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A Study on The Prevalence of Skin Disorders and It's Relation to Habits of Personal Hygiene



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ABSTRACT

Objective: To examine the effects of practicing and nonpracticing the habits of personal hygiene and their relation in the prevalence of skin disorders. **Method:** A Pre-typed semistructured Performa consisting of several questions was prepared for collection of data from subjects. The present study was analyzed through both descriptive and inferential statistical methods. **Result:** The overall prevalence of eczema among the studied population, itching irrespective of the practice of bathing and bad body odour was 8.5% (n=94), 14.8% (n=163) and 3.8% (n=42) respectively. **Conclusion:** It was found that the individuals who were in good personal hygiene practice were less affected by skin disorders.

INTRODUCTION:

Skin is a living breathing thing. It has around 2 million sweat glands, which have at least three important functions; to keep the body temperament normal, to keep the skin pliable and to rid the body of waste materials and dirt. Skin cleanliness is desirable from the aesthetic as well as hygienic stand point. It makes for bodily comfort and self respect. In India skin is of immense value, as a lot of perspiration and excretion of solids take place through its innumerable minute pores. A great deal of the work of the lungs and kidneys is performed by the skin. Hence it is very necessary to keep the skin free from dirt, so that the sweat glands may function properly. The amount of sweat varies from person to person. Emotional stress, worry, fear or excitement, can also cause excessive sweating. Certain parts of the body, like armpits, give out unpleasant odor from their secretions and so require scrupulous cleansing regularly. Similarly, special attention should be given to the feet and external genitalia while taking a bath. Cleansing of the skin and the removal of its sebaceous secretions is best affected by soap and water, which should be followed by liberal application of some good toilet powder containing a deodorant.^{1, 2}

In India, oiling of the body with certain vegetable oils is a very popular custom. It keeps the body cool, renders the skin soft and supple, and supplies fat to the body. By kneading and rubbing the body, the circulation of the blood is quickened and the muscles are exercised. It makes the man cheerful and refreshed. ^{1, 2}

The most important factors in maintaining the health of the skin are the same factors important for maintaining the health of the rest of the body-adequate rest, exercise, proper diet and cleanliness. Attention to these general rules of the hygiene will do more to produce a clear, attractive skin than the application of the many different types of so-called "skin food" advertised so freely. In fact, lack of sleep, an unbalanced diet, and failure to wash the face frequently can undo all the care and effort put into a hairdo or the careful application of lipstick and powder. The face should be washed at least once daily with warm water and a mild soap. For unusually oily skin, cleansing with soap twice a day may be necessary. The idea of cleaning the face is constantly exposed to dirt which adheres to the fatty secretion from the oil glands of the skin. If oils and creams are used as a substitute for soap and water, this accumulation of oily dirt is never completely removed and may be a cause of skin disorders. For unusually dry skin, an application of facial cream at night after the face has been thoroughly cleansed with soap and water may be beneficial. It is not harmful even for

those less dry skin but may be harmful for those who have tendency to acne.

Chapping of the skin occurs most frequently in cold weather when the activity of the oil glands in the skin is reduced. Too frequent washing with soap removes oil from the skin and makes it more susceptible to chapping. Protection of the skin against wind and cold and the use of the oil, cold cream, or glycerine reduce the likelihood of chapping. Drying of the hands face after washing makes chapping less likely.³

Skin and cosmetics: - Cosmetics (from *kosmetikos*, meaning skilled in decorating) are substances applied externally to beautify the complexion, skin, or hair. They are not to be regarded as a hygienic necessity, although the retail sales of cosmetics amount to over a billion a year. Extravagant claims are constantly made in cosmetics advertising. There are no known substances to fulfill some of the claims of advertisers who have indicated that their product will restore the natural color to gray hair, grow hair, eradicate wrinkles, or feed skin from the outside.

Healthy hair and teeth, bright eyes, and a clear complexion require proper diet, regular elimination, cleanliness, outdoor exercise and adequate sleep. For these, there is no substitute.

Many types of face cream, such as vanishing creams, cleansing creams, and nourishing creams are urged upon the public, cold cream is the only that is needed. Essentially, this consists of lanoline, almond oil, spermaceti, and beeswax in various combinations with other ingredients. Its function is that of lubrication. Ordinarily, the oil produced by the sebaceous glands of the skin provides sufficient lubrication, but for those whose skin is very dry, cold creams prevent roughness and chapping. Liquefying or cleansing creams are probably harmless; soap and water are safer and more effective cleansing agents. Vanishing creams are basically soap and undesirable because of their drying effects. It is not possible to feed skin tissues by the application of nourishing creams. Vitamin creams and hormone creams have been widely advertised, but there is no evidence that they benefit either the skin or the body. In this regard highest quality talcum powder consists of pure ground talc with or without the addition of some perfume.

