Dermatology Practical & Conceptual

Enhancing Skin Cancer Prevention and Awareness in the Italian Population: Insights from the "Save Your Skin" Screening Campaign

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ABSTRACT

Introduction: Skin cancer prevention campaigns aim to reduce modifiable risk factors, yet high-risk groups often maintain inadequate protection practices.

Objectives: This study analyzed data from Italy's 2023 "Save Your Skin" campaign, which provided free skin checks nationwide.

Methods: Data from 1,773 participants across 29 centers in 13 regions were collected to assess sun exposure, photoprotection habits, and skin cancer awareness, identifying gaps in prevention efforts.

Results: Most participants were female (70.16%), with a median age of 36, and 96.61% were born in Italy. While 71.24% joined for prevention reasons, others participated due to changes in a nevus (12.35%) or personal (2.31%) or family (7.33%) history of skin cancer. Self-assessments of nevi often did not align with dermatologists' evaluations, but family and personal history reporting was more accurate. Participants showed confusion about nevi and melanoma: only 52.7% correctly identified nevi as benign, while 67.2% recognized melanoma as malignant. On average, participants answered 1.57 out of three knowledge questions correctly, with those having a family or personal history of skin cancer performing better. High-risk sun exposure behaviors were identified in 37.78% of participants. Older adults used sunscreen less frequently but relied more on hats and shade, while younger individuals reported less sun exposure at work. Notably, participants with actinic damage demonstrated lower awareness and provided fewer correct answers on photoprotection.

Conclusions: These findings underscore the need for targeted public health strategies to improve education on skin cancer prevention, particularly among high-risk and older populations.

Introduction

The clinical and social burden of skin tumors is immense, with a current global incidence of over 320,000 cases for melanoma and 1,200,000 cases for nonmelanoma skin cancer [1]. The frequent appearance of these tumors in visible areas, coupled with the relative ease of addressing key external risk factors, make skin cancer an ideal target for prevention campaigns. These initiatives have been systematically implemented worldwide [2-9]. Typically, the number of new cancers diagnosed during the "open days" dedicated to skin cancer is low, unless patients are selected based on risk factors [2.10.13]. Nonetheless, the educational impact of this campaign is considerable. In Australia, the "Sun Smart" prevention campaign, which has been in place systematically since the summer of 1988-1989, has resulted in a reduction in melanoma incidence [14]. A recent study [15] examining the 30-year impact of this campaign has demonstrated a significant improvement in the photoprotection habits of the population involved. However, many population groups still use inadequate protective measures during outdoor activities [15.16], even those at high risk [17].

Objectives

In this paper, we present data obtained from the questionnaires administered to the participants in the Italian prevention campaign "Save your skin", conducted in May 2023 throughout Italy. We analyzed the characteristics of the participants, focusing on their sun exposure habits, photoprotection practices, and awareness of skin cancer. Our aim was to identify unmet needs in primary prevention among different population groups, with the goal of developing future public health initiatives that have a greater and more targeted impact.

Methods

Patient Enrollment and Data Collection

The "Save Your Skin" campaign, organized by the Italian Society of Dermatology and Sexually Transmitted Diseases (SIDeMaST), was held across Italy in May 2023. The campaign had two primary objectives: i) to raise public awareness about melanoma prevention and ii) to identify any suspicious skin lesions that could be referred for removal. Free dermatological consultations were offered at leading dermatological centers nationwide, with no specific criteria for participation. Individuals were simply required to book their appointments by phone. An extensive communication campaign preceded the event, reaching the public through radio, television, and social media to ensure maximum participation.

Before their screening visit, participants completed a questionnaire that gathered detailed information, including: i) demographic data (such as gender, age, country of origin, and region of birth for Italian patients, as well as education level); ii) phenotype characteristics (height, weight, hair, and eye color); iii) sun exposure habits (amount of time spent in the sun for work or recreational activities, use of sunscreen and other sun protection measures, and use of sunbeds); iv) phototype and history of sunburns; and v) reasons for their visit and awareness of nevi and melanoma.

During the consultation, dermatologists recorded participants' personal and family histories of skin cancer, the number of nevi, the presence and type of suspicious lesions, and any relevant information regarding concurrent pathologies and therapies, with special attention to immunosuppression.

All participants provided informed consent for data collection and processing, which were handled in anonymized form. Data management was conducted using REDCap (Research Electronic Data Capture) tools, hosted by Università del Piemonte Orientale, Vercelli, Italy.

