Croat Nurs J. 2022; 6(1): 45-55

The Knowledge and Photoprotective Behaviour of the Hungarian Population in Relation to Skin Cancer

[1] **Bence Szabados**

[2] **Mónika Ferenczy**

[1] **APN Student, University of Pécs, Faculty of Health Sciences, Pécs Campus, Institute of Nursing Sciences, Basic Health Sciences and Health Visiting, Hungary**

[2] **University of Pécs, Faculty of Health Sciences, Szombathely Campus, Institute of Nursing Sciences, Basic Health Sciences and Health Visiting, Hungary**

Article received: 28.02.2022.

Article accepted: 20.06.2022.

Author for correspondence:

Mónika Ferenczy

University of Pécs, Faculty of Health Sciences, Szombathely Campus, Institute of Nursing Sciences, Basic Health Sciences and Health Visiting

14. Jókai str., Szombathely, Hungary

Tel: +36-94/311-170

Email: monika.ferenczy@etk.pte.hu

https://doi.org/10.24141/2/6/1/4

Keywords: skin cancer, sun protection, screening, self-testing, knowledge

Abstract

Introduction. The carcinogenic ultraviolet range of sunlight plays a major role in the development of malignant skin tumours with a steadily increasing incidence. It shows a significant upward trend in our country, with 2,742 new cases registered in 2016, nearly 15% of which were under 40 years of age. With conscious behaviour and the use of sunscreen products, the incidence of skin tumours can be reduced. The aim of the study is to assess the Hungarian population's knowledge about skin cancer and attitudes towards sun protection.

Methods. Quantitative cross-sectional study was conducted in a dermatology clinic and among 7th and 8th-grade students and 11th and 12th-grade students of two high schools. The self-administered questionnaire used in the study included questions on socio-demographic data, addictions, skin type, family history of skin cancer, sunburns, sunbathing habits, sunscreen use, knowledge about sun protection and skin cancer, screening and self-testing.

Results. 83.9% of respondents (N=356) have experienced sunburn 3 or more times, and 27.8% use sunscreen regularly (N=118). 62.7% of respondents (N=266) have never had a skin cancer/melanoma screening. A significant association was found between education, gender and sunscreen use ($p<0.001$). A significant association was also found between risky behaviour and going to a tanning salon ($p<0.001$).

Conclusions. The Hungarian population has a lack of knowledge about skin cancer. The results indicate that more emphasis should be placed on increasing the knowledge and awareness of the population about sun protection and on developing good habits, starting at the primary and secondary level.

Introduction

The increasing incidence of malignant skin tumours (basocellular carcinoma/basalioma/basal cell carcinoma, spinocellular carcinoma/spinalioma/spinocellular carcinoma/stem cell cancer, melanoma malignum/pigmented skin cancer) is associated with a significant role of the carcinogenic ultraviolet range of sunlight, as confirmed by in vitro and in vivo studies. With conscious behaviour and the use of sunscreen products, the incidence of skin tumours can be reduced. Basocellular carcinomas and spinocellular carcinomas are the most common malignant tumours in humans. Because of its local invasiveness and frequency, basal cell carcinoma is considered to be of major importance, although it rarely metastasises. Spinocellular carcinoma metastasises more frequently, although not as frequently as the most aggressive pigment cell-derived melanoma malignanum. The latter accounts for a small proportion of skin tumours, but is responsible for a large proportion of deaths. The incidence of skin tumours is increasing significantly worldwide. Epithelial tumours are more prevalent in the older population, but nowadays their first appearance is occurring at younger and younger ages. Malignant melanoma occurs at all ages, but is most common in middle-aged people. The causal role of these malignant skin tumours is due to ultraviolet radiation from sunlight, as evidenced by the fact that they occur mainly on skin surfaces exposed to sunlight and that they are more common in geographical areas with higher sunshine hours (1). Contrary to popular belief, the risk of developing it is increased by the use of a tanning salon. In addition to epidemiological data, in vitro studies and animal experiments show that UV radiation is completely carcinogenic, i.e., it can induce the whole process of carcinogenesis: it causes mutations, promotes the survival and division of mutant cells, and is also an inflammatory and immunosuppressive agent. Reducing the amount of UV radiation to the skin is a very important part of the primary prevention of tumours, which are becoming more and more common. This can be achieved through social and individual habits and the use of sunscreens (2-4). UV radiation is thought to play a role of about 65% in the development of melanoma malignancies, and of particular importance, sunburns suffered during childhood and intermittent exposure to strong radiation (e.g. holidays in the Mediterranean or tropical climates) significantly increase the risk of developing melanoma. For basocellular carcinoma and spinocellular carcinoma, where the incidence of tumours is about 90% due to sunlight, the incidence is proportional to the total amount of sunlight received during a lifetime (cumulative exposure). The UVB content of sunlight is highest at midday, so minimising exposure to the sun and protecting the skin with clothing (long-sleeved clothing, hats) is essential to reduce the risk. In addition, sunscreen creams can be used as sun protection. A high number of nevus means an increased risk of melanoma. In children, the use of sunscreen reduces the number of moles and strict sun protection reduces the appearance of melanoma (5). Sunbathing and tanning salons are still fashionable in some circles of society because tanned skin is considered a ‚status symbol'. Educating the public about the harms of excessive sunbathing is a matter of health education. Primary care workers have a key role to play in this (6). According to WHO data, the incidence of melanoma and non-melanoma skin cancers has been steadily increasing over the past decades. Approximately 2 to 3 million non-melanoma skin cancers and 132,000 melanomas occur annually worldwide. The incidence of skin cancer is the third highest of all cancers (7). In Hungary, the incidence of melanoma (C43) has shown a significant upward trend, with the National Cancer Registry reporting 1,255 new cases in 2001, 2,384 in 2013, 2,742 in 2016 and 2,778 in 2018. It is also noteworthy that in 2001, 2013, 2016 and 2018, nearly 15% of cases were under 40 years old (8). Basal cell carcinoma and squamous cell carcinoma, which are three to four times more common overall, account for 99% of non-melanoma skin cancers (9). According to the National Cancer Registry statistics, 9,728 non-melanoma skin cancers (C44) were diagnosed in Hungary in 2001, 14,928 in 2013, 16,419 in 2016 and 17,877 in 2018. Based on these figures, significant growth is forecast for the future in our country as well (8). The skin of children, adolescents and young adults is more vulnerable than that of adults, and childhood sunburns may contribute to the development of adult melanoma (10), therefore, it is important to start health education in these age groups (11). The foundations of health can be established in childhood, and it is important to reduce and stop negative health behavioural trends and to