Mineral impurities have been largely eliminated in the manufacture of talcum powders. Rice starch, wheat starch, or orrisroot is sometimes used. Some persons are allergic to these. The powder puff should be clean, and another person's powder puff should not be used.

Lipstick and rouge are ordinarily harmless, although an occasional person may be sensitive to a dye or perfume which has been used in the manufacturer of a particular product.⁴

METHODOLOGY

This study entitled "A Study on the Prevalence of Skin disorders and it's relation to habits of Personal Hygiene" was conducted among the people belonging to civil line area of district Aligarh. This study was an observational cross- sectional study conducted to find out the the prevalence of the Skin disorders among the people practicing or not practicing the method of personal hygiene at Aligarh, Uttar Pradesh, India. A Pre-typed semi-structured Performa consisting of several questions was prepared for collection of data from the subjects. The present study was analyzed through both descriptive and inferential statistical methods.

RESULT AND OBSERVATION

The present study entitled "A Study on the Prevalence of Skin disorders and it's relation to habits of Personal Hygiene" was conducted at civil line area of Aligarh. A total of 1100 subjects were questioned for offer said study. The following results were observed among the studied population.

1. Distribution of studied population acc	cording to their	practice of	f shaving o	of axillary
and pubic hairs and prevalence of eczema	a			

Shaving of Axillary and	Eczema	No Eczema	Total	
Pubic Hairs				
Weekly	7	172	179	
	3.9%	96.1%	13.5%	
Fortnight	6	164	170	$X^{2}=54.5$
	3.5%	96.5%	15.5%	p < .001
Monthly	51	583	634	Significant
	8.0%	92.0%	57.6%	
More than a Month	24	72	96	
	25%	75%	8.7%	
Information not shared	6	15	21	
	28.6%	71.4%	1.9%	
Total	94	1006	1100 (100%)	
	(8.5%)	(91.5%)		



Table TR1 Figure FR1 Distribution of the studied population according to their practice of shaving of axillary and pubic hairs and prevalence of eczema

Table TR1 and Figure FR1 depict that 16% (n=179) of people were shaving their axillary and pubic hairs weekly out of this 3.9% (n=7) were suffering from eczema and 96.1% (n=172) were healthy.

15.5% (n=170) were shaving axillary and pubic hairs fortnightly; among them 3.5% (n=6) were having eczema while 96.5% (n=164) were not having the disease.

57.6% (n=634) were having the habit of shaving axillary and pubic hairs every month. In this group 8% (n=51) were infected with eczema and 92% (n=583) were not so.

The individuals who were shaving their axillary and pubic hairs after more than a month were 8.7% (n=96) out of these individuals 25% (n=24) were having the eczema and 75% (n=72) were healthy.

1.9% (n=21) individuals did not agree to share the information. Among these subjects, 28.6% (n=6) were suffering from eczema and 71.4% (n=15) were not having eczema. The overall prevalence of eczema among the studied population was 8.5% (n=94).

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Bathing	Itching	No itching	Total	
Once a day	87	640	727	$X^2 = 29.1$
	12%	88%	66.1%	P <.001
One day gap	58	230	288	Significant
	20%	80%	26.2%	-
Twice a day	13	62	75	-
	17.3%	82.7%	6.8%	-
3 rd Day	5	5	10	-
	50%	50%	0.9%	-
Total	163 (14.8%)	937 (85.2%)	1100 (100%)	-

2. Distribution of the studied population according to their practice of bathing in relation to itching



Table TR2 and figure FR2 show that 66% (n=727) of people were bathing once a day. Out of which 12% (n=87) were found to have itching and 88% (n=640) did not have itching.

26.2% (n=288) were bathing at the interval of one day; among them, 20% (n=58) were having itching and 80% (n=230) were not having the problem.

6.8% (n=75) were bathing twice a day. In this group 17.3% (n=13) were found with itching and 82.7% (n=62) were not so.

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The individuals who were bathing on 3^{rd} day were 0.9% (n=10); out of which 50% (n=5) were having the said problem and 50% (n=5) were devoid of this problem.

The overall prevalence of itching irrespective of the practice of bathing was 14.8% (n=163).

