

Original Article

Beliefs and perceptions about acne among undergraduate medical students

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Abstract *Background* Acne is a common disease affecting adolescents. It was hypothesized that misconceptions prevail among undergraduate medical students about acne.

Objectives To determine the extent of misconceptions about acne in our undergraduate medical students.

Patients and methods: The students of Foundation University Medical College of first four year classes, whether suffering from acne or not, were included in the study. These students completed a specially designed questionnaire.

Results A total of 343 students participated in the study. The age range was from 17-21 years. The male to female ratio was 1:1.75. With respect to the causative factors 87% claimed poor hygiene, 82% identified stress, 79% incriminated diet (chocolates and cola drinks). As far as general measures for acne were concerned, 75% believed that very frequent washing of face would result in fewer breakouts, 70% took acne as a contagious disease and 12% believed that squeezing the pimples would help them go away faster. As regards treatment for acne, 53% believed that Betnovate® or a mixture of creams with Betnovate® is a treatment option, 30% suggested that one should let acne run its course without treatment and 18 % believed that there is no treatment for acne scars.

Conclusions Misconceptions about acne are widespread and enduring among our undergraduate medical students. A health education program is needed to improve their understanding of the condition.

Key words

Acne vulgaris, perceptions, myths.

Introduction

Acne vulgaris is an extremely common condition affecting 91% of male and 79% of female adolescents,¹ and 3% of male and 12% female adults.² There has been extensive research on the etiopathogenesis,

treatment and psycho-social impact of acne but there is paucity of data available regarding the beliefs and misconceptions about acne in adolescents and young adults. This is the first of its kind of study from Pakistan.

Patients and methods

Students of the Foundation University Medical College, Rawalpindi from first year to fourth year class were enrolled in the

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Table 1 Response rate to different questions (n=343).

S. No.	Question	Frequency of positive response (%)				
		1 st year (n=90)	2 nd year (n=81)	3 rd year (n=81)	4 th year (n=91)	Average
1.	Acne is caused by poor hygiene	81%	92%	83%	90%	87%
2.	Acne is caused by stress	73%	83%	81%	89%	82%
3.	Acne is caused by diet	70%	89%	79%	78%	79%
4.	The more you wash your face the fewer pimples you will have	72%	73%	77%	76%	75%
5.	Acne is contagious (spreads from contact from one person to the other or by sharing towels)	68%	79%	73%	60%	70%
6.	Squeezing/ Popping off pimples will help them go away faster	12%	14%	11%	10%	12%
7.	Betnovate or a mixture of creams with Betnovate® is a treatment option	60%	58%	59%	37%	53%
8.	You just have to let acne run its course (No treatment is required)	23%	32%	44%	23%	30%
9.	Nothing can be done about acne scars	13%	21%	25%	14%	18%

study. All students with or without acne were included in the study. Final year students were excluded from the study as dermatology is taught to this class.

A specially designed questionnaire was formulated and validated by two dermatologists. The questionnaire (**Table 1**) addressed three issues on acne; causative factors, general measures and its treatment. The questionnaire was filled in by the students of each class, in their regular lecture schedule for other subjects and it was presented unannounced to them. They were asked to answer all questions, independently. The pupils were assured that neither would they be given any marks nor the results of individuals would be declared. The questionnaire had a simple yes/no format. After the collection of the questionnaire, an interactive discussion with the students took place in detail to alleviate the misconceptions about acne. The data were recorded and analyzed by Microsoft Excel program.

Results

A total of 343 students from first four year classes were enrolled in the study. There were 90 students from first year, 81 students from second and third year each and 91 students from fourth year. Their age ranged from 17 to 21 years. The male to female ratio was 1:1.75. Response of the students to the questionnaire is given in **Table 1**.

The first part of the questionnaire pertained to the causative factors of acne: poor hygiene, stress and diet (especially chocolates and cola drinks). 87%, 82% and 79% of the students respectively incriminated these to be the causative factors. The second part of the questionnaire was regarding general measures for acne: frequent washing of face will result in fewer pimples; acne is contagious (spreads from contact from one person to the other or by sharing towels); popping off pimples will help these go away faster. 75%, 70% and 12% of the students respectively gave positive response. The third part of the

questionnaire dealt with the treatment of acne: Betnovate® or a mixture of creams with Betnovate® is a treatment option; no treatment of acne is required; it should run its course and nothing can be done about acne scars. 53%, 30% and 18% of the students, respectively gave positive response.

Discussion

This study confirms that misconceptions about acne prevail amongst the undergraduate medical students. Green and Sinclair³ in their study on the final year medical graduates of University of Melbourne, Australia found the same but in a lower number. 67% students identified stress, 25% claimed poor hygiene and 41% incriminated diet as an important factor in the causation of acne. In our study, 82% students identified stress, 87% claimed poor hygiene and 79% incriminated diet. The difference can be attributed to the fact the subject of dermatology is taught in the final year class at Foundation University Medical College and that it was a surprise quiz for all four classes as compared to the final year students of Melbourne University³ who were given a written question in their final examination (all of them subsequently graduated from their University).

A study of 570 students, (both acne and non acne sufferers) of different institutions of Riyadh, Saudi Arabia, showed that 76% believed stress as a cause, 72% incriminated diet and 15.9% took acne as an infectious disease.⁴

In a developed country like United Kingdom, a study of students aged 14-16

years revealed that 82% believed that washing of face frequently would help acne, 79% incriminated poor hygiene and 11% greasy food to be the causative factors of acne.⁵

The menace of topical steroids in the treatment of acne has been highlighted in the present study. Fifty three percent of our study population believed that Betnovate® or a mixture of creams with Betnovate® is a treatment option. This particular question has not been asked in any of the earlier studies,^{3,4,5} although steroids are being used for acne in developed countries too. In our practice we see a regular number of acne patients who have a history of use of topical steroids, in the form of steroid creams or a mixture of creams with steroids; the most popular brand is Betnovate® (generic: betamethasone valerate).

The level of awareness about acne among undergraduate medical students is an issue that must be addressed. Acne vulgaris is one of the commonest skin disorders with profound psychosocial impact. Dermatology Life Quality Index (DLQI) in our Pakistani population⁶ aged 15-32 years has been found to be 11.93±6.51, range 1-25. A proactive approach towards acne is recommended as the risk of scarring is minimized if acne is treated earlier.⁷ On the contrary, 30% of the medical students believed that acne should run its course; no treatment is required. Furthermore, 18% of our study population did not know that treatment options are available for acne scars. The sources of information about acne include family physicians, magazines, television, parents and friends.⁸ Misconceptions about acne are prevalent not only among adolescents and

young adults, and acne patients but also among family physicians.⁹ Undergraduate medical students may have a two fold impact. Firstly, those having acne themselves will sufferer and secondly, they may disseminate the same misconceptions in the community. Therefore, a health education program on acne is needed to alleviate the myths and misconceptions among undergraduate medical students. It is further suggested that information procedures should be adopted to educate the community about acne at all levels. This may be achieved by organizing lectures/seminars at schools and colleges and refresher courses for the general physicians; presenting articles and programs using print and other media as a medium to facilitate learning.

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