strengthen and increase positive ones (12). In the context of health education, the promotion of healthy lifestyles is a priority: reducing the enjoyment of natural UVB sources and sun exposure. Long-term results can be achieved through the involvement and active participation of individuals and communities (13). The public should be educated about the harms and consequences of excessive sun exposure and advised to enjoy the sun in moderation, wear appropriate clothing and use regularly the excellent sunscreens available to counteract the harmful effects of UVB radiation (11,14,15).

Objectives

The aim of our study was to assess the knowledge and attitudes towards skin cancer and sun protection among the Hungarian population. We also assessed separately the knowledge and behaviour of primary and secondary school students with regard to sun protection.

Methods

The questionnaire used for the survey was completed anonymously. It contained 43 questions, including both closed and open questions. The survey covered the following areas: socio-demographic data, questions on harmful addictions, skin type, family history of skin cancer, knowledge about skin cancer, tanning bed use, sun protection, dermatological screening and self-examination. Anyone who attended the dermatological examination could take part in the survey without any restrictions. Our quantitative, cross-sectional, descriptive study was conducted in Hungary, in the dermatology clinic of Szentendre between August and December of 2019, and in two primary and high schools in the town. Our target group was the population attending the dermatology clinic of the town of Szentendre, as well as primary and high school students. A number of primary school students was 100, secondary school students was 105 and the number of people attending the clinical examination was 219, of which 4 were only included in the total because they were still at university or college at the time of the survey. We used a non-random, expert sample of individuals who attended the dermatology clinic in Szentendre during office hours, and who agreed to fill in the questionnaire and completed it in full. We excluded individuals who did not complete it. Among the primary school students, the 7th and 8th grade students of the school were selected. Those who did not complete it were excluded. Among the secondary school students, we selected students in grades 3 and 4 of the gymnasium and excluded those who filled it in incompletely. A total of 500 questionnaires were distributed for the survey, and 440 completed questionnaires were returned. Out of the 440 questionnaires, 424 were suitable for statistical processing (excluding 16 incomplete questionnaires, their responses were not taken into account). This constitutes the sample size. (N=424). Our survey was conducted using a self-administered questionnaire. The distributed questionnaires were filled out anonymously and independently, following the rules of the Helsinki Declaration (16).

Statistics

Within the framework of descriptive statistics, the mean, standard deviation, and absolute and relative frequencies were calculated, and chi-square test was used as a mathematical statistic. The strength of association was measured using the Cramer V contingency coefficient. Results were considered significant at $p<0.05$. Statistical analyses were performed using Excel 2010 (17-19).

Results

Socio-demographic data

Among the participants, 53.3% (N=226) were women and 46.7% (N=198) were men. The mean age was 30.86 years (SD±19.11) in the study population. The youngest respondent was 12 years old and the oldest was 80 years old. The proportion of young people under 18 years (12-17 years) was 39.2%. (N=166). A number of people attending the dermatology clinic was 219. In terms of educational attainment, 24.1% (N=102) of the 18+ respondents had completed high

school and 21.2% (N=90) had completed college/university. The proportion of respondents with only primary education is low (5.4%, N=23). Nearly the same proportion of primary (23.6%, N=100) and high school (24.8%, N=105) students were surveyed. In terms of the place of residence, 66.7% of respondents (N=283) live in a town and 26.2% (N=111) in a village. 7.1% of respondents (N=30) live in the capital.

Prevalence of skin type

The majority of respondents (53.5%, N=227) have the Fitzpatrick II skin type according to the internationally recognized Fitzpatrick scale, i.e., they are white and their skin is usually sunburned and difficult to tan. The data suggest that the majority of those who completed the questionnaire have a skin type that is at increased risk of developing skin cancer (Figure 1).

