# SOCIAL EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH SUSPECTED SKIN CANCER IN THE FEDERAL DISTRICT, BRAZIL

## PERFIL EPIDEMIOLÓGICO SOCIAL DE PACIENTES CON SOSPECHA DE CÁNCER DE PIEL EN EL DISTRITO FEDERAL, BRASIL

## PERFIL EPIDEMIOLÓGICO SOCIAL DOS PACIENTES COM SUSPEITA DE CÂNCER DE PELE NO DISTRITO FEDERAL, BRASIL

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**ABSTRACT**

**Objective:** To know the epidemiological and social profile of patients with suspected skin cancer treated at the Dermatology Outpatient Clinic of the Public Hospital of Brasília, Federal District, Brazil. **Method:** Descriptive, quantitative, retrospective, cross-sectional study. A form was used to systematize information on patients treated and referred for surgery due to suspected skin cancer. Statistical analysis and measurement of the incidence of skin cancer were performed using the SAS program (Statistical Analysis System Inc, Cary, North Carolina). **Results:** 180 patients were selected based on the inclusion and exclusion criteria. Of these, 55% were female and 43.9% male, with the majority (28.3%) aged between 70 and 80 years. Regarding profession/level of education, 55.6% had no information recorded and found the education level of the others in the following composition: incomplete 1st grade (8.9%), incomplete 2nd grade (5.6%) and only 1 .1% with higher education. Basal cell carcinoma (67.2%) proved to be the most frequent, with lesions on the face (65.6%) followed by upper limbs (13.3%). **Conclusion:** There was a considerable prevalence of frailty in elderly people with Skin Disease (PD), whose variables of age, gender and location of cancerous lesions can interfere with the worsening of functional capacity and, consequently, the quality of life of this population. It is important for health professionals to carry out health promotion, raising awareness among patients about possible means of skin protection and timely access to diagnose lesions.
**Keywords:** Ambulatory Care; Carcinogenesis; Dermatology; Epidemiology; Skin Neoplasms.

**RESUMEN**

**Objetivo**: Conocer el perfil epidemiológico y social de los pacientes con sospecha de cáncer de piel atendidos en el Ambulatorio de Dermatología del Hospital Público de Brasilia, Distrito Federal, Brasil. **Método:** Estudio descriptivo, cuantitativo, retrospectivo, transversal. Se utilizó un formulario para sistematizar la información de los pacientes atendidos y derivados para cirugía por sospecha de cáncer de piel. El análisis estadístico y la medición de la incidencia de cáncer de piel se realizaron utilizando el programa SAS (Statistical Analysis System Inc, Cary, Carolina del Norte). **Resultados:** Se seleccionaron 180 pacientes en base a los criterios de inclusión y exclusión. De estos, el 55% eran mujeres y el 43,9% hombres, con la mayoría (28,3%) con edades entre 70 y 80 años. En cuanto a la profesión/nivel de educación, el 55,6% no tenía información registrada y encontró el nivel de educación de los demás en la siguiente composición: 1° grado incompleto (8,9%), 2° grado incompleto (5,6%) y solo 1,1% con estudios superiores. El carcinoma basocelular (67,2%) resultó ser el más frecuente, con lesiones en la cara (65,6%) seguido de miembros superiores (13,3%). **Conclusión:** Hubo una prevalencia considerable de fragilidad en ancianos con Enfermedad de la Piel (EP), cuyas variables de edad, sexo y localización de las lesiones cancerosas pueden interferir en el empeoramiento de la capacidad funcional y, consecuentemente, en la calidad de vida de esta población. Es importante que los profesionales de la salud realicen promoción de la salud, sensibilizando a los pacientes sobre los posibles medios de protección de la piel y el acceso oportuno para el diagnóstico de lesiones.
**Palabras llave:** Atención Ambulatoria; carcinogénesis; Dermatología; Epidemiología; Neoplasias De La Piel.

