

ORIGINAL ARTICLE

Influencing Factors for use of Skin Whitening Creams

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ABSTRACT

Aim: To determine the frequency of influencing factors for the use of skin whitening creams.**Study design:** Descriptive, Cross-sectional study.**Place and duration of study:** Department of Dermatology, D.H.Q Hospital, Faisalabad Medical University, Faisalabad from 7th August 2018 to 6th February 2019.**Methodology:** A total of 420 patients presenting with complaints of acne, excessive hair growth, permanent redness, skin sensitivity, irritation and dark complexion after the use of skin whitening creams of age 15-50 years were included. Patients with diabetes mellitus, asthma, hypertension and tuberculosis, pregnancy and PCOS were excluded. The demographic data, socioeconomic status, education level and the major influencing factors for the use of commercially available skin whitening creams were inquired.**Results:** In this study, I have found the frequency of influencing factors for the use of skin whitening creams were as follows; television commercials in 108 (25.71%), print media/magazine in 61 (14.52%), friends in 131 (31.19%), spouse in 48 (11.43%), beauticians in 42 (10.0%) and self-desire in 30 (7.14%) patients.**Conclusion:** This study has shown that the friends and television commercials are main influencing factors for the use of skin whitening creams.**Keywords:** Skin whitening creams, Factors, Television commercials.

INTRODUCTION

Complexion is considered as a fascinating criterion of beauty for human beings since distant past. In South Asia, fair skin is considered as a legacy of upper class while dark skin is related with laborers working in the sun. In Pakistani culture, people who have fair complexion enjoy many benefits like they face lesser problems in proposals of marriage. They also entertain benefits in work setting while dark complexed people face many difficulties in life like criticism in work setting and from siblings, life partner and sometimes from parents¹.

The superiority of fairness has been exploited by makers of fairness creams. The misuse occurs at various levels such as manufacturing, marketing, prescription, sales and end-use by patients and layman.² Neither the consumers, nor the drug sellers are aware of the hazards these creams can cause, resulting in an alarming rise in the number of patients approaching dermatologists with the side effects which may sometimes be irreversible. The practice appears with a range of adverse effects. They may vary from local effects such as atrophy, striae, telangiectasia, hypertrichosis and acneiform eruptions to more serious systemic side effects due to hypothalamic-pituitary-adrenal axis suppression. Topical corticosteroids have potent antipruritic, atrophogenic, melanopenic, sex-hormone like and immunosuppressive effects on the skin and can lead to significant adverse effects if used indiscriminately³.

There is an unrestricted availability of these skin whitening creams almost at every chemist shop without a valid prescription by just asking for topical depigmenting agents. This is reported from many places worldwide but it has a significant impact in our country where only few dermatologists are available to serve such large population. There are no strict regulations on over the counter (OTC) prescription of the drugs. Because of the easy availability and affordable prices of these potent topical agents, misuse has been noted among general population, producing many undesirable effects.⁴ In a previous study, friend recommendations (30.2%), television advertisements (27%) were the major factors influencing the product selection by the

respondents⁵. Advertisement was a major influencing factor in the misuse of skin lightening products by 77.4% of the female respondents in Jordan. Most of the respondents had the perception that lighter skin provides high self-esteem (53.8%) and skin looks beautiful and healthier (51.9%)⁶.

In another study, the main factors were to attract men for marriage (12.5%), enhancement of beauty (15%), to please their spouses (9.17%) and to change skin color (2.5%)⁷. In another study, 8.5% were recommended topical corticosteroids by a beautician, 20% by their friends, family members or neighbors, 18.2% by non-dermatological practitioners and 10.2% by a dermatologist⁸. The magnitude of this misuse is rising day by day.

This study was intended to observe the major influencing factors for the misuse of skin whitening products in the population of Faisalabad.

MATERIALS AND METHODS

After approval by the ethical research committee, a total of 420 patients fulfilling the inclusion criteria were included. A written informed consent was taken from the patients attending the outdoor Department of Dermatology DHQ Hospital. The demographic data, socioeconomic status, education level and the major influencing factors for the use of commercially available skin whitening creams were inquired. All the information obtained was entered in a structured questionnaire based proforma by myself. Mean±SD was calculated for all quantitative variables like age and duration of use of cream. Frequency and percentage were calculated for all qualitative variables like gender, marital status, socioeconomic status and influencing factors. Effect modifiers like age, gender, marital status, duration of use and socioeconomic status were controlled by stratification. P value < 0.05 was taken as significant.

