130 - SOLAR PROTECTION ESTHETICIST, PHYSICAL EDUCATORS AND PHYSICALLY ACTIVE.

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INTRODUCTION

The field work of the Physical Educator is extensive and diverse. It is a professional intimately connected with the health, aesthetics and results. Operates in the areas of sports, games, dance, gymnastics, recreation, leisure, stretching and relaxation. However, do not realize and do not care about factors other than physical activity to achieve the quality of life for you and your student / athlete. Can quote one of them, photoprotection.

The sunscreen is of utmost importance to be frequent sun exposure these professionals and their students. Are classes, workouts and outdoor activities, often daily, for long periods of time, at any time of day. And these students are also customers in cosmetic clinics.

The use of sunscreen is just adopted, usually by not adjust the consistency, color, lack of knowledge and concern about the negative effects that are mostly long-term and cumulative. There are also individuals who wear clothes, hats and even sunscreen, but not the right way, which does not guarantee an effective protection. (CASTRO E SILVA, 2009)

Are effects of the sun:

- Beneficial: photosynthesis, synthesis of vitamin D heat,phototherapy (treatment of injuries such as Psoriasis), welfare;

- Ominous: heat stroke, cancers, aging, allergic reactions, immunological changes. (Peyrefitte, MARTINI and CHIVOT, 1998)

It is noteworthy that its benefits or harms are directly proportional to the intensity, frequency of exposure, characteristics of the individual's skin (the lighter, the less natural protection), time of day and time of exposure, proximity to the country with the Equator (the closer, the higher the incidence of Ultra Violet rays-UVR). (CASTRO E SILVA, 2009)

LITERATURE REVIEW

The Sun is the major source of energy for the maintenance of conditions of life on our planet. (Silva and Castro, 2009)

It is natural human feeling good mood on a sunny day, as on cloudy days or in low light conditions, the difficulty of perceiving colors can affect mood and energy levels. Sunlight stimulates the welfare, provides warmth and light, is the main source of vitamin D, essential for bone health. Helps brain biological functions comes to skin diseases such as psoriasis and jaundice (Araújo, 2008).

The sun sends radiation in a complex formed by an infinite sequence of electromagnetic radiation that makes up the solar spectrum. These different radiations are themselves constituted by a flow of elementary particles, loaded with energy photons (Peyrefitte, MARTINI and CHIVOT, 1998).

The spectrum includes radiation at various wavelengths , such as ultraviolet radiation, which can be divided into UVA , UVB, UVC . (Silva and Castro, 2009)

Ultraviolet A (UVA) through the most common windows. It is divided into low, responsible for the vast majority of physiological effects on the skin , and high causing changes in the structures . The UVA exerts direct action on the blood vessels of the dermis , causing vasodilation and erythema gradually . In epidermal cells , promotes breaking the chains of DNA . Depending on the thickness of the skin and time in the sun , UVA can cause : immediate and delayed pigmentation , skin aging , carcinogenesis , triggering diseases such as lupus erythematosus , polymorphous light eruption and fotoalergias . (OKUNO and Vilela , 2005)

UVA was considered risk free , but for its dermal penetration , she has definite influence on the photoaging process , the generation of oxidative cell damage , besides having a potential role in the genesis of melanoma [1] (Silva and Castro, 2009)

[1] Tumor cutaneous high-powered lethal (INCA , 2012).

Ultraviolet B (UVB) is absorbed by ordinary glass . Despite the small penetration of the skin , its high energy is responsible for the immediate sun damage and much of late damage . (OKUNO and Vilela , 2005)

Their highest levels are close at noon, and more intense in the summer in most places near the equator and high altitudes . (Silva and Castro, 2009)

UVB radiation is primarily responsible for the induction of non-melanoma skin cancer , via two mechanisms: DNA damage and photochemical changes in the host's immune system with partial suppression of immunity (Cuce and NETO , 2001).

Effects of UVB:

- Treble - synthesis of vitamin D , instant tanning or sunburn

- cumulative - Photoaging - fibers lose elasticity , suppleness and become thick and bonded thinning of the epidermis and uneven pigmentation .

- Immunosuppression - DNA damage by ultraviolet radiation triggers the release of T lymphocytes in the skin which reduce the immune response and increases the risk of infection or skin cancer.

- Skin cancer . UVB damage genes , which can inhibit the abnormal growth of control cells. The weakened immune system becomes unable to identify normal cells and cancer develops (Araújo , 2008).