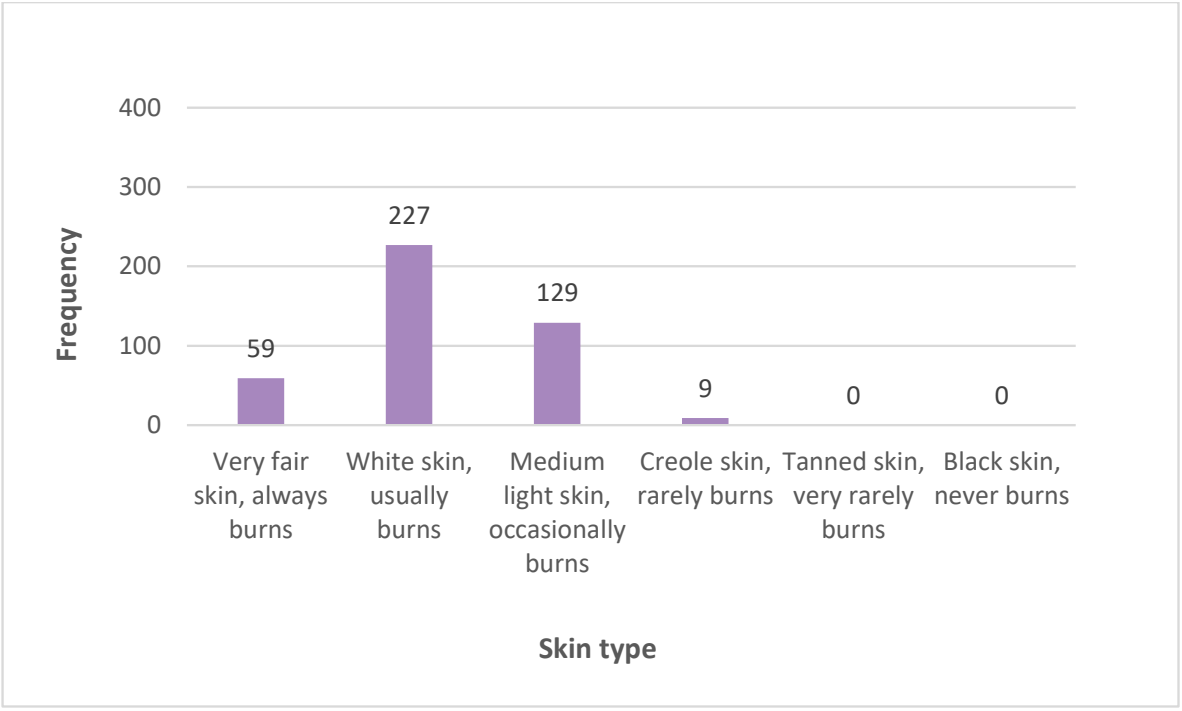

Figure 1. **Distribution of Fitzpatrick skin type in the study sample**

Characteristics of family history of skin cancer

9% of respondents (N=38) said they had a family history of some type of skin cancer. Of those with a positive family history of skin cancer, the most common were grandparents (50%, N=19) and parents (44.7%, N=17).

Knowledge about skin cancer

Based on the responses, 99.1% (N=420) of respondents had heard of skin cancer. The most common source of information about skin cancer was the media (83.3%, N=350). Only 0.9% (N=4) had never heard of skin cancer in their lifetime, all of them were primary school students. More than half (55.7%, N=236) of the respondents correctly knew that melanoma malignum was associated with moles. (Figure 2). The majority of respondents came from the dermatology clinic (64.4%, N=152).

