International Journal of Research in Dermatology
Alharbi LK et al. Int J Res Dermatol. 2026 Jan;12(1):1-6
http://www.ijord.com

DOI: https://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20254115

Original Research Article

The role of social media in raising awareness and influencing sunscreen usage in the Western region of Saudi Arabia

Lama K. Alharbi[1]*, Judy K. Alsulami[1], Faisal S. Alshehri[1], Joury A. Alsulami[1], Ahmed G. Alsaggaf[1], Logain G. Alghanemi[2], Fedaa S. Andijani[2]

[1]College of Medicine, King Abdulaziz University, Jeddah, Saudi Arabia
[2]Department of Dermatology, King Abdulaziz University Hospital, Jeddah, Saudi Arabia

Received: 06 September 2025
Revised: 14 October 2025
Accepted: 01 November 2025

***Correspondence:**
Dr. Lama K. Alharbi,
E-mail: Alharbilamak@gmail.com

ABSTRACT

Background: Ultraviolet (UV) exposure is linked to major dermatological problems such as sunburn, early aging, and carcinogenesis. Sunscreen has beneficial effects, but because of misconceptions and low awareness, global compliance is below ideal. This study is to raise awareness and investigate the influence of social media on sunscreen application, given the high levels of UV exposure in Saudi Arabia's western region.
Methods: A cross-sectional survey is filled out by residents of Saudi Arabia's western region. Data on demographics, sunscreen use, and social media impact was obtained using a social media questionnaire. Statistical package for the social sciences (SPSS) (version 26) was used for statistical analysis, and the chi-squared test to identify significant relationships between variables.
Results: Between the 385 participants, (64.2%) were female, (57.9%) were students, and (67.5%) were between the ages of 19 and 54. (74%) of participants reported exposure to social media content as a factor influencing their use of sunscreen. Instagram and Snapchat users were inclined to wear sunscreen, specifically those watching videos. Additionally, (75.1%) of participants stated that social media raised public awareness about sunscreen use, and (35.3%) of them started applying sunscreen through social media influence.
Conclusions: In conclusion, this study demonstrates that social media encourages the use of sunscreen in Saudi Arabia's western region, with young adults and females engaging more to such campaigns. Successful public health campaigns are advertised by educational and visual contents. Future research should address the utility of these findings and long term behavioural sustainability.

Keywords: Sunscreen use, Social media, Public awareness, Health behavior, Skin cancer prevention

INTRODUCTION

Ultraviolet (UV) radiation is one of the major environmental risk factors for several dermatological disorders, such as sunburn, photoaging, and skin cancer.[1] Although sunscreen use is a crucial preventive step, global adherence is still low, due to misconceptions and a lack of knowledge.[2,3] High levels of UV exposure in the western region of Saudi Arabia highlight the need for public education regarding sunscreen use to reduce these risks.[4] Social media platforms such as Instagram, TikTok, and Twitter have an important role in shaping public attitudes and behaviors, making them essential tools for health communication.[5] According to recent research, social media can effectively combat misinformation and increase knowledge of skincare habits, such as sunscreen use.[6]

In Saudi Arabia's western region, social media plays a major role in increasing awareness and influencing people's sunscreen use habits.[4,7] However, only a small

amount of research has focused on the distinct cultural and environmental characteristics of this region to examine this relationship in the Saudi setting. Although sunscreen use is essential for preventing UV damage, social media's influence on public perception and behavior in this area has not been fully investigated. This will offer important insights into how effectively digital platforms spread knowledge about sunscreen.[8]

Therefore, it is important to evaluate how social media contributes to raising awareness and influencing sunscreen use in the western region of Saudi Arabia. This study aims to assess the level of awareness among social media users and to identify how social media platforms shape individuals' behaviors and practices regarding sunscreen use.

METHODS

Study design, location, and time

This was a cross-sectional study conducted in the Western Region of Saudi Arabia from January to June 2025.

Study participants

The sample size of this study was 385 participants. The inclusion criteria were residents of the western region of Saudi Arabia of all ages and both genders. The exclusion criteria were residents of other regions of Saudi Arabia. All participants provided informed consent prior to participation.

Data collection

An online questionnaire was used to collect data and was distributed via Google Forms through social media platforms. Data were collected on participants' demographic characteristics, sunscreen use and usage patterns, patterns of social media use, awareness and attitudes towards sunscreen use, and the influence of social media.

Ethical considerations

Ethical approval for this study was obtained from the Research Ethics Committee at King Abdulaziz University Hospital (KAUH), Jeddah, Saudi Arabia (Reference No. 276-25).

