

# Skin care practices among adolescent students in a selected school, Bharatpur.

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## Abstract

**Background:** Skin care is the range of practices that support skin integrity, enhance its appearance and relieve skin conditions. Skin care refers to maintenance of the hygienic state of the skin under optimal conditions of cleanliness and comfort which includes activities like washing, bathing, cleansing, and the use of soaps, detergents, oils, etc. The aim of this study was to find out the skin care practices of adolescents for acne prevention, protection from sunlight and maintenance of hygiene.

**Materials and Methods:** A descriptive cross-sectional study was carried out among 120 adolescents studying at a selected school. Non probability enumerative sampling technique was used to select the sample. Data was collected on 2020/12/16 and 2020/12/17 through structured self-administered questionnaire. Collected data was analyzed and interpreted through descriptive statistics.

**Results:** The findings of this study revealed that 32.5% practiced use of skin care products like face wash and 36.6% cleaned their face more than three times a day. Nearly half of the adolescents (45.1%) used home remedies for acne treatment and only 16.9% consulted dermatologist. More than half of the adolescents (54.9%) had habit of bathing twice a week and changing innerwear daily (41.7%) whereas 50% adolescents use common towel for drying hand after hand washing. Most of respondents (60.9%) do not avoid sun exposure, only 20.8% uses sunscreen, 35% uses umbrella and 25.8% uses hat/scarf sometimes to protect from sunlight.

**Conclusion:** In conclusion, most of the adolescents use home remedies for acne treatment rather than consulting dermatologist, hygienic habits such as bathing, changing innerwear is practiced more by adolescents and use of sun protective measures is comparatively low. So, awareness program focusing on importance of consulting dermatologist, practicing hygienic habits, use of all sun protective measures is needed to increase good skin care practices among adolescents.

**Keywords:** Skin care, Practices, Adolescents.

## Introduction

Adolescence is a period of tremendous transformation in the appearance of the body and the evolution of the mind that will eventually lead to adulthood [1]. It is also occasioned by the interaction of hormones and alteration of various secondary characteristics [2]. However; Appearance and healthy skin play as a vital role in communicating and hold a language to express a sense of self identity in younger generation, giving a rise to adolescence attractiveness a marked priority [3]. With each generation comes unique needs, more importantly, the impact of severe skin problems at an early age can have a devastating effect throughout the lifespan [4]. Evidences from various part of world has shown that Pimples, blemished skin and acne are major skin problems during this period

[5]. Therefore, there is a need for the early introduction of adequate skin care such as environmental protection, necessity of proper skin care in early years making a big difference in a young person's quality of life. Likewise, skin care practices among adolescents include acne prevention, hygiene and sun protection(6). In addition, Personal hygiene activities such as taking a bath or shower, brushing and flossing the teeth, washing and grooming hair, and performing nail care promote comfort and relaxation, foster a positive self- image, promote healthy skin and prevent infection and disease [6]. (Researchers also reported that sun protection such as use of sunscreen is an important aspect of skin care to prevent from varying degrees of sun burn and increased risk of cancer. Despite the fact that, daily dose of vitamin D is beneficial for

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human body [7-9]. With the increasing concern towards the skin care and outer appearance among the teens, it plays a momentous alternative and viable option to adopt the proper skin care practices. Hence, this study aimed at assessing the various skin care practices related to prevention of acne, maintenance of hygiene and protection of skin from sun among adolescents and providing insights on steps necessary for further improvement.

## Materials and Methods

### Research design

A descriptive cross-sectional study was used to identify the skin care practices among adolescent students.

### Research setting and population

This study was conducted in a private school of Chitwan district i.e. Step by Step English Secondary School, Bharatpur-9, Chitwan. The population of the study was those students who were studying in Grade 9 and 10 in this school.

Inclusion Criteria: Students who were studying in class nine and ten and who were present on the day of data collection, students who were physically well at time of data collection and students who were willing to participate were included in the study.

