134 - SUN EXPOSURE: ASSESSMENT OF KNOWLEDGE AND PREVENTION MEASURES OF FARMERS

ANDRÉ LUIZ DANTAS BEZERRA
TARCIANA SAMPAIO COSTA
OCILMA BARROS DE QUENTAL
ELISANGELA VILAR DE ASSIS
MILENA NUNES ALVES DE SOUSA
Faculdades Integradas de Patos, FIP, Patos, Paraíba, Brasil
Universidade Estadual da Paraíba, Campina Grande, Paraíba, Brasil
Faculdade Santa Maria, Cajazeiras, Paraíba, Brasil
andredparaiba@hotmail.com

1 INTRODUCTION

The sun is essential to life on Earth and its effects on man depend on their individual characteristics, such as: exposed skin, intensity, frequency and time of exposure. Such effects may be beneficial to humans, like the stimulation of melanin production and the feeling of physical and mental well-being, however it can cause damages to the body, if we don't take the proper care to the received solar dose (MACHADO et al. 2003).

Sun exposure at work is one of the most significant problems when workers perform activities that require this condition. History tells us that this fact occurred over the centuries, from Egyptian slaves who were responsible for the great buildings of this era, peasants in the Middle Ages, the first paid employees in Modern Age, and to the present day, where the heterogeneity of human needs has contributed to diversify the work, creating multiple services, thus increasing not only the quantity but also the categories of workers in outdoors activities (MORAL, 2007).

It is important to emphasize that the work is the instrument to dignify the man in the environment he lives in. Based on this, Occupational Health can be defined as the health-disease process of human groups that seek to control the conditions and the working environment (OLIVEIRA; MUROFUSE, 2001). The programs and activities on behalf of workers' health must be understood as strategies to achieve health from the perspective of prevention of occupational accidents, as well as occupational diseases, developing different lifestyles and healthy communities (SILVA et al., 2003). Regarding the risks to occupational exposures, we emphasize how the workers perform their respective functions (MACHADO et al., 2003).

In this scenario, we need to invest in statistical data and indicators analysis, as well as in the implementation of services to promote the work of multidisciplinary teams that aim actions from health promotion to diagnosis and treatment (SILVA et al., 2003). Among the actions of these services, we highlight the care to worker's skin through the use of Personal Protective Equipment (PPE), once the infrared rays of the sun change chemical compositions, resulting in carcinogenic activity, contributing to the development of skin cancer (DIFFEY, 2004).

This been said, we must emphasize the need for care with the sun-exposed skin, however what is observed in practice is that such care is neglected. We give special reference to the town of Lastro, in Paraíba, where most of the population is composed by farmers without PPE to perform their activities. Such fact served as a concern for researchers, motivating them to develop this study in order to assess the knowledge of farmers about prevention measures to sun exposure.

2 METHODS

This is a descriptive study with quantitative approach carried out in the Municipality of Lastro, interior of Paraíba, Brazil. The population consisted of 65 farmers linked to the Association of Small Farmers of Boa Esperança (ASPROBE). The sample consisted of 52 participants who fit the following inclusion criteria: present registration in the association above mentioned and aged between 18 and 68, as exclusion criteria: workers sick on license or dismissal.

To process data collection, we used an interview route addressed to the research subjects, who responded to an instrument meant to obtain information about the goals proposed by the study, which was applied in May 2011, previously scheduled by the president of the Farmers Association. For data analysis we used tables and charts with the aid of the programs Microsoft Word and Excel (2007).

This study was approved by the Research Ethics Committee (REC) of Santa Maria College, according to the protocol number 694022011. The study followed the criteria established by Resolution 196/96 of the National Health Council (BRAZIL, 1996).

3 RESULTS AND DISCUSSION

52 farmers were interviewed and talked about the practice of sun exposure in the workplace, as well as information about prevention and protection against such a circumstance, the main categories were presented and distributed in frequency and percentage in Table 1

Table 1 – Categorization on the practice and information of farmers regarding sun exposure

PROTECTION MEASURES	*f*	**%**
Hat and long sleeve shirt	26	50
Hat	22	42
Sunscreen	4	8
TIME OF SUN EXPOSURE	*f*	**%**
07 hours of exposure	32	62
04 hours of exposure	20	38
MEDIA INFORMATION ON THE RISKS OF SOLAR EXPOSURE	*f*	**%**
Television	47	90
Others	4	8
Magazines	1	2
CAUSES OF SOLAR EXPOSURE	*f*	**%**
Skin Cancer	25	48
Unknown	22	42
Skin spots	5	10
TOTAL	**52**	**100**

According to Table 1, we identify that the protective measures adopted by farmers are hat and long sleeve shirt 26 (50%), hat 22(42%) and sunscreen 4 (8%).

