

# Personal Hygiene Practice Associated Skin Diseases among the Patients Attending at A Military Hospital

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## ABSTRACT

**Background:** Skin diseases still remain as a major public health problem worldwide. This study was aimed to assess the hygiene practices and to find out the skin diseases associated with it among individual attending at Adhoc Combined Military Hospital, Ramu, Cox's Bazar.

**Materials and methods:** This cross-sectional, questionnaire survey was conducted in the Outpatient Department of Combined Military Hospital, Ramu, Cox's Bazar from July 2019 to December 2019 among 170 patients conveniently and randomly selected. The study includes newly diagnosed cases only.

**Results:** Out of 170 respondent, 122 (71.76%) had the habit of washing hands with soap and water before eating and after using toilet. 130 (76.47%) respondent cleaned their uniform/clothing daily. 98 (57.47%) of the respondents had practice of clean and trim nails regularly. 100% patients had sanitary types of latrine. There was significant association between skin diseases and some of the personal hygiene practices such as hand washing, daily bathing, wearing clean uniform/ clothes, trimmed and clean nails and sharing of bed.

**Conclusion:** The hygiene practices among respondents were associated with skin diseases. Therefore, regular health education on hygiene practices has to be imparted for all in order to prevent the skin diseases.

**Key words:** Personal hygiene; Skin diseases; Military Hospital.

## Introduction

Skin disease related health burden is more in developing countries, affecting millions of people, as a result of improper hygienic conditions and practices<sup>1</sup>. This leads to needless suffering from infectious diseases, despite being preventable. There is an increasing evidence to show that good hygiene practice in the home and working places has an important role in preventing the spread of these infections. According to World Health Organization (WHO) the Safe Water, Sanitation and Hygiene (WASH) has the potential to prevent at least 9.1% of the global disease burden and 6.3% of all deaths<sup>2</sup>. WASH is critical in the prevention and care of all the 17 Neglected Tropical Diseases (NTDs) scheduled for intensified control or elimination by 2030<sup>3</sup>.

A healthy skin is a source of pleasure, not only to its owner

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but also the one who looks at it. To possess a nice skin is to have great social and economic advantage. Besides, the positive health of the skin is an insurance against disease. Skin disease is seldom fatal. Successful management of skin diseases requires accurate diagnosis and prompt treatment.

Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases. Likewise, personal hygiene refers to the comprehensive cleaning and caring of the body which includes bathing, washing hands, brushing teeth and wearing clean clothes. These good hygiene practices can reduce the incidence of diseases such as diarrhea-related diseases, pneumonia, scabies, skin diseases, eye infections, etc. Therefore, maintaining good personal hygiene is necessary for physical, mental and social well-being<sup>4</sup>.

In developing countries, improper personal hygiene practices and unhygienic living conditions favor person-to-person transmission of infection and is an important factor for higher incidence of these diseases. Likewise, infection and malnutrition form a vicious cycle. Therefore, the high burden of communicable diseases due to poor personal hygiene practices still remains a threat to the public health in developing countries<sup>5</sup>.

Water, sanitation and hygiene play an important role in sustainable development and have broad public health benefits. Hygiene is the first step towards ensuring a healthy physical life. Education and communication are important components of promoting hygiene and key to promote behavioral change within communities by motivating, informing and educating about good hygiene practices.

The present study was conducted among patients attending the OPD of CMH Ramu, to know their hygiene practices and to find out the skin diseases associated with it.

### Materials and methods

A cross sectional study was carried out among 170 respondents by purposive sampling to assess the hygiene practices and to find out the skin diseases associated with it among the patients attending at skin OPD of military hospital, Ramu, Bangladesh from July 2019 to December 2019. All the skin disease cases of different age irrespective of sex attending at Dermatology Department for seeking treatment were considered. Armed forces personnel and their families, retired service personnel and their families, civilian paid from defense estimates and their families attend this hospital for treatment. Respondents were selected as non-probability type of purposive sampling technique. Data collection was carried out through a questionnaire and face to face interview by asking question in Bangla. The data was analyzed by using software SPSS and presented in tables.

### Results

Out of 170 respondents, 35.9% were in the 21-30 years age group and the 27.6% were in the 31-40 years group (Table-I). The mean age was 27.14 years with standard deviation  $\pm 12.70$  years. Male and female respondents were distributed as, 100 male (58.8%) and 70 female (41.2%) (Table-I). Majority (96.5%) received formal education followed by illiterate (0.6%) and pre-school (2.9%) group.

Majority of the respondent lived in family accommodation 128 (75.3%) and the rest 42 (24.7%) lived in barracks. Maximum respondents 106 (62.4%) shared bed with others and rest (37.65%) not. As many as 142(83.53%) had habit of daily bathing. 122 (71.76%) had the habit of wash hands with soap and water before eating and after using toilet. Among 170 respondents 130(76.47%) cleaned their uniform/clothing daily. Out of 170 total respondents, 98(57.47%) of the respondents had practice of clean and trimmed nails regularly. 100% patients had sanitary types of latrine (Table-II).

Table-III shows that, there was significant association between skin diseases and some of the personal hygiene practices ( $p < 0.01$ ) such as hand washing, daily bathing, wearing clean uniform/ clothes, trimmed & clean nails and sharing of bed.

