

## Assessment of Knowledge, Attitude and Practice toward Acne Vulgaris among Community in Jeddah City, 2016

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### ABSTRACT

**Background:** acne vulgaris is the most common skin condition seen by the dermatologists. It is a chronic inflammatory disease of pilosebaceous unit characterized by seborrhea, comedones, papules, pustules, nodules, cysts and in some cases scars and keloids, which persist for rest of the life.

**Objectives:** the present work aimed at evaluating the level of awareness, Attitude And Practice toward acne vulgaris in Jeddah city . **Methods:** a cross sectional analytical questionnaire based study was carried out among the general population in Jeddah city. This study started in the year (2016) and composed of 461 subjects. The mean age of citizens was 28,82. To assess citizens' demographic factors and beliefs about acne vulgaris, consenting citizens completed an anonymous online questionnaire. The data was entered and analyzed using SPSS version 20. **Results:** The sample is consisted of 65,8% women and 34,2% men. Among the respondents 7,7% reported suffering from acne vulgaris and 13,6% confirmed having a history of acne vulgaris illness in their family. The results of the study showed that 153 (34,8%) subjects had weak knowledge related to the disease, 260 (59,1%) subjects had average level of knowledge while only 27 (6,1%) subjects had good knowledge regarding acne vulgaris. There was a statistical significant association between gender, educational level and the level of awareness about acne vulgaris.

**Conclusion:** acne vulgaris is a disease that is potentially controllable but that cannot be cured. Education still be important overall the treatment of the patients.

**Keywords:** acne ,prophylactic measures ;treatment plan.

### INTRODUCTION

Acne vulgaris is the most common skin condition seen by the dermatologists<sup>[1,2]</sup>.It is a chronic inflammatory disease of pilosebaceous unit characterized by seborrhea, comedones, papules, pustules, nodules, cysts and in some cases scars and keloids, which persist for rest of the life<sup>[3,4]</sup>. There is general recognition that there are many factors in the etiology of acne vulgaris<sup>[5]</sup>. Causes could be attributed to both genetic and environmental factors. There is familial predisposition of severe forms of acne that support a genetic component. Acne usually occurs around puberty but it may start late in the thirties and forties (in adulthood)<sup>[6,7,8]</sup>. It takes several years before spontaneous remission<sup>[6]</sup>. Prognosis of the disease is usually good but, as a chronic disease, relapses even during treatment could occur. It can remit spontaneously<sup>[9]</sup>. Although substantial literature is present on basic science, clinical features, psychosocial impact and treatment of

acne, there is lack of information on the knowledge and understanding by the patients about acne especially from this part of the world. A review of recent literature shows that acne sufferers are not well informed about the causes and the modalities to alleviate its severity<sup>[10-11-12]</sup>.Acne is not a trivial disease, the physical, social and psychological morbidity associated with the disease can be profound and the quality of life in sufferers can be severely impaired.<sup>[13-14]</sup>Our Study Was Designed To Examine Health Beliefs And Assessment Level OF Awareness Toward acne vulgaris among Population In Saudi Arabia, Jeddah city And Applies The Health Belief Model To Determine Barriers.

### Rationale

There is general recognition that there are many factors in the etiology of acne vulgaris. Causes could be attributed to both genetic and

environmental factors. Although substantial literature is present on basic science, clinical features, psychosocial impact and treatment of acne, there is lack of information on the knowledge and understanding by the patients about acne.

## Objectives

### *Specific objective*

The goal of this study was to examine community health beliefs regarding acne vulgaris and their perceptions related to it and evaluate the role of demographic factors in shaping beliefs about acne vulgaris and assess possible associations between demographic characteristics with the preventive behavior of interest.

## METHODS

*Study design:* cross sectional study.

### *Setting and data collection:*

This survey analysis was conducted among community population in Jeddah city. A preformed self-administered questionnaire was distributed among the community population.

### *Sample*

Subjects were chosen according to geographical and sex distribution. Sample size was calculated based on web-site calculator<sup>(10)</sup> taking the total size of Jeddah population (2,800,000)<sup>(11)</sup>, confidence level (95%) and margin error (5%) to be 285. Additional 20 % was added to cover the missing data . The total sample obtained was 360.

### *Study population*

The study population included were both male and female in Jeddah city.

### *Study tool:*

Pre-formed Self-administered questionnaire that requires information about:

- 1- Socio-demographic data: age, nationality, gender, education level, income, marital status, and employment status.
- 2- Risk Factors Associated with acne vulgaris – clinical manifestation of acne vulgaris - incidence and prognosis of acne vulgaris.
- 3- Beliefs about acne vulgaris assessment including 8 questions. A score of 1 was given right answer and 0 otherwise. For each subject, a maximum score of 8 was calculated. A scoring system was

applied to measure the respondents' beliefs about acne vulgaris. The awareness level was categorized into 3 levels indicated by weak (0–2), average (3-5) and good (6-8).