According to Fellipe (2001) the Regulation Norm 6 (RN-6) considers all PPE devices for individual use, of domestic or foreign manufacture, designed to protect health and physical integrity of workers. Thus, we can mention the hat that is hydro-repellent and protects the scalp and neck from the sun and long sleeve shirt, once it avoids the exposure of sunlight directly on skin. Besides these there is the sunscreen that according to Purim; Leite (2010) provides protection through the effect of covering the skin, protecting against the visible light and ultraviolet A and B radiation. Thus, the sunscreen is an effective strategy to reduce the amount of ultraviolet radiation and sunburn.

Considering that photo-protection can be understood as a set of measures to reduce or minimize exposure to solar radiation, the guarantee of farmers protection is presented in the use of straw hat, long clothes, sunglasses and Sunscreen Protection Factor of 15 (SPF) (MANEGATI; FONTANA, 2010). In these terms, it was verified that farmers did not use the PPE required in their work process, and so, being exposed and with increased probability of occurrence of damages resulting from excessive exposure to sunlight.

Regarding solar exposure, we identified the 07 hours of sun exposure 32 (62%) and 04 hours of exposure 20 (38%). Excessive exposure to sunlight is the main risk factor for developing skin cancer, affecting mainly people living in tropical countries like Brazil and Australia (POPIM et al, 2008). Not only for prevention of skin cancer, as well as other injuries caused by ultraviolet rays, is necessary to avoid sun exposure at times when UV rays are most intense between 10 and 15 o'clock (BCPS, 2008).

The farmers interviewed remained exposed to ultraviolet radiation in the most critical times, making them more vulnerable to complications from radiation. Corroborating the statement of Manegati; Fontana (2010); Szklo et al. (2007) saying that farmers with long working hours are more exposed to risks caused by sun exposure and are less concerned about protecting themselves and the harmful effects of sun. In this perspective, people with prolonged chronic exposure form the group with the most risk and, in this case, the possibility of developing skin cancer increases sharply (POPIM et al., 2008). The proper choice of hours of sun exposure combined with the use of PPE is essential to minimize damages and injuries caused by radiation. Therefore, these practices need to be worked among the farmers in order to avoid further damages.

Regarding the media about the risks of sun exposure, they reported television 47 (90%), other media 4 (8%) and magazines 1 (2%). Based on these data we could analyze that the most frequent media of this study population is television. The propaganda of the risks of sun exposure by the media has been increasing awareness of the problem, raising initiatives of primary prevention (PURIM; LEITE, 2010). We can see the need for greater investments in educational measures of photo-protection through other means such as seminars, lectures, home visits, debates and discussions dealing with the basic care for skin protection, to minimize unprotected exposure.

Studies emphasize the importance of awareness about the dangers of excessive sun exposure, through prevention campaigns in order to intervene in the sunbathing habits of the individual to avoid cumulative damage (COSTA; WEBER, 2004).

Regarding the causes of sun exposure, we identified: skin cancer 25 (48%), had no opinion 22 (42%) and skin spots 5 (10%). It was noted that the study population did not have enough information about the negative effects that sun exposure causes. Despite mentioning skin cancer, they were unaware of the actual damages that it may cause.

Studies conducted by Freitas et al. (2009) demonstrated the need for programs of primary and secondary prevention. Prevention campaigns of skin tumors are very important for guidance and clarification of doubts, once they know the consequences of everyday practices, the care and vigilance on them are intensified (COSTA; WEBER, 2004).

The Brazilian Society of Dermatology (2008) warns that repeated burns, premature aging, eye damage, skin spots and bruises, over the years of sun exposure can lead to skin cancer. It is important to conduct information campaigns to alert the population on the benefits that the use of PPE can provide.

