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Utilization and Patterns of Social Media Use and Their Influence on Health-Related Behaviors: A Sociodemographic Perspective

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ABSTRACT

Social media has emerged as a popular resource for obtaining health-related information, influencing opinions, and forming behaviors connected to health. However, its effects differ depending on the sociodemographic group, with younger and better-educated people frequently exhibiting higher levels of participation. Effective public health communication methods require an understanding of these dynamics. This study aimed to investigate how adults utilized social media platforms to access health-related information, the patterns of their use, and the influence of sociodemographic characteristics on health-related behaviors. A cross-sectional study was conducted among 630 adult participants. Data were collected using a structured questionnaire that captured sociodemographic characteristics, patterns of social media utilization, and health-related behavioral changes. Descriptive statistics were used to summarize the data, and chi-square tests were applied to examine associations between sociodemographic variables, social media use, and health-related behaviors. A p-value of less than 0.05 was considered statistically significant. Out of the 630 participants, 505 (80.2%) were younger than 40 years, and 349 (55.4%) were female. More than 90% (578/630) reported using social media to access health-related information, with influencers (≈65%) and healthcare professionals (≈62%) being the most commonly followed sources. Utilization significantly differed across age, gender, education, nationality, and employment status ($p < 0.05$). Younger adults (<40 years) (471; 93.3%), females (334; 95.7%), employed individuals (310; 97.5%), and those with postgraduate education (194; 95.1%) showed greater reliance on social media. By ethnicity, SEAR (193; 97%) and EMR (124; 96.9%) participants reported the highest use, while the "Others" group showed the lowest (152; 81.7%). Fitness or diet regimens (324; 96.4% vs. 254; 86.4%), motivation for immunizations and preventive care (178; 97.8% among occasionally motivated), campaign participation (161; 98% among occasionally participants), adoption of new diets/exercises (161; 98% among occasionally adopters), and adherence to recommended health practices (180; 98.9% among occasionally followers) were all positively correlated with social media use. Social media's impact and use for health-related information were greatly influenced by sociodemographic factors. Social media use was positively correlated with healthy habits, such as exercise regimens, preventative care, and adoption of suggested practices, and it was more common among younger, female, employed, and better-educated persons. These results demonstrate that although social media is a useful tool for health promotion, its impact varies. To increase reach, dependability, and behavioral impact, communication techniques must be tailored to sociodemographic disparities in order to strengthen digital public health programs.

Keywords: Digital health, sociodemographic factors, health behaviors, public health, and social media

INTRODUCTION

Background

Social media has emerged as a key platform for health communication, and data indicate that a wide range of demographics use it often. Studies have repeatedly shown how common it is to rely on digital platforms to obtain health-related information in the United Arab Emirates (UAE). Cross-sectional research of young adults found that 65.2% of them used social media to find nutrition information, with female sex and weight loss attempts serving as predictors. More than half of them acknowledged not verifying the information with medical professionals [1]. In a similar vein, 74.7% of Emirati teenagers and young adults who participated in the study said they were able to find helpful health information on social media, and over 40% said that such content had an impact on their health decisions [2]. Another UAE-based study revealed that more than 70% of adults used social media daily for diet-related advice, with age, gender, and following influencers serving as significant predictors of dietary behaviors [3].

Globally, utilization rates also remain high, though patterns differ by age and education. A systematic review and meta-analysis found that older adults had significantly lower electronic health literacy, particularly those with less education and lower income, contributing to reduced engagement with digital health platforms [4]. In contrast, interventions between 2020 and 2024 demonstrated that improving digital health literacy enhanced medication adherence, confidence, and online health engagement, especially in disadvantaged groups [5]. Patients with chronic diseases who had higher digital health literacy reported greater frequency of using online resources and demonstrated stronger self-management behaviors compared to those with lower literacy levels [6].

The COVID-19 pandemic further amplified reliance on social media as a health information source. In some contexts, more than 90% of individuals reported using social media to obtain COVID-19 updates, which was significantly associated with protective behaviors such as mask use and hand hygiene [7]. However, excessive or intensive use came with consequences; a study of medical students revealed that more than 60% of them had altered eating and sleep patterns, as well as increased anxiety during the epidemic, as a result of using social media extensively [8].