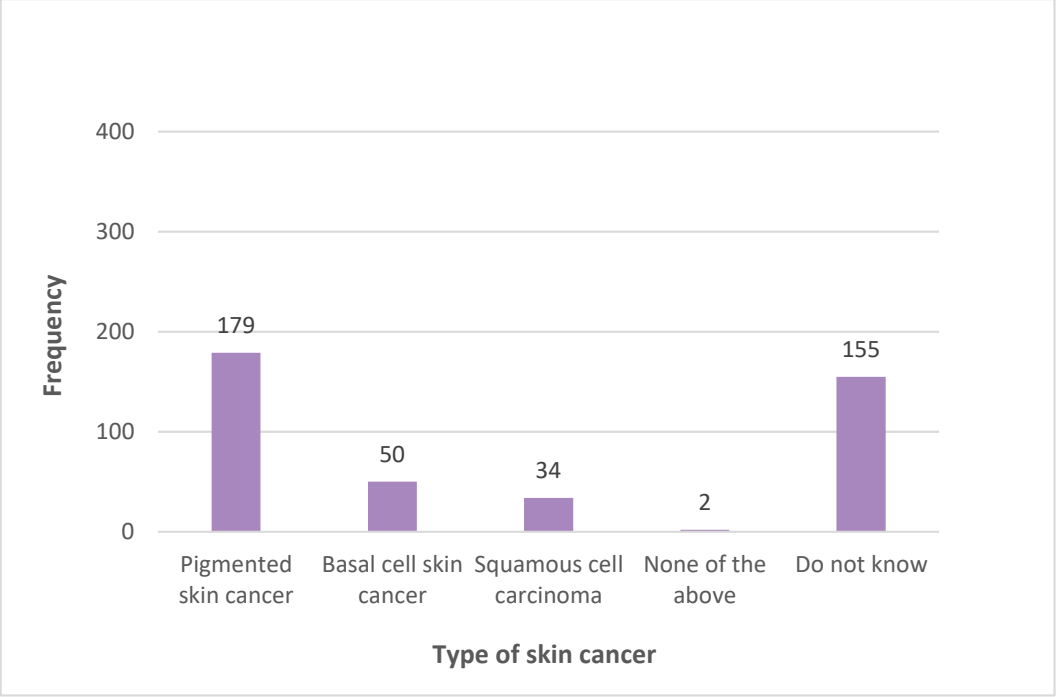

Figure 2. **Frequency of responses on the type of skin cancer associated with moles (N=424)**

Those with a college, university (72.2%, N=65) and secondary education (73.5%, N=75) over the age of 18 were more likely to have the appropriate answer than those with primary education (43.5%, N=10). A higher proportion of primary school students (44%, N=44) gave a good answer to this question than high school students (38.1%, N=40). Only 42.5% of respondents (N=180) were aware that melanoma is the most dangerous type of skin cancer. Only 21.5% (N=91) of the individuals surveyed knew correctly that tanning salons work mostly with UVA content. A slightly higher proportion (27.6%, N=24) of those who use a tanning salon knew the correct answer than those who answered „no" to this question (19.9%, N=67). 87,3% of the survey participants (N=370) knew that UV radiation can cause skin cancer, but far fewer were aware that childhood sunburns increase the risk of developing skin cancer. Only 63.4% of respondents (N=269) answered this question correctly. 19,3% of those under the age of 18 years (N=32) we studied (N=166), did not know correctly that tanning salon use increases the risk of skin cancer. All but 1 of the 7 questions on the leading symptoms of skin cancer were answered correctly. Only 5% (N=21) completed it correctly. The most common combination of responses to this question was asymmetric or irregular-edged skin lesions/ moles and colour and/or shape changes of the mole. (28,5%, N=121).

Tanning salon use in the study population

20.5% of respondents (N=87) go to a tanning salon. 66.7% of the respondents (N=58) go to a tanning salon on a weekly basis. 21.7% of women (N=49) and 19.2% of men (N=38) of the respondents go to a tanning salon. 61.2% of women (N=30) and 16.3% (N=8) of men go to a tanning salon once a week, and 73.7% (N=28) of men and 10.5% (N=4) of women go to a tanning salon more than once a week. Among the children under 18 years of age in our study (N=166), 8.4% (N=14) go to a tanning salon with some regularity. Of the under-18 respondents we surveyed, 50% (N=7) went to a tanning salon once a week and 42.9% (N=6) went several times a week. By skin type, tanning bed use was highest (30.5%, N=18) among those most at risk of developing skin cancer (Fitzpatrick skin type I). Risky behaviour is sunbathing at inappropriate times on a regular basis. The results of our study show a significant association between risky behaviour (regular sun exposure at inappropriate times) and tanning bed use, with a medium association between the variables ($p<0.001$, C=0.48 $\chi^2=98,36$). Among sunbathers with risky be-

haviour, 42,1% (N=80) also regularly use a tanning bed, while only 3% (N=7) of those with non-risky behaviour regularly use a tanning bed.

Knowledge and behaviour related to light protection

67% of respondents (N=284) answered correctly to the question that sunscreen with a factor of 30 or more can provide adequate protection against the harmful effects of sunlight. Less than half of the respondents (45.5%, N=193) knew correctly that they should apply sunscreen with the right SPF at least half an hour before sun exposure. Surprisingly, there was also a response that sunscreen should be applied after sun exposure (2.6%, N=11). The results of the survey show that almost all respondents have experienced sunburn after sun exposure (95.3%, N=404), 2.7% (N=11) once, 13.4% (N=54) twice, 83.9% (N=339) three or more times. Among primary school students 65% (N=65) and among high school students 77.1% (N=81) had experienced 3 or more sunburns in their lifetime, which is certainly a remarkable figure. By gender, 44.7% of female respondents (N=101) always use sunscreen and 11.1% (N=25) never use sunscreen. The same results for men show that only 8.6% (N=17) always use sunscreen, while 38.4% (N=76) never use it. The results show that statistically significantly more women use sunscreen than men, with a medium relationship between the variables (p<0.001, C=0.45 χ^2=86.42) (Figure 3).

