

Original Research Article

Knowledge, attitude and practices of medical students about self-medication for acne

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ABSTRACT

Background: Acne is most prevalent in adolescent girls. Self-medication for acne is most common in medical students. This study was done to evaluate the knowledge, reason, perception and pattern of self-medication for acne among undergraduate medical students.

Methods: A cross-sectional study included medical students of the second phase and final phase (part I and part II). A pretested questionnaire was given to them which included questions on knowledge, attitude and practice about self-medication for acne.

Results: In present study, out of 200 girls, 142 (71%) girls were affected with acne while 58 (29%) were not affected by acne. A112 (56%) girls were using allopathic medicines, 32 (16%) girls were using homeopathic medicines, 28 (14%) girls were using ayurvedic medicines while 28 (14%) girls were using other non-specific things. clindamycin was used by 104 (52%) girls, adapalene + benzoyl peroxide gel was used by 26 (13%) girls, clindamycin + nicotinamide gel was used by 12 (6%) girls, toothpaste was used by 42 (24%) girls while Aloe vera gel was used by 76 (38%) of girls. The reason for self-medication was mild nature of illness in 130 (65%) of girls, 96 (48%) girls did it to save the time, over the counter availability of medicines was the cause in 88 (44%) of girls, getting medicines from their previous prescription was seen in 52 (26%) of girls, 64 (32%) of girls did it to save the cost of consultation, 44 (22%) did it after getting knowledge from pharmacology book while 30 (15%) of girls felt embarrassed to tell their own symptoms.

Conclusions: Self-medication for acne is quite high among medical students. Self-medication is part of self-care so it should be encouraged for minor illness. But should be based on thorough knowledge and restricted to over the counter drugs.

Keywords: Acne, Medical students, Self-medication

INTRODUCTION

Acne is also known as acne vulgaris. It is a long-term skin disease that occurs when hair follicles are clogged with dead skin cells and oil from the skin.¹

Acne vulgaris is one of the most common skin diseases with chronic inflammation of the pilosebaceous gland. It is clinically characterized by comedones, papules, pustules, nodules and in some cases, scarring.²

It is characterized by blackheads or whiteheads, pimples, oily skin, and possible scarring.³

It affects 85% of the young population between 12 and 24 years of age. It is because of hormonal changes in the majority of cases. The social, psychological, and emotional impacts of acne result into more consciousness, especially in young individuals.⁴

Acne primarily affects areas of the skin with a relatively high number of oil glands, including the face, upper part of the chest, and back.⁵

Acne vulgaris develops earlier in females than in males. occasionally, it may start at age 7 or 8 years, when it is severe acne. Acne waxes and wanes through adolescent years and early adult life. The most severe forms of acne vulgaris occur more frequently in males, but the disease tends to be more persistent in females. Severity of the disease varies markedly depending upon the interplay of various factors involved in the development of acne vulgaris.⁶

Acne vulgaris is an exceptionally common and recurring disease which involves multiple etiological factors.⁷

The World Health Organization (WHO, 2000) define self-medication as “use of medicinal products by the consumer to treat self-recognized disorders or symptoms. It can be intermittent or continued use of medication prescribed by a physician for chronic or recurring diseases or symptoms.⁸ Self-medication is a common practice in medical students because of pharmacological knowledge and easy availability of drugs from different sources.⁸ Self-medication helps in the prevention and treatment of minor diseases at an affordable cost.⁹

Inappropriate and un-controlled self-medication results in increased resistance of pathogens, wastage of resources, and serious health hazards. The hazards are adverse drug reactions, prolonged suffering and drug dependence.⁹

The prevalence of self-medication practice among medical students is from 57.7% to 76%.¹⁰ The aims and objectives of this study were to evaluate the knowledge, reason, perception and pattern of self-medication for acne among undergraduate medical students at a tertiary care teaching hospital.

METHODS

A cross-sectional study was undertaken at tertiary care centre of Dr D. Y. Patil Medical college and hospital, Pimpri, Pune. Written informed consent was taken from the participants. Medical students of the second year and final year (part I and part II) were included in the study. The participants were randomly selected. Only female medical students were included in this study. The participants were briefed about the nature of the study, and a pretested questionnaire was administered to them.