Understanding social media use still heavily relies on sociodemographic factors. Age, education, income, and social support were found to be reliable indicators of digital health literacy in a meta-analysis. These factors also affected the frequency of social media use and the capacity to evaluate content critically [9]. The role of influencers has also been widely examined: one systematic review found that up to 70% of young adults engaged with influencer health content, which had mixed effects ranging from motivating health behaviors to contributing to body dissatisfaction when content lacked credibility [10].

In the UAE, digital health interventions are expanding, especially in the mental health field, but challenges such as unequal access, regulatory gaps, and variability in content quality persist [11]. University students worldwide also demonstrate extremely high reliance on social media for health information, with more than 80% reporting daily or frequent use during the COVID-19 era, often shaped by education level, internet access, and socio-economic status [12].

MATERIALS AND METHODS

Research Design, Study Population, and Sample Size Calculation and Sampling Procedure

A cross-sectional survey design was employed to investigate the utilization of social media in public health communication and its association with self-reported behavior change among adults. This design was selected as it allows for the assessment of both exposure to health-related communication and related behavioral outcomes at a single point in time. The study was conducted among adults in the United Arab Emirates, mostly in the cities of Dubai, Sharjah and Ajman. The study population comprised adults aged 18 years and above, recruited from the United Arab Emirates. Individuals younger than 18 years or those not present during the data collection period were excluded.

Based on a narrative review published by Sushim Kanchana and Abhay Gaidhane, the available percentage is 42%.

Therefore,

$$N = \frac{4\times 0.42\times 0.58}{0.042^2}$$

$$N = 553$$

To account for a potential 10% non-response rate, an additional 56 participants were added, resulting in a final target sample size of approximately 609. For feasibility and to ensure adequate coverage, the sample size was

rounded up to **650 participants**. Convenience sampling, a non-probability method, was used to recruit eligible participants.

Study Instrument and Validation Procedure

Data were collected using a structured, self-administered Google Form questionnaire specifically developed for this study. The instrument consisted of three main domains. The first domain captured socio-demographic characteristics, including age, gender, nationality, and educational level. The second domain assessed patterns of social media use, such as frequency of use, preferred platforms, and types of health-related content accessed. The third domain examined behavioral outcomes, focusing on participants' self-reported adoption or consideration of lifestyle changes such as improved diet, increased physical activity, vaccination uptake, smoking cessation, or routine health check-ups resulting from exposure to social media content. The draft of the questionnaire was developed by the research team to align with study objectives, ensuring clarity, cultural sensitivity, and acceptability. Content and face validity were assessed by two public health experts and one psychologist. A pilot study involving 5 participants from the target population was conducted to assess clarity, reliability, and acceptability. Feedback from the pilot informed final modifications, thereby minimizing the risk of non-response and enhancing data quality.

Data Collection

Data were collected through offline, in-person methods to ensure broad community representation. Recruitment took place at Thumbay University Hospital in Ajman, as well as in nearby healthcare centers, community clinics, shopping malls, and public areas across Ajman, Sharjah, and Dubai. Trained research assistants approached adults in these settings, explained the study purpose, and obtained written informed consent before participation. The self-administered questionnaire was completed via Google Forms on tablets or smartphones, with minimal assistance provided when needed. Surveys were completed privately, and data were checked daily for completeness and accuracy before entry into IBM SPSS 30.

Data Management and Analysis

Collected data were entered and analyzed using IBM SPSS Statistics version 30. Data cleaning procedures were applied to identify incomplete or inconsistent responses. Descriptive statistics were calculated to summarize socio-demographic characteristics, patterns of social media use, and reported behavioral outcomes. Associations between social media exposure and behavioral outcomes were examined using Chi-square tests for categorical variables. Logistic regression analyses were performed to identify predictors of behavior change while adjusting for sociodemographic covariates. A p-value <0.05 was considered statistically significant.