### Sample size/sampling technique

Total 120 students were selected by using non probability enumerative sampling technique was used for this study.

### Research instrument

Structured self-administered questionnaire was developed after extensive literature review, consultation with research advisor and subject expert.

The instrument was divided into three parts:

Part I: Questions related to socio demographic variables.

Part II: Questions related to information related variables.

Part III: Questions related to skin care practices regarding prevention of acne, hygiene maintenance and sun protection. The content validity of the research instrument was established by developing the instrument on the basis of literature review, consulting with research advisor and the opinions from subject expert. Pretesting of instrument was done to check feasibility of the instrument among 10% of total sample size i.e. 12 students in the similar setting and necessary modification was done in the research instrument on basis of pretesting.

### Data collection procedure

Prior to data collection, proposal approval was taken from the research committee of School of Nursing, Chitwan Medical College Bharatpur, Chitwan. Ethical clearance was taken from Chitwan Medical College, Institutional Review Committee (CMC-IRC) ref no CMC-IRC/077/078-122 Bharatpur, Chitwan and permission for data collection was taken from School principal. The verbal informed consent

was obtained from each respondent prior to data collection to ensure the right to the subject. The objective and purpose of the research was clearly explained to the respondents prior to data collection to ensure the right of the subject. Each participant was allowed to have a voluntary choice for participation. Confidentiality of the information was maintained by not disclosing the information and using the information only for the study purpose. Respondents' dignity was maintained by giving right to reject or discontinue from the research study at their will.

Data was collected on dated 2020/12/16 and 2020/12/17 after getting approval from concerned authorities of Chitwan Medical College, School of Nursing and Step By Step English Boarding School. Questionnaire was distributed by researchers themselves. Data was collected on one day for one class. Each respondent was given 20-25 minutes to fill up the questionnaire. Respondent was not allowed to discuss with each other during data collection period to prevent from contamination of data and filled questionnaire was collected immediately after completion by the researcher themselves and was checked for completeness.

### Data analysis procedure

After collection of data, it was checked for completeness and adequacy of information. All the data was edited, coded, entered into Ms Excel and analysed by Statistical Package for Social Science (SPSS IBM version 16). The collected data was analysed by using descriptive statistics i.e. mean, median, mode percentage and standard deviation.

## Results

Table 1 shows that, out of 120 respondents, three fourth (75.8%) of the respondents were less than 15 years and more than half (53.3%) of respondents were female. In the context of ethnicity, 61.7% were Brahmin/Chhetri and majority (80.8%) of the respondents belong to Hinduism religion. Half (50%) of the respondents studied in class 9. Majority (85%) of respondents had suffered from skin and health problem among them, most commonly suffered problem was acne/pimple (70.3%) followed by dandruff (33.7%).

Table 2 shows that more than half (55.2%) of the respondent's mother and nearly half (49.1%) of the respondent's father studied secondary level education. Nearly, three fourth (74.2%) of the respondent's mother were self-employee whereas one third (34.2%) of respondent's father were foreign employee. Nearly three fourth (73.3%) of respondent's family had skin and health problem among them, most commonly suffered problem was acne/pimple (64.8%) followed by dandruff (33%).

Table 3 shows that, out of 120 respondents, majority (80.8%) had obtained information regarding skin care practices among them, nearly half (49.5%) of respondents obtained information through mass media/internet

Table 4 reveals that, out of 120 respondents, nearly one third (32.5%) of the respondents used face wash only for cleaning face. More than one third (36.7%) of respondents clean their face more than three times a day. More than half (58.3%) of