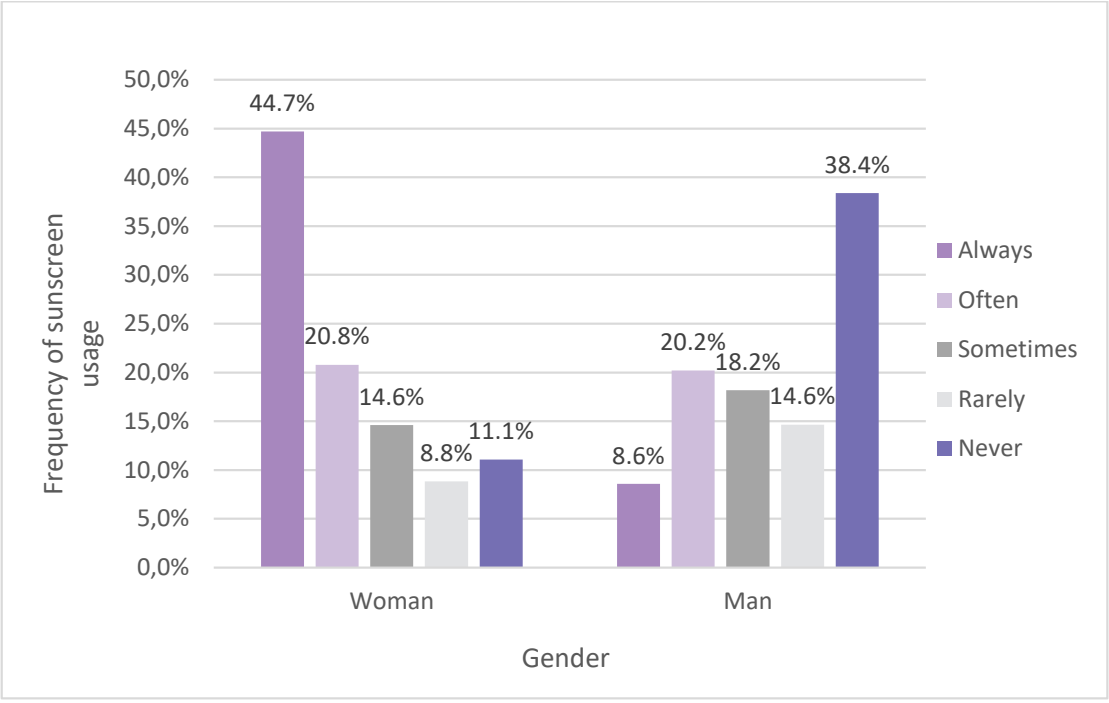

Figure 3. **Frequency of sunscreen use by gender**

Regarding education, significantly more people with higher education over the age of 18 use sunscreen than those with lower education, a strong relationship was found between the variables (p<0.001, C=0.87, χ^2=83.05) (Figure 4).

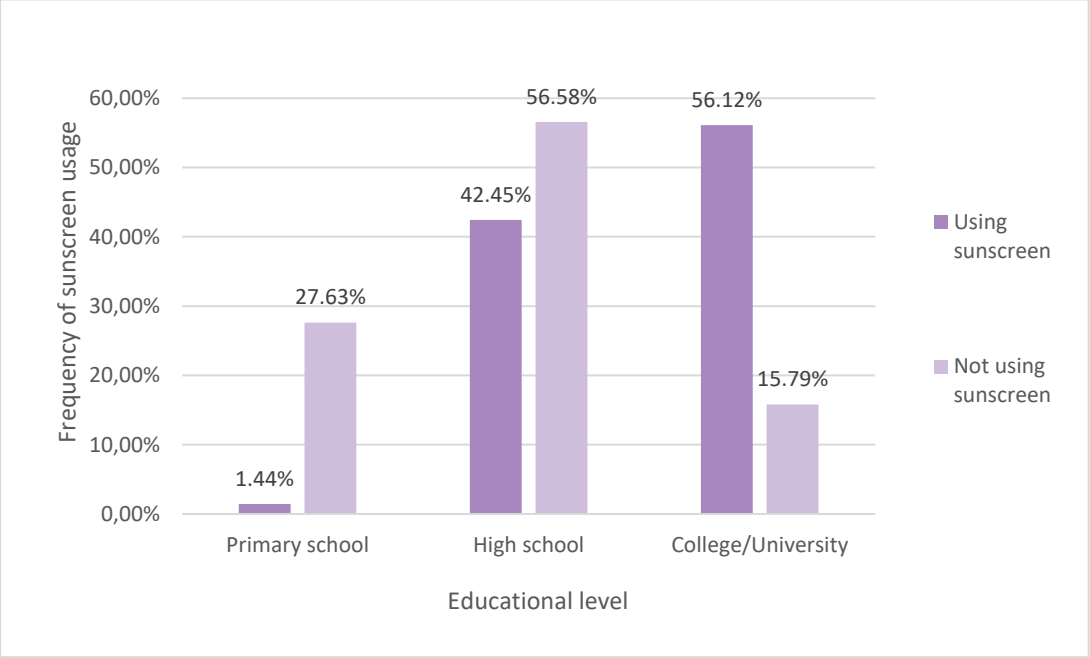

Figure 4. **Usage of sunscreen by educational level among respondents aged 18 and over**

Our results show that there is no significant difference in regular sunscreen use between primary and high school students (p=0.390, C=0.14, χ^2=4.115). In terms of responses, 30% of primary school students (N=30) and 24.8% of high school students (N=26) always use sunscreen, 22% of primary school students (N=22) and 25.7% of high school students (N=27) never use sunscreen (Figure 5).