**RESUMO**

**Objetivo:** Conhecer o perfil epidemiológico e social dos pacientes com suspeita de câncer de pele, atendidos no Ambulatório de Dermatologia de Hospital Público de Brasília, Distrito Federal, Brasil. **Método:** Estudo descritivo, quantitativo, retrospectivo, de corte transversal. Utilizou-se um formulário para sistematizar informações dos pacientes atendidos e encaminhados para cirurgia por suspeita de câncer de pele. A análise estatística e mensuração da incidência da ocorrência de câncer de pele foi realizada pelo Programa SAS (Statistical Analysis System Inc, Cary, Carolina do Norte). **Resultados:** Foram selecionados 180 pacientes a partir dos critérios de inclusão e exclusão. Destes, 55% corresponderam ao gênero feminino e 43,9% ao gênero masculino, tendo a maioria (28,3%) idade entre 70 a 80 anos. Em relação à profissão/grau de escolaridade, 55,6% não tinham informações registradas e constatado grau de escolaridade dos demais na seguinte composição: 1° grau incompleto (8,9%), 2º grau incompleto (5,6%) e apenas 1,1% com ensino superior completo. O Carcinoma Basocelular (67,2%) revelou-se o mais incidente, com lesões na face (65,6%) seguida dos membros superiores (13,3%). **Conclusão:** Constatou-se uma prevalência considerável de fragilidade em idosos com Doença de Pele (DP), cujas variáveis de idade, gênero e localização das lesões cancerígenas podem interferir na piora da capacidade funcional e, consequentemente, da qualidade de vida dessa população. É importante que os profissionais de saúde realizem promoção de saúde sensibilizando os pacientes quanto aos possíveis meios para proteção da pele e acesso em tempo oportuno para diagnosticar lesões.
**Palavras-chave**: Assistência Ambulatorial; Carcinogênese; Dermatologia; Epidemiologia; Neoplasias Cutâneas.

## INTRODUCTION

According to the Brazilian Society of Dermatology (SBD), dermatology is a medical specialty responsible for treating diseases of the skin, mucous membranes and skin annexes, and the frequency of dermatological problems presented by the Brazilian population is high. For the analysis of such problems, at the outpatient level, it is possible for the health professional to give a differential diagnosis according to the characteristics of the lesion, such as color, texture, distribution and its morphology that will characterize it, among other aspects, as rare, malignant or not. It is recognized that when the professional who is ahead in this stage is qualified, it prevents the patient from visiting other services for the confirmation of the diagnosis. This differential contributes to quality outpatient care and to avoid unnecessary expenses[1-2].

The SBD considers that dermatological problems are not given due importance and are still neglected by public policy makers due to their low lethality, underestimation of their morbidity and mortality, and insufficient training of qualified health professionals in outpatient care[1].

The Unified Health System (SUS) includes care in dermatology, however, the services provided in specialized outpatient clinics have been considered a scarce resource, suffering from insufficient dermatologists[3]. Such situations generate waiting lines, minimize the possibility of prevention, accuracy in the diagnosis of the disease and the due registration of electronic medical records, which limits the knowledge about the social epidemiological profile of these patients and early treatment, affecting their physical and mental health[4-5].

Although in general dermatological lesions have low lethality, malignant lesions deserve significant attention because they present, annually, an increase in the number of cases. Thus, when they are not diagnosed or treated early, they may evolve to metastases, thus reaching organs beyond the superficial layers of the skin (epidermis and dermis), and becoming extremely aggressive, causing great suffering to the bearer[6-7].

According to the National Cancer Institute (INCA), there are two types of skin cancer (CA): non-melanoma skin cancer and melanoma skin cancer. The non-melanoma skin cancer corresponds to more than 90% of the skin cancer cases and 30% of the malignant tumors registered in the country. Its most common types are Basal Cell Carcinoma (BCC) and Squamous Cell or Epidermoid Carcinoma (SCC). The 2020 estimate for cancer incidence in Brazil, made by INCA, shows that non-melanoma skin cancer is the most frequent type (in both sexes) among all malignant neoplasms diagnosed worldwide and will be the most incident in the triennium 2020-2022, representing 27.1% of total cancer cases in men and 29.5% in women[8].

