



AWARENESS OF UV RADIATION AND USAGE OF SUNSCREEN AMONG MEDICAL STUDENTS

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ABSTRACT

Ultraviolet (UV) radiation from the sun plays a significant role in both the benefits and risks associated with sun exposure. While UV rays are essential for vitamin D synthesis, excessive exposure can lead to skin damage, premature aging, and an increased risk of skin cancer. Sunscreen acts as a protective barrier, absorbing or reflecting UV radiation to reduce its harmful effects. Modern sunscreens are formulated with chemical or physical UV filters to provide broad-spectrum protection against both UVA and UVB rays. This paper explores the mechanisms of UV radiation, its biological impact on the skin, and the effectiveness of sunscreen in mitigating potential damage. Understanding the importance of proper sunscreen use can help promote long-term skin health and reduce the incidence of sun-related skin disorders.

KEYWORDS :

INTRODUCTION

The incidence of skin cancer has increased over the past few years, owing to excessive exposure to ultraviolet (UV) radiation.

Sun exposure has a pathogenic effect on the development of skin cancer, whose prevalence increases worldwide. Educational programs are carried out to change high risk sun exposure behaviours.

Ultraviolet radiation (UVR) protection and skin cancer awareness are essential in the avoidance of cutaneous malignancies. Skin cancer prevention programmes involve public educational campaigns, for example, for outdoor workers or school children.

Current methods to promote awareness of the sun's ultraviolet (UV) radiation have focussed on delivering population level information and some location-based reporting of UV Index (UVI). However, diseases related to excessive (eg sunburn, skin cancer) or insufficient (eg vitamin D deficiency) exposure to sunlight still remain a global burden.

Topical sunscreens are designed to block and absorb UV radiation from the sun and have the potential to decrease the risk of skin cancer and delay the photoaging.

Recently in Canada, there has been an effort to create consistent messaging about sun safety as there is a lack of up-to-date evidence-based guidelines regarding sun- protection measures.

Sunscreens are believed to be a valuable tool in providing photoprotection against the detrimental effects of UV radiation, a known carcinogen.

Sunscreen use can prevent skin cancer, but there are concerns that it may increase the risk of vitamin D deficiency.

Sunscreens have become a mainstream consumer product for protection against the damaging ultraviolet (UV) radiation in sunlight.

With this background, the current study was conducted to assess the perceptions about UV radiation and usage of sunscreen among medical students.

AIMS AND OBJECTIVES

To assess the knowledge and awareness among Indian

medical students regarding UV radiation, its role in Skin cancer and effectiveness of sunscreen from protection of UV radiation.

To indicate the need of undergraduate education on UV radiation.

Methodology

Study Design- this is a hospital based cross sectional study.

Study Participants- Indian medical students of all years and interns.

Study Setting- Konaseema institute of medical sciences and research foundation, Amalapuram.

Study Size- 107 medical students and interns.

Sampling Technique- Convenience sampling.

Inclusion Criteria- medical students and interns of Konaseema institute of medical sciences and research foundation.

Exclusion Criteria- students who are not willing to give consent.

Data Collection Procedure- Data was collected through an online pre designed questionnaire.

Confidentiality- particulars and details of all participants was kept confidential throughout the study only summary of the details was used for declaring the result.

Ethical Consideration- institutional ethics committee approval was taken and informed consent was obtained.

RESULTS

A total of 107 medical students completed the online questionnaire of which 78.4% were interns, 16.7% were first years and 4.9% were 3rd year students.

1. 11.2% of students revealed they don't think UV rays have major role in causing of skin cancers
2. 12.1% of students don't think UV rays are responsible for premature aging of skin
3. 55.1% of students think cloudy climate can protect us from UV rays
- 9.8% of students never used sunscreen
- 40.2% of students daily use sunscreen

29.0% of students think sunscreen protects from all kind of skin cancers
 43.9% of students think UV A has major contribution for premature aging of skin
 37.4% of students think UV B has major contribution for premature aging of skin
 18.7% of students think both have equal contribution for premature aging of skin
 30% of students think that sunscreen protect only from skin pigmentation
 51.4% of students think that Wearing protective clothing can reduce skin damage from UV rays
 75.7% of students say ,they recommend sunscreen as preventive measures
 30.8% of students think , sunscreen is not necessary during winter season

DISCUSSION

Though 78-80% of skin cancer are due to UV rays but 11.2% thinks otherwise

Though UV rays are major responsible for premature aging of skin 21.5% thinks otherwise

Above results clearly shown us that Majority of students are not able Know the difference between UV rays

This indicates the clear lack of emphasis on the subject in the undergraduate curriculum.

68.4% students revealed they never interacted with a patient who suffering from any kind of skin cancers which shows the lack of availability of resources.

9.8% of students never used sunscreen, this indicates no proper Proper education regarding usage of sunscreen

Though sunscreen protects from majority of UV rays but couldn't nullify the cancer probability

41.1% of students think sunscreen is not necessary for UV protection during winter .this clearly shows students lack the basic UV rays projection

CONCLUSION

UV radiation have harmful effects on our human body mainly skin, eyes.

Though it can be prevented by some measures but lack of proper awareness leading to increase of skin cancers in India

With better and precise awareness of usage of sunscreen, protective clothing, incidence of skin cancers and other effects can be reduced

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