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ORIGINAL ARTICLE

# Assessment of skin contamination examinations in school-going kids

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***ABSTRACT:***

**Introduction:** Skin conditions can provide diagnostic hints for serious systemic illnesses. Numerous skin conditions, such as psoriasis, acne vulgaris, pityriasis alba, and others, may be promptly identified based on their clinical characteristics and need little to no further testing. The goal of the current investigation was to identify skin infections in school-age children. **Methods:** 860 schoolchildren of both sexes were included. Everyone was made aware of the research. The institutional ethics committee granted ethical approval. Name, age, gender, and other such details were noted. Every student had a general examination. To evaluate any skin conditions, a skin examination was performed. **Results:** age group 10-12 years had 137 boys and 157 girls, age group 12-14 years had 96 boys and 121 girls, age group 14-16 years had 167 boys and 181 girls. The difference was non- significant (P>0.05). **Conclusions:** Skin infections are particularly common among school-age children. Maintaining good hygiene is necessary at school as well as at home. Mothers' education is crucial for preserving personal cleanliness.

**Keywords:** Skin Infections, School Children, Hygiene Education

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## INTRODUCTION

One straightforward and affordable strategy to help prevent and manage both communicable and non-communicable illnesses is to make hygiene, nutrition, and health education and services easily accessible to schoolchildren.One

The psychological disruptions brought on by skin issues may be out of proportion to their physical relevance since the skin plays a significant role in how we see our bodies. Skin conditions can provide diagnostic hints for serious systemic illnesses. Numerous skin conditions, such as psoriasis, acne vulgaris, pityriasis alba, and others, may be promptly identified based on their clinical characteristics and need little to no further testing.

Health education is a crucial component of the active learning process. Nutritional hygiene, home and environmental cleanliness, and personal hygiene are all included. One of the crucial elements is teaching them about personal cleanliness. The body is susceptible to several types of skin infections and may negatively impact an individual's physical health if appropriate steps are not taken to maintain cleanliness. Inadequate knowledge or education may prevent people from using appropriate hygiene practices.2.

Skin conditions can provide diagnostic hints for serious systemic illnesses. Numerous skin conditions, such as psoriasis, acne vulgaris, pityriasis alba, and others, may be promptly identified based on their clinical characteristics and need little to no further testing.3.

According to earlier estimates, the incidence of acne may be as high as 100%, making it the most common illness in the world. Any change in the incidence or prevalence should be recognized because of the significant health care implications of such a prevalent condition. Because of the apparent decline in acne severity over the last several years, it has become more challenging for us to enroll young teenagers for clinical studies. Health education is a crucial component of the active learning process. Nutritional hygiene, home and environmental cleanliness, and personal hygiene are all included.4.

One of the crucial elements is teaching them about personal cleanliness. The body is susceptible to several types of skin infections and may negatively impact an individual's physical health if appropriate steps are not taken to maintain cleanliness. Inadequate knowledge or education may prevent people from using appropriate hygiene practices. Through a range of tropical and systemic medicines, an endless number of skin ailments may be managed, from simple assurance to explanation. Skin conditions may be linked to harmful environmental causes, hence a public health approach is crucial.5.

Children who attend school are more focused in their appearance. Acne on the face makes one feel less confident. It is more prevalent in young children. It is among the prevalent skin conditions.6. The goal of the current investigation was to identify skin infections in school-age children.

## MATERIALS & METHODS

The pediatrics department was the site of the current investigation. 860 schoolchildren of both sexes were included. Everyone was made aware of the research. The institutional ethics committee granted ethical approval. Name, age, gender, and other such details were noted. Every student had a general examination.

To evaluate any skin conditions, a skin examination was performed. The main sample units used in this research are schools. Ten elementary schools are chosen at random for the research from lists of schools obtained from the block office. Prevalence rate (30%) and precision (12%) were used to determine sample size. Using a simple random sample method, 60 pupils were chosen from each school.