Data analysis

Data were statistically analyzed using the statistical package for the social sciences (SPSS) application version 26. To investigate the association between the variables, the Chi-squared test ($\chi 2$) was applied to qualitative data, expressed as numbers and percentages.

A p value of <0.05 was considered statistically significant.

RESULTS

Of the studied 385 participants, 67.5% were aged between 19 and 54 years, 64.2% were females, and 57.9% were students (Table 1). Figure 1 illustrates that 285 participants (74%) were using sunscreen, while 100 (26%) were not. Among users, 20.3% reported always using it, 23.4% used it sometimes,18.7% rarely, and 11.7% often (Table 2).

Table 1: Distribution of studied participants according to their demographic characters (n=385).

Variable	N (%)
Age (years)	
≤18	102 (26.5)
19-54	260 (67.5)
≥55	23 (6)
Gender	
Female	247 (64.2)
Male	138 (35.8)
Occupation	
Employed	93 (24.2)
Self-employed	11 (2.9)
Student	223 (57.9)
Unemployed	58 (15.1)

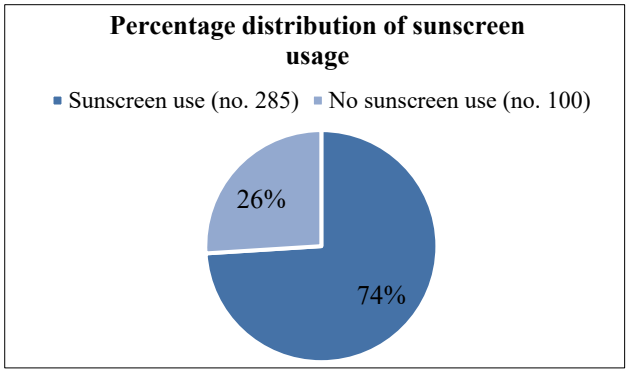

Figure 1: Percentage distribution of sunscreen usage among studied participants (n=385).

Among the 100 sunscreen non-users, 62% reported not using it because they believed it was unnecessary. Across the whole sample (n=385), the most common factors influencing the decision to use sunscreen were the UV Index (70.6%), followed by events such as going to the beach or swimming (67.5%) and recommendations from others (58.2%). Table 3 shows that the prevalence of sunscreen use was significantly higher among participants aged 19-54 years (75.8%) and among females (78.9%) ($p \leq 0.05$).

Table 4 demonstrates that the most commonly used social media platforms among participants were Snapchat (88.3%) and Instagram (86%). The majority (91.9%) reported using social media several times a day.

Table 2: The pattern of sunscreen uses among users (n=285).

Variables	N (%)
How often do you use sunscreen, whether regularly or when outdoors?	
Always	78 (20.3)
Often	45 (11.7)
Sometimes	90 (23.4)
Rarely	72 (18.7)
Never	100 (26)
If you do not use sunscreen, what are the reasons? (no.:100)	
I don't know how to use it	6 (6)
I don't like the feeling of using it	19 (19)
I forget to use it	13 (13)
I think it is unnecessary	62 (62)
What factors influence your decision to use sunscreen	
UV index	272 (70.6)
Events (beach, and swimming)	260 (67.5)
Recommendations from others	224 (58.2)
Advertising	114 (29.6)
Information from social media	214 (55.6)
Other	104 (27)

The most frequently engaged content type was videos (74.3%). Sunscreen use was significantly higher among participants who most commonly used Instagram or Snapchat (p≤0.05).

Table 5 shows that most participants (72.5%) encountered information about sunscreen on social media, and 44.4% believed sunscreen is extremely important for skin protection. Of those, 20.8% were very likely and 33.2% were likely to discuss sunscreen use with friends or family. The most trusted sources for health-related information were doctors (97.9%), followed by health blogs (83.1%), scientific journals (76.6%) and friends and family (62.9%).

Sunscreen use was significantly higher among participants who encountered sunscreen information on social media, believed sunscreen is extremely important for skin protection, and were likely to discuss sunscreen with friends or family (p≤0.05). Additionally, sunscreen use was significantly higher among participants who trusted social media or doctors as sources of health-related information (p≤0.05).

Table 6 shows that 35.3% of the participants purchased or used sunscreen because of social media influence, and 75.1% believed social media campaigns can effectively increase awareness.

Almost half of the participants (50.4%) found expert advice to be the most convincing type of content regarding sunscreen use. Additionally, 48.6% said they would follow accounts focusing on skin health and sunscreen tips. Only 18% reported very high trust in health-related content on social media, while the majority (71.7%) somewhat trusted such content.