**Table 1.** Respondents' Socio Demographic and Skin/Health related Characteristics.

n=120		
Variables	Number	Percentage
<b>Age in completed years</b>		
<15 year	91	75.8
≥ 15 years	29	24.2
<b>Median = 15, IQR=Q3- Q1= 0, Mini=13, Max= 18</b>		
<b>Gender</b>		
Male	56	46.7
Female	64	53.3
<b>Ethnicity</b>		
Brahmin/Chhetri	74	61.7
Janjati	44	36.7
Dalit	2	1.6
<b>Religion</b>		
Hinduism	97	80.8
Buddhism	23	19.2
<b>Grade</b>		
Nine	60	50
Ten	60	50
<b>Suffered from skin/health problem (n=120)</b>		
Yes	102	85
No	18	15
<b>If yes*(n=102)</b>		
Acne/ Pimple	71	70.3
Scabies	1	1
Diarrhea	14	13.9
Eye infection	13	12.9
Skin allergies/ irritation	28	27.7
Problem of Pediculosis	2	2
Dandruff	34	33.7
Sun allergies	1	1
* Multiple response		

**Table 2.** Family's Socio Demographic and Skin/Health related Characteristics.

n=120		
Variables	Number	Percentage
<b>Education status of mother</b>		
Illiterate	4	3.3
Basic education	40	33.3
Secondary education	64	53.4
Bachelor and above	12	10
<b>Education status of father</b>		
Illiterate	4	3.3
Basic education	31	25.8
Secondary education	57	47.5
Bachelor and above	28	23.4
<b>Occupation of mother</b>		
Self-employee*	89	74.2
Employee**	16	13.3
Foreign employee	15	12.5
<b>Occupation of father</b>		
Self-employee*	39	32.5
Employee**	40	33.3
Foreign employee	41	34.2
<b>Family suffered from skin/health problem</b>		
Yes	88	73.3
No	32	26.7
<b>If yes# (n=88)</b>		
Acne/ Pimple	57	64.8
Scabies	2	2.3
Diarrhea	18	20.5
Eye infection	16	18.2
Skin allergies/ irritation	16	18.2
Dandruff	29	33
Sun allergies	5	5.7
# multiple response *homemaker, business, labour ** healthworker, teacher, government /private service		

**Table 3. Respondents' Source of Information.**

Variables	Number	Percentage
<b>Information about skin care practices (n=120)</b>		
Yes	97	80.8
No	23	19.2
<b>Source of information* (n=97)</b>		
Family	26	26.8
Friends	5	5.2
Mass media/ internet	48	49.5
Teacher	22	22.7
Health personnel	7	7.2
*Multiple response		

**Table 4. Respondents' Skin Care Practices related to Acne Prevention.**

Variables	Number	Percentage
<b>n=120</b>		
<b>Routine for cleaning face (n=120)</b>		
Face wash with cleanser	11	9.2
With face wash only	39	32.5
With soap only	33	27.5
With water only	37	30.8
<b>Frequency of cleaning face (n=120)</b>		
Once a day	11	9.2
Twice a day	29	24.2
Three times a day	36	30
More than three times a day	44	36.6
<b>Use of makeup products on face every day (n=120)</b>		
Yes	70	58.3
No	50	41.7
<b>Removal of applied makeup products before bed(n=70)</b>		
Yes	64	91.4
No	6	8.6
<b>Habit of squeezing pimple (n=71)</b>		
Yes	44	62
No	27	38
<b>Measures for acne treatment (n=71)</b>		
Consult a doctor	12	16.9
Put self-prescribed medication	1	1.4
Put home remedies	32	45.1
Do nothing	26	36.6

the respondents apply makeup products on face every day, among them majority (91.4%) of the respondents removed applied makeup products before bed. Among 71 respondents those who have suffered from acne/pimple, more than half (62%) of the respondents have habit of squeezing pimple, only 16.9% of respondents consult a doctor for acne treatment.

Table 5 reveals that, out of 120 respondents, more than half (54.2%) of the respondents bath twice a week. Nearly half (41.7%) of the respondents change their innerwear daily. Majority (85%) of respondents wash their hands using soap and water before meals 99.2% after using toilet, 82.5% after coming home from outside, 89.2% after playing and 94.2% whenever their hands look dirty. Only (59.2%) of respondents

wash their hands for 20 second and dry hands using separate towel (34.2%), tissue paper (4.2%) and air dry (8.3%).

