctors. This suggests the planning of medical curriculum in such a way that adequate time is spent in dermatological wards to better understand the skin problems. Improving physicians' and patients' knowledge of acne and its treatment may help to reduce health related impairment and patient dissatisfaction and, thus, increase treatment adherence and reduce burden on tertiary care hospitals. There are some research studies that suggest that one of the reason or increase prevalence of acne is due to consumption of large quantities of skim milk.[11]

Although most students believed stress to be a major factor but strong evidence is lacking for a casual association of stress with acne. Some studies shows oral antibiotics like Tetracyclin and Doxycycline are commonly used for the treatment of acne vulgaris.[13]

Oral Azithromysin was found to be prescribed for pustules of acne in a few number of poorly done studies and it was not suggested to be better results than oral doxycycline.[14]

Most of the students believe sleep not to be interfering with acne. It is a cause for concern that despite the prevailing view that no association exists between acne and diet almost all the students believed diet to be an etiological factor in acne. Most students opted for spicy food and chocolate while only a few picked junk food and soft drinks. This shows that misconceptions and misinformation is still highly prevalent among the student population despite easy access and availability of information.

Conclusion

While in the past 50 years progress has been made in dermatological practice with regard to acne vulgaris, it is however distressing to realize how little this disease has changed despite the existence of potent treatment. This survey reveals that acne is still a common occurrence and medical students have little knowledge about its treatment. Further studies are required to highlight this situation and steps should to be taken to impart more dermatological knowledge among the medical students.

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