**Inclusion Criteria:** Every student who is willing to engage in the study and is present on the day of the check-up.

**Exclusion criteria**: Students not willing to participate in the study.

Following the acquisition of pertinent sociodemographic information, each student had a clinical examination to determine if they had any skin conditions, and the results were recorded in pre-tested structured questionnaires. The officials at the school gave their informed approval. Before the research began, institutional ethical committee approval was obtained.

**STATISTICAL ANALYSIS**

SPSS package 17 was used for data analysis. The Chi-square test was used to analyze categorical data. The study's significance threshold was P <0.05.

**RESULTS**

Figure 1 shows that out of 860 students, boys were 400 and girls were 460. The difference was non-significant (P-0.42).

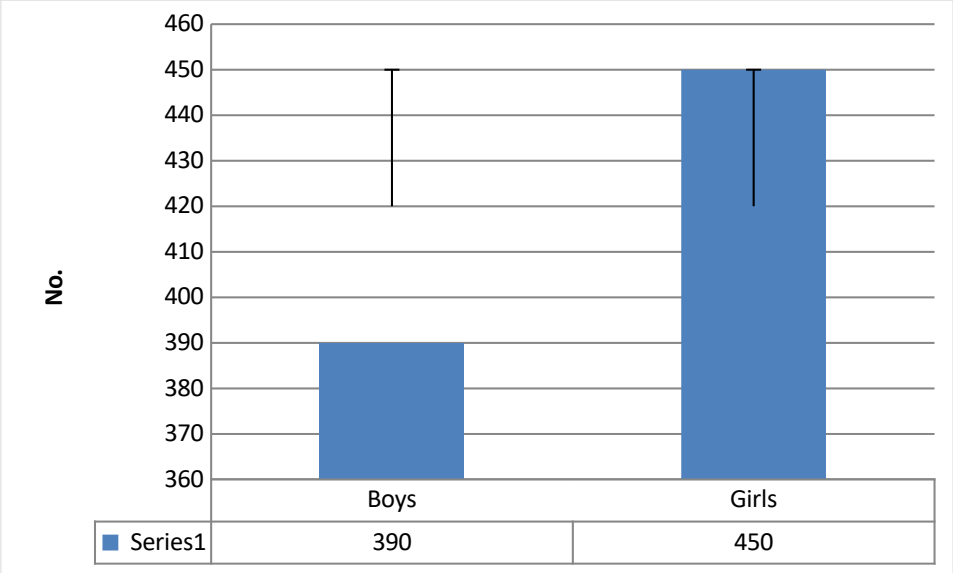


**Figure I Distribution of subjects**

Table 1 shows that age group 10-12 years had 137 boys and 157 girls, age group 12-14 years had 96 boys and 121 girls, age group 14-16 years had 167 boys and 181 girls. The difference was non- significant (P>0.05).

**Table I Age distribution of subjects**

| Age group (Years) | Boys | Girls | P value |
|---|---|---|---|
| 10-12 | 137 | 157 | 0.1 |
| 12-14 | 96 | 121 | 0.5 |
| 14-16 | 167 | 181 | 0.9 |
| Total | 400 | 460 | |

**DISCUSSION**

When dead skin cells and oil from the epidermis block hair follicles, a chronic skin condition known as acne vulgaris develops. Pimples, greasy skin, black or whiteheads, and potential scarring are its hallmarks. Skin infections may have social, psychological, and physical effects. Children who have any of these infections may experience despair and a lack of confidence.7. The goal of the current investigation was to identify skin infections in school-age children.