Table 6 depicts that, out of 120 respondents, more than half (60.9%) of the respondents don't avoid sun exposure and only 30.8% of the respondents avoid sun from 10 am to 4 pm. Only 20.8% of the respondents used sunscreen among them, more than half (52%) of the respondents used sunscreen 30 minutes before leaving home and only 24% of the respondents reapply sunscreen. More than half (60%) of the respondents don't use sunglasses and 30.9% of the respondents used umbrella during sun exposure only. Nearly half (44.2%) of the respondents don't use hat/scarf and 30% of the respondents used sun protective clothing very often.

**Table 5.** Respondents' Hygiene Maintenance Practice related to Skin Care.

n=120		
Variables	Number	Percentage
<b>Frequency of bathing</b>		
Everyday	6	5
Twice a week	65	54.2
Thrice a week	23	19.2
Other unfixed times	26	21.7
<b>Frequency of change in innerwear</b>		
Everyday	50	41.7
Twice a week	22	18.3
Thrice a week	17	14.2
Other unfixed times	31	25.8
<b>Handwashing before meals</b>		
With soap and water	102	85
Water only	18	15
<b>Handwashing after using toilet</b>		
With soap and water	119	99.2
Water only	1	0.8
<b>Handwashing after coming home from outside</b>		
With soap and water	99	82.5
Water only	20	16.7
Do not wash	1	0.8
<b>Handwashing after playing</b>		
With soap and water	107	89.2
Water only	12	10
Do not wash	1	0.8
<b>Handwashing whenever hands look dirty</b>		
With soap and water	113	94.2
Water only	7	5.8
<b>Duration of handwashing</b>		
10 second	19	15.8
15 second	30	25
20 second	71	59.2
<b>Drying of hands after handwashing</b>		
Using common towel	60	50
Using separate towel	41	34.2
Tissue paper	5	4.2
Air dry	10	8.3
Dried with own wore clothes	4	3.3

**Table 6.** Respondent's Sun Protection Practices related to Skin Care.

n=120		
Variables	Number	Percentage
<b>Avoidance of sun exposure time</b>		
8am-10am	4	3.3
10am-4pm	37	30.8
4pm-6pm	6	5
Don't avoid	73	60.9
<b>Use of sunscreen</b>		
Yes	25	20.8
No	95	79.2
<b>Timing of sunscreen application (n=25)</b>		
30 minutes before leaving home	13	52
During sun exposure	2	8
After sun exposure	1	4
When outdoors for prolonged time	9	36
<b>Reapplication of sunscreen (n=25)</b>		
Yes	6	24
No	19	76
<b>Use of sunglasses</b>		
Very often	2	1.7
Sometimes	26	21.6
When outdoors for prolonged time	16	13.4

Only during sun exposure	4	3.3
Don't use	72	60
<b>Use of umbrella</b>		
Very often	8	6.7
Sometimes	30	25
When outdoors for prolonged time	24	20
Only during sun exposure	42	35
Don't use	16	13.3
<b>Use of hat/scarf</b>		
Very often	10	8.3
Sometimes	31	25.8
When outdoors for prolonged time	18	15
Only during sun exposure	8	6.7
Don't use	53	44.2
<b>Use of sun protective clothing</b>		
Very often	36	30
Sometimes	29	24.2
When outdoors for prolonged time	24	20
Only during sun exposure	16	13.3
Don't use	15	12.5