Sunscreen use was significantly higher among participants who purchased or used sunscreen because of social media influence, believed social media campaigns can increase awareness, follow accounts focused on skin health and sunscreen tips, and somewhat trusted health-related information on social media (p≤0.05).

Table 3: Relationship between the prevalence of sunscreen use and participants' demographics (n=385).

Variable	Sunscreen use		χ2	P value
	No, N (%)	Yes, N (%)		
Age (years)				
≤18	46 (46)	56 (19.6)	14.01	<0.001
19-54	44 (44)	216 (75.8)		
≥55	10 (10)	13 (4.6)		
Gender				
Female	22 (22)	225 (78.9)	14.39	<0.001
Male	78 (78)	60 (21.1)		
Occupation				
Employed	29 (29)	64 (22.5)	3.38	0.337
Self-employed	1 (1)	10 (3.5)		
Student	54 (54)	169 (59.3)		
Unemployed	16 (16)	42 (14.7)		

Table 4: Relationship between the prevalence of sunscreen use and social media usage (n=385).

Variables	Total	Sunscreen use		χ2	P value
	N (%)	No, N (%)	Yes, N (%)		
Which social media platforms do you use?					
Facebook	37 (9.6)	8 (8)	29 (10.2)	0.4	0.525
X (twitter)	241 (62.6)	58 (58)	183 (64.2)	1.22	0.269
Instagram	331 (86)	73 (73)	258 (90.5)	18.85	<0.001
Snapchat	340 (88.3)	79 (79)	261 (91.6)	11.34	0.001
TikTok	303 (78.7)	73 (73)	230 (80.7)	2.62	0.106
YouTube	337 (78.5)	90 (90)	247 (86.7)	0.75	0.385
Other	135 (35.1)	35 (35)	100 (35.1)	0.001	0.987

Continued.

Variables	Total	Sunscreen use		χ^2	P value
	N (%)	No, N (%)	Yes, N (%)		
How often do you use social media?					
Several times a day	354 (91.9)	91 (91)	263 (92.3)	1.32	0.858
Once a day	13 (3.4)	3 (3)	10 (3.5)		
A few times a week	14 (3.6)	4 (4)	10 (3.5)		
Rarely	2 (0.5)	1 (1)	1 (0.4)		
Never	2 (0.5)	1 (1)	1 (0.4)		
Which type of content do you most often engage with on social media?					
Videos	286 (74.3)	79 (79)	207 (72.6)	18.01	0.003
Articles	19 (4.9)	9 (9)	10 (3.5)		
Stories	35 (9.1)	2 (2)	33 (11.6)		
Live streams	7 (1.8)	3 (3)	4 (1.4)		
All	14 (3.6)	5 (5)	9 (3.2)		

Table 5: Relationship between the prevalence of sunscreen use and awareness and attitudes towards sunscreen (n=385).

Variable	Total	Sunscreen use		χ^2	P value
	N (%)	No, N (%)	Yes, N (%)		
Have you ever encountered information about sunscreen on social media?					
No	106 (27.5)	61 (61)	45 (15.8)	15.83	<0.001
Yes	279 (72.5)	39 (39)	240 (84.2)		
On a scale from 1 to 5, how important do you think sunscreen is for skin protection?					
Not important at all	30 (7.8)	26 (26)	4 (1.4)	12.88	<0.001
Slightly important	42 (10.9)	27 (27)	15 (5.3)		
Moderately important	141 (36.6)	40 (40)	101 (35.4)		
Very important	1 (0.3)	0 (0.0)	1 (0.4)		
Extremely important	171 (44.4)	7 (7)	164 (57.5)		
How likely are you to discuss sunscreen use with friends or family?					
Very likely	80 (20.8)	4 (4)	76 (26.7)	17.43	<0.001
Likely	128 (33.2)	10 (10)	118 (41.4)		
Neutral	82 (21.3)	19 (19)	63 (22.1)		
Unlikely	57 (14.8)	34 (34)	23 (8.1)		
Very unlikely	38 (9.9)	33 (33)	5 (1.8)		
What sources do you trust for health-related information?					
Social media	150 (39)	25 (25)	125 (43.9)	11.6	0.003
Doctors	377 (97.9)	95 (95)	282 (98.9)	7.99	0.018
Friends and family	242 (62.9)	57 (57)	185 (64.9)	2.45	0.293
Health blogs	320 (83.1)	78 (78)	242 (84.9)	3.12	0.21
Scientific journals	295 (76.6)	74 (74)	221 (77.5)	0.95	0.619
Other	99 (25.7)	20 (20)	79 (27.7)	2.71	0.257

Table 6: Relationship between the prevalence of sunscreen use and awareness and influence of social media (n= 385).