- 4- Knowledge about prevention behavior assessment including one question “Do you believe that psychological pressure is one of the acne vulgaris factors?”. A score of 1 was given to yes and 0 otherwise. For each subject, a maximum score of 1 was calculated. The knowledge level score was categorized into 2 levels indicated by poor knowledge (0) and good knowledge (1).

### *Ethical consideration*

An informed consent was obtained from the participants included in this research before filling the questionnaire.

### *Statistical analysis*

Data were entered into the Statistical Package for Social Sciences (SPSS, version 20) and descriptive analysis conducted.

Association of respondents' characteristics with beliefs about acne vulgaris and knowledge about prevention behavior of interest was evaluated using:

- 1- Frequencies and percentages.
- 2- Independent Samples Test (T-test).

Statistical significance was accepted at  $p < 0.05$ .

## RESULTS

### **I-Examine community health beliefs regarding acne vulgaris and their perceptions related to it: (Table 2 )**

#### **1-Demographics of the studied subjects:**

The socio-demographic characteristics are shown in **Table (1)**

By looking at table (1), related to the distribution of respondents according to demographic factors:

- The mean age of population was: 28,82 years.
- With respect to gender, a majority of the subjects (298)( 65,8%) were Female.
- 395 (87,6%) subjects had Saudi nationality.
- We see that (278) of the respondents have a university degree with a percentage of 62,1%.
- We see that (219) of the respondents are married with percentage of 48,5%.
- We see that (183) of the respondents have an income (<3000 RS) with percentage of 42,5%.

- We see that (277) of the respondents are unemployed with percentage of 61,7%.
- Most of the respondents 228 (50,2%) answered that acne vulgaris could be prevented.
- 273 (60%) of the patients were aware that acne vulgaris was a genetically determined disease and 217 (47,7%) thought that psychological pressure is one of acne vulgaris factors.
- Only 65 (14,3%) subjects knew that acne vulgaris increases the risk of heart disease.
- Most of the subjects 250 (55,1%) knew that acne vulgaris may begin at any age.
- The majority of respondents 327 (72%) think that acne vulgaris can be cured and only 10,4% of the subjects knew the fact that the disease is not curable.
- The results of the study suggested that 227 (49,9%) subjects were aware of the fact that acne vulgaris is not contagious.

**Table 3** shows that the level of awareness on acne vulgaris among the study participants (440) was 153 (34,8%) so suffer weak knowledge about the disease, 260 (59,1%) subjects had average level of knowledge whereas only 27 (6,1%) subjects had a good knowledge regarding acne vulgaris (**Figure 2**). There is a statistical significant association between gender, educational level and the level of awareness about acne vulgaris, respectively ( $p=0,01 < 0,05$ ) and ( $p=0,027 < 0,05$ ).

#### **Assessment of possible associations between demographic characteristics with the preventive behavior of interest.**

Psychological pressure is one of the acne vulgaris factors, which is reported in the fifth question; that is why it is important to avoid stress as prevention of the disease. 238 (52,3%) of the respondents have a poor knowledge about psychological pressure as a factor of acne vulgaris while 47,7% of the subjects have a good knowledge.

There is a statistical significant association between age, gender, nationality, marital status and the level of knowledge about stress as factor of acne vulgaris, respectively ( $p=0,17 < 0,05$ ), ( $p=0,42 < 0,05$ ), ( $p=0,19 < 0,05$ ) and ( $p=0,41 < 0,05$ ).

#### **DISCUSSION**

Our study identified that the majority of respondents have an average level of awareness toward acne vulgaris and most of the studied subjects have a good knowledge about the fact that psychological stress is one of the factors of the pathology of acne vulgaris . Our study showed that about half of respondents were not sure or were affirmative that acne vulgaris is contagious, respectively 30,8% and 19,3%. The therapeutic management is not limited to its molecular aspect by using drugs. Improving the health of a patient goes through many other aspects as essential as drugs: education, prevention, hygiene, listening, social solidarity...This change in vision has made it possible to become aware of all the consequences of illness on the quality of life of the patient , to identify the handicap and the resulting social exclusion and to consider that psychological suffering is as important to take In charge as physical suffering, Indeed, the purpose of treatments is not only to eliminate the symptoms but, more generally, to improve the quality of life and, in the context of skin diseases, to return to the patient all his freedom in his relations with himself and with others .The patients with acne vulgaris need to improve their knowledge of the disease and self-care methods to avoid exacerbation of disease .our study has shown that the disease requires systematic treatment and appropriate care and health education is a main part of the management of acne vulgaris.