Statistical Analysis

A descriptive analysis was conducted considering subjects overall. Absolute and relative frequencies are reported for categorical variables, while mean and standard deviation (SD) or median and interquartile range (IQR) for numerical ones, as appropriate.

To evaluate the concordance between self-reported answers and those reported by dermatologists during the visit, the agreement index between number of nevi, personal, and familiar history of skin cancer was calculated. Particularly, Cohen's Kappa were calculated, and 95% confidence intervals were reported [95% CI]. Then, the comparison between the median number of nevi identified by a dermatologist and the self-reported response to high/low number of nevi was done, and non-parametric test was performed. Moreover, the relation between the mean number of correct responses in terms of skin cancer knowledge and personal/familiar history of skin cancer was assessed using t-test.

Sun risk behaviors and number of correct responses were then stratified by age categories (<45, 45-65, 65+), and significant associations were identified using chi-square or fisher tests. Particularly, we considered sun risk behaviors: exposure on vacation over than 30 days/year, exposure for work over than 6 hours/day, recreational exposure over than 3 hours/day, sometimes or never use of sunscreen, poor photoprotection in terms of less than two among hat/sunglasses/t-shirt/shade, severe sunburns, sunbeds, insufficient knowledge about sunscreen use.

All the analyses were performed using the software used was SAS 9.4, and significant *p*-value threshold was considered at 0.05 (2-tailed).

Results

Demographic Characteristics

Data from 1,773 participants across 29 centers in 13 of Italy's 20 regions were analyzed, with centers evenly distributed across the north (11 centers in four regions), center (10 centers in five regions), and south (eight centers in four regions). The demographic details of the participants are summarized in Table 1. Of those who took part, 70.16% (N=1,244) were female, with a median age of 36 years [IQR 28; 53]. The vast majority (96.61%, N=1,708), were born in Italy, with a relatively even distribution across the north (28.02%), center (24.25%), and south and islands (47.73%).

Most participants reported a high education level, with 90.48% having completed high school or higher (43.37% with a high school diploma and 47.11% holding a bachelor's or master's degree).

Skin Characteristics

As detailed in Table 1, most participants had brown (N=1,395, 79.35%) or black (N=149, 8.48%) hair. Only a small proportion had blonde hair (N=199, 11.32%) or red hair (N=15, 0.85%).

Regarding eye color, brown was the most common, with 28.98% (N=511) having light brown eyes and 41.58%

Table 1. Demographic Characteristics of the Campaign Participants.

	N (%)
Gender	
Male	529 (29.84)
Female	1244 (70.16)
Age, years	
Mean (DS)	40.15 (15.09)
Median [Q1; Q3]	36 [28; 53]
Min-max	6-91
Weight, kg	
Median (DS)	67.71 (14.00)
Height, cm	
Median (DS)	167.74 (8.70)
BMI, kg/m^2	
Median (DS)	23.96 (4.08)
Birthplace (N=1768)	
Italy	1708 (96.61)
Europe	46 (2.60)
Asia	3 (0.17)
America	10 (0.57)
Oceania	1 (0.06)
Italian regions (N=1699)	
Northwest	307 (18.07)
Northeast	169 (9.95)
Center	412 (24.25)
South	591 (34.79)
Islands	220 (12.95)
Eye color (N=1763)	
Green/blue	519 (29.44)
Light brown	511 (28.98)
Dark brown	733 (41.58)
Hair color (N=1758)	
Red	15 (0.85)
Blond	199 (11.32)
Brown	1395 (79.35)
Black	149 (8.48)
Education level (E=1766)	
Lower secondary school	168 (9.51)
High school	766 (43.37)
Bachelor's or master's degree	832 (47.11)

(N=733) having dark brown eyes. Instead, 29.44% (N=519) of participants had green or blue eyes.

Skin Cancer Awareness

Prevention was the primary motivation for the majority of participants (N=1,263, 71.24%) who joined the campaign. Additionally, 219 patients (12.35%) participated due to noticing a change in a nevus, 130 (7.33%) because of a family history of skin cancer, 41 (2.31%) due to a personal history, and 96 (5.41%) to seek a second opinion.

Table 2. Comparison Between the Self-Perception and Real Number of Nevi, Absolute Frequencies, and Column Percentages.

