

# A STUDY ON ACNE AMONG WORKING WOMEN AND ANALYSING THE REASONS FOR THE CAUSE OF ACNE

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## Abstract

Acne is one of the most prevalent skin conditions affecting teenagers. It is a disease of the pilosebaceous unit. Blockage of sebaceous glands and colonisation with *Propionibacterium acnes* leads to acne. Grading the severity of acne helps to determine the appropriate treatment. Treatment of acne should be started as early as possible to minimise the risk of scarring and adverse psychological effects. It should be tailored to the individual patient, the type of acne, its severity, the patient's ability to use the treatment, and the psychological state. Topical agents are the mainstay for treatment of mild acne. Moderate acne is treated with oral antibiotics. Resistance to antibiotics may be reduced by subsequent use of non-antibiotic topical medications. Severe acne is treated with isotretinoin, and this can lead to permanent remission. With better education and care given by medical profession, acne treatment could be significantly improved.

Acne is one of the most prevalent skin conditions, affecting more than 85% of teenagers. It typically starts at puberty and resolves slowly as the person reaches 20, although some people continue to have acne into their 40s and 50s. It is seldom life threatening and is often dismissed as a self-limiting condition. Little attention is given to it in either undergraduate or postgraduate education. Despite its apparent cosmetic nature, its effects can go far deeper than the surface of the skin, and can place a heavy emotional and psychological burden on patients that may be far worse than the physical impact. The change in the skin's appearance may give rise to a changed body image that in turn is known to lead to anger, fear, shame, anxiety, depression, embarrassment, and bullying and stigmatisation within peer groups. Lack of confidence, social withdrawal, feelings of insecurity and inferiority, limited employment opportunities, functional and interpersonal difficulties at work, and suicidal tendencies have also been reported and attributed to the effects of acne. The reduction in quality of life has been estimated to be as great as that associated with epilepsy, asthma, diabetes, arthritis.

**Keywords:** acne vulgaris, propionibacterium acnes, acne grading, acne treatment, acne psychological effects

## Introduction

Acne vulgaris is an inflammatory disorder of pilosebaceous unit, which runs a chronic course and it is self-limiting. Acne vulgaris is triggered by propionibacterium acnes in adolescence, under the influence of normal circulating dehydroepiandrosterone. It is a very common skin disorder which can present with inflammatory and non-inflammatory lesions. This activity reviews the etiology, evaluation, and management of acne vulgaris and highlights the role of the interprofessional team in caring for patients with this condition.

Acne vulgaris is an inflammatory disorder of the pilosebaceous unit, which runs a chronic course and it is self-limiting. Acne vulgaris is triggered by Cutibacterium acnes in adolescence, under the influence of normal circulating dehydroepiandrosterone (DHEA). It is a very common skin disorder which can present with inflammatory and non-inflammatory lesions chiefly on the face but can also occur on the upper arms, trunk, and back. Acne may appear in adolescence, and it persists through the early thirties. Acne is more common in males than in females. Urban

populations are more affected than rural populations. About 20% of the affected individuals develop severe acne, which results in scarring. Some races appear to be more affected than others. Asians and Africans tend to develop severe acne, but mild acne is more common in the white population. In general, populations with darker skin also tend to develop hyperpigmentation. Acne can also develop in neonates but in most cases, resolves spontaneously.

### Symptoms

Acne signs vary depending on the severity of your condition:

- Whiteheads (closed plugged pores)
- Blackheads (open plugged pores)
- Small red, tender bumps (papules)
- Pimples (pustules), which are papules with pus at their tips
- Large, solid, painful lumps under the skin (nodules)
- Painful, pus-filled lumps under the skin (cystic lesions)

Acne usually appears on the face, forehead, chest, upper back and shoulders

If self-care remedies don't clear your acne, see your primary care doctor. He or she can prescribe stronger medications. If acne persists or is severe, you may want to seek medical treatment from a doctor who specializes in the skin (dermatologist or pediatric dermatologist).

For many women, acne can persist for decades, with flares common a week before menstruation. This type of acne tends to clear up without treatment in women who use contraceptives.

In older adults, a sudden onset of severe acne may signal an underlying disease requiring medical attention.

The Food and Drug Administration (FDA) warns that some popular nonprescription acne lotions, cleansers and other skin products can cause a serious reaction. This type of reaction is quite rare, so don't confuse it with any redness, irritation or itchiness that occurs in areas where you've applied medications or products.

### Causes

Four main factors cause acne:

- Excess oil (sebum) production
- Hair follicles clogged by oil and dead skin cells
- Bacteria
- Inflammation

Acne typically appears on your face, forehead, chest, upper back and shoulders because these areas of skin have the most oil (sebaceous) glands. Hair follicles are connected to oil glands.

The follicle wall may bulge and produce a whitehead. Or the plug may be open to the surface and darken, causing a blackhead. A blackhead may look like dirt stuck in pores. But actually the pore is congested with bacteria and oil, which turns brown when it's exposed to the air.