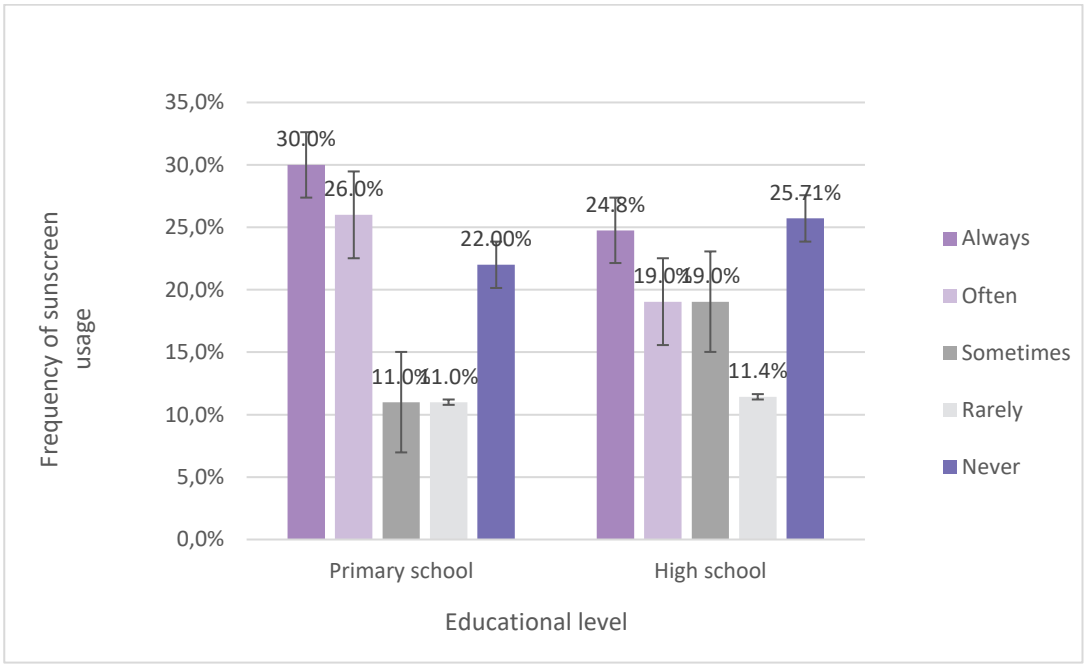

Figure 5. **Frequency of sunscreen use among primary and high school students (N=205)**

Examination of attitudes towards screening

The majority of respondents (89.4%, N=379) had heard of skin cancer screening, also known as skin cancer/melanoma screening. Approximately the same number (88%, N=373) knew that melanoma screening is performed exclusively by a dermatologist. However, the results of the survey confirm that only 37.3% (N=158) of people have had a skin cancer/melanoma screening in their lifetime, which is a very low rate. 55.7% (N=88) had visited the dermatologist randomly (no fixed frequency) for screening, and 62.7% (N=266) had never been to the dermatologist, which is a worrying figure. Of those who had been for a check-up, just over a quarter (25.3%, N=40) had attended the recommended annual check-up. There was not a big difference in attendance by gender, with 37.6% of women (N=85) and 36.9% of men (N=73) attending the screening. Higher prevalence rates are found among college/university (63.3%, N=57) and secondary (59.8%, N=61) graduates aged 18 and over. Only 34.8% (N=8) of high school leavers aged 18 years and over have had at least one screening test in their lifetime, 89% (N=89) of primary school students and 80% (N=84) of high school students have never had a skin cancer/melanoma screening in their lifetime.

Discussion

In the course of our research, we aimed to assess the knowledge about skin tumours of the involved people in this survey, as well as their sun protection habits. We wanted to include primary and secondary school students in our study because our experience has shown that they are even more vulnerable (1) than adults, yet they do not exhibit adequate sun protection behaviour or have comprehensive knowledge about skin cancer. Our results show that individuals with higher education use sunscreen significantly more often than those with lower levels of education. The same result was obtained by Elizabeth Thomas-Gavelan and colleagues, who also found that sunscreen use was significantly associated with the education level of the individual (20). Only 11.1% of the women surveyed never use sunscreen, while the rate is much higher for men (38.4%). Antonov and colleagues in Germany found that a similar proportion of women never used sunscreen, but there was a much lower proportion of men (15%) (21). The results of our study showed that women used sunscreen significantly more often than men. The same finding was made by Lee Andrew et al., Who found that women used significantly more sunscreen than men (22). Our study shows that the Hungarian population, including the young age group, does not have sufficient knowledge about skin cancer. This is supported by the fact that slightly more than half (55.7%) of the participants in the survey correctly knew that melanoma malignum is associated with moles. However, this rate is better than that found in research conducted in the United States of America, where scientific work by Adriane A. Levin and colleagues found that only 29.3% of Americans who participated in the study knew the answer to this question correctly (23). A further lack of knowledge is indicated by the fact that only 42.5% of the Hungarian population knew correctly that melanoma is the most dangerous type of skin tumour. Compared to the US survey, there is no significant difference, with 41.4% of US respondents answering the same (23). Overall, the Hungarian population's knowledge about skin cancer is incomplete. Therefore, it is essential to increase the knowledge of lay people that skin cancer is one of the most treatable malignancies, of course, if detected in time. Regular check-ups and awareness of the warning signs are essential. According to the results of the survey, 95.3% of the Hungarian population have experienced sunburn in their lifetime. In comparison with an international study, Antonov and colleagues obtained similar results, with 97% of respondents in the German population (21). It is of serious concern that the most vulnerable age group also has a high rate of sunburn, with 65% of primary school students and 77.1% of high school students having experienced three or more sunburns. Our study showed that there was no significant difference between primary and high school children in terms of sunscreen use. Gellén et al. surveyed primary and high school students in Debrecen, Hungary, and found that primary school students use sunscreen more often than high school students (24). It is important to introduce children to good sunbathing habits as early as possible and to make them aware of the dangers.