Ultraviolet C (UVC) is a potent carcinogen , but is 100 % filtered by the ozone layer (Araújo , 2008).

The ozone layer hold the UVC and UVB short lengths that would destroy all life on earth. But she has fallen in recent years, leading to increased levels of UVB rays that reach the earth, increasing the risks and damage. UVA cross it easily, with the radiation that we are exposed, UVC are the most dangerous and there are reports of its incidence in some regions of the planet. (Araújo, 2008)

Studies show that every 1% reduction, we have increased 2-4% in the number of cases (Cuce and NETO, 2001).

SOLAR PROTECTION

To minimize all these deleterious effects photoprotection a correct and controlled exposure is required.

Primary prevention programs focused on reducing exposure to UV rays , seem to have a positive effect in reducing the incidence of skin cancer . Regular use of sunscreens has been proven effective in reducing the risk . Marks et al , noted that the use of a hat with rim 10 inches , could lower lifelong fees Skin Cancer by 40% , but still less than half of viewers in outdoor sporting events wearing a hat . (Bolognia , 2011)

The human body has natural components in their penetration of the UV barriers:

- Those hairs give physical protection to more sun-exposed surfaces .
- Layer cornea, sweat, sebum help block the penetration of solar radiation , absorbing and reflecting light .
- Intrinsic Protection : Melanin - pigment that absorbs all UV continuously , protecting cellular DNA by engaging the cell nucleus .

But , it is necessary to increase protection by physical barriers such as clothing with Sun Protection Factor (FPS) . Hats . Plus . Glasses (Silva and Castro, 2009).

DERMOCOSMETIC SUNSCREEN

The RDA (agency that oversees and regulates cosmetics in the world) rated sunscreens cosmetics , free prescription substances , designed to protect the structure and function of the human integument against actin damage (sun damage) . (DRAELOS 1999)

Sunscreens decrease the energy levels of UVA, UVB or reflected , making them less damaging cellular structures . Effectively retard carcinomas and melanomas shape , prevent aging and burns , prevent triggering of solar polymorphous rash , immunosuppression induced by UVB block and reduce expression of p35 protein directly linked to cellular DNA damage . (BOLOGNIA , 2011)

Draelos (1999) cites two types of sunscreen :

Physical sunscreens : form a barrier against UV , so it is called also sunblock . Have opaque substances capable of reflecting and scattering light energy . The only filtradoras substances that can block completely , UVA, UVB and IR lengths are visible physical sunblocks . Kaolin , magnesium silicate, magnesium oxide , titanium dioxide, zinc oxide, iron oxide.

Chemical sunscreen: a substance/molecule that absorbs light energy by absorbing photons . The chemical absorbs 95 % of UV radiation , UVB , however does not block the waves of UVA spectrum.

SUN PROTECTION FACTOR – FPS

The FPS are available in numerical scale usually from 3 to 60. This indicates how much longer the skin withstands exposure to sunlight without burns. (PEYREFITTE, MARTINI AND CHIVOT, 1998)

That is, if a person with a certain type of skin endure only 3 minutes without protection, using FPS 15 it can get up to 45 min (3X15) with SPF 10 and it may be 30 - and so on, according to the type of skin each. (SABARA, GODOY AND OZAKI, 2008)

Factor 15: suitable for brunettes and black fur, little sensitive to the sun.
Factor 30: clear and suitable for sensitive skin who burn easily and have redness.
Factor 50: suitable for sensitive, extremely fair skin who burn easily and have redness.
Recommended for athletes and professionals remain long exposed to the sun (BOLOGNIA, 2011).

OBJECTIVE

This study aims to determine the use of cosmetic sunscreens, both by health professionals, beauticians, physical educators and the public practitioner of physical activity with daily sun exposure.

METHOD

A questionnaire free and spontaneous response by all 222 participants of both sexes, with 167 women and 55 men on the use of sunscreen was applied.