Thus, it is imperative that there is the presence of qualified professionals for the detection of this type of cancer, and consequently articulated to the due investment by the State in public health policies that contemplate

specialized and interprofessional treatment at the outpatient level of quality for people who suffer from dermatological diseases. The formulation and implementation of these policies should be based on the analysis of the social epidemiological information of this public and the strengthening of actions for a correct management, programming and planning of actions in the public health network.

Evidence shows the positive impact when nurses are responsible for health promotion care strategies for cancer patients, as well as the need for recognition and incentive to the specialization of this category in oncology is recognized worldwide[9].

The nurse has an irreplaceable role in health care, being this professional, in all levels of complexity of care, the one who has more prolonged contact with patients and their families on a daily basis. Thus, it is important that this category has sufficient training to expand its competencies in dermatology beyond the treatment of wounds, also contemplating the detection and prevention of CA of the skin. The initial triage is extremely important, which can be performed by nurses from primary care. Early referral of patients with suspected CA of the skin for follow-up with a specialized professional (dermatologist) will surely make a difference in case the diagnosis is positive[10].

The guiding question of this study was motivated to study technologies and innovations in screening consultations that could contribute to the better performance and quality of care provided to patients with suspected cancer and other prevalent skin dermatoses in Brazil. In this sense, it is known that improving efficiency in screening positively impacts on shorter time and diagnostic accuracy in pigmented lesions suspected of skin cancer. Thus, the implementation of innovative technologies in screening requires knowing the profile of its clientele, whose guiding question of this research was "what is the prevalence and profile of patients seen in dermatology outpatient services? Therefore, the general objective of this study was to identify the epidemiological and social profile of patients with suspected skin cancer, seen at a public hospital in Brasilia, Federal District, who were referred for surgery to excise the lesion. The specific objectives were to verify the incidence of occurrence of skin cancer in females and males, as well as its relationship to age, race, profession/education level, and the three types of skin cancer, and its location.

**METHODOLOGY**

This is a descriptive, quantitative, retrospective, cross-sectional study, which was applied to patients seen at the Dermatology Outpatient Clinic of the University Hospital of Brasília (HUB), which is one of the references in the Specialized Care Network in Dermatology and Oncology, established by the Health Secretariat of the Federal District (SES-DF).

Initially, there was a survey of the number of patients seen at the dermatology outpatient clinic who were referred to surgery for suspected skin cancer from 2016 to March 2022. In this period, all patients who underwent biopsy

(another standard for diagnostic completion) and obtained a positive result for skin cancer were selected, totaling a sample of 180 patients who had been regulated for this specialized service, therefore high risk of malignant lesions.

For the inclusion of patients in the study, the criteria used were age 18 years or older, with the presence of lesions suspicious for skin cancer, which were referred for surgical excision. As exclusion criteria, patients with lesions with no suspicion of skin cancer and negative biopsy results were excluded.

For the analysis of the data measuring the incidence of skin cancer occurrence, relating it to the following variables: color, age, gender, facial lesions, lesions in the upper limbs/lower limbs, lesions in the chest/back, alcoholism, smoking, HIV positive, sun exposure, Systemic Arterial Hypertension (SAH)/Chagas disease, and Diabetes Mellitus (DM). These variables were combined with CBC and SCC and multifactorial skin cancer types. The variables were also combined with each other using the SAS Program (Statistical Analysis System Inc, Cary, North Carolina).

The data were extracted from the electronic medical records through the Management Application for Teaching Hospitals (AGHU) of selected patients seen from 2016 to March 2022. The form for systematization of data collection was prepared by the researchers considering the information recorded in the electronic medical records accessed through the Management Application for Teaching Hospitals (AGHU), namely, Identification/code; Number of medical records; Age; Gender; Origin; Place of birth; State; Profession/grade of education; Individual history/comorbidities; Family history; Anatomical area of the lesion; Performance or result of biopsy.