Actual Number of Melanocytic Nevi	Self-Perception of Numerous Nevi	
	No (N=912)	Yes (N=736)
<10	246 (26.97)	75 (10.19)
11-30	467 (51.21)	291 (39.54)
31-50	158 (17.32)	222 (30.16)
51-100	36 (3.95)	109 (14.81)
>100	5 (0.55)	39 (5.30)

A notable proportion of patients (N=736, 41.51%) reported having a high number of nevi. This self-reported information was compared with dermatologists' assessments during the visit, with a threshold of more than 30 nevi considered a high count. The comparison between self-assessment and clinical diagnosis (Table 2) showed limited concordance, with a Cohen's Kappa value of 29.09 [95% CI: 24.51-33.67]. However, the median number of nevi identified by dermatologists in patients who reported having "a lot of moles" was 40, compared to 20 among those who cited other reasons for participating. This difference was statistically significant (P<0.001).

In contrast, there was strong agreement between self-reports and clinical evaluations for family and personal history of skin cancer, with Cohen's Kappa values of 79.08 [95% CI: 70.08-87.96] and 60.04 [95% CI: 53.66-66.41], respectively.

When interviewed about the benign or malignant nature of nevi and melanoma, participants displayed some confusion. Among 1,628 respondents, only 858 (52.7%) correctly identified a nevus as a benign lesion, while 726 (44.59%) were uncertain, and 44 (2.7%) incorrectly considered it malignant. Additionally, 206 participants (12.03%) believed that removing a nevus could cause death, while 729 (42.56%) were uncertain (total responses: 1,713).

Responses were more accurate regarding melanoma, with 1,143 participants (67.2%) identifying it as malignant. However, 450 (26.46%) were uncertain, and 108 (6.35%) mistakenly thought melanoma was benign (total responses: 1,701).

Across these three questions, the mean number of correct answers was 1.57 (SD 1.06), with only 416 respondents (23.46%) answering all questions correctly, while 358 (20.19%) got all questions wrong or missed answers. Stratifying by family cancer history revealed a higher average of correct answers among those with a family history of cancer (1.78±0.95 vs 1.54±1.07, *P*=0.0007). Similarly, participants

Table 3. Time in the Sun Declared by Campaign Participants.

Time in the Sun Days (per year) in the sun on vacation (n=1760)	N° of Participants (%)
< 15 days/year	588 (33.41)
15/30 days/year	798 (45.34)
30-60 days/year	274 (15.57)
60-90 days/year	71 (4.03)
>90 days/year	29 (1.65)
Time in the sun for work (N=1747)	
Never	1286 (73.61)
< 4 hours/day	425 (24.33)
> 6 hours/day	36 (2.06)
Time in the sun hobby (N=1737)	
Never	465 (26.77)
< 3 hours/day	1025 (59.01)
3-6 hours/day	216 (12.44)
> 6 hours/day	31 (1.78)
Use of sunbeds (N=1736)	
No	1162 (66.94)
Yes	574 (33.06)
Mean age at the first sunbed session (total response= 325)	
Mean (SD)	22.29 (7.08)
Tanning bed sessions (N=571)	
< 10	319 (55.87)
10-100	245 (42.91)
>100	7 (1.23)

SD = standard deviation.

with a personal history of cancer (N=58) answered correctly more often compared to those without (1.71±1.09 vs 1.56±1.06, *P*=0.0003).

UV Exposure Habits

Table 3 summarizes the time that participants reported spending in the sun during vacations, work, or recreational activities, as well as their use of tanning beds. "High-risk" sun exposure habits were identified in 21.25% of participants for vacations, 2.06% for work, and 14.22% for recreational activities.

Sun Protection Behavior

Campaign participants were interviewed about their sun protection habits and knowledge of proper photoprotection, as summarized in Table 4. Notably, there was a clear discrepancy between the reported frequency of sunscreen use and the amount purchased annually (mean: 1.66 tubes/year, median content: 150 ml). Among those who never used

Table 4. Sun Protection Measures Declared by the Campaign Participants.

