

## Assessment of Common Skin Problems and Evaluation of Personal Skincare Safety Practices Among Adults. A Community-Based Clinical Study

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### ABSTRACT

**Background:** Skin disorders are one of the health concerns, which are most frequent in the world and greatly influence the quality of living of an individual. Problematic skincare practices such as self-medication and application of unregulated products are other factors that adversely affect dermatological complications among most communities.

**Objective:** To evaluate the rate of prevalence of common skin issues among adults and their individual practices with regard to skincare safety.

**Methods:** It was a community-based study, which used random sampling to select 100 adults in the study, a cross-sectional study. A structured questionnaire was reported to gather data on the level of demographic information, skin problems, skincare practices and safety practices. Major visual examination of small skin problems was carried out where allowed. The statistical analysis was done in descriptive and inferential modes and the level of significance was  $p < 0.05$ .

**Results:** Seventy-six percent of all participants cited at least one of the skin problems. The most common one was acne (32%), then itch (28%), dandruff (26%), fungal infections (22%), pigmentation conditions (18%), and allergic dermatitis (15%). There were unsafe skincare practices: 54% used over-the-counter creams, 30% used fairness/bleaching products, 18% used topical steroids without prescription, and 34% used herbal or unknown cosmetic creams. There were also significant correlations between unsafe practices and skin problems (especially topical steroid misuse and pigmentation problems) ( $p < 0.05$ ) sharing personal items and fungal ( $p < 0.05$ ) and absence of sunscreen use and pigmentation ( $p < 0.01$ ).

**Conclusion:** Ordinary skin issues are very rife and unsafe skincare practices have a great contribution to their prevalence. The health education in the community and control of the detrimental skincare products are in urgent need to encourage safer practices and minimize dermatological morbidity.

### Keywords:

Common skin problems; Skincare safety; Acne; Fungal infections; Pigmentation disorders; Contact dermatitis; Over-the-counter creams; Topical steroid misuse; Sunscreen use; Community-based study



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### INTRODUCTION

Skin disorders are one of the most prevalent medical issues observed among all ages, where they impact on quality of life, self-esteem, employment and daily activity [1]. Such conditions as acne, eczema, dermatitis, fungi, pigmentation disorders, and allergies are common in the community and may be treated without medical supervision [2]. In most

situations, people use over-the-counter product, home combinations, bleaching agents and cosmetic surgeries without sufficient insight on their safety profiles. Such habits can break the skin to hazardous chemicals, inappropriate product choices and excessive use of topical agents like steroids which exacerbate pre-existing disorders or cause protracted effects [3].

Social factors such as the ready access to the best skincare agents, societal pressures on the beauty ideal, the scarcity of consultation with dermatologists, the absence of health education on skincare, have led to an increase in inappropriate skincare habits in low- and middle-income countries, such as Pakistan [4]. Topical steroids, lack of control over cosmetic products, exfoliation, and self-medication are also causes of contact dermatitis, skin thinning, hyperpigmentation, and long-term infections also. There are also the environmental conditions that further complicate the prevalent skin issues in the society, including exposure to ultraviolet (UV), pollution, humidity, and exclusion of proper sanitary habits [5].

Examining the trend of common skin disorders and gauging the level of knowledge and the population practices in terms of skincare safety are crucial to formulate specific educational intervention and prevention measures [6]. The community-based assessment offers useful information regarding the real burden of usual skin diseases and gaps in the awareness of using products, hygiene, use of sun protection factors, and risk actions. Thus, this research is expected to evaluate the incidence of common skin issues in adults and also evaluate the degree of safety in their skincare rituals such as using topical drugs, cosmetics and daily preening [7]. The results will aid in informing the population health, encouraging safer skincare habits as well as the decrease of the dermatological morbidity on the community level [8].

## MATERIALS AND METHODS

It was a community-based cross-sectional study carried out on 100 adult people, whose age ranged between 18 years and above. Simple random sampling was used to pick the participants in a specific community area so that both genders and various socioeconomic classes are moderately represented. Patients with long-term dermatological conditions who were already under the care of specialists (p. e., psoriasis, vitiligo, etc.) were not included to keep the research focused on issues with common skin conditions in the general population.