The research was approved by the Research Ethics Committee of the Faculty of Health Sciences (CEP/FS) of the University of Brasília (UnB), through CAAE no. 17877119.6.0000.0030, respecting the precepts established by Resolution CNS n. 466 of December 12, 2012.

**RESULTS**

A total of 180 patients were selected based on the eligibility criteria. Of the total 180 patients, 145.9 (81.1%) came from neighborhoods in the Federal District (DF), 5.9 (3.3%) without information and the remaining 28.1 (15.6%) from nearby cities in the states of Goiás (GO) and Minas Gerais (MG). 99 (55%) were female and 79 (43.9%) were male, and 02 (1.1%) had no information recorded in the medical chart. As for age, most of the patients, 50.94 (28.3%) were between 70 and 80 years old, and there were no patients between 18 and 30 years old. The majority was brown, corresponding to 124.92 (69.4%), followed by 41.04 (22.8%) white, 1.98 (1.1%) black and only one yellow and one indigenous, both corresponding to 0.6%, with 10.08 (5.6%) without information.

As for family history, 90 (50%) had no recorded information, 73.98 (41.1%) denied this history, and for those who confirmed it, 16.02

(8.9%) had a history of CA of the skin and other parts of the body in close relatives such as mother, father, and siblings, with uncles and cousins rarely being evidenced. In the individual antecedents, 36 (20%) were without recorded information, most 46.08 (25.6%) denied antecedents, followed by 43.02 (23.9%) who reported having CA in some part of the body or CA record in the electronic medical record of the

HUB. Other significant individual antecedents: 41.04 (22.8%) had Systemic Arterial Hypertension (SAH), 23.04 (12.8%) were smokers or former smokers, 12.96 (7.2%) had Diabetes Mellitus (DM), 11.34 (6.3%) had a history of prolonged sun exposure, 1.98 (1.1%) with HIV, 1.98 (1.1%) with albinism, and 1.08 (0.6%) with Chagas disease, as shown in Graph 1.

**Graph 1 -** Individual background of patients seen at the Dermatology Outpatient Clinic of the Public Hospital of Brasília from 2016 to March 2022.
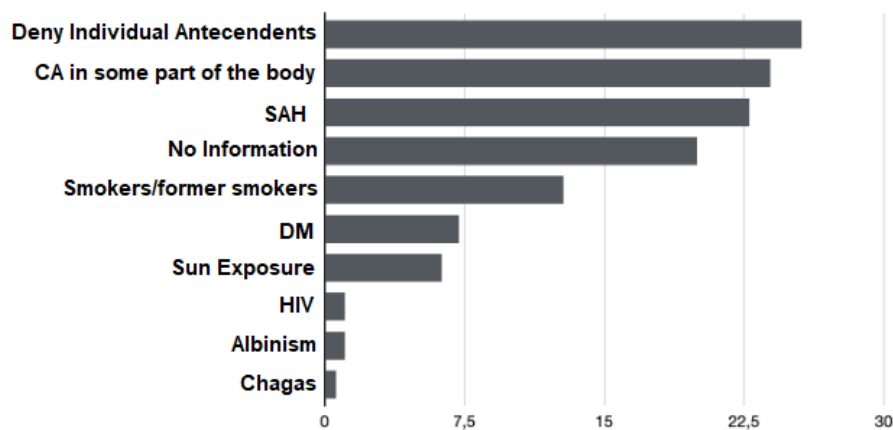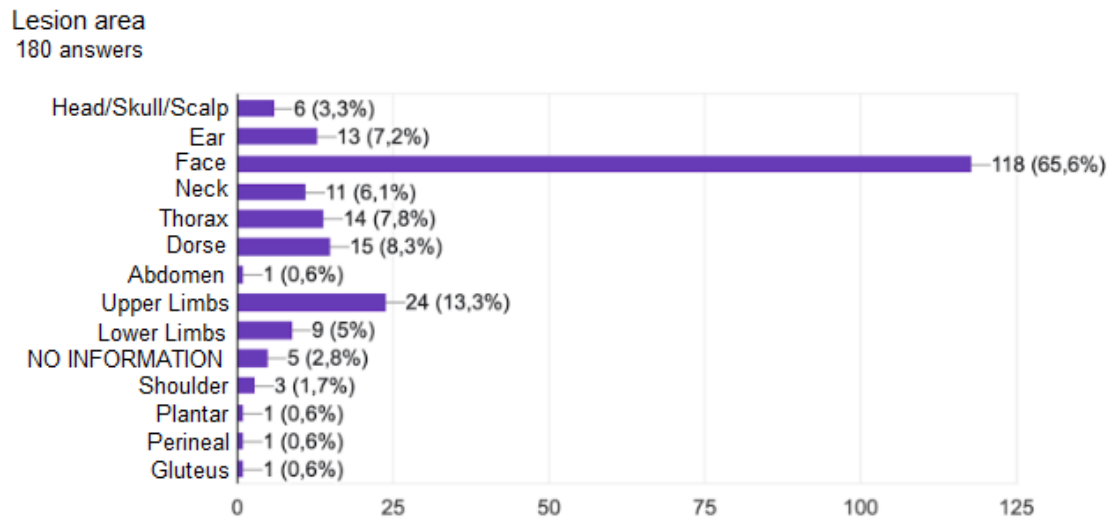