4 FINAL CONSIDERATIONS

The main results of this study show that farmers have work habits with risk factors for skin disorders, such as non-compliance of PPE and prolonged sun exposure without respecting the intervals considered beneficial to health, representing a serious problem of public health.

In these terms, this population is likely to develop skin problems, deteriorating with the appearance of skin cancer. Prolonged exposure to sun at work can be justified by the need to increase family income.

It was also found gaps concerning the knowledge of farmers about injuries caused by sun exposure and limited access to this information, basically with explanations in the media through television.

Given the above, we see the need for greater investments in actions and services in primary health care, addressing the socio-educational measures of sun exposure habits, prioritizing the population of rural farmers, since they proved to be poorly understood and are susceptible to damage caused by this practice.

Thus, the proposed objectives were achieved in this study and it is expected the implementation of strategies that benefit such workers. This study is of great importance to farmers, nursing students and the scientific community, because it brings to light important data that contribute to develop effective measures to prevent the appearance of skin cancer and its complications, besides contributing to the awareness of rural workers and future nursing professionals, on the necessary changes in working practices in order to obtain positive results and changes in lifestyle.

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Rua do Prado, Nº 369, Apt. 806.
Bairro Centro.
CEP: 58700-010.
Patos-PB, Brasil.

SUN EXPOSURE: ASSESSMENT OF KNOWLEDGE AND PREVENTION MEASURES OF FARMERS

ABSTRACT

Introduction: Excessive sun exposure and without proper prevention measures may result in serious effects on the immune system of workers, besides contributing to aging and the development of skin cancer, especially in people who work outdoors, as farmers. Objectives: To assess the knowledge and preventive measures of farmers regarding sun exposure. Methods: Descriptive study with quantitative approach carried out with 52 farmers from the Association of Small Farmers of Boa Esperança. Data was collected in May 2011 through a route of structured interview. Data was analyzed descriptively and presented in table. The research follows the guidelines of Resolution 196/96 CNS/MS. Results and Discussion: The results showed that the main preventive measures were presented in the wearing of hats and shirts with long sleeves and the exposure time was excessive. Most interviewees reported that the main source of information about skin cancer was the television and did not know the damage caused by sun exposure. Final Considerations: There is the need for campaigns in order to inform the effects of the sun on your skin, as well as damages caused by sun exposure, providing prophylaxis through health interventions aiming the health promotion and quality of life.

DESCRIPTORS: Farmers. Sun exposure. Preventive Measures

EXPOSITION AU SOLLEIL: AVALIATION DE LA CONNAISSANCE ET DES MESURES DE PRÉVENTION DE LA PARTIE DES AGRICULTEURS.

RÉSUMÉE

INTRODUCTION: La exposition solaire en excès et sans les soins nécessaires pour prevenir des risques, peut provoquer des effets dangereux sur le systhème immunologique du travailleur, outre qu'il peut concourir pour le vieillissement et le développement du cancer de la peau, principalement pour les gens qui travaillent à l'air libre, comme c'est le cas des agriculteurs. OBJECTIF: Évaluer la connaissance et les mesures de prévention des agriculteurs par rapport à la exposition solaire. MÉTHODOLOGIE: C'est une étude descriptive, quantitative, qui a été fait avec 52 agriculteurs de la Association des Petits Producteurs Ruraux de Boa Esperança. Les données furent récoltées au mois de mai 2011, en utilisant un questionnaire semi-structur et puis organisées sous des graphiques et des tableau, et soumis à lánalyse. La recherche a suivi la Résolution CNS/MS. RÉSULTAS ET DISCUSSION: L'échantillon s'est composée par deux grupes d'individus: les agées de 40 à 50 ans (31%) e ceux de plus de 50 ans (69%). Le sexe féminin a prédomminé, avec 90% en restant 10% masculin. Comme protection contre le solleil, seulement 9,5% des individus faisaient l'usage du casquette, cepandant que 32,5% s'utilisaient du chapeau. Le chapeau et la chemise de manche longue étaient utilisés par 50% des travailleurs. À peine 8% faisaient l'usage de produit de protection solaire. La plupart des enquetés (61%) s'exposaient au solleil dans les periodes du matin et d'après-midi, cepandant que 39% s'exposaient à peine au matin. Le risque de l'exposition solaire pour la santé sont méconus par un taux de 48%, tandis que pour 90% des participants à l'étude, la source d'information principale sur le cancer de la peau c'est la télevision. CONCLUSION: Il y a besoin de diffusion d'information sur les effets du solleil sur la peau, bien aussi des dommages de la exposition au solleil, en visant la promotion de la santé et de la qualité de vie.