20.5% of people surveyed go to a tanning salon, which is a high proportion. Those who used tanning beds were most at risk (30.5%) of developing skin cancer (Fitzpatrick skin type I). We would highlight the surprising and disheartening data that 8.4% of the children under 18 (12-17-year-olds in the study) use a tanning salon with some regularity. Of the children who go to a tanning salon, 50% go once a week and 42.9% go more than once a week. Boniol et al. found that tanning bed use increases the risk of developing melanoma by 20%. When they started using before the age of 35, the risk of developing pigmented skin cancer doubled (25). 12% of the respondents under 35 in our survey use tanning beds with some regularity. Our results show a significant association between risky behaviour and tanning bed use. In an Austrian study, Daniel Haluza and colleagues also came to the same conclusion (26). In our study, we found that 62.7% of respondents had never been screened for skin cancer/melanoma, and only 25.3% had attended the recommended annual screening.

Conclusion

In order to increase the participation rate, it is necessary to promote responsible health behaviour, raise awareness, motivate people to take part in screening and explain the risks of not being screened. To further improve our morbidity and mortality indicators, it is of paramount importance to emphasise primary and secondary prevention for the population. Learning good sun protection and sunbathing habits from an early age in preschool children has become a key issue, and awareness campaigns should be launched to increase lay awareness of the early signs of skin tumours (27).

Acknowledgements

The research was financed and supported by the Human Resource Development Operational Programme of the Ministry for Human Capacities within the HRDOP-3.6.1-16-2016-00004 Comprehensive Development for Implementing Smart Specialization Strategies at the University of Pécs. The project has been supported by the European Union and cofinanced by the European Social Fund.

References

1. Kásler M. Basics of oncology. Budapest: Medicina; 2018.
2. AlGhamdi KM, AlAklabi AS, AlQahtani AZ. Knowledge, attitudes and practices of the general public toward sun exposure and protection: A national survey in Saudi Arabia. Saudi Pharm J. 2016;24(6):652-7.
3. Andreola GM, Carvalho VO, Huczok J, Cat MNL, Abagge KT. Photoprotection in adolescents: what they know and how they behave. An Bras Dermatol. 2018;93(1):39-44.
4. Senel E, Süslü I. Knowledge, attitudes, and behaviors regarding sun protection, effects of the sun, and skin cancer among Turkish high school students and teachers. Dermatologica Sinica, 2015; 33(4): 187-90.
5. Remenyik É. Protection against the effects of UV radiation. Medical Online [Internet] 2019 Available from: http://medicalonline.hu/cikk/a_bordaganatok_fenyvedelemmel_megelozhetok Accessed: 20.01.2022.
6. Döbrössy L, Cornides Á Európai Rákellenes Kódex. 12 ways to reduce your risk of developing cancer. Orvosi Hetilap. 2016;157(12):451-6.
7. World Health Organization [Internet]. Ultraviolet (UV) radiation and skin cancer. 2017. Available from: https://www.who.int/uv/faq/skincancer/en/index1.html Accessed: 20.01.2022.
8. Cancer registry, [Internet]. Available from: http://www.onkol.hu/hu/rakregiszter-statisztika_Accessed: 20.01.2022.
9. Oláh JM, Varga A, Csányi I, Emri G, Kiss N, Varga E, Németh IB, Lengyel Zs, Holló P. Clinical features and diagnostics of malignant squamous cell skin tumours in 2018. Börgyógyászati és Venerológiai Szemle, 2018; 94(5):227-36.
10. Saridi MI, Toska AG, Rekleiti MD, Tsironi M, Geitona M, Souliotis K. Sun burn incidence and knowledge of greek elementary and high school children about sun protection. Asian Pac J Cancer Prev. 2015;16(4):1529-34.
11. Döbrössy L, Kovács A, Budai A. Screening for malignant tumours. Budapest: Medicina; 2019.
12. Karácsony I. Health in school - from education to development. Képzés és Gyakorlat. 2018;16(1):107-16.
13. Karácsony I. Linking school and health, the role of school and health in promoting healthy lifestyles. Képzés és Gyakorlat. 2019;17(1):121-32.
14. Ugrlu Z, Isık SA, Balanuye B, Budak E, Elbas NÖ, Kav S. Awareness of Skin Cancer, Prevention, and Early Detection among Turkish University Students. Asia Pac J Oncol Nurs. 2016;3(1):93-7.
15. Reinau D, Meier C, Gerber N, Hofbauer GF, Surber C. Sun protective behaviour of primary and secondary school students in North-Western Switzerland. Swiss Med Wkly. 2012;142:13520.