Regarding profession/degree of education, 100.08 (55.6%) of the sample had no information recorded in the medical record or care sector. Among the registered professions were civil servant, policeman, gardener, waiter, cleaning assistant, teacher, manicurist, farmer, driver, rural worker, master builder, professional in home cleaning care, merchant, and realtor, being evidenced sometimes the schooling degree with 1st grade incomplete 16.02 (8.9%) and 2nd grade incomplete 10.08 (5.6%) and only 1.98 (1.1%) with higher education completed. It can also be observed that almost all patients were retired due to their advanced age.

Of the 180 total patients, 111.96 (62.2%) had biopsy of the lesions and 68.04 (37.8%) had no confirmatory biopsy. Of the biopsies, 120.96 (67.2%) of the patients, had Basal Cell Carcinoma (BCC) type skin CA, followed by 41.94 (23.3%) with Spindle Cell Carcinoma (SCC) type skin CA and 9 (5%) with Melanoma (MM). Among the remaining 8.1 (4.5%) patients, other types were presented as: benign such as sebaceous hyperplasia, seborrheic keratosis, hyperkeratosis and melanocytic nevus.

Among the areas that the lesions were presented, according to Graph 2, the one that revealed the highest incidence was the face

(65.6%), an area that is frequently related to the appearance of BCC skin.

**Graph 2 -** Distribution of the areas of lesions presented by patients seen at the Dermatology Outpatient Clinic of the Public Hospital of Brasília in the period from 2016 to March 2022

Lesion area
180 answers

| Lesion area | Count |
|---|---|
| Head/Skull/Scalp | 6 (3,3%) |
| Ear | 13 (7,2%) |
| Face | 118 (65,6%) |
| Neck | 11 (6,1%) |
| Thorax | 14 (7,8%) |
| Dorse | 15 (8,3%) |
| Abdomen | 1 (0,6%) |
| Upper Limbs | 24 (13,3%) |
| Lower Limbs | 9 (5%) |
| NO INFORMATION | 5 (2,8%) |
| Shoulder | 3 (1,7%) |
| Plantar | 1 (0,6%) |
| Perineal | 1 (0,6%) |
| Gluteus | 1 (0,6%) |

The 12 variables described in the methodology were combined to perform the Chi-square test, Odds Ratio measurement, and Kendall's Tau-b Correlation.