Variables	Total	Sunscreen use		χ^2	P value
	N (%)	No, N (%)	Yes, N (%)		
Have you purchased or used sunscreen because of social media influence?					
No	200 (51.9)	79 (79)	111 (38.9)	16.7	<0.001
Unsure	49 (12.7)	7 (7)	42 (14.7)		
Yes	136 (35.3)	4 (4)	132 (46.3)		
Do you believe social media campaigns can effectively increase awareness about sunscreen?					
No	26 (6.8)	17 (17)	9 (3.2)	12.51	<0.001
Unsure	70 (18.2)	37 (37)	33 (11.6)		
Yes	289 (75.1)	46 (46)	243 (85.3)		

Continued.

Variables	Total	Sunscreen use		χ^2	P value
	N (%)	No, N (%)	Yes, N (%)		
Which type of social media content do you find most convincing regarding sunscreen usage?					
Expert advice	194 (50.4)	47 (47)	147 (51.6)	7.7	0.103
How-to videos	57 (14.8)	23 (23)	34 (11.9)		
Informative graphics	36 (9.4)	9 (9)	27 (9.5)		
Personal stories	91 (23.6)	20 (20)	71 (24.9)		
Testimonials	7 (1.8)	1 (1)	6 (2.1)		
Would you follow accounts focusing on skin health and sunscreen tips?					
Maybe	122 (31.7)	41 (41)	81 (28.4)	10.6	<0.001
No	76 (19.7)	45 (46)	31 (10.9)		
Yes	187 (48.6)	14 (14)	173 (60.7)		
How much do you trust health-related information on social media?					
Not at al	37 (9.6)	20 (20)	17 (6)	20.69	<0.001
Somewhat	276 (71.7)	70 (70)	206 (72.3)		
Very much	72 (18.7)	10 (10)	62 (21.8)		

DISCUSSION

This study aims to understand how social media influences people's awareness and use of sunscreen in the western region of Saudi Arabia, where people are highly exposed to both UV radiation and online platforms. We found that the more people see sunscreen-related posts on social media, the more likely they are to use sunscreen especially women and people between 19 and 54 years old. These results agree with other studies that show women and people in this age group are usually the most willing to follow health advice, especially when it is about skin care and beauty.[6]

A significant finding was that visuals and videos have a stronger effect than static images or text-based posts. People who engage with video-based content–especially, how-to guides and expert advice – tend to use sunscreen more consistently.[5] This is because moving visual formats are more effective at retaining attention and motivating a behavior change. A key finding was the significant impact of expert-aided content, with 50.4% reporting this as the most helpful type of content. The importance of professional credibility is thus a key principle in public health messaging, especially in the context of misinformation.

Social media exposure connected to sunscreen use, and behavioral intention: 35.3% of participants said they purchased or began using sunscreen because of that content. In addition to this, 75.1% agreed that social media campaigns are an effective way to raise awareness about sunscreen use, which supports other research that discusses the potential for digital platforms, like Instagram and TikTok, to affect public health behavior when the content is curated responsibly and shared intentionally.[7]

While significant, one finding addressed the desire for skepticism when it comes to social media as information. Just 18% of the sample trusted health information on social media, and 71.7% of them conceded that they could be swayed. Most people believe in the information provided by healthcare practitioners. Nevertheless, information provided on social media works, and this means that messaging must be found on professional and evidence-based communication. This highlights the importance of culturally relevant, physician-endorsed messaging in e-health to create trustworthiness, applicability, and effectiveness among different cultural groups.[5,6,9-11]

The study is relevant to public health policy in high-UV nations like Saudi Arabia. Making available credible, compelling, and demographically appealing content can make social media networks useful means for promoting UV protective behaviors. Dermatologists and digital content creators working together can increase the legitimacy and acceptance of campaigns. For instance, the most effective way to reach kids and other digitally engaged audiences is through short, professionally made films that describe UV risk, how to apply sunscreen, and how to choose a sunscreen.[1,3,4,8,12]

Some restrictions must be considered in light of these possible advantages. Because the study is cross-sectional, causal inference is not feasible. A self-reporting questionnaire has the potential to be biased toward social desirability and memory. The study's concentration on western Saudi Arabia may have limited its applicability to groups with varying exposures to the environment or culture. However, the study was made easier by a large enough sample size, thorough demographic profile, and anonymous data collecting, which may have reduced reporting bias.

To examine the long-term effects of social media on sunscreen use, follow-up studies can use experimental or longitudinal study designs. The relative efficacy of influencer endorsements or content formats in influencing health behaviors could be compared in randomized controlled trials.[10,12,13] Additionally, qualitative investigations of individual concepts of credibility, inspiration, and sunscreen barriers to use could provide contextual understanding. Increased geographic and

demographic representativeness would also improve generalizability.

