

Evaluation of the daily exposure to UV from the sunlight among KSU female medical students during their academic years, KKHU, Riyadh

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Abstract

Introduction: Deficiency of vitamin D is proved around the world. It's highly prevalent in the United States, Europe, Australia, Turkey, India, and Lebanon. In Saudi Arabia the situation is no better. There is an increased prevalence of vitamin D deficiency between Saudi Arabs (both males and females). Since UV light radiation is the ultimate source of vitamin D₃, The correlation between vitamin D deficiency and UV light exposure is very significant. Starting with this, Vitamin D deficiency is highly prevalent in the medical community as they spend most of their times indoor with a limited exposure. Only few studies have been done to evaluate the status of vitamin D in the medical students' and no studies regarding the evaluation of the daily exposure to UV light among medical students.

Objective: This study is conducted in order to measure the amount of UV light the KSU female medical students are exposed to during the day in the university campus. In addition, to determine the level of daily activities of KSU female medical students relevant to UV light exposure.

Methodology: A cross sectional study was conducted at King Saud University, Collage of Medicine among 309 female medical students representing different medical academic years. Questionnaire was distributed among the students and physical measurement of UV light density was carried out. The data were collected by the investigators and entered in the database and analyzed using the Statistical Package for Social Sciences (SPSS).

Result: The highest amount of UV radiation was found in the 5th year classroom which reached 700 $\mu\text{W}/\text{cm}^2$. Third year students have the highest level of UV exposure compared to other students (896.91 ± 488.99). Eighty percent (80.2%) of the participated students in our study claimed to have vitamin D deficiency. Sun exposure and consumption of vitamin D rich-diet were minimal.

Conclusion: The findings of the present study call for action at the university level to increase female medical student exposure to UV light by providing gardens where students can spend time in and increase the number of windows in each class. Also increase the awareness of female medical students to the affect of their life style on their VD level. We also recommend supplying the most favorable food with fortified vitamin D. We recommend similar study involving larger population sample which is more representative considering gender variation and including doctors, inters and nurses. Also recommend similar study in other work field with different life style to study the affect of their UV light exposure on their vitamin D level.

Biography

Amal Eid Alshalawi is of 25 years of age and has a Bachelor of Medicine, MBBS form King Saud University, School of medicine.

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