Pimples are raised red spots with a white center that develop when blocked hair follicles become inflamed or infected with bacteria. Blockages and inflammation deep inside hair follicles produce cystlike lumps beneath the surface of your skin. Other pores in your skin, which are the openings of the sweat glands, aren't usually involved in acne.

Certain things may trigger or worsen acne:

- **Hormonal changes.** Androgens are hormones that increase in boys and girls during puberty and cause the sebaceous glands to enlarge and make more sebum. Hormone changes during midlife, particularly in women, can lead to breakouts too.
- **Certain medications.** Examples include drugs containing corticosteroids, testosterone or lithium.

- **Diet.** Studies indicate that consuming certain foods — including carbohydrate-rich foods, such as bread, bagels and chips — may worsen acne. Further study is needed to examine whether people with acne would benefit from following specific dietary restrictions.
- **Stress.** Stress doesn't cause acne, but if you have acne already, stress may make it worse.

## **Methodology**

The experimental procedure followed for the present study is given below,

Selection of age group

Selection of sample

Formulation of questionnaire and conduct of study

### **SELECTION OF AGE GROUP**

The questionnaire was circulated among the Students who are studying higher education.

The age group selected here is (18-25).

### **SELECTION OF SAMPLE**

The current study includes approximately 50 samples which was selected from different regions. The selected sample belong to working women among the age group between 20-35. A structured questionnaire was circulated, among them, and 50 samples were selected. The initial part of the questionnaire discussed about general information, followed by questions on physical, emotional and social impact and dietary changes they go through because of the problem.

### **FORMULATION OF QUESTIONNAIRE AND CONDUCT OF STUDY**

Google forms scheduled was the tool selected for conducting the study to collect data from the sample population. The google form scheduled was prepared to collect information regarding their physical, emotional and social impact and their body changes during the acne period. This survey collects the details of the person's possible things on getting acne and the reason that push them to the situation. Demographic data includes age (20-35) and socioeconomic status.

In this questionnaire, the time, place, foods which cause them to get an acne is recorded.

The main questions included in the questionnaire is to know about the impacts that the person go through during the period of time. How the personal life can be affected is the possible question that is mainly added to the questionnaire.

### **STATISTICAL ANALYSIS**

The data collected through online platforms were analysed to obtain the desired result and interpreted scientifically.

## **RESULTS AND DISCUSSIONS**

The present study entitled “A STUDY ON ACNE “ was conducted. The following pie charts/ bar diagrams shows the total percentage of the people who participated in the survey and their concerns as well as symptoms on the particular topic.

Among the 51 participants, the 5.88% are home makers, 64.71% are students, and 29.41% are workers.

### **1. PERCENTAGE OF PEOPLE HAVING ACNE**

(Number of participants, n=51)

Among the participants, 68.6% responded yes and 31.4% responded no.

### **2. PERCENTAGE OF PARTICIPANTS WHO HAVE HAD PAST EXPERIENCES OF ACNE**

(Number of participants, n=51)

Among the participants, 82.4% have responded yes and 17.6% have responded no.

3. PERCENTAGE OF PARTICIPANTS WHO HAVE CONSULTED MEDICAL PROFESSIONALS  
(Number of samples, n=51)  
Among the 51 samples, 54.9% have responded yes and 45.1% have responded no.
4. PERCENTAGE OF PARTICIPANTS HAVING A FAMILY HISTORY OF ACNE  
(Number of participants, n=51)  
Among the participants, 51% have responded yes and 49% have responded no.
5. SKIN TYPE OF THE PARTICIPANTS  
(Number of samples n=51)  
Among the participants, 37.5% have combination, 31.4% have oily, 23.5% have normal and 7.8% have dry type of skin
6. SKIN SENSITIVITY  
Number of participants, n=51)  
Among the participants, 68.6% have sensitive skin and 31.4% do not.
7. PERCENTAGE OF PARTICIPANTS WHOSE FAMILY MEMEBERS HAVE ACNE  
(Number of samples, n=51)  
Among the Participants, 62.7% have responded yes and 37.3% have responded no.
8. AREAS AFFECTED BY ACNE  
(Number of participants, n=51)  
Among the participants, 62.5% selected face, 4.2% selected neck, 10.4% selected chest, 8.3% selected back, 14.6% selected all of the above.
9. MEDICATIONS  
(Number of participants, n=51)  
Among the participants, 72.5% have responded no and 27.5% have responded yes.
10. CAUSE OF ACNE BREAKOUTS  
(Number of samples, n=51)  
Among the participants, 23.4% selected stress related, 36.2% selected hormones related, 17% selected sun sensitivity, 6.4% selected harsh products, 6.4% selected genetic, 10.6% selected poor skin care routine.
11. EXPOSURE TO SWEAT, HEAT, CHEMICALS ON FREQUENT BASIS  
(Number of samples, n=51)  
Among the participant, 40% said yes, 40% said no, 18% said maybe, 2% said never.
12. DIET INVOLVING TOO MUCH INTAKE OF OILS, DAIRY AND WHEY PROTEIN  
(Number of samples, n=51)  
Among the participants, 39.2% said yes, 33.3% said no and 27.5% said maybe.
13. NUMBER OF TIMES OF CLEANSING THE FACE  
(Number of samples, n=51)  
Among the participant, 35.3% selected less than 2 times, 54.9% selected 3 to 5 times, 99m8% selected more than 5 times.
14. USAGE OF MAKEUP PRODUCTS ON REGULAR BASIS  
(Number of samples, n=51)  
Among the participants, 25.5% said yes, 17.6% said sometimes, and 56.9% said no.
15. ADDITIONAL PROBLEMS OF BLACKHEADS, WHITEHEADS AND TENDER BUMPS  
(Number of samples, n=51)  
Among the participants, 62.7% selected yes and 37.3% selected no.