The Chi-square test, which shows a cause and effect relationship between two variables that are unrelated, showed that the comparisons of the variables presented above, those with significant dependence are listed in tables 1, 2 and 3 with their respective Chi-square values[11]. In addition to the data shown in the table, the test also found that the occurrence of CA of the skin in people of the female gender is 40.2% higher than the occurrence in people with the male gender.

**Tables 1, 2 and 3 -** Results of the Chi-square Test

**Table 1**

| X | CA in head |
|---|---|
| Basal Cell Carcinoma (BCC) | 3,56% |
| CA in superior/inferior limbs | < 0,01% |
| CA in Thorax/Dorsum | < 0,01% |

**Table 2**

| X | CA in Thorax/Dorsum |
|---|---|
| DM | 2,3% |
| Gender | 1,1% |
| SAH | 1,31% |
| Sun exposure | 1,76% |

**Table 3**

| X | CA skin multiple times |
|---|---|
| CA in the head, Skin Color, DM, Gender, SAH, Age, CA NS/IL, Sun Exposure, and Smoking | < 0,01% |

The Odds Ratio (OR) test, which showed the ratio of the probability of occurrence or non-occurrence of CA between two variables, as shown in table 2.0. This test showed that being yellow is a protective factor for the occurrence of CA skin compared to being black, as well as the

other relationships show that there is a greater chance of occurrence of CA skin between the first variable compared to the second.

**Table 4 -** significant Odds Ratio Results

| Table 4 | |
|---|---|
| **Combination of Variables** | **ODDS RATIO** |
| Indigenous Color x Black Color | 4,484 |
| Color Brown x Color Black | 3,352 |
| Color Yellow x Color Black | 0,298 |
| Female Gender x Male Gender | 4,979 |
| Age 70-80 years x Age above 80 years | 26,564 |

Correlation analysis was performed by Kendall's Tau-b Correlation Coefficient in order to verify the association between two variables, and the following results were obtained (Table 5). Kendall's Tau-b correlation associated two variables, having results between - 1 and + 1, whereby the closer to the extremes means that there is a strong correlation between these variables, and the median values (close to zero) mean weak or nonexistent correlations. Table 5 shows the results obtained for this test.

**Table 4 -** Kendall's Tau-b correlation between the variables

| | CA multiple times | CA of facial skin | CA in SL/IL | CA in Thorax/Dorsum | Alcoholism | Smoking | HIV | Sun exposure | Chagas and SAH | DM | BCC | SCC | Benign Lesion |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CA of facial skin | 0,12 | | | | | | | | | | | | |
| CA in SL/IL | -0,04 | -0,43 | | | | | | | | | | | |
| CA in Thorax/Dorsum | 0,06 | -0,35 | 0,07 | | | | | | | | | | |
| Alcoholism | 0,15 | -0,02 | 0,04 | 0,04 | | | | | | | | | |
| Smoking | 0,05 | -0,01 | 0,00 | 0,12 | 0,24 | | | | | | | | |
| HIV | -0,02 | 0,03 | -0,04 | -0,03 | -0,01 | -0,03 | | | | | | | |
| Sun exposure | -0,05 | -0,05 | -0,07 | 0,23 | -0,04 | 0,01 | -0,02 | | | | | | |
| Chagas and SAH | -0,11 | -0,14 | 0,16 | 0,17 | 0,01 | -0,06 | -0,04 | 0,03 | | | | | |
| DM | -0,05 | -0,10 | 0,12 | 0,18 | -0,04 | 0,02 | -0,02 | -0,06 | 0,40 | | | | |
| BCC | 0,15 | 0,20 | -0,11 | 0,02 | 0,10 | 0,03 | 0,05 | 0,03 | 0,12 | 0,01 | | | |
| SCC | 0,29 | -0,10 | 0,11 | 0,10 | 0,02 | 0,06 | -0,04 | 0,10 | -0,08 | 0,00 | -0,25 | | |
| Benign Lesion | -0,05 | -0,06 | 0,06 | -0,10 | -0,04 | -0,04 | -0,02 | 0,14 | -0,07 | -0,06 | -0,14 | -0,12 | |
| MM | -0,04 | -0,15 | 0,18 | -0,08 | -0,03 | -0,09 | 0,37 | -0,05 | -0,04 | -0,05 | -0,16 | -0,03 | 0,08 |

The strongest correlations were skin AC in upper and lower limbs with skin AC on the face, and its combined correlation with the comorbidities Diabetes Mellitus with Systemic Arterial Hypertension and Chagas Disease.