The students were asked about the severity of acne, treatment they have received previously and perception and results about that treatment. The questionnaire included questions about information regarding the pattern of self-medication, knowledge about dose, mechanism of action, adverse effect, complication, precaution, and contraindication. Also, they were asked about what self-medication they are doing, the reason about the self-medication and the source of information they received from.

Being in adolescent and young age group, the incidence of acne is more in these girls, so prevalence and severity was found. Also, the reason of doing self-medication was asked to them.

It was explained to them that if severity increases, they should go to dermatologist and endocrinologist to search for the underlying cause and take proper treatment for that. Hormonal profile and blood investigations and sonography are necessary for severe acne.

Inclusion criteria

- Medical students (females) of 18-24 years of age
- Medical students (females) who gave consent for participation in this study.

Exclusion criteria

- Medical students (females) who refused for participation in this study.

Table 1: Questionnaire.

Variables
Name
Age
Severity of acne
Self-medication done or not
Type of medical pathy used
Type of self-medication used
Reason for self-medication

Statistical analysis

Data regarding attitude and practice were analyzed as percentage response. Data were entered into Microsoft Excel 2007 and analyzed.

RESULTS

In present study, out of 200 girls, 120 (60%) girls were of 18-20 years of age while 80 (40%) girls were of 21-23 years of age. So, more girls were in the adolescent age group (Table 1). This is expected as because of hormonal

changes in adolescent girls, incidence of acne is more in this age group.

Table 2: Age distribution.

Age distribution	No. of girls	Percentage
18-20	120	60
21-23	80	40

In our study, out of 200 girls, 142 (71%) girls were affected with acne while 58 (29%) were not affected by acne. This is expected as because of hormonal changes in adolescent girls, incidence of acne is more in this age group. So, percentage of girls affected with acne was high (Table 3).

Table 3: Girls affected with acne.

Girls affected with acne	No. of girls	Percentage
Yes	142	71
No	58	29

In present study, out of 200 girls, 100 (50%) girls had mild degree of acne, 32 (16%) girls had moderate degree of acne while 10 (5%) girls had severe degree of acne. That means majority of girls were affected with mild degree of acne (Table 3). In present study, out of 142 girls who had acne, 90 (45%) were doing self-medication while 52 (26%) of girls were not doing self-medication.

Table 4: Severity of acne and self-medication done.

Severity of acne	Number of girls	Percentage
Mild	100	50
Moderate	32	16
Severe	10	5
Self-medication done	Number of girls	Percentage
Yes	90	45
No	52	26

So, many girls had tendency to do self-medication (Table 4). In our study, out of 200 girls, 112 (56%) girls were using allopathic medicines, 32 (16%) girls were using homeopathic medicines, 28 (14%) girls were using ayurvedic medicines while 28 (14%) girls were using other non-specific things. Thus, majority of girls were using allopathic medicines. (Table 5).

Table 5: Type of medical pathy used by girls.

Type of medical pathy used by girls	Number of girls	Percentage
Allopathy	112	56
Ayurvedic medicines	28	14
Homeopathy	32	16
Other non-specific things	28	14

In our study, out of 200 girls, clindamycin was used by 104 (52%) girls, adapalene + benzoyl peroxide gel was used by 26 (13%) girls, clindamycin+ nicotinamide gel was used by 12 (6%) girls, toothpaste was used by 42 (24%) girls while aloe Vera gel was used by 76 (38%) of girls.

Table 6: Type of self-medication by girls.

Type of self medication by girls	Number of girls	Percentage
clindamycin	104	52
adapalene + benzoyl peroxide gel	26	13
clindamycin + nicotinamide gel	12	6
Toothpaste	42	21
Aloe Vera gel	76	38

Thus, clindamycin was most commonly used drug by girls as self-medication (Table 6).

In present study, out of 200 girls, reason for self-medication was mild nature of illness in 130 (65%) of girls, 96 (48%) girls did it to save the time, over the counter availability of medicines was the cause in 88 (44%) of girls, getting medicines from their previous prescription was seen in 52 (26%) of girls, 64 (32%) of girls did it to save the cost of consultation, 44 (22%) did it after getting knowledge from pharmacology book while 30 (15%) of girls felt embarrassed to tell their own symptoms.

Table 7: Reason for self-medication.