## 16. HOME REMEDIES

(Number of samples, n=51)

Out of 51 participants, 17.6% have tried home remedies for a few times, 47.1% haven't tried home remedies and 35.3% has tried home remedies.

## 17. DISCOLORATION, HYPERPIGMENTATION, DARK SPOTS AND REDNESS

(Number of samples, n=51)

Upon asking if acne was accompanied with discoloration, hyperpigmentation, dark spots and redness, 54.9% said yes, 17.6% said no, 25.5% said sometimes and 2% said never.

## 18. POOR SLEEP ROUTINE

(Number of samples, n=51)

When asked the participants if they have poor sleep routine, 45.1% opted yes, 23.5% opted no, 31.4% opted sometimes and no one opted for never.

## 19. SUGAR INTAKE

(Number of samples, n=51)

Out of the participations, 37.3% took sugar slightly more than required, 17.6% took a lot more sugar, 37.3% took sugar on a moderate level and 7.8% took sugar in less level.

### **Summary and Conclusion**

The present project entitled "A STUDY ON ACNE" was studied and analysed. Upon circulating the survey among people of age 15 to 30 years, common questions on acne and acne breakouts were asked. 51 samples are taken for the chart analysis.

- Among the 51 participants, 5.88% are home makers, 64.71% are students, and 29.41% are workers.
- Among the participants, when asked if they have acne, 68.6% responded yes and 31.4% responded no.
- Among the participants, 82.4% have responded yes and 17.6% have responded no for having past experiences of acne.
- Among the 51 samples, 54.9% have responded yes and 45.1% have responded no when asked if they have consulted medical professionals for help for acne.
- Out of the participants, 51% have responded yes and 49% have responded no for having a family history of acne.
- Among the participants, the skin type of them, 37.5% have combination, 31.4% have oily, 23.5% have normal and 7.8% have dry type of skin.
- Among the participants, 68.6% have sensitive skin and 31.4% do not.
- Among the Participants, 62.7% have responded yes and 37.3% have responded no when asked if other family members have acne.
- For the areas affected by acne among the participants, 62.5% selected face, 4.2% selected neck, 10.4% selected chest, 8.3% selected back, 14.6% selected all of the above.
- Among the participants, 72.5% have responded no and 27.5% have responded yes when asked if they have taken any medications.
- For the cause of the breakouts of acne, 23.4% selected stress related, 36.2% selected hormones related, 17% selected sun sensitivity, 6.4% selected harsh products, 6.4% selected genetic, 10.6% selected poor skin care routine.
- Among the participant, 40% said yes, 40% said no, 18% said maybe, 2% said never for having exposed to heat, sweat, and chemicals on a daily basis.
- Among the participants, 39.2% said yes, 33.3% said no and 27.5% said maybe for intake of oils, dairy and whey protein.

- The participants were asked how many times they washed and cleansed their faces each day and, 35.3% selected less than 2 times, 54.9% selected 3 to 5 times, 9.8% selected more than 5 times.
- In case of using makeup products among the participants, 25.5% said yes, 17.6% said sometimes, and 56.9% said no.
- Among the participants, 62.7% selected yes and 37.3% selected no when asked if their acne accompanied with whiteheads, blackheads and tender bumps.
- Out of 51 participants, 17.6% have tried home remedies for a few times, 47.1% haven't tried home remedies and 35.3% has tried home remedies.
- Upon asking if acne was accompanied with discoloration, hyperpigmentation, dark spots and redness, 54.9% said yes, 17.6% said no, 25.5% said sometimes and 2% said never.
- When asked the participants if they have poor sleep routine, 45.1% opted yes, 23.5% opted no, 31.4% opted sometimes and no one opted for never.
- Out of the participations, 37.3% took sugar slightly more than required, 17.6% took a lot more sugar, 37.3% took sugar on a moderate level and 7.8% took sugar in less level.

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