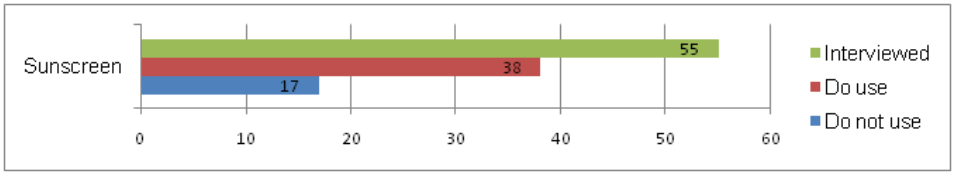
RESULTS

From the collection and analysis of data, we obtained the following information. And for better visualization of the results tabulation and divided the respondents into two groups:

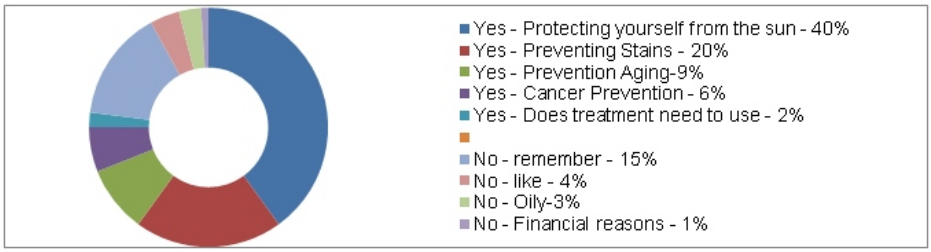
GroupA: Women (A)
Group B: Men (B)

QUIZ
1)Do you use sunscreen? WOMEN -- 70% YES 30% NO

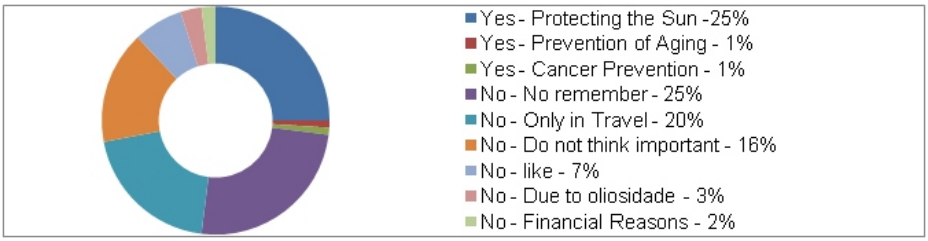
MEN -- 70% YES 30% NO



2) For what reason does not or you use sunscreen?
(A)WOMEN

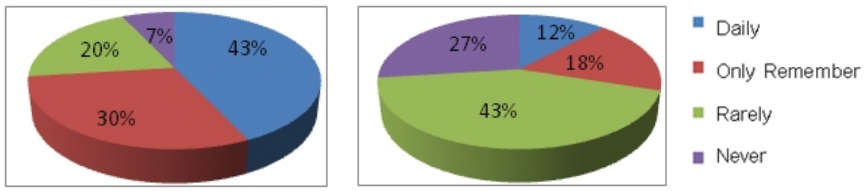


(B) MEN



3) How often do you pass the sunscreen?

(A) WOMEN (B) MEN

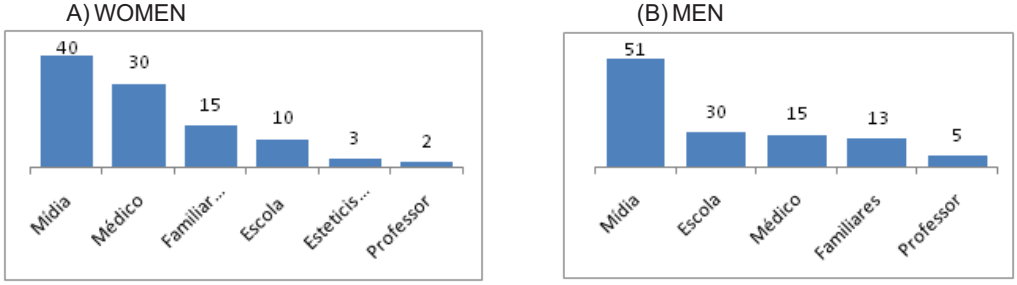


4) Do you have the habit of lending the proceeds?
Group A (Women): YES: 30% NO: 70%
Group B (Men): YES: 27% NO: 73%

5) Do you use sunscreen only on warm and sunny days?
Group A (Women): YES: 54% NO: 46%
Group B (Men): YES: 71% NO: 29%

6) How did you learn of the importance that has sunscreen for our health?

A) WOMEN (B) MEN



DISCUSSION

It can be observed through research that studied mostly (70 %) , the sample use sunscreen , no support , fortunately with data from SBD (2013) , that 62 % of Brazilians do not use sunscreen when exposed directly the Sun However , only 27.5 % (average of men and women interviewed) uses sunscreen daily .