Sun Protection Measure Use of sunscreen (N=1758)	N° of Participants (%)
No	71 (4.04)
Yes	1098 (62.46)
Sometimes	589 (33.50)
Frequency of application (N=1052)	
Every two hours	342 (32.51)
Twice a day	511 (48.57)
Only in the morning	199 (18.92)
SPF (N=1394)	
Low	24 (1.72)
Medium	282 (20.23)
High	953 (68.36)
Medium/low	135 (9.68)
Size of sunscreens (N=1581)	
Small (< 100 ml)	232 (14.67)
Medium (100-200 ml	1095 (69.26)
Large (400-500 ml)	254 (16.07)
Number of tubes purchased/year (N=1566)	
Median (DS)	1.66 (1.13)
Reason for not using sunscreen (n=660)	
"I want the fullest tan"	71 (10.76)
"I want a full vitamin D boost"	71 (10.76)
"I don't like greasy skin"	209 (31.67)
"I don't burn"	77 (11.67)
Other Photoprotection Habits	
Wearing a hat (N=1601)	
No	642 (40.10)
Sometimes	474 (29.61)
Yes	485 (31.29)
Sunglasses (N=1698)	
No	206 (12.13)
Sometimes	277 (16.31)
Yes	1215 (71.55)
Wear a t-shirt (N=1540)	
No	814 (52.86)
Sometimes	472 (30.65)
Yes	254 (16.49)
Stay in the shade (N=1674)	
No	130 (7.77)
Sometimes	518 (30.94)
Yes	1026 (61.29)
When can sunscreen be spared?	
Swimming in the sea	143 (8.07)
Walking/running	190 (10.72)

Table 4 continues

Table 4. Sun Protection Measures Declared by the Campaign Participants *(continued)*

Sun Protection Measure Use of sunscreen (N=1758)	N° of Participants (%)
Gardening	121 (6.82)
In short vacations	48 (2.71)
Cloudy weather	461 (26.00)
Staying under the beach umbrella	337 (19.01)
In adults	11 (0.62)
In the elderly	18 (1.02)

sunscreen (N=209, 31.67%), the primary reason cited was the discomfort caused by greasy skin. Sunglasses (N=1,215, 71.55%) and seeking shade (N=1,026, 61.29%) were the most commonly adopted protection measures. Furthermore, many respondents stated that sunscreen can be spared in case of cloudy weather (461 answers; 26%) and while staying under the beach umbrella (337 answers; 19%).

As summarized in Table 5, sun exposure and protection behaviors were analyzed by patient age, along with the number of correct responses to the questionnaires.

Interestingly, younger individuals were significantly less likely to be exposed to the sun for work (1.20% for those under 45, compared to 3.62% and 3.31% for those aged 45–65 and 65+, respectively; P=0.0047). Additionally, older adults (65+) used sunscreen less frequently but were more diligent in using other photoprotective measures, such as hats, clothing, sunglasses, and shade, and they experienced fewer severe sunburns. Nearly 45% of participants in the 45–65 age group reported using tanning beds.

Knowledge of correct sunscreen use and the number of correct answers in the questionnaire both declined with age. However, participants with a family or personal history of skin tumors gave significantly more correct answers (1.78±0.95 vs. 1.54±1.07, P=0.0007 for family history; 1.71±1.09 vs. 1.56±1.06, P=0.3003 for personal history).

Actinic Damage

Dermatologic examination revealed signs of actinic damage in 645 out of 1,773 participants (36.37%). Table 6 outlines the characteristics (age, phototype) and sun-related behaviors of those with and without actinic damage. The two groups were also compared based on the number of correct answers to questions about proper sun exposure.

As expected, age was significantly associated with the presence of actinic damage (P<0.0001), as were factors such as experiencing severe sunburns and using sunbeds (P<0.0001). Notably, participants with actinic damage provided significantly fewer correct answers to questions on photoprotection and skin tumors, indicating a lower level of awareness on these topics.

Conclusions

The incidence and social burden of skin tumors are continuously rising [18-20], making prevention campaigns aimed at the general population increasingly valuable. However, past experiences indicate that the number of newly diagnosed cancers during such campaigns, if not targeted toward specific at-risk populations, tends to be remarkably low [2,10-12,21,23]. As a result, the primary benefit of these campaigns often lies in health education rather than in cancer detection [4-10].

In this context, we analyzed data related to sun exposure habits, photoprotection, and skin cancer awareness collected during a national prevention campaign ("Save Your Skin"). The aim was to identify critical issues within specific population groups. By pinpointing specific needs in terms of primary prevention among these groups, it is possible to enhance the overall effectiveness and impact of such campaigns.

Twenty-eight centers participated in the campaign, representing 13 different regions that were evenly distributed across Italy's three main geographic and climatic areas. An analysis of the participants' demographic characteristics revealed a predominance of female attendees, consistent with findings from other studies showing a higher engagement in preventive health measures among women [8,24]. The median age of participants was 36 years, which is below the age range where skin cancer is most common, further underscoring the campaign's principle value in the realm of primary prevention.