The structured, pretested questionnaire was used to gather data with the help of specialists in the sphere of dermatology. The questionnaire consisted of four parts:

1. **Demographic** (age, gender, occupation, socioeconomic status).
2. **Past medical history:** Skin problems (acne, itching, pigmentation, fungus, dandruff, hair/scalp problems).
3. **Personal skincare habits:** Individual activities related to skincare, e.g., the use of moisturizers, sunscreens, soaps, cosmetic products, and home preparations.
4. **Skincare safety practices:** Safety behaviors in skincare, such the application of over-the-counter creams, topical steroids, fairness/bleaching agents, sharing of personal items and herbal preparations.

To be accurate, face to face interviews were carried out by trained data collectors. A very simple non-invasive examination of visible skin problems was conducted when it was allowed by the participants to supplement self-reported findings. Written informed consent was received out of each participant, and anonymity was guaranteed. The institutional research and ethics committee was in agreement with the ethical approval. All the data collected were put in statistical software and analyzed. The descriptive statistics were applied to characterize the participants and the prevalence of skin issues. The chi-square test was applied to test associations between skin conditions and unsafe practice of skincare taking a p-value of less than 0.05 as the significant one. The approach enabled valid evaluation of prevalent dermatological problems and safety practices among 100 participants who were chosen.

One hundred adults participated in the study. The median age of the participants was 32.5 years (SD  $\pm 10.434$ ), with 58% being female and 42% male. Most respondents belonged to the middle socioeconomic group (62%), followed by the low (28%) and high (10%) socioeconomic categories. Overall, 76% of the individuals reported at least one skin-related complaint. Among the common skin problems identified, acne was present in 32% of the participants, itching or pruritus in 28%, fungal infections such as tinea or candidiasis in 22%, pigmentation issues including melasma or dark spots in 18%, dandruff or scalp-related concerns in 26%, and allergic or contact dermatitis in 15%. These conditions collectively affected 61% of all individuals who reported having skin problems.

Regarding dermatology-related personal care habits, frequent use of moisturizers was reported by 45% of the participants, while only 22% regularly used sunscreen. Over half of the respondents (54%) admitted to using over-the-counter creams without a medical prescription. Furthermore, 30% reported the use of fairness creams, 18% acknowledged using topical steroids without medical advice, and 34% applied cosmetic creams containing herbs or ingredients of unknown composition. Sharing of personal items such as towels, razors, or cosmetic tools was reported by 27% of the participants.

A notable correlation was observed between unsafe skincare practices and the occurrence of skin problems. Skin thinning, acne, and pigmentation changes were documented in 82% of individuals who used topical steroids without prescription ( $p < 0.05$ ). Fungal infections were significantly more common among those who shared personal items ( $p < 0.05$ ). The use of bleaching or fairness products showed a strong association with allergic dermatitis ( $p < 0.05$ ). Additionally, the absence of sunscreen use was significantly correlated with increased pigmentation problems ( $p < 0.01$ ) as shown in table 1.

Table 1: Distribution of Common Skin Problems Among Participants (n = 100)

Skin Problem	Frequency (n)	Percentage (%)
<b>Acne</b>	32	32%
<b>Itching / Pruritus</b>	28	28%
<b>Fungal Infections</b>	22	22%
<b>Pigmentation Disorders</b>	18	18%
<b>Dandruff / Scalp Problems</b>	26	26%
<b>Allergic / Contact Dermatitis</b>	15	15%
<b>Any Skin Problem Present</b>	<b>76</b>	<b>76%</b>

The table 1 represents the general pattern and incidence of prevalent skin issues that were determined in the 100 adults studied in the community-based study. The results indicate that the frequency of skin disorders was very high as 76 percent of participants reported having at least one dermatology complication. Among the mentioned issues, acne became the most prevalent, with 32% of people experiencing it, thus, indicating its high burden, especially in young adults. The second most common complaint was itching (or pruritus) (28%), which could be seen as a demonstration of far-reaching irritation complaints that could occur as a result of allergies, dryness, or environmental exposures.