Inclusion Criteria: Age 15-50 years, Both sexes, Patients presenting with complaints of acne, excessive hair growth, permanent redness, skin sensitivity, irritation and dark complexion after the use of skin whitening creams (all subjectively observed by the patients). Patients ready to consent for participation in the study.

Exclusion Criteria: Patients with diabetes mellitus, asthma,

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hypertension and tuberculosis. Patients with a known skin disease. Pregnant females. Patients with polycystic ovarian syndrome.

RESULTS

Age range in my study was 15-50 years with mean age of 30.0 ± 7.32 years. Majority of participants 276 (65.71%) were between 15-30 years of age as shown in Table I. Out of the 420 patients, 84 (63.29%) were male and 336(36.71%) were females with male to female ratio of 1:4. Mean duration of use of cream was 2.98 ± 1.43 months (Table II). Distribution of patients with respect to marital status and socioeconomic status is shown in Table III & IV respectively. In this study, I have found the frequency of influencing factors for the use of skin whitening creams were as follows; television commercials in 108(25.71%), print media/magazine in 61(14.52%), friends in 131(31.19%), spouse in 48(11.43%), beauticians in 42(10%) and self-desire in 30(7.14%) patients (Table V).

Stratification of different influencing factors with respect to age is shown in Table VI. Table VII has shown the stratification of different influencing factors defects with respect to gender. Stratification of different influencing factors with respect to duration of use of cream is shown in Table VIII. Tables IX & X have shown the stratification of different influencing factors with respect to marital status and socioeconomic status respectively.

Table-I: Distribution of patients according to age (n=420)

Age (yrs)	No	%
15-30	276	65.71
31-50	144	34.29
Total	420	100.0

Mean \pm SD = 30.0 ± 7.32 years

Table-II: Distribution of patients according to duration of use

Duration (month)	No	%
≤ 3	242	57.62
> 3	178	42.38
Mean \pm SD	2.98 ± 1.43	

Table-III: Distribution of patients according to marital status

Marital status	No	%
Married	211	50.24
Unmarried	209	49.76
Total	420	100.0

Table-IV: Distribution of patients according to socioeconomic status

Socioeconomic status	No	%
Low	130	30.95
Middle	168	40.0
Upper	122	29.05

Table V: Frequency of influencing factors for the use of skin whitening creams

Influencing factors	No	%
Television commercials	108	25.71
Print media / magazine	61	14.52
Friends	131	31.19
Spouse	48	11.43
Beauticians	42	10.0
Self-desire	30	7.14

Table VI: Stratification of influencing factors with respect to age

		15-30 years (n=276)	31-50 years (n=144)	P value
Television commercials	Yes	73	35	0.633
	No	203	109	
Print Media/ Magazine	Yes	41	20	0.790
	No	235	124	
Friends	Yes	96	35	0.028
	No	180	109	
Spouse	Yes	11	37	0.0001
	No	265	107	
Beauticians	Yes	32	10	0.132
	No	244	134	
Self-desire	Yes	23	07	0.190
	No	253	137	

Table VII: Stratification of influencing factors with respect to gender

		Male (n=84)	Female (n=336)	P value
Television commercials	Yes	19	89	0.468
	No	65	247	
Print Media / Magazine	Yes	17	44	0.097
	No	67	292	
Friends	Yes	33	98	0.073
	No	51	238	
Spouse	Yes	07	41	0.319
	No	77	295	
Beauticians	Yes	04	38	0.074
	No	80	298	
Self-desire	Yes	04	26	0.343
	No	80	310	

Table VIII: Stratification of influencing factors with respect to duration of use

		≤ 3 months (n=242)	> 3 months (n=178)	P value
Television commercials	Yes	66	42	0.394
	No	176	136	
Print Media/ Magazine	Yes	27	34	0.022
	No	215	144	
Friends	Yes	74	57	0.811
	No	168	123	
Spouse	Yes	30	18	0.467
	No	212	160	
Beauticians	Yes	27	15	0.357
	No	215	163	
Self-desire	Yes	18	12	0.784
	No	224	166	

Table IX: Stratification of influencing factors with respect to marital status.