Notably, only 7.33% of participants reported a family history of skin cancer, and just 2.31% had a personal history of the disease. While it is possible that individuals at higher risk, such as those with a family history of skin cancer or previous diagnoses, are already engaged in more targeted prevention programs, our data suggest that the campaign may have struggled to reach the higher-risk population (i.e., older males, carriers of gene mutations) and those with poorer prognoses such as immigrants; nearly all campaign participants were Italian. Research has shown that financial constraints, poor social integration, and language barriers can limit healthcare access for migrant populations [25]. These same factors likely hindered their participation in the campaign. It is well established that socioeconomic, environmental, and geographic factors significantly affect cancer outcomes, influencing every aspect of cancer management, including prevention [26].

Another notable characteristic of the participants is their high level of education, with 90.48% having completed high school or holding a bachelor's or master's degree. This aligns with the tendency of more educated individuals to access diverse sources of health information. Previous studies have demonstrated a strong correlation between melanoma

Table 5. Risk Behaviors Assessed Based on the Patient's Age, Number, and Percentage of Subjects Who Had Risk Behaviors.

	<45 (N=268)	45-65 (N=267)	65+ (N=80)	P-Value
Risk Behavior	**N (%)**			
Exposure on vacation (N=1688)	238 (21.74)	93 (19.75)	29 (23.77)	0.5365
Exposure for work (N=1676)	13 (1.20)	17 (3.62)	4 (3.31)	**0.0047**
Recreational exposure (N=1665)	166 (15.41)	55 (11.83)	18 (14.63)	0.1823
Incorrect use of sunscreen (N=1686)	415 (38.14)	152 (32.14)	57 (45.60)	**0.0092**
Poor photoprotection* (N=1672)	104 (9.62)	62 (13.22)	4 (3.28)	**0.0032**
Severe sunburns (N=1659)	489 (45.24)	215 (46.64)	37 (31.62)	**0.0116**
Sunbeds (N=1665)	323 (29.96)	210 (44.87)	17 (14.29)	**<.0001**
Smoker (N=1643)	217 (20.22)	74 (16.37)	12 (10.17)	**0.0116**
No sunscreen (N=1701)	543 (49.41)	247 (52.11)	82 (64.06)	**0.0066**
Number of corrected answers (N=1701)				
0	193 (17.56)	100 (21.10)	45 (35.16)	**<.0001**
1	264 (24.02)	146 (30.80)	38 (29.69)	
2	342 (31.12)	138 (29.11)	31 (24.22)	
3	300 (27.30)	90 (18.99)	14 (10.94)	
Mean (SD)	1.68 (1.06)	1.46 (1.03)	1.11 (1.01)	

*Hats, clothing, glasses, shade.

incidence and higher socioeconomic status; many exogenous risk factors, such as intermittent sun exposure during vacations and the use of tanning beds, are closely tied to the lifestyle choices of individuals with higher education backgrounds [27,28].

Conversely, limited education has been shown to negatively impact secondary prevention, reducing the likelihood of early melanoma diagnosis and consequently leading to higher mortality rates [29,30]. These findings underscore the importance of designing prevention campaigns that also effectively target disadvantaged population groups, where educational barriers may limit awareness and early detection of skin cancers.

In this study, we also examined participants' awareness of skin cancer risks. We observed that while the number of nevi is widely recognized as a risk factor, it tends to be overestimated, and there is often a lack of concordance between self-assessments and dermatologists' evaluations. This discrepancy can be attributed to the challenges individuals face in distinguishing melanocytic lesions from other pigmented skin lesions, a finding consistent with previous studies [10], even in populations with some level of experience [31,32]. A recent study by Gefeller et al. [31] found that self-assessed nevi counts were consistently higher than those estimated by trained examiners in a large sample of 4,548 subjects, primarily clinical medicine students, reinforcing the conclusion that self-assessment is unreliable, even among educated groups.

Similarly, a previous study by Flint [33] reported low accuracy in self-reported family histories of skin cancer, as the general population often struggles to differentiate between clinically suspicious, precancerous, and neoplastic lesions. In contrast, our experience showed better agreement on family history accuracy, although a high percentage of participants remained confused about the benign nature of nevi and the potential risks associated with their removal (47.29% and 54.56%, respectively). Awareness of melanoma was higher, though 6.35% of respondents mistakenly believed it to be benign.

Overall, knowledge of these issues was significantly greater among individuals with a personal or family history of skin cancer.