Another worrying factor is the way to use : No reapplication (M = 73 % , M = 70 %) , which use only in sunny days (M = 71 % , M = 54 %) , giving Silva and Castro (2009) , the amount of sunscreen applied by population, in real conditions , often fall short of need , giving protection up to one third of that described on the product label . (Silva and Castro, 2009)

It is estimated that the support person to 3.650 hours of sun without protection before showing signs of photoaging . Although the damage appear only later, after 30 , 18 have , most people in Brazil, and especially tropical countries , often reaching 80% of the limit of hours of exposure. (Sabara , Godoy and OZAKI , 2008)

The lack of knowledge for correct application and recognition of the benefits of the product there . Most respondents claimed to use only to protect themselves from the sun , or protect yourself from the discomfort of a sunburn . Back in the survey are for aesthetic reasons (stains and aging) , and lastly , the risk of sun exposure to health.

There is a difference of 20 to 30 years of delay between the skin lesions and early visible effects such as wrinkling , pigmentation , or hyperpigmentation , telangiectasias . While young tan , seniors are looking for sunscreens and cosmeceuticals

to undo that actinic damage . (Bolognia , 2011)

The media proved to be important in raising awareness , 40 % reported that they informed the guard through it . Therefore, it is necessary to adopt policies to raise awareness ASAP so that everyone adopt daily and correctly use , advertisements , designs , help to increase the number of users .

The harmful effects of solar radiation on the skin are manifested in the short , medium and long term and affect both people who are directly exposed to the sun , as those who avoid direct exposure and remain in the shade , so it is important to daily use of protective . (Sabara , Godoy and OZAKI , 2008)

The Professional Physical Education can inform your students about it as it has contact with all age groups and also often stand for long periods with athletes / students exposed to the sun

Today the multidisciplinary practice where beauticians can assist physical educators in the evaluation and care of the skin of his students who may be potential clients of professional aesthetics is required.

CONCLUSION

It is proven the importance of using sunscreen , but only the correct application is capable of photoprotection . It should be applied early in the morning , half an hour before exposure , with reapplication every 3 hours , with SPF 30 or above , according to each skin type . (Guiselini , 1996).

Physical sunscreens are more suitable for those individuals who spend long periods in the sun , as surfers , tennis players , lifeguards and the most sensitive areas such as nose , ears and malar regions , because they reflect the rays , preventing them from reaching cutaneous structures . (Bolognia , 2011)

Professional Physical Education and physically active, and often clients of aesthetics, which often exhibit should use a minimum FPS of 50 The application should involve lips, ears, neck , forearms and back of hands , bald people should care about the region of the scalp , these regions are more exposed and often there is an occurrence of cancer . We guide the consultation with the Dermatologist to research any type of injury , change in thickness , appearance, color , texture, OI incidence of skin is large and can lead to death by his great power of metastasis . The sporting community should worry about sunscreen if it is conscious is able to prevent aging and sun -related diseases , but also promote physical and psychological benefits to athletes and teachers . The professional is important at the time of instruction and training exercises , but your concern should not only be with the results , but with the immediate and delayed health of those involved .

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SOLAR PROTECTION FOR ESTHETICISTS, PHYSICAL EDUCATORS AND PRACTITIONERS OF PHYSICAL ACTIVITY .

ABSTRACT

The regular practice of physical activity is an important action for the promotion of health, beauty and wellness . And when combined with a balanced diet and controlling stress levels , it then promotes quality of life . But, practitioners of routine physical activity , in many cases , are exposed to the sun, which causes damage , early and late , to the skin . Examples of injury : burns , photoalergies, premature aging , immunosuppression and the worst of them , skin cancer. The Environmental Protection Agency , based on progressive reduction of ozone, reports that from 1991 to 2030 will be diagnosed approximately 12 million new cases of Non Melanoma Skin Cancer , leading to over 200,000 deaths . (CUCÉ and NETO , 2001) The adequate photoprotection can prevent these deleterious effects , but it is not adopted by the community practitioner of physical activity and not by the general population . Consciousness begins only in old age when the first signs of excessive sun appear on the skin : blemishes , wrinkles , pre-cancerous lesions , such as actinic keratosis .

KEYWORDS : Sunscreen , Photoprotection , Skin Cancer .