Ethical Considerations

The study protocol was reviewed and approved by the Institutional Review Board (IRB) of Gulf Medical University, Ajman, UAE (Ref. no. IRB-COM-STD-25-Jan-2025). Written informed consent was obtained from all participants before answering the survey. Participation was entirely voluntary, and participants were informed of their right to withdraw at any time without penalty. Confidentiality was assured, and data were securely stored and used exclusively for research purposes. The study involved no physical, psychological, or social risks, nor administration of drugs, food, or a placebo.

RESULTS

A total of 640 responses were obtained from adults at various public locations, including malls, hospitals, and parks. The majority of participants were below 40 years of age (80.2%), while only 19.8% were 40 years or above. In terms of education, 67.6% had an undergraduate degree or lower qualification, whereas 32.4% had postgraduate education or higher. About nationality, the largest group was from the South-East Asia Region (SEAR) (31.6%), followed by participants categorized as "Others" (29.5%), Eastern Mediterranean Region (EMR) (20.3%), and European Region (EUR) (18.6%). More than half of the respondents were female (55.4%), while males accounted for 44.6%. Employment status was almost evenly distributed, with 50.5% employed and 49.5% unemployed.

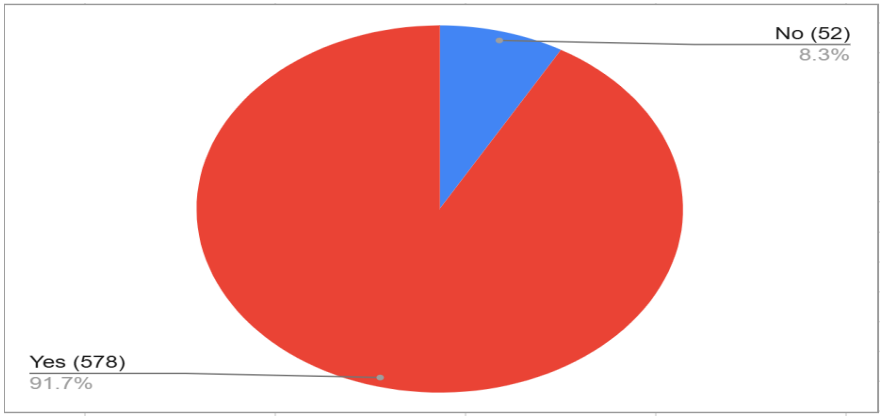

Figure 1: Utilization of Social Media among the adults

This figure 1 demonstrates the proportion of adults in the study population who utilize social media platforms. The majority of participants reported this, while only a small fraction indicated they do not. This finding highlights the widespread reliance on digital platforms as a primary source for seeking information among adults in the UAE.

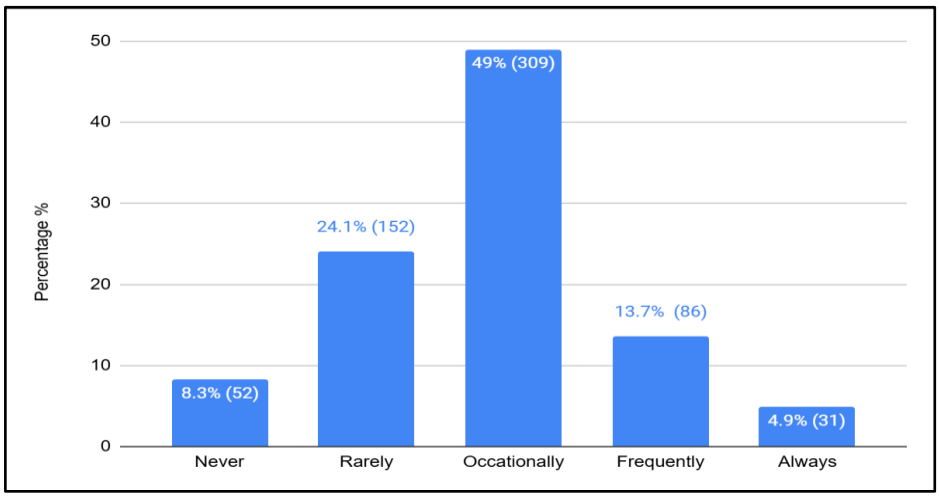

Figure 2: Frequency of Social Media Use among the adults

Figure 2 displays how often participants access content on social media. The most common response was "occasionally" at 49% (309), followed by "rarely" at 24.1% and "frequently" at 13.7%. Only a small proportion reported 'never' using social media, while a similar minority reported "always" relying on it. These results suggest that while social media is a widely used source, the intensity of engagement varies, with most users adopting a moderate pattern of usage.