**DISCUSSION**

The Basal Cell Carcinoma (BCC) type of skin cancer is the most incident type of cancer in the world population, and is characterized by intermittent sun exposure during childhood/adolescence, and its lesions are usually apparent in photo exposed areas in people with fair skin. The Spinocellular Carcinoma (SCC) type is characterized by the accumulation of sun exposure throughout life, also appearing in photo exposed areas and preferentially in people with fair skin. The Melanoma type (MM) is the most serious among the three, due to its great power of metastasis and high chances of death, however it is the one that presents the lowest rate of occurrence, as was explicit in the relation of percentage of types of CA developed by patients in the research conducted by Curt and collaborators[12].

Exposure to prolonged UV radiation, i.e., for years, is the most prominent factor in the developments of the three types of skin cancers reported in this study. Exposure to tanning beds, radiation therapy, and immunosuppressive therapies are integrated together in the etiology of these malignancies. Even though there were underreporting of patients with a history of sun exposure, sun exposure was related to the onset of skin CA multiple times by the Chi-square test[12].

Consequently, because the most incident type of CA is the Basal Cell Carcinoma (BCC), which supports the higher incidence of lesions on the face. This may also be due to the fact that it is a more overexposed photo site than other areas of the body that are often protected by clothing[13].

Besides the exposure to UV rays being an important etiological factor, one should also consider the relevance of genetic factors that make an individual predisposed to develop them, as well as the development of CA of skin in close relatives is a warning sign. Genetic factors are not the only relevant factors for CA of the skin, but also life habits such as the exposure to UV rays, previously mentioned, smoking, sedentary lifestyle, and bad diet, which contribute to the appearance of chronic diseases. It is possible to visualize through the results the relationship between CA of the skin and some of these chronic diseases, such as Systemic Arterial Hypertension (SAH) and Diabetes Mellitus (DM), as demonstrated by the findings of this sample. It is noteworthy that HIV also confers risk factor for these neoplasms because the types of cancer mentioned above have a higher probability of progression in immunosuppressed people, especially the most aggressive form of them, MM[14].

It has long been known that smoking contributes to the appearance of malignant neoplasms in the human body as a whole, and it may also contribute, along with other factors, to the development of CA of the skin[15].

Due to this slow progression, advanced age becomes a risk factor for the development of skin cancer lesions, expressed by the participants' age between 50 and 90 years, the time of lesion development. As shown in the Chi-square test, there was a relationship to multiple skin CA lesions with age and the Odds ratio that significantly showed the appearance of skin CA

at the age of 70-80 for 26.564 times more than in other age groups[16-17]. This characterization in the elderly group corroborates the prevalence of frailty in this age group whose variables of age, gender and location of cancer lesions can negatively impact the quality of life of this population[5].

Although skin cancer (SCC) shows high rates in both females and males, the findings of this study were different because the occurrence of SCC in females was 40.2% higher than in males, and the odds ratio showed that the odds ratio for SCC to occur in females is 2.051 times higher than in males. This occurrence can be related to the fact that females tend to access health services more frequently than males, as well as being constantly exposed to ultraviolet rays (UV) at beaches, clubs and also in places that today are called tanning clinics, which favors the future appearance of this malignancy in women.

It is estimated that between 2023 and 2025, 220,490 new cases of non-melanoma skin cancer will occur, 101,920 of them in men and 118,570 in women. About melanoma cancer, the estimate is 8,980 new cases, of which 4,640 in men and 4,340 in women[18].

