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THE SUN SCREEN USE AND SUN PROTECTION BEHAVIOR AMONG YOUNG FEMALES IN MAKKAH CITY, SAUDI ARABIA

ABSTRACT
Excessive exposure to ultraviolet radiation (UVR) in childhood and adolescence contributes to the risk of skin cancers later in life. Hence, primary prevention of skin cancer, by modification of risky UVR exposure behaviors, represents an important public health priority. To assess the awareness about skin cancer and side effects of excessive use of sun screens among Saudi adolescent females. A cross-sectional study was done among 250 Saudi females, their ages ranged from 17 to 26 years old. They all used the sun screen as a way of protection from sun light. No history for any skin disease was reported. Self-administered questionnaires were distributed among them. Two hundred fifty Saudi females were involved in the study. Among them, 61 (32.4%) girls were using the sun screens every time they went out. One hundred fifty-three (61.2%) girls had sun burns while exposure to sun light before. 139 (90.8%) girls noticed decreased sun burns after using the sun screens whereas the other 14 (9.1%) girls did not notice any change in sun burns (P=0.00026). Among the 250 girls used the sun screen as a protective way, 46 (18.4%) girls had noticed skin changes after using the sun screen (p=0.0038); 32 (69.5%) girls had noticed changing in color (tanning), 14 (30.4%) girls had noticed changes in consistency (more friable skin). 64 (25.6) girls were aware that excessive unprotected sun exposure causes wrinkles, premature aging and possible skin cancer in some cases. Using sun screens as a protective way from sun light has a benefit in decreasing the severity and frequency of sun burns. Some of unwanted skin changes have appeared as a result of excessive use, although not statistically significant. We recommend sun burns for people who like tanning, but must be careful of using sun screens excessively.

INTRODUCTION
Excessive exposure to ultraviolet radiation (UVR) in childhood and adolescence contributes to the risk of skin cancers later in life [1]. Hence, primary prevention of skin cancer, by modification of risky UVR exposure behaviors, represents an important public health priority. Studies have shown that parents may be an important social influence on their children’s UVR exposure behaviors and sunburn rates [2–5].

Sunburn has a lifetime relative risk for melanoma of up to 1.6 and is a risk at all ages [6, 7]. Previous studies providing estimates of UVR exposure outcomes have focused on all adults, [8, 9] parents of young children [5, 10] or have included non-generalizable samples [11, 12].

This study aimed to assess the awareness about skin cancer and side effects of excessive use of sun screens among 250 Saudi girls.

SUBJECTS AND METHODS
A cross-sectional study was carried out among 250 Saudi females, their ages ranges between 17 and 26 years. They all used the sun screen as a way of protection from sun light. No history for any skin disease was...
reported among them. Self-administered questionnaires were distributed among them, some questionnaires were verbally filled. The questionnaire included questions regarding how often they used the sun screen, sun burns and if they improved after using sun screens. They were also had been asked about if they had noticed any skin change or skin medical problem after using the sun screens.

SPSS statistical program version20.0 was used for the data analysis. Chi-square test was utilized for testing the association between categorical variables and level of significance was determined at $p \leq 0.05$.

**RESULTS**

Two hundred fifty Saudi female were involved in the study. Their ages ranged between 17 and 26 years, 93 (37.2%) girls had attended educational course about skin cancer. Twenty-eight (11.2%) girls had attended an educational course about methods for sun protection.

Among respondents, 61 (32.4%) girls were using the sun screens every time they went out, 46 (22.4%) girls they were using the sun screens most of times they went out, 30 (12.0%) girls were using the sun screens some times when they went out, 83 (33.2%) girls were using the sun screens rarely when they went out.

One hundred fifty three (61.2%) girls had sun burns while exposure to sun light before. Among them, 126 (82.3%) girls had mild degree of sun burns, 24 (15.6%) and 3 (1.9) girls had moderate and sever degrees of sun burns, respectively.

Among girls who had sun burns (153), 139 (90.8%) girls noticed decreased sun burns after using the sun screens whereas the other 14 (9.1%) girls did not noticed any change in sun burns ($P=0.00026$).

As obvious from figure 1, among the 250 girls used the sun screen as a protective way, 46 (18.4%) girls used it only for sun protection as their skin usually expose to sun light, 44 (43.1%) girls used it as their sensitive skin for sun light and sun always made their faces worse and 19 (17.6%) girls of those were diagnosed with lupus erythematous disease and sun screen were prescribed for them as a treatment ($p=0.00081$).

As seen in figure 2, 64 (25.6) girls were aware that excessive unprotected sun exposure causes wrinkles, premature aging and possible skin cancer in some cases, while the majority of 186 (74.4%) girls were not aware that excessive unprotected sun exposure causes wrinkles premature aging and possible skin cancer in some cases.

Among girls who had past history of sun burns 153 (61.2%), 139 (90.8%) girls had noted decreased sun burns after using the sun screens. On the other hand, 46 (30.1%) girls had noticed skin changes after using the sun screens; 32 (69.5%) girls had noticed changing in color (tanning), 14 (30.4%) girls had noticed changes in consistency (more friable skin). Also, 29 (19.0%) girls had noticed skin medical problems after using the sun screens; 19 (65.5%) girls noticed development of rash, 4 (13.7%) girls noticed development of erythema and hotness, 6 (20.6%) girls noticed development of dark pigmentation.

**DISCUSSION**

According to our cross sectional study, using the sun screen decreasing the severity and frequency of sun burns among young Saudi girls. This finding is in accordance with what has been reported previously in USA [13]. Despite recommendations by several national organizations [14-16], the use of multiple sun protection
behaviors remained low in Saudi Arabia, consistent with findings in the U.S. adult population [17]. Given these findings, skin cancer prevention programs should emphasize the practice of multiple sun protection behaviors, including the use of sun-protective clothing and sun avoidance, as well as appropriate sunscreen use and application guidelines.

In contradiction to what has been reported [17] that more than 90% of users of tanning were aware about the fact that excessive unprotected sun exposure causes wrinkles, premature aging and possible skin cancer in some cases, in the present study, only one-fourth of our cohort were aware about that. In conclusion, using sun screens as a protective way from sun light has a benefit in decreasing the severity and frequency of sun burns. Some of unwanted skin changes has appeared but not statistically significant, could be related to race or environmental factors. SLE is a significant medical factor for using sun screens for long times. As sun screens approved improvement in sun burns, we recommend sun burns for people who like tanning, but must be careful of using sun screens excessively.

REFERENCES