MOTS-CLÉS: Exposition solaire, agriculteurs, prévention.

EXPOSICIÓN SOLAR: EVALUACIÓN DEL CONOCIMIENO Y MEDIDAS DE PREVENCIÓN DE LOS AGRICULTORES

RESUMEN

Introducción: La exposición solar de forma excesiva y sin las debidas medidas de prevención, puede ocasionar graves consecuencias sobre el sistema inmunológico del trabajador, además de ocasionar envejecimiento y desarrollo de cáncer de piel, sobre todo en personas que trabajan al aire libre, como los agricultores. Objetivos: Evaluar el conocimiento y medidas de prevención de los agricultores en relación a la exposición solar. Metodología: estudio descriptivo con abordaje cuantitativo, realizado con 52 agricultores de la Asociación de Pequeños Productores Rurales de Boa Esperança. Los datos se recogieron durante el mes de mayo de 2011 a través de cuestionario semi- estructurado y se analizaron de forma descriptiva en gráficos y tablas. La investigación sigue las directrices de la Resolución 196/96 del CNS/MS. Resultados y Discusiones: La muestra está integrada por individuos con edades de entre 40 y 50 años (31%) y mayores de 50 años, 69%, de los que el 90¨% eran de sexo masculino y el 10% femenino. Se observo que el 9,5% usaban gorro como medio físico de protección, 32,5% llevaban sombrero y camiseta/ remera de manga larga, mientras que apenas el 8% empleaban el protector solar para

resguardarse del sol. La mayoría de los entrevistados, el 61%, permanecían expuestos durante la mañana y tarde y el 39% apenas por la mañana. De los entrevistados, el 90% relataron que el principal medio de información sobre el cáncer de piel era la televisión. El 48% destacó no saber los daños producidos a la salud por la exposición solar. Consideraciones Finales: se verifica la necesidad de realizar campañas para informar sobre los efectos del sol sobre la piel, así como los daños ocasionados por la exposición solar, proporcionando la profilaxis a través de acciones en salud en búsqueda del fomento de la salud y calidad de vida.

PALABRAS CLAVE: Exposición Solar; Agricultores; Prevención.

EXPOSIÇÃO SOLAR: AVALIAÇÃO DO CONHECIMENTO E MEDIDAS DE PREVENÇÃO DOS AGRICULTORES

RESUMO

Introdução: A exposição solar de forma excessiva e sem as devidas medidas de prevenção, pode resultar em profundos efeitos sobre o sistema imunológico do trabalhador, além de contribuir para o envelhecimento e o desenvolvimento de câncer de pele, principalmente em pessoas que trabalham ao ar livre, como os agricultores. Objetivos: Avaliar o conhecimento e medidas de prevenção dos agricultores com relação à exposição solar. Metodologia: estudo descritivo com abordagem quantitativa, realizado com 52 agricultores da Associação de Pequenos Produtores Rurais de Boa Esperança. Os dados foram coletados durante o mês de maio de 2011 através de um roteiro de entrevista estruturado. Os dados foram analisados de forma descritiva e apresentado em tabela. A pesquisa segue as diretrizes da Resolução 196/96 do CNS/MS. Resultados e Discussões: Os resultados demonstraram que as principais medidas preventivas resumiam-se no uso de chapéu e camisa com manga e o tempo à exposição era excessivo. A maioria dos entrevistados relatou que o principal meio de informação sobre o câncer de pele era a televisão e não conheciam os danos causados pela exposição solar. Considerações Finais: existe a necessidade da realização de campanhas, no intuito de informar sobre os efeitos do sol na pele, bem como danos causados pela exposição solar, proporcionando a profilaxia através de ações em saúde em busca da promoção em saúde e qualidade de vida.

DESCRITORES: Agricultores. Exposição solar. Medidas de prevenção