		Married (n=211)	Unmarried (n=209)	P value
Television commercials	Yes	57	51	0.540
	No	154	158	
Print Media / Magazine	Yes	29	32	0.649
	No	182	177	
Friends	Yes	54	77	0.013
	No	157	132	
Spouse	Yes	48	00	0.0001
	No	163	209	
Beauticians	Yes	14	28	0.021
	No	197	181	
Self-desire	Yes	09	21	0.017
	No	202	188	

Table X: Stratification of congenital heart defects with respect to socioeconomic status

		Low (n=130)	Middle (n=168)	Upper (n=122)	P value
Television commercials	Yes	30	40	38	0.262
	No	100	128	84	
Print Media / Magazine	Yes	24	24	13	0.212
	No	106	144	109	
Friends	Yes	42	51	38	0.937
	No	88	117	84	
Spouse	Yes	11	22	15	0.431
	No	119	146	107	
Beauticians	Yes	12	20	10	0.548
	No	118	148	112	
Self-desire	Yes	11	11	08	0.776
	No	119	157	114	

DISCUSSION

Studies have documented the use of skin fairness products, sometimes referred to as "skin whitening products," "skin bleaching products," "depigmenting agents," in Africa, Europe, North America, and Asia, with prevalence of use ranging from 27 to 77% among community samples.⁹ Skin fairness products include whitening and skin-lightening creams, face washes, deodorants, and lotions. This industry is one of the fastest growing segments of the global beauty industry, particularly in Asia and Africa, with marketing forecasters predicting it will be worth an estimated \$US 31.2 billion by 2024¹⁰. Advertisements and packaging overtly claim that products will make consumers' skin fairer and more even-toned, while product names and the use of well-known models and actors in advertisements imply that they will enhance consumers' cultural capital via improvements in attractiveness, youthfulness, confidence and success¹¹.

The widespread use of skin fairness products is increasingly recognized as a public health, environmental justice and social justice issue due to the deleterious health side effects and the potential reinforcement of racial and social inequalities¹². This is particularly the case for research conducted in India, one of the fastest growing markets with an annual spend of \$US 450 million on skin fairness products¹³.

The relevance of skin fairness products to public health is highlighted by the scope of the industry, the widespread use of these products, and the potential health risks associated with their use. The type and extent of side effects depends on the nature and concentration of product ingredients.¹⁴ While some cosmetic products are associated with lower risk, other products contain highly active and potentially dangerous ingredients, such as hydroquinone, mercury, and bleaching agents such as hydrogen peroxide.¹⁵ Agarwal et al¹⁶ tested 23 skin fairness face creams available in India and found that almost 50% of these creams (n=11) contained steroids that can be harmful to skin. A subsequent study found that levels of mercury in many popular face creams are increasing over time.¹⁷

In my study, I have found the frequency of influencing factors for the use of skin whitening creams were as follows; television commercials in 108(25.71%), print media/magazine in 61(14.52%), friends in 131(31.19%), spouse in 48(11.43%), beauticians in 42 (10.0%) and self-desire in 30(7.14%) patients. In a previous study, friend recommendations (30.2%), television advertisements (27%) were the major factors influencing the product selection by the respondents.⁵ Advertisement was a major influencing factor in the misuse of skin lightening products by 77.4% of the female respondents in Jordan. Most of the respondents had the perception that lighter skin provides high self-esteem (53.8%) and skin looks beautiful and healthier (51.9%).

Family, social roles and statuses as well as different reference groups are some of the social factors that, in addition to culture, affect consumer behaviour. According to Kotler and Keller¹⁹ a reference group is a group that has a direct or indirect influence on a person's attitudes or behaviour whereas according to Noel²⁰, reference groups serve as a way of comparing oneself to others. Family is one of the most important reference groups and thus a major influencer in consumer behaviour. Informational influence has great impact on consumer behaviour because people usually place high value on word-of-mouth communication, especially in those cases where the information comes from a trusted source such as friends or relatives that the consumer knows personally.²⁰ Asch and Wolfe²¹ also note that recommendations for products and services made by friends or relatives have a higher value to a consumer than recommendations made by sales staff.

In a study almost half (44.6%) of the users reported that the media influenced them in some way to start using fairness products. Interestingly, in terms of gender differences in reasons for using fairness products, men were significantly more likely to endorse items related to the connection between fairness and attractiveness as well as perceived pressure from family members and peers than women. This finding is all the more interesting given that more women reported using fairness products both currently and at some point in their life.²²

CONCLUSION

This study has shown that the friends and television commercials are the main influencing factors for the use of skin whitening creams. So, we recommend that public awareness programs should be arranged regarding the major influencing factors and adverse effects of skin whitening creams in order to control the misuse.

Conflict of interest: Nil

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