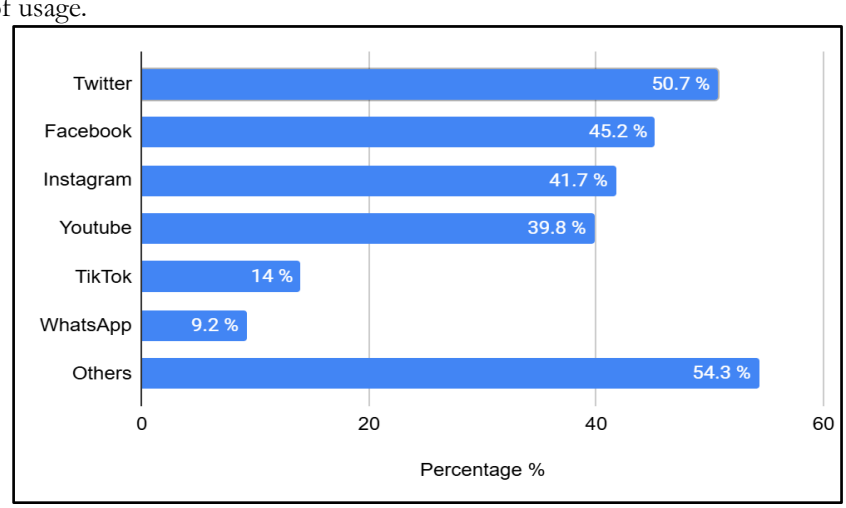

Figure 3: The different social media platforms utilized among the users

The figure 3 illustrates the different social media platforms participants use. Twitter is the most frequently used platform at 50.7% (293 participants), followed by Facebook at 45.2% (261 participants), Instagram at 41.7% (241 participants), and YouTube at 39.8% (230 participants). In contrast, TikTok and WhatsApp are less commonly used, with 14% (81 participants) and 9.2% (53 participants), respectively, indicating their limited role in health-related information dissemination. The "Others" category, representing 54.3% (314 participants), shows that a significant portion of participants also access health information through other unlisted platforms, reflecting the diversity of digital health information sources.

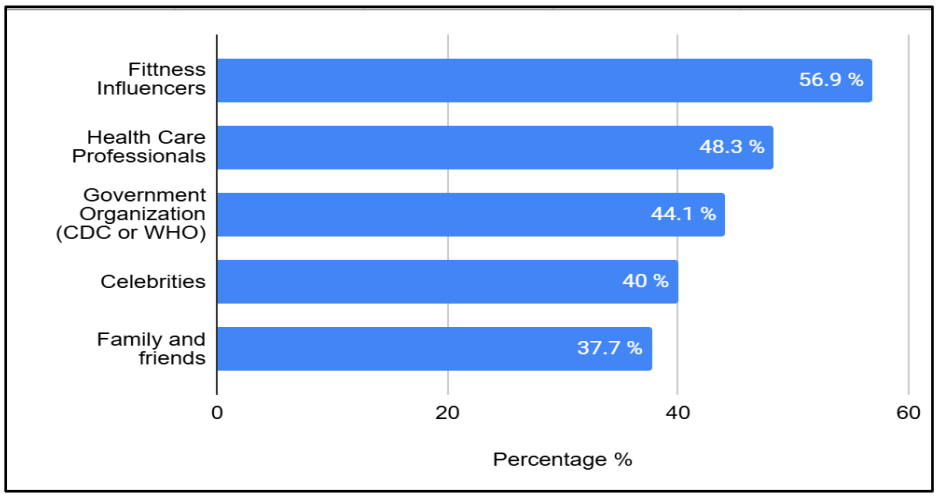

Figure 4: Preferred Sources of Health Information on Social Media among the users

The chart focuses on the sources participants follow on the internet. Fitness influencers are the most popular, followed by 56.9% (329 participants), closely followed by health care professionals at 48.3% (279 participants), showing that both lifestyle guidance and expert advice are highly valued. Government organizations (e.g., CDC, WHO) are followed by 44.1% (255 participants), celebrities by 40% (231 participants), and family and friends by 37.7% (218 participants), the least among the listed sources. This pattern suggests that participants prioritize authoritative and widely visible sources over personal networks when seeking health information.