3. Distribution of the studied population according to habit of bathing in relation	with
bad body odour	

Bathing	Bad Body	No Bad Body	Total	
	Odour	Odour		
Once a day	20	707	727	
	2.8%	97.2%	66.1%	$X^2 = 8.0$
One day gap	11	277	288	P <.05
	3.8%	96.2%	26.2%	Significant
Twice a day	06	69	75	
	8%	92%	6.8%	
3 rd Day	5	5	10	
	50%	50%	0.9%	
Total	42 (3.8%)	1058 (96.2%)	1100 (100%)	



Table TR 3 and figure FR 3 show that 66% (n=727) of people were bathing once a day. Out of which 2.8% (n=20) were found to have bad body odor and 97.2% (n=707) were not having bad body odour.

26.2% (n=288) were bathing at the interval of one day gap among them 3.8% (n=11) were having bad body odour and 96.2% (n=277) were not having the problem.

6.8% (n=75) were bathing twice a day. In this group 8% (n=6) were found with bad body odour and 92% (n=69) were not so.

The individuals who were bathing on the 3^{rd} day were 0.9% (n=10) out of these individuals 50% (n=5) were having the said problem and 50% (n=5) were devoid of this problem.

The overall prevalence of bad body odour was 3.8% (n=42).

DISCUSSION

Personal hygiene is the basic concept of cleaning, and grooming and it is the first step to good health. Besides that it is considered as one of the most important part of our daily lives at home and workplace which help us to protect ourselves and keep us healthy.

The present study entitled "A Study on the Prevalence of the Skin Disorders and it's relation to habits of Personal Hygiene" was conducted at civil line area of Aligarh. The information gathered in the present study is vital for planning appropriate cleanliness programme to reduce the burden of those infections as well as personal hygiene-associated problems in the general population.

The present study was conducted:

a. To determine the prevalence of personal hygiene-related infections or other associated problems.

b. To find out the pattern of skin disorders in the population in regards to personal hygiene.

c. To assess statically, the practice of personal hygiene among the study population and its influence on their health in terms of some skin disorders.

d. To educate the population for

Bathing regularly

Changing clothes regularly

Shaving of axillary and pubic hairs at proper intervals

➤ Washing hands with soap or with any other disinfectant after using toilets/ defecation The study undertaken was an observational, cross-sectional, and retrospective study conducted on 1100 people of various age groups at civil lines area of Aligarh and its vicinities.

Prevalence of eczema in relation with a habit of shaving axillary and pubic hairs

The overall prevalence of eczema in relation with shaving axillary and pubic hairs was found 8.5% (n=94) and out of 1100 individuals, 91.5% were devoid of this disease. Among these population 16% (n=179) people were shaving their axillary and pubic hairs weekly out of this 3.9% (n=7) were suffering from eczema and 96.1% (n=172) were healthy in this regard. 15.5% (n=170) were shaving axillary and pubic hairs fortnightly among them 3.5% (n=6) were having eczema and 96.5% (n=164) were not having the disease. 57.6% (n=634) were having the habit of shaving axillary and pubic hairs on monthly basis. In this group 8% (n=51) were infected with eczema and 92% (n=583) were without eczema.

The individuals who were shaving their axillary and pubic hairs for more than a month were 8.7% (n=96) out of these individuals 25% (n=24) were having the eczema and 75% (n=72) were healthy in this group.

1.9% (n=21) individuals did not agreed to share the information because of privacy. In such kind of participants, 28.6% (n=6) were suffering from eczema and 71.4% (n=15) were not having eczema.

The maximum numbers of affected persons were found among those who were shaving their axillary and pubic hair for more than a month i.e. 25% (n=24). In the comparison the habits of various time intervals for this method of cleanliness the chi square value is X^2 =54.5, p < .001 and statistically it is highly significant.

Jee Hee Son, et al. also reported the prevalence of atopic dermatitis which is also called as eczema. They reported the prevalence of eczema in adults at a variation of 9% to 24.5%. In comparison to that study, the present study was also found as same. The overall prevalence is 8.5% which is much closer to 9% and to the maximum number if it is seen so, the prevalence of eczema among those who shave their axillary and pubic hairs for more than a month are higher i.e. 25% it is also near about same as 24.5%.⁵

David Ferrandiz-Mont et al. in their study reported the risk factors of eczema in terms of personal hygiene practices. Although they conducted their studies on the children but it provides a clue to find out the said problem based on hygienic practices. The study accounted those children who did not experience eczema symptoms performed partial ablution more frequently than children who experienced eczema symptoms (78.32% vs. 63.16%).⁶

The present study was also aiming the same situation that individuals who are practicing to shave their axillary and pubic hairs on short intervals have less prevalence and those of prolonged gap were affected more by eczema.