PROTECTION SOLAIREPOUR ESTHÉTICIENNES, ÉDUCATEURS PHYSIQUES ET DES PRATICIENS DE L'ACTIVITÉ PHYSIQUE

RÉSUMÉ

La pratique régulière de l'activité physique est une action importante pour la promotion de la santé , de beauté et de bien-être . Et lorsqu'il est combiné avec un régime alimentaire équilibré et de contrôler les niveaux de stress , elle favorise alors la qualité de vie . Cependant, les praticiens de l'activité physique de routine, dans de nombreux cas , sont exposés au soleil, ce qui provoque des dégâts , au début et à la fin , à la peau. Des exemples de blessure: Brûlures, le vieillissement prématuré, l'immunosuppression et le pire d'entre eux , le cancer de la peau. L'Agence de protection de l'environnement , fondée sur une réduction progressive de l'ozone , rapporte qu'entre 1991 et 2030 sera diagnostiqué environ 12 millions de nouveaux cas de cancer de la peau non mélanome , ce qui conduit à plus de 200.000 morts . (CUCÉ et NETO 2001) photoprotection adéquate peut prévenir ces effets néfastes , mais elle n'est pas adoptée par le praticien de la communauté de l'activité physique et non par la population en général . Conscience commence seulement à un âge avancé lorsque les premiers signes de soleil excessive apparaissent sur la peau : taches, rides , des lésions pré-cancéreuses , telles que la kératose actinique.

MOST-CLÉS: Protection Solaire , Photoprotection , Cancer de la peau

PROTECCIÓN SOLARPARA ESTETICISTAS, EDUCADORES FÍSICOS Y PROFESIONALES DE LA ACTIVIDAD FISICA

RESUMEN

La práctica regular de actividad física es una acción importante para la promoción de la salud , belleza y bienestar . Y cuando se combina con una dieta equilibrada y el control de los niveles de estrés , que a continuación, promueve la calidad de vida . Sin embargo , los practicantes de la actividad física rutinaria , en muchos casos , están expuestos al sol , lo que provoca daños , temprana y tardía , a la piel . Los ejemplos de lesiones : quemaduras, envejecimiento prematuro , la inmunosupresión y el peor de ellos , el cáncer de piel. La Agencia de Protección Ambiental , basado en la reducción progresiva de la capa de ozono , informa que desde 1991 hasta 2030 se diagnosticarán aproximadamente 12 millones de nuevos casos de cáncer de piel no melanoma , lo que lleva a más de 200.000 muertes. (Cucé y Neto , 2001) fotoprotección adecuada puede prevenir estos efectos deletéreos , pero no está aprobada por la comunidad practicante de la actividad física y no por la población en general . La conciencia comienza sólo en la vejez, cuando aparecen los primeros signos de exceso de sol en la piel: manchas , arrugas , lesiones pre - cancerosas, como la queratosis actínica.

PALABRAS CLAVE : Protector solar , Fotoprotección , Cáncer de piel .

PROTEÇÃO SOLAR PARA ESTETICISTAS, EDUCADORES FÍSICOS E PRATICANTES DE ATIVIDADE FÍSICA.

RESUMO

A prática regular de atividade física é uma importante ação para a promoção da saúde, beleza e bem-estar. E quando associada a uma alimentação balanceada e ao controle dos níveis de estresse, ela então, promove qualidade de vida. Entretanto, praticantes de atividade física rotineira, em vários casos, ficam expostos ao sol, o que gera danos, imediatos e tardios, à pele. São exemplos de danos: queimaduras, fotoalergias, envelhecimento precoce, imunossupressão e o pior deles, câncer de pele. A agência de proteção ambiental, baseada na diminuição progressiva de ozônio, relata que de 1991 a 2030 serão diagnosticados aproximadamente, 12.000.000 de novos casos de Câncer Cutâneo Não Melanoma, levando a mais de 200.000 mortes. (CUCÉ e NETO, 2001) A fotoproteção adequada é capaz de prevenir esses efeitos deletérios, porém não é adotada pela comunidade praticante de atividade física e nem pela população geral. A consciência começa apenas na idade avançada quando os primeiros sinais do excesso de Sol aparecem na pele: manchas, rugas, lesões pré-cancerígenas, como a ceratose actínica.

PALAVRAS-CHAVE: Protetor Solar, Fotoproteção, Câncer de Pele.