## Discussion

Regarding routine of cleaning face, 32.5% of the respondents used face wash only which is similar with the study conducted in Davangere, India showed that 29% of the respondents used face wash [10]. Likewise, only 9.2% of the respondents used facewash with cleanser which is not consistent with the study conducted in Saudi Arabia which showed that 42.5% of the respondents used regular facewash with cleanser [11]. This variability might be due to difference in population and age of respondents. Regarding application of makeup products, 42.5% of the respondents apply makeup products everyday which is consistent with the study conducted in Bangladesh which showed that 37% of the respondents apply makeup products everyday [12]. Likewise, 91.4% of the respondents removed applied makeup products before bed which is not consistent with the study conducted in Bangladesh which revealed that 61% of the respondents removed applied makeup products before bed [12]. Regarding treatment seeking behaviour for acne problem, only 16.9% of the respondents consulted a doctor, which is similar to the study conducted in Saudi Arabia which showed that only 11.4% of the respondents consult a doctor when they get acne [11]. Nearly half (45.1%) of the respondents used home remedies for acne treatment which is not consistent with the study conducted in Saudi Arabia which showed that only 26.4% of the respondents used home remedies for acne treatment [11].

In this study, regarding bathing practices, only 5% of the respondents bath every day which is consistent with study conducted in Egypt which showed that 15.4% of the respondents bath everyday [13]. Regarding practices related to change in inner wear, 41.7% of the respondents change their innerwear every day in winter which is not consistent with the study conducted in Egypt which showed that 25.1% of the respondents change their innerwear every day in winter [13].

Regarding hand washing practices, those respondents who washed their hands by using soap and water were, 85% before

meals, 99.2% after using toilet, 82.5% after coming from outside, 89.2% after playing, 94.2% whenever hands look dirty which is not consistent with the study conducted in Chennai which showed that 77% of the respondents washed their hands with soap and water before meals, 80.7% after using toilet, 22.9% after coming from outside, 28.7% after playing, 39.6% whenever hands look dirty [14]. This variability may be due to change in setting and educational level of respondents. Regarding hand washing practices, 85% of the respondents washed their hands with soap and water before meals, 99.2% of the respondents washed their hands with soap and water after using toilet, 82.5% of the respondents washed their hands with soap and water after coming from outside, 89.2% of the respondents washed their hands with soap and water after playing, 94.2% of the respondents washed their hands with soap and water whenever hands look dirty which is not consistent with the study conducted in Chennai which showed that 77% of the respondents washed their hands with soap and water before meals, 80.7% of the respondents washed their hands with soap and water after using toilet, 22.9% of the respondents washed their hands with soap and water after coming from outside, 28.7% of the respondents washed their hands with soap and water after playing, 39.6% of the respondents washed their hands with soap and water whenever hands look dirty. This variability may be due to change in setting and educational level of respondents.

In this study, regarding sunscreen use, only 20.8% reported use of sunscreen among them, only 7.5% reported use of sunscreen when outdoors for prolonged time which is not consistent to the study conducted in Newyork which showed that 85.2% of the respondents reported use of sunscreen among them 55% of the respondents reported use of sunscreen when outdoors for prolonged time. Regarding reapplication of sunscreen, only 24% of those who wore sunscreen reported reapplication of sunscreen which is not consistent to the study conducted in Newyork which showed that 45% of the respondents reported reapplication of sunscreen. Similarly, regarding use of sunprotective measures such as sunglasses,

umbrella, hat/scarf and sunprotective clothing, 87.5% of the respondents reported use of sun protective clothing and only 40% of the respondents reported use of sunglasses which is contrast to the study conducted in Newyork showed that 75.23% of the respondents reported use of hat/scarf and only 18% of the respondents reported use of sun protective clothing [15].

## Conclusion

Based on the findings it has concluded that most of adolescent students repeatedly clean their face and preferred use of home remedies rather than consulting a doctor for acne treatment. In conclusion, regarding skin care practices related to hygiene maintenance, most of the respondents have habit of bathing twice a week and habit of changing innerwear daily. Majority of the respondents wash their hands using soap and water. Majority of the respondents uses common towel for drying hands comparatively less use of separate towel, tissue paper and air dry. Regarding skin care practices related to sun protection, most of the respondents don't use sunscreen. Most of the respondents use sun protective clothes and umbrella as compared to other sun protective measures such as hat/scarf and sunglasses.

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