Distribution of studied population according habit of bathing in relation with bad body odour

The present study showed positive results that those who bathed regularly or daily had a marginalised prevalence of bad body odour and those who had the habit of bathing at long interval i.e. 3^{rd} day bathing were having more the condition of bad body odour. The following data showed the relation between bathing and bad body odour. The overall prevalence of bad body odor in the present study was 3.8% (n=42). 66% (n=727) people were bathing once a day. Out of this 2.8% (n=20) were found to have bad body odour and 97.2% (n=707) were not having bad body odour. 26.2% (n=288) were bathing at the interval of one day gap among them 3.8% (n=11) were having bad body odour and 96.2% (n=277) were not having this problem. 6.8% (n=75) were bathing twice a day. In this group 8% (n=6) were found with bad body odour and 92% (n=69) were not so. The individuals who were bathing on 3^{rd} day were 0.9% (n=10) out of these individuals 50% (n=5) were having the said problem and 50% (n=5) were devoid of this problem. Statistically it was highly significant ($X^2=8.0 p < .05$).

Bad body odour is not a personal but a social issue. The main causes of this problem have been discussed in various studies. Body odour is the result of the breakdown of sweat and sebaceous gland excretions into acids by common bacteria that inhabit the skin. To prevent the occurrence of body odour, anti-bacterial agents or masking fragrances are added to products.⁷

Body odour is caused by degraded skin components accumulating on the skin surface as well as secretions from the sweat and sebaceous glands and is affected by the skin pH.⁸

By the review of various classical literature and study materials, it came in to knowledge that in old Egyptian civilization there were traditions of bathing with some fragrance and oils to get rid of body odours. It is an indication that habit of bathing has got its importance in relation with bathing. The metabolites which used to accumulate on the body and causing an unwanted smell could be removed by bathing.⁹

Distribution of studied population according to their practice of bathing in relation with itching

In the present study the overall prevalence of itching in the studied population was found 14.8% which in the range which was reported by Nicholas K. Mollanazar et al. in their study. The rest of pattern of prevalence of general itching was not found by bathing habit. However, the least percentage of itching was found among those who were bathing daily. In this regard the following data was found in the present study.

66% (n=727) of people were bathing once a day. Out of this 12% (n=87) were found to have itching and 88% (n=640) were not having itching. 26.2% (n=288) were bathing at the interval of one day gap among them 20 % (n=58) were having itching and 80 % (n=230) were not having the problem. 6.8% (n=75) were bathing twice a day. In this group 17.3% (n=13) were found with itching and 82.7% (n=62) were not so. The individuals who were bathing on 3rd day were 0.9% (n=10) out of these individuals 50% (n=5) were having the said problem and 50% (n=5) were devoid of this problem.

Statistically, it was highly significant ($X^2 = 29.1 \text{ p} < .001$)

Nicholas K. Mollanazar et al. reported in their study that the prevalence of pruritus in the general population varies from 8 to 38 % worldwide.¹⁰

CONCLUSION

The study was conducted to find out the awareness regarding personal hygiene practices and associated skin morbidity profiles. 1100 individuals of the selected area were enquired to scrutinize the level of personal hygiene and religious awareness. The habits of cleanliness and prevalence-associated diseases were pragmatic. The findings of the study were as follows:-

Relation of eczema with shaving of axillary and pubic hairs: The overall prevalence of eczema in relation with shaving axillary and pubic hairs was found 8.5% and 91.5% were devoid of this disease. The maximum numbers of affected persons were found among those who were shaving their axillary and pubic hairs at interval of more than a month i.e. 25%. $(X^2=54.5, p < .001 highly significant)$

Relation of bathing and itching: 14.8% were of itching. The minimum prevalence of itching was found among those who were bathing daily. ($X^2 = 29.1 \text{ p} < .001$, Significant)

Relation of bathing with bad body odour: The overall prevalence of bad body odour in the current study was **3.8**%. 66% of people were bathing once a day (only 2.8% were found having bad body) odour. 26.2% were bathing at the interval of one day gap among them 3.8 % had bad body odour. The individuals who were bathing on 3^{rd} day were 0.9% out (Bad body odour was 50:50%). (X^2 = 8.0 p < .05 significant)

Poor personal hygiene is a modifiable risk factor in terms of health and disease. In the present study, almost all the variables were found significant in their relations.

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