RESEARCH ARTICLE

PREVALENCE OF TANNING BEHAVIOUR AMONG YOUNG FEMALES IN MAKKAH AL MUKARRAMAH

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ABSTRACT
Background: Tanning and exposure to ultraviolet radiation is an important risk factor for melanoma and non-melanoma skin cancer and it is wide practice in developed countries.
Aims & Objective: To study the prevalence of tanning behaviour among young female in Makkah, Saudi Arabia and the extent of their awareness of tanning habit.
Materials and Methods: A self-administered questionnaire-based cross-sectional survey was carried out from 9 Feb 2013 until 22 June 2013 among 1000 female adolescents aged 14-23 years in Makkah shopping centers, secondary and intermediate female schools and medical and non-medical universities.
Results: We found that 20.2 % of respondents reported tanning their skin. Most of our population (89.1%) is willing to stop tanning if the practice proves dangerous for their health. 60.2% of them feel should cut down on their tanning habit and 66.2% have heard that tanning behaviour is dangerous or unhealthy.
Conclusion: Tanning use is prevalent among young female in Makkah region. However, they are aware about the dangerous of tanning behaviour.
Key Words: Tanning; Melanoma; Female; Adolescents; Saudi Arabia

Introduction

The incidence of melanoma is rising worldwide.[1] The studies proved tanning and exposure to ultraviolet radiation is an important risk factor for melanoma and non-melanoma skin cancer (squamous cell carcinoma & basal cell carcinoma).[2-10]

Artificial ultraviolet radiation (e.g. tanning beds) and exposure to sunlight have been shown to lead to skin cancer.[2-11] Significant proportion of college female students demonstrate evidence of UV light substance-related disorder.[12]

In developed countries, the indoor tanning is wide practice.[9] Tanning beds use is very prevalent in the Province of Québec.[13] In United States found that 76% of female tanning their skin.[14]

It is more common in female and younger age.[13,15-17] The reason for use of indoor tanning to feel more relaxed, to get attractive skin and to develop base tan before holiday.[10-12,14-17]

Such similarity and diversity raised questions on whether more cross-sectional studies should be done that could allow a better generalization of prevalence of tanning among young female in Saudi Arabia. Therefore, in this article it was decided to uncover areas like Makkah, the third heaviest populated city in the Kingdom.

This study attempts to determine the prevalence of tanning behaviour among young female in Makkah, and the extent of their awareness of tanning behaviour.

Materials and Methods

A cross sectional study was conducted throughout the period 9th February 2013 until 22nd June 2013 using self-administrated questionnaire. The sample size was one thousand. The study population included young female who aged between 14-23 years, lives in Makkah, medical and non-medical field, Saudis and non-Saudis. We excluded those more than 23 and less than 14 years. Thus, analysis was conducted on 960 females.

After permission was taken, we distributed the questionnaire in Makkah shopping centers, secondary and intermediate female schools and medical and non-medical universities. The questionnaire was multiple choice and in Arabic language. Information were collected about personal data, tanning practices, ways of tanning (e.g. by sun exposure, tanning beds, etc.), and frequencies of tanning (e.g. how often do you go for tanning), addiction from tanning (e.g. do you see tanning

as a must do activity you can't do without and do you feel sad or unhappy if don't go for tanning for a long time), body's colour satisfaction (e.g. do you consider your own natural colour as unattractive), attractive of the bronze colour, family members and friends tanning, asses the awareness about tanning (e.g. Did you ever hear that tanning behaviour is dangerous or unhealthy behaviour) and willing to stop tanning if the practice proves dangerous for health.

Data analysis was done using SPSS program by using chi square, P value considered significant if < 0.05.

Results

The study included 960 females. Their age ranged between 14 and 23 years with a mean of 18.9 years and standard deviation of 2.6 years. Most of them (77.6%) are residing in Makkah. Almost a fifth of them (20.2%) were working in the medical field.

Characteristics and relevant history and self-reported tanning practices are reported in Table 1. Almost a fifth of our population (20.2 %) reported tanning their skin. Most of them 81.5% were tanning by natural sun exposure, 11.8 % used tanning beds and 6.7% reported other uses like tanning creams, sprays, etc.

The mean age of starting this habit was 16.3 years. Most of our population (21%) has been started tanning at age 15 and (12.9 %) at age 18, around 46.9% of them go for tanning annually where as 36.5% monthly.

