Original Article

Acne Vulgaris: knowledge and attitude among Nepali school students

Abstract:

Background: The studies on Acne vulgaris conducted in many parts of the world show that it is very common in adolescents but little is known from Nepal.

Objectives: To assess knowledge and attitude regarding Acne vulgaris among school students.

Methods and Materials: This was a descriptive study conducted among 100 students of class 9 & 10 of Kumudini Homes Higher Secondary School, Pokhara, Nepal. Tools were demographic proforma, knowledge questionnaire & attitude scale on Acne vulgaris. Data was collected by self administered structured questionnaires using simple random sampling. Data was analyzed using Excel and Statistical Package for Social Sciences (SPSS).

Results: Most of the students belonged to age group15-17years (82%). Majority were boys (65%) and most were non-vegetarian (91%). The study showed that 52% of them had good knowledge while 48% of them had average knowledge on Acne vulgaris. The study also revealed that majority (69%) had favourable attitude and rest of them had moderately favourable attitude (31%). Hundred percent were aware that Acne is also known as pimples and occur most commonly in adolescents. Students had some misconceptions regarding acne as they thought it is not necessary to use medicine if acne is gone once (56%) and using extra medicine can make acne go away (33%).

Conclusion: The findings of the study pointed out that the students were surrounded by the myths & misconceptions on acne. It shows that this important adolescent health issue needs to be addressed through the introduction of related educational programs at schools.

Key Words: Knowledge, Attitude, Acne vulgaris, Students, Nepal

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Introduction

Skin is the largest organ system of the body and it is indispensable for human life.[1] Each person's unique appearance is established through the skin and it plays a critical role in person's mental and physical health and is always integral to self -esteem. Proper skin care can prevent dermatological diseases and can enhance beauty.[2] There is one skin disorder that, although not limited to the adolescent age-group, appears predominantly at this time - acne vulgaris (common acne).[3]

The term acne derives from the Greek word 'acme' from the writings of Actius Amidennus. He used this term "acme" in the sense of skin eruption" and vulgaris indicate the meaning "common". Acne vulgaris or common acne is the most experienced acne among teenagers. Acne vulgaris is the polymorphic eruption due to inflammation of pilosebaceous units. Acne involves anatomic, physiologic, biochemical, genetic & immunological factors of significant importance.[4]

Approximately 80% of teenagers get acne due to hormonal changes. During adolescence acne tends to be more common with boys than girls occurring among an estimated 95- 100% in 16-17 years old boys and 83 -85% of the girls of same age group.[5]

Given the following adolescent health statistics on the frequency of disease occurrence and disparities in dermatological care access, it is evident that improving adolescents' dermatologic health is an arena ripe for health policy discussions. Research findings highlighting each of these areas appear below[6]:

- Zits (acne) are the single most common chronic disease of adolescents. (Outlandia Department of Health, 2010)

- Approximately one in four middle school students and three -quarters of high school students have at least one pimple (Acne Eradication Program, 2009).