CONCLUSION

This cross-sectional study demonstrates the remarkable influence of social media on the awareness of and positive effects of sunscreen usage among individuals living in the western region of the Kingdom of Saudi Arabia. It provides empirical evidence that digital platforms, when combined with expert input and engaging content formats, can serve as effective vehicles for public health promotion. Despite some limitations, the findings support the strategic integration of social media into national UV protection campaigns, emphasizing the importance of professional collaboration, tailored content, and trust-building to maximize behavioral impact.

The results revealed significant relationships between sunscreen use especially among women and individuals aged 19 to 54 and engagement with social media content, specifically expert influencers' posts and videos. Social media sites such as Instagram and Snapchat were especially effective in driving behaviors associated with sunscreen.

Most respondents understood the influence of social media and expressed a greater trust of content that matched professional or medical sources, although there remained some uncertainty about the reliability of online health content. These findings underscore the capacity of social media as a powerful public health promotion tool when used appropriately and planned for.

Due to the high UV levels in the region, national sun protection campaigns could potentially enhance sun safety practices in a significant way by providing evidence-based, attractive, and professionally endorsed advice. Future studies should address long-term behavioral outcomes and samples with greater demographic and geographic diversity to substantiate and further develop these findings.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Amaro-Ortiz A, Yan B, D'Orazio JA. Ultraviolet radiation, aging, and the skin: prevention of damage by topical cAMP manipulation. Molecules. 2014;19(5):6202-19.
2. National Academies of Sciences, Engineering, and Medicine. Review of Fate, Exposure, and Effects of Sunscreens in Aquatic Environments and Implications for Sunscreen Usage and Human Health. Washington (DC): National Academies Press. 2022.
3. Sultana N. Sun awareness and sun protection practices. Clin Cosmet Investig Dermatol. 2020;13:717-30.
4. Al Dhafiri M, Almulhim NA, Alsuliman M, Ashram SY, Asiri F, Alshanbari S, et al. Sun exposure awareness and sunscreen use among college students in Saudi Arabia: a cross-sectional analysis. Cureus. 2024;16(12):e76146.
5. Jeyaraman M, Ramasubramanian S, Kumar S, Jeyaraman N, Selvaraj P, Nallakumarasamy A, et al. Multifaceted role of social media in healthcare: opportunities, challenges, and the need for quality control. Cureus. 2023;15(5):e39111.
6. Cassalia F, Ciolfi C, Scolaro F, Danese A, Lunardon A, Caroppo F, et al. Use of social media by the public regarding skin health: effects on dermatological awareness and preventive behaviours. Acta Derm Venereol. 2023;103:adv15341.
7. Almuqati RR, Alamri AS, Almuqati NR. Knowledge, attitude, and practices toward sun exposure and use of sun protection among non-medical, female, university students in Saudi Arabia: a cross-sectional study. Int J Womens Dermatol. 2019;5(2):105-9.
8. Latha K, Meena KS, Pravitha MR, Dasgupta M, Chaturvedi SK. Effective use of social media platforms for promotion of mental health awareness. J Educ Health Promot. 2020;9:124.
9. Suarez-Lledo V, Alvarez-Garcia D. Prevalence of health misinformation on social media: systematic review. J Med Internet Res. 2021;23(1):e17187.
10. Chen J, Wang Y. Social Media Use for Health Purposes: Systematic Review. J Med Internet Res. 2021;23(5):e17917.
11. Myrick JG, Waldron KA, Cohen O, DiRusso C, Shao R, Cho E, et al. The Effects of Embedded Skin Cancer Interventions on Sun-Safety Attitudes and Attention Paid to Tan Women on Instagram. Front Psychol. 2022;13:838297.
12. Schneider S, Zahl A, Meyer P. Digital interventions to promote sun protection behavior: systematic review and meta-analysis. Prev Med Rep. 2022;27:101829.
13. Buller DB, Berwick M, Lantz K, Buller MK, Shane J, Kane I, et al. Smartphone mobile application delivering personalized, real-time sun protection advice: A randomized clinical trial. U.S. National Library of Medicine; 2015. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC4431912/#abstract1. Accessed on 20 December 2025.

Cite this article as: Alharbi LK, Alsulami JK, Alshehri FS, Alsulami JA, Alsaggaf AG, Alghanemi LG, et al. The role of social media in raising awareness and influencing sunscreen usage in the Western Region of Saudi Arabia. Int J Res Dermatol 2026;12:1-6.