**Table I :** Distribution of respondents (n= 170).

Characteristics	Frequency	Percentage (%)
Age group (Years)		
Up to 10 years	20	11.8
11-20 years	24	14.1
21-30 years	61	35.9
31-40 years	47	27.6
Above 40 years	18	10.6
Sex		
Male	100	58.8
Female	70	41.2

**Table II :** Distribution of respondents by personal hygienic practices (n= 170).

Characteristics	Frequency	Percentage (%)
Daily bathing habit		
Yes	142	83.53
No	28	16.47
Sharing of bed		
Yes	106	62.4
No	64	37.6
Habit of daily uniform/cloth washing		
Yes	40	23.53
No	130	76.47
Type of latrine used		
Sanitary	170	100.0
No sanitary	00	00.00
Brush teeth twice daily		
Yes	95	55.88
No	75	44.12
Wash hands before eating and after toilet		
Yes	98	57.47
No	72	42.53
Walk without footwear		
Yes	50	29.41
No	120	70.59
Wash hands before eating and after toilet		
Yes	122	71.76
No	48	28.24

**Table III :** Association between personal hygiene practices and skin diseases (n=170).

Personal hygiene practices	Skin disease		Test statistics (With df=1)
	Present	Absent	
Take bath daily	Yes	42	$\chi^2 = 14.89$ p= .0001
	No	19	
Washed uniform/clothes daily	Yes	12	$\chi^2 = 18.76$ p= .0003
	No	89	
Brush teeth twice daily	Yes	55	$\chi^2 = 0.097$ p= 0.323
	No	49	
Sharing of bed	Yes	73	$\chi^2 = 20.986$ p= .0001
	No	21	
Clean and trim nails regularly	Yes	26	$\chi^2 = 20.029$ p= .0001
	No	49	
Walk without footwear	Yes	21	$\chi^2 = 3.0121$ p= .0826
	No	34	
Wash hands before eating and after using toilet	Yes	32	$\chi^2 = 15.546$ p= .0008
	No	28	

### Discussion

Hygiene is aimed at nurturing good practices by providing clean water, sanitary toilets and educating good hygiene practices, which are essential for the survival and development of children. Access to safe water and sanitation facilities will necessarily lead to improved health, when it is utilized properly along with personal hygienic behavior. Hygiene also enables to become agents of change for sanitation and hygiene practices in their families and communities. Providing easy access to hygiene, nutrition and health education services as a simple and cost effective tool which can be the way in the prevention and control of these diseases.

The present study showed that only 71.76 % washed their hands with soap water before eating and after using toilet. Other studies done at different places also showed the similar findings with regards to hand washing practices. A study from Assam conducted among the paramilitary forces showed that, 84.25% reported of washing their hands before eating and after using toilet with soap and water<sup>6</sup>. Another study on personal hygiene in a slum of Kolkata, India showed that 98 (94.23%) washed their hands after visiting toilet and 88 (84.62%) washed their hands before eating<sup>7</sup>. Cleaning hands before eating meals and after using bathroom/toilet is a very simple and important practice.

The present study revealed that 83.5 % of the respondent took bath daily. Similarly, a study on personal hygiene living in a slum of Kolkata, India showed that only 42.3% took bath daily<sup>7</sup>.

This study depicted that only 98 (57.47%) respondents used to clean and trim their nails regularly. Similarly, a study on personal hygiene in a slum of Kolkata, India showed that 76.92% trimmed their nails<sup>7</sup>.

The present study showed that, there was significant association between skin diseases and some of the personal hygiene practices ( $p < 0.01$ ) such as hand washing, daily bathing, wearing clean clothes, trimmed & clean nails. Similarly, a study conducted among 184 respondents also showed significant association between personal hygiene scores and morbidity profile among them<sup>8</sup>.

The present study revealed that 142 (83.5%) of the respondents have daily bathing habit, 57.47% respondents used to clean and trim their nails regularly. Similarly, a study on personal hygiene practices and related skin diseases among habitants of urban locality of Bangalore, India<sup>9</sup> showed that 40.7% took bath daily and 56.5% had trimmed nails and 76.7% washed hands with soap and water before eating and after using toilet<sup>9</sup>.

In a study on prevalence of skin infections among school children in Hyderabad, Telangana state, 178 respondents showed highly significant association between personal hygiene and skin infection<sup>10</sup>. The present study also showed that, there was significant association between skin diseases and some of the personal hygiene practices ( $p < 0.01$ ). Therefore, all should be educated regarding proper hygiene practices to prevent most of the skin diseases.

### Conclusion

Our study found a higher prevalence of skin diseases among the respondents with bad personal hygiene practices. Health education among the individual and their family regarding personal hygiene should be given. Regarding various morbidities among them, proper education and necessary support should be given by the authority. While maintaining health status and personal hygiene, socioeconomic factors are seen to play an essential role. The hygiene practices among military persons, their families and others were associated with many skin diseases. Therefore, regular health education on hygiene practices has to be imparted for all in order to prevent these skin diseases.

### Disclosure

All the authors declared no competing interests.

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