- Children living in poverty suffer the same levels of acne, but are only one-half as likely to obtain a dermatologic visit as their affluent peers (Acne Eradication Program, 2009).
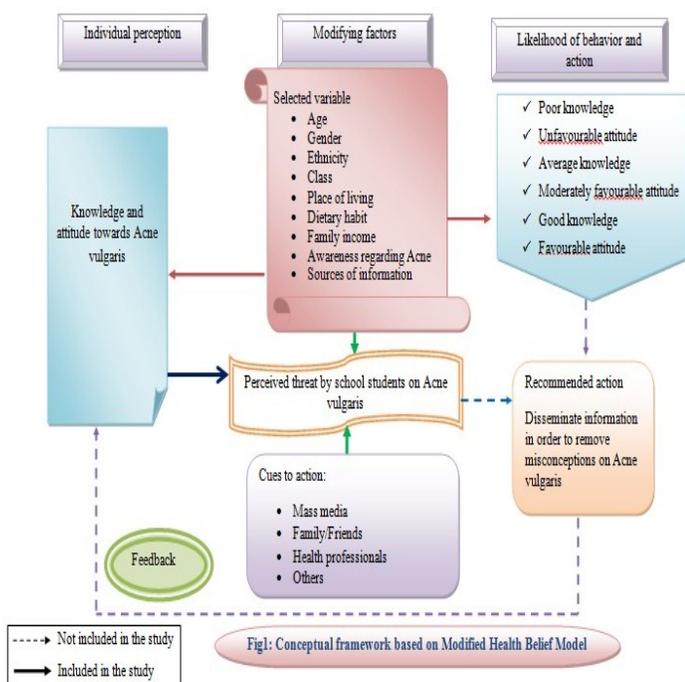
Skin diseases are the most common health problems, for which community members seek health care in Nepal. According to annual reports of the Dept. of Health, Nepal, skin diseases are the leading cause of morbidity in Nepal. In the year 2063/64 BS they constituted 4.6% of all the OPD diseases in Nepal. Skin diseases are responsible for severe disabilities and are among the major causes of social stigmatization. Regardless of the high burden to the community health, skin problems have been neglected by health policy makers until now and there are no researches or planned strategies towards the prevention and management of skin diseases at the community level.[7]

A study was conducted on Evaluation of knowledge about acne vulgaris among 900 adolescents aged 15-19 years of Tricity school of Poland through self administered questionnaire. The result concluded that 57.8% of participants had suffered from acne. As regards the causes, more than half (59.5%) of participants stated that acne is connected to eating and hygiene habits. 40.5% of students considered acne infectious. The study revealed that many "false beliefs" exist. Only 41.2% wanted to learn more, and almost 90% considered their knowledge sufficient.[8]

Objectives of the present study were to assess the knowledge and attitude regarding acne among school students.

Conceptual Framework

The conceptual framework for the present study was based on Health Belief Model.[9]

Fig1: Conceptual framework based on Modified Health Belief Model

Methodology

Non-experimental descriptive survey design was adopted for the present study. The study was conducted among 100 school students of 12-18 years of class 9 & 10 of Kumudini Homes Higher Secondary School, Pokhara, Kaski, Nepal. Sample was choosen using probability sampling (random sampling process). Data was collected through self administered questionnaire. The tools used were demographic proforma, knowledge questionnaire and four point attitude scale. Validity and reliability (r=0.07) of tool was established. Data was analysed using descriptive statistics (mean, range, standard deviation & Karl Pearson's correlation test) & inferential statistics in 0.05 level of significance by using SPSS package.

Result

Most of the participants were in the age group 15-17 years (82%) and most of them were male (65%), majority were Brahmins (31%). The participants were from class IX (52%) and class X (48%); 53% of them were residing in the hostel & 47 % of them at home; majority of them (91%) were non-vegetarian, most of them (76%) had a family income of (>NRs.20,000) and most common source of information is from family/friends (63%).

Table 1: Knowledge & Attitude scores on acne   n=100

	Range	Mean	Mean percentage	Standard deviation
Knowledge score	11 (8-19)	14.43	72.15%	± 2.475
Attitude score	28 (42-70)	57.11	71.38%	±4.219

Table 1 shows that maximum knowledge score was 19 & minimum was 8 with standard deviation ± 2.475 whereas maximum attitude score was 70 & minimum was 42 with standard deviation ± 4.219.

Table 2: Score of Knowledge Questions   **n=100**

S.N	Items	f	%
1.	The largest organ of the body is _____	76	76
2.	The skin is composed of _____ layers.	63	63
3.	_____ is one of the commonest skin disorders in teenagers.	99	99
4.	Acne is also known as _____	100	100
5.	Acne occurs most commonly in _____	100	100
6.	Acne usually affects _____	26	26
7.	The cause for acne is _____	68	68
8.	Acne occurs _____	58	58
9.	Which is true about acne?	68	68
10.	Acne is aggravated by _____	66	66
11.	Eating chocolates _____	53	53
12.	The gland responsible for occurrence of acne is _____	67	67
13.	Acne is seen in adolescents due to ____	80	80
14.	Acne occurs in which type of skin?	96	96
15.	When there is acne _____	66	66
16.	Things that make acne worse are ____	37	37
17.	The treatment for acne is _____	74	74
18.	The nutrients required for reduction of occurrence of acne is _____	66	66
19.	Self care for acne includes _____	84	84
20.	Acne can _____	95	95