Reason for self-medication	Number of girls	Percentage
Mild nature of illness	130	65
To save time	98	49
Over the counter availability of medicines	88	44
From previous prescription	52	26
To save cost of consultation	64	32
Pharmacological knowledge	44	22
Embarrassment of telling own symptoms	30	15

Thus, doing self-medication was multi-factorial in most of the girls (Table 7). In our study, out of 200 girls, 102 (51%) girls got information about self-medication for acne from seniors, 96 (48%) of girls got information from friends, 64 (32%) of girls got information from from pharmacist, 54 (27%) of girls got information from TV/newspaper while 44 (22%) of girls got information from pharmacology book. That means getting

information for doing self-medication was from multiple sources in most of the girls (Table 8).

Table 8: Source of information.

Source of information	Number of girls	Percentage
Seniors	102	51
Friends	96	48
Pharmacology book	44	22
Pharmacist	64	32
TV/Newspaper	54	27

DISCUSSION

In present study, out of 200 girls, 120 (60%) girls were of 18-20 years of age while 80 (40%) girls were of 21-23 years of age (Table 2). Similar to our study, Sarraf DP et al, found that out of 520 students in the study were of mean age 21.2 ± 1.7 years.¹¹

In present study, out of 200 girls, 142 (71%) girls were affected with acne while 58(29%) were not affected by acne (Table 3). Similar to present study, Raikar DR et al, found that out of 352 students, 319 suffered from acne.¹²

In present study, out of 200 girls, 100 (50%) girls had mild degree of acne, 32 (16%) girls had moderate degree of acne while 10 (5%) girls had severe degree of acne (Table 4). In our study, out of 142 girls who had acne, 90 (45%) were doing self-medication while 52 (26%) of girls were not doing self-medication (Table 4). Contrary to our study, Saxena K et al, found that grade 2 acne was observed in 283 (66%) patients followed by grade 1 in 108 (25.2%) patients, grade 3 in 22 (5.1%) patients and grade 4 in 16 (3.7%) patients.¹³

In present study, out of 200 girls, 112 (56%) girls were using allopathic medicines, 32 (16%) girls were using homeopathic medicines, 28(14%) girls were using ayurvedic medicines while 28 (14%) girls were using other non-specific things (Table 5). Similar to present study, Karamata VV et al, found that allopathic medication was preferred by 69.8% students.¹⁴

In our study, out of 200 girls, clindamycin was used by 104 (52%) girls, adapalene + benzoyl peroxide gel was used by 26 (13%) girls, clindamycin + nicotinamide gel was used by 12 (6%) girls, toothpaste was used by 42 (24%) girls while aloe Vera gel was used by 76 (38%) of girls (Table 6). Contrary to our study Karamata VV et al, found that 113 (58.2%) students used clindamycin either alone or in combination with other drugs. Single drug had been used for acne by 167 (78.0%). Fixed drug combinations were also used by 21 (9.8%) medical students. Commonly used fixed dose combinations were tretinoin + clindamycin gel by 10 (4.7%), followed by adapalene + benzoyl peroxide gel by 6 (2.8%).¹⁴

In present study, out of 200 girls, reason for self-medication was mild nature of illness in 130 (65%) of girls, 96 (48%) girls did it to save the time, over the counter availability of medicines was the cause in 88 (44%) of girls, getting medicines from their previous prescription was seen in 52 (26%) of girls, 64 (32%) of girls did it to save the cost of consultation, 44 (22%) did it after getting knowledge from pharmacology book while 30 (15%) of girls felt embarrassed to tell their own symptoms. (Table 7). Similar to present study, Karamata VV et al, found that the reasons for self-medication for acne were mildness of illness in 130 (42.3%). It was knowledge about the treatment given from previous prescription in 89 (28.9%) students.¹⁴

In present study, out of 200 girls, 102 (51%) girls got information about self-medication for acne from seniors, 96 (48%) of girls got information from friends, 64 (32%) of girls got information from pharmacist, 54 (27%) of girls got information from TV/newspaper while 44 (22%) of girls got information from pharmacology book (Table 7). Similar to our study, Karamata VV et al, found that most common source of information was seniors/friends/family members 105 [34.2%] students.¹⁴

CONCLUSION

The students in present study lack the knowledge about self-medication for acne. Self-medication for acne is quite high among medical students. Self-medication is part of self-care so it should be encouraged for minor illness. But should be based on thorough knowledge. It should be restricted to over the counter drugs. Adequate knowledge and awareness about the appropriate use of medication will reduce the practice of self-medication.

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