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**Table 1: socio-demographic characteristics**

	Frequency	Percentage (%)
<b>Age (Years)</b>		
Mean age: 28,82		
<b>Gender</b>		
Female	298	65,8
Male	155	34,2
<b>Nationality</b>		
Saudi	395	87,6
Non Saudi	56	12,4
<b>Educational level</b>		
Primary	6	1,3
Middle	15	3,3
Secondary	139	31,0
University	278	62,1
Master	6	1,3
PH.D.	4	0,9
<b>Marital status</b>		
Not married	233	51,5
Married	219	48,5
<b>Income (RS)</b>		
<3000	183	42,5
3000-5000	52	12,1
5000-7000	38	8,8
7000-10000	65	15,1
>10 000	93	21,6
<b>Employment status</b>		
Unemployed	277	61,7
Employed	172	38,3

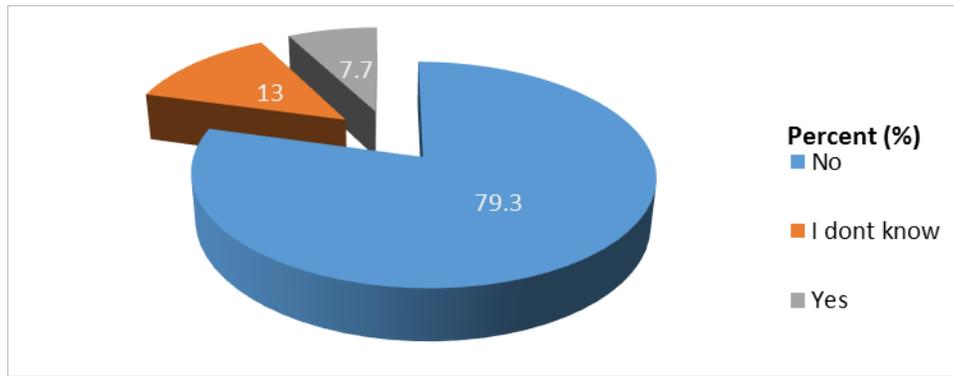


Figure 1: Knowledge regarding the diagnosis of acne vulgaris

Table 2: Responses to questions on beliefs regarding acne vulgaris

	No	Yes	Don't Know
Do you suffer from acne vulgaris?	360 (79,3%)	35 (7,7%)	59 (13,0%)
Q1: Is there a history of acne vulgaris illness in your family?	291 (64,0%)	62 (13,6%)	102 (22,4%)
Q2: you have or ever had any of the skin diseases?	246 (54,1%)	183 (40,2%)	26 (5,7%)
Q3: Do you think that acne vulgaris could be prevented?	59 (13,0%)	228 (50,2%)	167 (36,8%)
Q4: Do you think that heredity play a role in having acne vulgaris?	55 (12,1%)	273 (60,0%)	127 (27,9%)
Q5: Do you think that psychological pressure is one of the acne vulgaris factors?	75 (16,5%)	217 (47,7%)	163 (35,8%)
Q6: Do you think that acne vulgaris increases the risk of heart disease?	123 (27,1%)	65 (14,3%)	266 (58,6%)
Q7: Do acne vulgaris may affect humans at any age category?	32 (7,0%)	250 (55,1%)	172 (37,9%)
Q8: If you have acne vulgaris, do you feel socially ashamed by being affected?	161 (36,3%)	101 (22,8%)	181 (40,9%)
Q9: Do you think that acne vulgaris can be cured?	47 (10,4%)	327 (72,0%)	80 (17,6%)
Q10: Do you think that acne vulgaris is contagious?	227 (49,9%)	88 (19,3%)	140 (30,8%)

Table 3: Respondents' awareness evaluation for acne vulgaris

Level of awareness	Frequency	Percent (%)
0-2 : Weak	153	34,8
3-5 : Average	260	59,1
6-8 : Good	27	6,1
Total	440	100,0

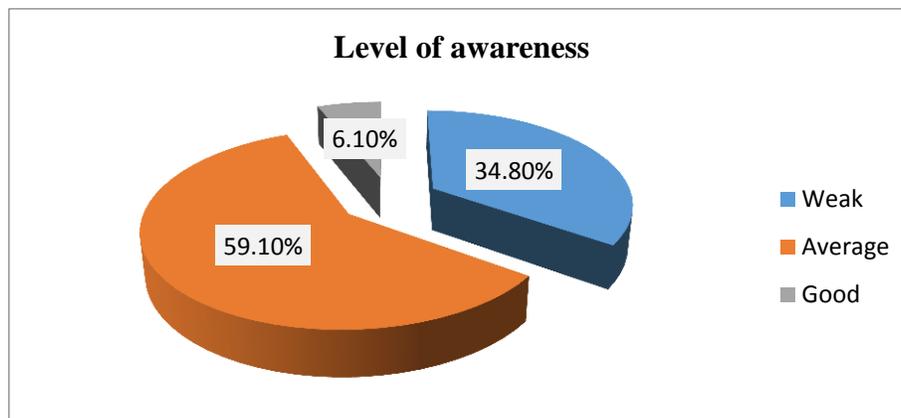


Figure 2: Level of awareness