Thus, the need for professional expansion and improvement of the oncology nursing team in the care of this grievance is highlighted. A qualitative descriptive study conducted with nurses in Australia and aiming to describe a model of screening and treatment of skin cancer led by nurses, resulted in the need for expansion of training and qualification for nurses in skin cancer screening, and also emphasized the positive impacts on morbidity and mortality of the population due to innovative professional practices performed by nurses[19]

In agreement, a qualitative type study conducted in Sweden, aimed at comparing patients' perceptions of the health-related information received, access to supportive care resources, patient involvement, and care coordination before and after the introduction of a new advanced nursing role in cancer care, resulted in significant improvement in patient health status monitoring, patient involvement with their care, and resource availability after the implementation of the cancer nursing role[20].

Due to the great miscegenation in Brazil and the fact that the majority of the population is brown, according to the 2019 National Household Sample Survey (PNAD) of the Brazilian Institute of Geography and Statistics (IBGE)[21], it evidences that in Brazil there are 46, 8% of the population who self-declare brown, followed by 42.7% as white, 9.4% who declare themselves black, and only 1.1% who self-declare yellow and 1.1% indigenous, which resembled the racial picture of the patients participating in the research. Linked to this, light-skinned people have a greater chance of developing CA of the skin, which is a risk factor for this population[13].

In relation to the registered professions exercised by some patients, as well as the level of education that, for several times, occurred without the presence of higher education or higher education, it can be explained by the fact

that the hospital is public and educational in nature, therefore it tends to provide care mostly to low-income people. The low level of education found can also be a factor that interferes in the degree of knowledge regarding the forms of prevention against CA of the skin, as well as the low access to products that are part of this prevention, such as sunscreens that have a high cost in the market.

Strengthening the above questions, the Chi-square test related the fact of having CA multiple times with the color variable, as well as the odds ratio shows that being brown increases 3.352 times the chance of having CA of the skin in relation to being black. The yellow color is a protective factor, due to the minimal occurrence of malignant skin neoplasms in this population.

It is important to consider as a limitation of this study the processing time of the results of biopsies performed by patients for diagnostic confirmation and, sometimes, the incomplete filling of information in the medical record. Although the study was developed in the pandemic period, the document analysis, with the respective investigation in electronic medical records (AGHU) was fully available to researchers.

In terms of logistics of the service provided, the local team involved in the care reported the delay as to the result of the biopsy by the HUB laboratory, a situation that culminated with the decision, on the part of some patients who underwent the excision in the hospital outpatient clinic, to take the request for analysis of the lesion in private laboratories at their own

responsibility. Thus, these results were not included or registered in the electronic medical record. It is understood that such difficulty is still structural in the Brazilian health system, since the records are still insufficient in electronic medical records, especially in a specialized area that is scarce, such as dermatology, for the population demand of the country.

## CONCLUSIONS

The study showed the social epidemiological profile of patients seen at the dermatology outpatient clinic of the HUB, highlighting especially the relationship of skin cancer with age and race. A considerable prevalence of frailty was found in the sample subgroup of the elderly, whose variables of age, gender and location of the cancer lesions may interfere in the worsening of functional capacity and, consequently, the quality of life of this population. Since the dermatology ambulatory of the Hospital Universitário de Brasília (HUB) is one of the references in dermatology and oncology of the Secretaria de Saúde do Distrito Federal (SES-DF), it is inferred that the results obtained are significant regarding the characteristics of the population assisted in the DF and its surroundings. The adequate registration of the ethical-legal instrument that is the medical record favors the quality of studies that address the social epidemiological profile of patients in the area of dermatology, a resource considered scarce in many regions of Brazil. Nurses should be qualified to strengthen the promotion of health to their users/patients

regarding the possible means for skin protection and screening procedures, aiming to achieve effective differential diagnosis with the health teams.

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