Overall, the participants in the campaign spent a considerable amount of time in the sun. Specifically, 21.25% reported spending their vacations in sunny locations for more than two months per year, 26.39% were exposed to the sun for work-related reasons, and 14.22% reported spending more than three hours daily in the sun for recreational activities. Additionally, 33.06% of participants admitted to using tanning beds, with the median age at first exposure to artificial UV sources being 22.08 years.

Despite this high level of sun exposure, responses to questions about sunscreen usage revealed significant knowledge gaps regarding the proper choice of SPF, the frequency of reapplication, and the amount of sunscreen to use. This lack of awareness is consistent with findings from two other Italian studies, which also documented inadequate sunscreen use among sailors and outdoor workers [15,34]. Modenese et al.'s study [34] further highlighted the poor adoption of

Table 6. Characteristics Based on the Presence/Absence of Actinic Damage.

	No Actinic Damage (N=1128)	Actinic Damage (N=645)	P-Value
Sun Behavior			
Exposure on vacation (N=1760)	239 (21.34)	135 (21.09)	0.9036
Exposure for work (N=1747)	21 (1.89)	15 (2.37)	0.4979
Recreational exposure (N=1737)	158 (14.21)	89 (14.24)	0.9857
Incorrect use of sunscreen (N=1758)	436 (38.96)	224 (35.05)	0.1036
Poor photoprotection* (N=1744)	120 (10.80)	55 (8.69)	0.1580
Severe sunburns (N=1729)	452 (40.87)	323 (51.85)	**<.0001**
Sunbeds (N=1736)	323 (29.10)	251 (40.10)	**<.0001**
No sunscreen use	563 (49.91)	349 (54.11)	0.0889
Age (N=1701)			
<45	831 (76.52)	268 (43.58)	**<.0001**
45-65	207 (19.06)	267 (43.41)	
65+	48 (4.42)	80 (13.01)	
Phototype (N=1721)			
1-2	383 (34.85)	229 (36.82)	0.6612
3-4	597 (54.32)	324 (52.09)	
5-6	119 (10.83)	69 (11.09)	
Number of correct answers			
0	202 (17.91)	156 (24.19)	**0.0012**
1	287 (25.44)	180 (27.91)	
2	351 (31.12)	181 (28.06)	
3	288 (25.52)	128 (19.84)	
Mean (SD)	1.64 (1.05)	1.44 (1.06)	0.5655
Median [IQR]	2 [1;3]	1 [1; 2]	

*Hats, clothing, glasses, shade.

additional UV protective measures, such as wearing protective clothing, hats, and sunglasses. These findings emphasize the need for enhanced education on effective sun protection practices

As expected, incorrect photoprotection behaviors, reflected by a lower number of correct responses to specific questions, were associated with increased actinic damage. This was significantly correlated with the use of tanning beds and the age of the participants. Notably, the number of correct answers—indicating better knowledge about photoprotection—decreased with increasing age. Older participants not only demonstrated lower awareness of proper photoprotection but also reported less frequent use of sunscreens, despite being more likely to wear hats and protective clothing. This finding partially aligns with those of Navarro et al. [35], who observed a higher use of head coverings among patients with basal or squamous cell carcinomas.

These results underscore the need for targeted educational efforts to improve sun protection behaviors, particularly among older populations who may be at higher risk of actinic damage but who exhibit less knowledge and lower sunscreen use.

Our experience with the national skin cancer prevention campaign "Save Your Skin" has revealed several significant unmet needs that must be addressed to improve its impact. First, the campaign's reach was primarily limited to individuals who already have easy access to healthcare, ensuring a better prognosis in the event of skin cancer. This underscores the urgent need to develop new communication strategies aimed at engaging populations with lower socioeconomic status who may be at higher risk yet have less access to preventive care. Second, public knowledge about skin cancer remains inconsistent and often inaccurate. While individuals with a personal or family history of skin cancer displayed greater awareness, the general population showed considerable confusion. This highlights the critical role dermatologists must play in educating patients and the broader public about skin cancer risks, early detection, and prevention. Finally, photoprotection behaviors remain inadequate across the general population.

Key challenges include misunderstandings about the correct use of sunscreens, particularly regarding the appropriate quantity and frequency of application, as well as dissatisfaction with the greasiness of available products. Addressing

these issues by providing clearer guidance and improving sunscreen formulations could greatly enhance compliance and reduce skin cancer risk.

Efforts to improve education and accessibility in these areas are essential to better meet the prevention needs of the population.

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