Data presented in table 2 shows that all students knew that Acne is also known as pimple & occurs most commonly in adolescents, 96% of them knew that it occurs in oily skin. However only 37% knew that things that make acne worse are friction caused by skin rubbing, picking or squeezing acne lesions, pressure from bike helmets, tight collars & in the same way only 26% knew that acne usually affects face, neck & chest.

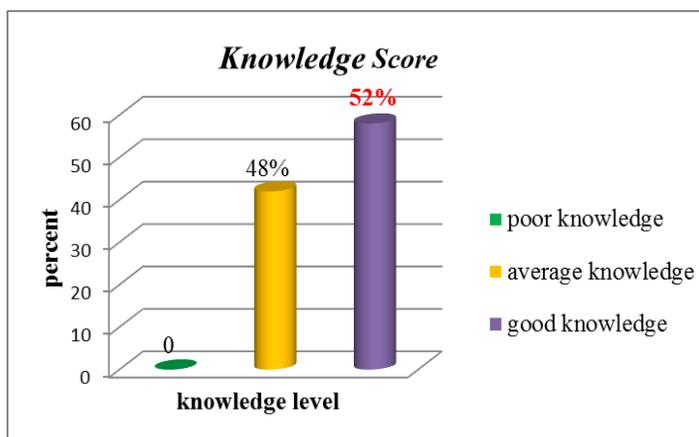**Fig 2: Cylinder Diagram representing Knowledge score**

Fig 2 shows that most of students had good knowledge (52%) while rest of them (48%) had average knowledge on Acne vulgaris. The scoring was graded as: poor knowledge (0-7), average knowledge (8-14) & good knowledge (15-20).

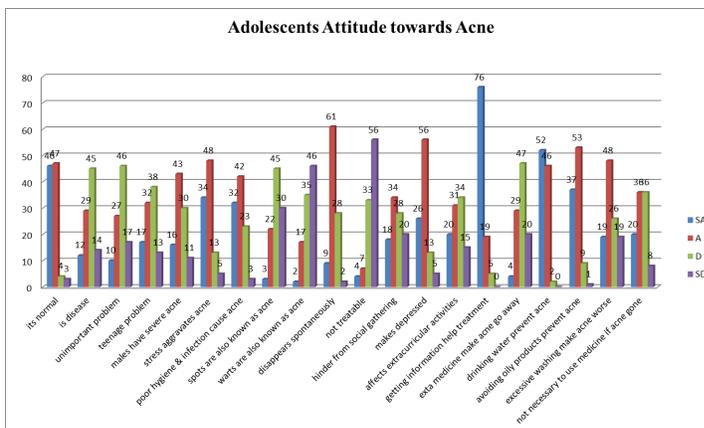**Fig 3 Bar graph representing Attitude score**

Fig 3 shows that 93% of the students believed that it is normal for teenagers to have acne, 82% believed that stress aggravates acne & acne makes the person feel depressed. In the same way 95% believed that understanding & getting information about acne could help the person treat acne better. This figure also shows that students had some misconceptions regarding acne that is poor hygiene & infection can cause acne (74%), it is not necessary to use medicine if acne is gone once(56%) & using extra medicine can make acne go away(33%)
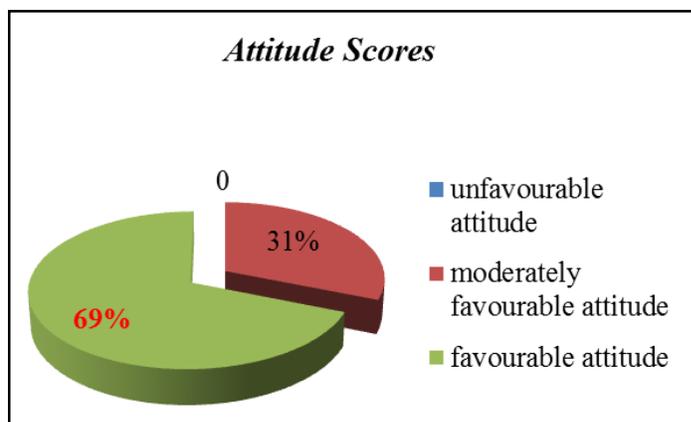
Fig 4: Pie chart Representing Attitude score