In this study, 24.5 % look at tanning as a must do activity they can't do without this habit, while 75.5 % of them reported no.

Overall, 45.6% of them consider their own natural colour as unattractive and 25.8% see the bronze colour obtained from tanning attractive.

Thirty-nine percent reported that they have friends or relatives going for tanning. There is significant relationship among tanners who have friends and family members who practice tanning and those are going for tanning. (p value < 0.001). (Table 2)

Almost a fifth (20.8%) of our participants see the bronze colour that obtained from tanning as healthy and only 14.3% feel sad or unhappy if they don't go for tanning for a long time.

There is significant relationship between tanners who see the bronze colour obtained from tanning as healthy and those are going for tanning more likely than those who don't see it as healthy (p value < 0.001). Table 2

Interestingly, 60.2 % feel should cut down on their tanning habit and 66.2% hear that tanning behaviour is dangerous or unhealthy behaviour.

As shown in table 2, those living outside Makkah were more significantly like to go for tanning than those living in Makkah (p<0.001). Regarding occupation, those not working were less likely to go for tanning compared to those either work in medical field or outside it (p<0.001). Almost 89.1% of our population is willing to stop tanning if the practice proves dangerous for their health. People with friends and family members who practices tanning are willing to stop tanning were significantly more likely than those without such friends and family (p value < 0.001).

Table-1: Characteristics and self-reported tanning habit questionnaire responses of all survey respondents

Characteristics (n = 960)	%
Going for tanning (Sun exposure: 81.5%; Tanning beds: 11.5%; Others: 6.7%)	20.2
See tanning as a must	24.5
Body's color satisfaction	45.6
Attractive of bronze color	25.8
Healthy from tanning	20.8
Friends or family member tan	39
Feeling sad if don't go for tanning for long time	14.3
Feeling should cut down this habit	60.2
heard tanning is dangerous behavior	66.2
Willing to stop tanning if practice proves dangerous	89.1

Table-2: Factors associated with going for tanning among young females, Makkah

Factors Associated with Going for Tanning		Going for Tanning: Yes N (%)	Going for Tanning: No N (%)	p-value
Living place (n=934)	In Makkah (n=728)	121 (16.6)	607 (83.4)	<0.001
	Outside Makkah (n=206)	68 (33.0)	138 (67.0)	
Occupation (n=892)	Medical field (n=181)	47 (26.0)	134 (74.0)	<0.001
	Outside medical field (n=500)	116 (23.2)	384 (76.8)	
	Not working (n=211)	14 (6.6)	197 (93.4)	
Believe that the bronze colour is healthy (n=924)	Yes (n=188)	58 (30.9)	130 (69.1)	<0.001
	No (n=736)	131 (17.8)	605 (82.2)	
Having friends/relatives going for tanning (n=915)	Yes (n=345)	152 (44.1)	193 (55.9)	<0.001
	No (n=570)	38 (6.7)	532 (93.3)	

Discussion

Our study has covered the tanning prevalence in a region which has been lacked in the previous studies. In comparison to other countries, tanning is not as popular due to cultures and habits of Saudi people and awareness among young females. We found 20.2 % of our study population tanning their skin by UV light. Most of them (81.5%) by sun exposure due to hot weather and 11.8% by tanning beds. Poorsattar et.al in US found that 76% of

female tanning their skin, 42% of them by indoor tanning.[14] In another study conducted by Mawn et al. in US, 33% of the adolescent study population practiced sunbaths.[18]

We found that the mean age of started this habit was 16.3 years, the mimic result was found in Poorsattar et al. in US the mean age of first using was 16.8 years.[14]

The majority of our study population (89.1%) are willing to stop tanning if the practice proves dangerous for their health, 66.2% have heard that Tanning behaviour is dangerous, these indicates there is awareness among young females in Makkah, there is significant relationship between those who are going for tanning and willing to stop (p value <0.05), the same thing we found in Knight et.al more than 90% of users of tanning were aware about complications of tanning.[19]

In our study, There is significant relationship between those who are willing to stop tanning and tanning practices of family and friends (p value <0.001), the same result was found in Poorsattar et al. in US.[14]

Conclusion

From this study, it is concluded that tanning use is not prevalent among young females in Makkah region. 78.9 % of young female don't go for tanning and they aware about the dangerous of tanning behaviour. We recommend that another studies should be carried out in other regions in the kingdom and Middle East, including males and females of all ages, from teenagers to adults and to assess their attitudes and beliefs towards sun protection.

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