16. WMA Declaration of Helsinki- Ethical Principles for Medical Research Involving Human Subjects 2018. [Internet]. Available from: https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/ Accessed: 20.01.2022.
17. Karamánné Pakai A, Oláh A. Literature research in practice: literature research using the most commonly used databases. 2014; In: Ács, P, Oláh, A, Karamánné Pakai A, Raposa LB, Ács, P, editors Gyakorlati adatelemzés. Pecs: University of Pecs; 2014.
18. Karamánné Pakai A, Oláh A. A theoretical overview of scientific research. 2014; In: Ács P, Oláh A, Karamánné Pakai A, Raposa LB, Ács P, editors. Gyakorlati adatelemzés. Pecs: University of Pecs; 2014.
19. Pakai A, Kívés Zs. About research for nurses, sampling and data collection methods in health sciences research. Növér. 2013;26(3):20-43.
20. Thomas-Gavelan E, Sáenz-Anduaga E, Ramos W, Sánchez-Saldaña L, Sialer Mdel C. Knowledge, attitudes and practices about sun exposure and photoprotection in outpatients attending dermatology clinics at four hospitals in Lima, Peru. An Bras Dermatol. 2011;86(6):1122-8.
21. Antonov D, Hollunder M, Schliemann S, Elsner P. Ultraviolet exposure and protection behavior in the general population: a structured interview survey. Dermatology. 2016;232(1):11-6.
22. Lee A, Garbutcheon-Singh KB, Dixit S, Brown P, Smith SD. The influence of age and gender in knowledge, behaviors and attitudes towards sun protection: a cross-sectional survey of Australian outpatient clinic attendees. Am J Clin Dermatol. 2015;16(1):47-54.
23. Levin AA, Nguyen BM. Knowledge of melanoma and non-melanoma skin cancer among general dermatology patients. Journal of the American Academy of Dermatology. 2018;79(5):964-6.
24. Gellén E, Janka E, Tamás I, Ádám B, Horkay I, Emri G, Remenyik É. Pigmented naevi and sun protection behaviour among primary and secondary school students in an Eastern Hungarian city. Photodermatol Photoimmunol Photomed. 2016;32(2):98-106.
25. Boniol M, Autier P, Boyle P, Gandini S. Cutaneous melanoma attributable to sunbed use: systematic review and meta-analysis. BMJ. 2012;345:e4757.
26. Haluza D, Simic S, Moshammer H. Sunbed Use Prevalence and Associated Skin Health Habits: Results of a Representative, Population-Based Survey among Austrian Residents. Int J Environ Res Public Health. 2016;13(2):231.
27. Oláh J. The skin tumour is usually recognised by the patient. [Internet] 2018 Jul 17. Available from: http://medicalonline.hu/korabbi_zoom/cikk/a_bordaganatot_legtobbszor_a_beteg_ismeri_fel Accessed: 20.01.2022.

ZNANJE I FOTOZAŠTITNO PONAŠANJE MAĐARSKE POPULACIJE POVEZANO S RAKOM KOŽE

Sažetak

Uvod. Kancerogeni ultraljubičasti raspon Sunčeve svjetlosti igra važnu ulogu u nastanku malignih tumora kože sa sve većom incidencijom. Učestalost malignih melanoma pokazuje znatan, rastući trend u Mađarskoj, gdje je 2016. registrirano 2742 novooboljelih osoba, od kojih je gotovo 15 % bilo mlađe od 40 godina. Svjesno ponašanje i upotreba kreme za sunčanje može smanjiti učestalost tumora kože. Cilj je istraživanja procijeniti znanje Mađarske populacije o raku kože i njihov stav prema zaštiti od štetnih Sunčevih zraka.

Metode. Kvantitativna studija presjeka provedena je u dermatološkoj klinici, kao i među učenicima 7. i 8. razreda te 11. i 12. razreda dviju gimnazija. Primijenjen je upitnik koji su sudionici samostalno ispunili s pitanjima koja su se odnosila na sociodemografske podatke, štetne navike, tip kože, obiteljsku anamnezu raka kože, broj opeklina, navike sunčanja, upotrebu krema za sunčanje, znanje o zaštiti od sunca i raku kože, kontrolni pregled madeža i samopregled.

Rezultati. Opekline od sunca tri ili više puta imalo je 83,9 % ispitanika (N = 356), 27,8 % redovito koristi kremu za sunčanje (N = 118), a 62,7 % ispitanika (N = 266) nikada nije bilo pregledano za rak kože / melanom. Pronašli smo značajnu povezanost između razine obrazovanja, spola i upotrebe kreme za sunčanje ($p < 0,001$). Utvrdili smo značajnu korelaciju između rizičnog ponašanja (redovito sunčanje u pogrešno vrijeme) i odlaska u solarij ($p < 0,001$).

Zaključak. Mađarsko stanovništvo ima nepotpuno znanje o raku kože. Rezultati pokazuju da je potrebno staviti veći naglasak na povećanje znanja i svjesnosti populacije o zaštiti od sunca i razvijanju dobrih navika, počevši od osnovne i srednje škole.

Ključne riječi: rak kože, zaštita od sunca, kontrolni pregled madeža, samopregled, znanje