Fig 4 shows that 69% of the students had favorable attitude while 31% of them had moderately favorable attitude. The scoring was graded as: unfavourable attitude (1 -27), moderately favourable attitude (28-55) & favourable attitude (56 -80).

Table 3: Association of demographic variables with knowledge

n=100

SNo	Socio-demo-graphic varia-bles	Cate-gory	Knowledge score		Chi-square value		df
			Aver-age (8-14)	Good (15-20)	Calculat-ed value	Table value	
1	Class	IX	34	18	24.32*	3.84	1
		X	8	40			
2	Place of living	Hostel	10	43	24.77*	3.84	1
		Home	32	15			

*significant; p<0.05

Data presented in table 3 shows that there is significant association of knowledge with place of living & class which signifies that the higher the academic level the more knowledge the students will have.

Table 4: Correlation between Knowledge and Attitude   n=100

Variable	Test of significance	Mean	SD	p value
Knowledge	Karl Pearson's correlation	14.43	± 2.475	-0.006
Attitude	coefficient	57.11	±4.219	

Data in Table 4 shows that there is significant negative correlation between knowledge and attitude. It means good knowledge may not lead to good attitude and vice versa.

Discussion

In this study it was found that most common source of information was from family/friends that is 63%, other sources were mass media (20%) & health professionals (12%). In the similar study conducted in Central Saudi Arabia it was found that the most common source of information was newspaper.[10] Likewise in the similar study conducted in Greece it was found that popular sources of information were parents (31.6%), dermatologists (26.7%), magazines and television (17.5%), pharmacists (16.2%), friends (5.3%), beauticians (1.6%) and other doctors (1.1%).[11]

In this study it was found that 48% of the participants had average level of knowledge & 52% of them had good knowledge regarding Acne vulgaris. A similar study conducted in Tricity school in Poland concluded that almost 90% of the participants considered their knowledge sufficient.8 Likewise in the another study conducted in Nigeria it was found that over 80% respondents had knowledge of acne.[12]

In this study it was found that 59% of the students believe that Acne is not disease & 93% of them believe it is normal for teenagers to have Acne. In the similar study conducted in France it was found that the majority (80.8%) did not believe acne to be a disease, but rather a normal phase of adolescence.[13]

In the present study it was found that 95% believe that acne can affect self image. A similar study conducted in Greece conclud-ed that 64.4% believed that acne was compromising their self-image.[11]

In contrast to the present study, the study conducted in Nottingham, UK showed that knowledge about the causes of acne was low (mean 45%), and was unrelated to acne status.[14] Likewise another study conducted in Korea concluded that the patients neither possess the proper knowledge nor behave appropriately when taking care of acne-prone skin.[15]

Conclusion

Present study conclude that most of the students had good knowledge and favorable attitude towards Acne vulgaris. But it also showed that knowledge and attitude does not depend on each other. A knowledgeable student may have poor attitude whereas a student who has poor knowledge may have favorable attitude towards Acne vulgaris.

Recommendations

The study recommend that a similar study can be replicated using a larger sample with different demographic characteristics. A comparative study can be done with different groups of students from different schools. Also a study can be conducted on the effectiveness of Self Instructional Module (SIM) regarding Acne vulgaris. Even an interventional study can be conducted on the effectiveness of structured teaching programme on Acne vulgaris. Another study can be conducted with inclusion of practices.

Acknowledgement

Ethical Clearance

All administrative permission from institutions were taken. Permissions was taken from participants before data collection.

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