Another important issue was dandruff and other complaints associated with the scalp where 26% of the participants reported having these problems. Members were found to have fungal infections, such as tinea and candidiasis in 22, proving that the humidity, hygiene combined with sharing of personal items contributed to the development of a fungal infection. Aid 18% of them stated that they experience pigmentation disorders that could be contributed to by the sun or unsafe use of cosmetics, and post inflammatory alterations. Finally, 15% were caused by allergic or contact dermatitis, which demonstrates exposure of the community to the contact of irritating agents, harsh skin care products, or disproportionate use of topical agents. In general, the table reflects a significant prevalence of skin issues and leads to the significance of analyzing individual skincare habits and safety as these indicators can be one of the primary causes of the trends.

## DISCUSSION

It was community-based research which evaluated the level of prevalence of common skin problems amongst adults and the level of personal skincare safety practices among adults, specifically. The results show that skin problems are large and 76 percent of the participants have at least one skin-related complaint [1]. This overwhelming weight is what makes the health of the skin an important national health problem especially in areas where environment, culture, and behavioral determinants play a role in the prevalence of skin diseases. The most prevalent concern was acne (32%), which was also in line with the international statistics that indicate that acne is among the most frequent dermatological issues in young adults [2]. The high prevalence can be associated with hormonal

changes, food habits, air pollution, and consumption of cosmetic products without sufficient advice. Likewise, itch and pruritus (28%) were frequent and this portrays potential triggers in terms of skin dryness, allergic responses and irritating substances in the everyday life [3]. The high rate of dandruff and scalp problems (26 per cent) also brings in prominence the activities of climatic conditions, scalp hygiene and personal grooming habits [4].

The proportion of the participants with the fungal infection was 22%. The humidity, overcrowding, and insufficient hygiene may therefore be the factors [5]. Personal-item sharing—27 percent of the study sample reported these infections—these infections were significantly linked to shared items which is in line with the results of other community research that have identified shared items as a huge risk factor towards tinea and other spreadable skin diseases [6]. Another medical issues that were significant were pigmentation disorders (18%) and allergic/contact dermatitis (15%). These findings may be due to the high consumption of fairness creams, bleaching agents and unregulated cosmetic products in the society [7]. The research demonstrated that persons who were taking over-the-counter products or topical steroids without prescription had quite high rates of adverse skin reactions. Such unsafe practices demonstrate the absence of knowledge about the possible harm of self-medication and misuse of the skin care products [8].

The low percentage of frequent use of sunscreen [9], considering the contribution of ultraviolet radiation to hyperpigmentation, photoaging and skin malignancies [10]. The absence of protection against the sun was considerably linked to pigmentation, and it should be better educated about precautionary skincare [11]. All in all, this research paper shows a close relationship between unsafe skincare habits and the prevalence of usual skin issues. Lack of knowledge, cultural expectations pertaining to beauty, the ready access to unhealthy products and access to dermatological consultations could be all causes of such a trend [12]. These results highlight the importance of community-based education, the promotion of safe practices of skin care, the use of topical agents, and early communication with healthcare providers. Interventions in the area of public health with the emphasis on education, control of cosmetic products, and better access to the services of dermatologists may assist in limiting the load

on the causes of preventable skin diseases [13]. The findings also give the future researchers up to date on the design of specific educational programs and preventive factors to improve the skin health of the community [14].

## CONCLUSION

The outcome of this community-based study is that common skin problems are of a high prevalence rate, over two-thirds of adults in the chosen population report such problems. The most common ones were acne, Itching, fungus, dandruff and pigmentation problems and allergic dermatitis. The presence or increasing of these skin issues was strongly linked with unsafe skin care, including the use of an assortment of over-the-counter creams, fairness products, and unsupervised topical steroids. Poor sun protection, use of personal effects and use of unwarranted cosmetic products contributed to dermatological risk even more. These results indicated a necessity of the community education aimed at the safe use of skin care tools, good hygiene and the harm that self-medication may cause. Increasing education of the population, controlling dangerous cosmetic agents, and encouraging people to consult a dermatologist in time can alleviate the morbidity of avoidable skin diseases. Further research with more populations and interventions techniques is suggested to further develop and enhance community skin health.

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