Of the 840 pupils in this research, 380 were males and 440 were girls. We discovered that there were 130 boys and 150 girls in the 10–12 age group, 90 boys and 115 girls in the 12–14 age group, and 160 boys and 175 girls in the 14–16 age group. Shakya et al.'s investigation showed similar outcomes.8. Scabies, acne vulgaris, seborrhea, taenia, vitamin deficiencies, impetigo, pytiasis alba, and worm infections were among the most prevalent skin illnesses that we found. Charuhas et al. concur with this.9. Seven-year itch, another name for scabies, is a skin infection caused by the mite Sarcoptes scabiei. The most typical signs include a rash that resembles pimples and intense itching. The skin may have tiny tunnels.

Seborrhea is a chronic skin condition. The skin becomes red, scaly, oily, itchy, and irritated.

We discovered that whereas 220 educated moms did not have skin infections in their children, 102 literate mothers did. 328 literate women did not have skin infections in their children, compared to 190 literate mothers. A bacterial infection of the superficial skin is called impetigo. Yellowish crusts on the face, arms, or legs are the most typical appearance. Large blisters that affect the armpits or groin may be present. The term "pytiasis alba" describes skin peeling. It hurts when it shows up as red, itchy skin. One kind of fungal mycosis is taenia. Because the rash is round and resembles a ring, it is often referred to as ringworm. It is sometimes confused with dermatopytoses.10.

Multiple boils (8.9%), scabies (36.6%), and head lice (42.8%) were all common among tribal schoolchildren in Wardha, according to a research done by Dongre et al.11. The current research's results differed from those of the previous study.

According to a Varanasi municipal school study conducted by Valia et al.12, 54% of the youngsters had at least one skin condition. The most prevalent ones are acne vulgaris (8%), pityriasis alba (12%), and pediculosis capitis (35%). According to a research by Shakya et al.13 among elementary school students in Eastern Nepal, 20% of them had skin illness. Pediculosis was the most prevalent skin condition, accounting for 21% of cases, followed by tinea (19.5%), scabies (14%), impetigo (11%), and eczema (10.5%).

According to a research by Charuhas et al. in Nagpur, 14 236 (32.1%) schoolchildren had a variety of skin conditions. 155 (21.1%) had pyoderma, while 41 (5.6%) and 26 (3.5%) had scabies and pediculosis capitis, respectively.

In a different research conducted by Khalifa et al.15 among Baghdadi elementary school students, the total incidence of skin disorders was 40.9%. The frequency of skin illnesses was significantly correlated with the parents' educational attainment ($P = 0.04$). However, the current research found no meaningful correlation between the frequency of skin illnesses and the parents' educational attainment.

Scabies, a widespread skin illness caused by the mite Sarcoptes scabiei, was the most prevalent transmissible skin condition identified in this research. In a crowded setting, the illness may be readily spread by skin-to-skin contact.16 Our results are different from those of previous studies conducted in Saudi Arabia, Ethiopia, and India that found pediculosis capitis to be the most prevalent skin condition that may be spread.17–19 Scabies was either not detected in these investigations or was only extremely seldom reported.17, 29 The absence of pediculosis capitis from this research and the fact that skin disease patterns varies by geographic location based on factors including poverty, overcrowding, and environmental and personal cleanliness are the reasons for these observed variances.20

Tinea corporis is responsible for half of dermatophyte infections, which were the fourth most frequent skin condition in this research. This contradicts with earlier research conducted both inside and outside of Nigeria, which found that Tinea capitis was the most prevalent Dermatophyte among schoolchildren. The observed discrepancy may be explained by the fact that the majority of previous research used elementary school students, while the present study involved secondary school-aged and older youngsters. Tinea capitis is more frequent in younger children, according to other research.

As children grew older, we saw a slow, non-significant ($p=0.587$) decrease in the incidence of transmissible skin disorders. This might be because older children practiced better personal hygiene and health care, which prevented the infections from spreading.This research found no positive correlation between gender and transmissible skin disorders ($p=0.103$), which supports the findings of another study that had a similar finding.

## CONCLUSION

Skin infections are particularly common among school-age children. Maintaining good hygiene is necessary at school as well as at home. Mothers' education is crucial for preserving personal cleanliness.

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