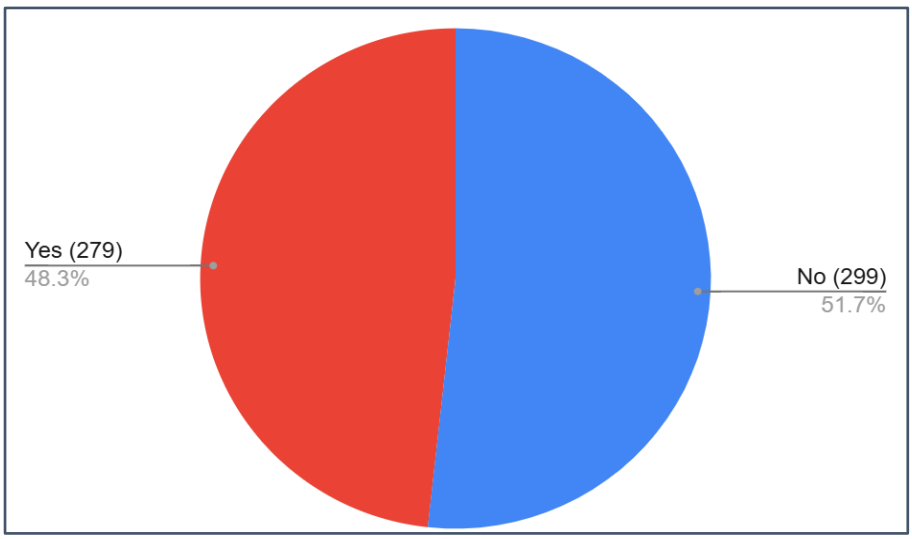

Figure 5: Impact of Healthcare Professionals and Influencers on Health Habits

Figure 5 illustrates participants' responses regarding the influence of healthcare professionals and influencers on their health habits. Out of the total respondents, 279 (48.3%) reported that they had changed their health habits based on information shared by healthcare professionals or influencers on social media, while 299 (51.7%) stated

that they had not made any changes. This indicates that nearly half of the participants were influenced by online health-related content from professionals or influencers in modifying their health behaviors.

Table 1: Association between sociodemographic characteristics and social media utilization.

Socio-demographic Characteristics	Groups	Utilization of Social Media				p-value
		No		Yes		
		No.	%	No.	%	
Age	Below 40	34	6.7	471	93.3	0.005
	40 and Above	18	14.4	107	85.6	
Education	Undergraduate and below	42	9.9	384	90.1	0.034
	Postgraduate and above	10	4.9	194	95.1	
Nationality	SEAR	6	3	193	97	0.001
	EMR	4	3.1	124	96.9	
	EUO	8	6.8	109	93.2	
	Others	34	18.3	152	81.7	
Gender	Male	37	13.2	244	86.8	<0.001
	Female	15	4.3	334	95.7	
Employment	Unemployed	44	14.1	268	85.9	<0.001
	Employed	8	2.5	310	97.5	

Younger adults (<40 years) were significantly more likely to utilize social media (93.3%) compared to those aged 40 years and above (85.6%, p=0.005). Similarly, individuals with postgraduate education and above demonstrated higher utilization (95.1%) compared to those with undergraduate education or below (90.1%, p=0.034). Ethnicity also showed a significant association, with SEAR (97%) and EMR (96.9%) groups reporting the highest levels of utilization, whereas participants categorized as "Others" reported the lowest (81.7%, p=0.001). Gender differences were also observed, as females (95.7%) were more likely to use social media for health-related information than males (86.8%, p<0.001). Furthermore, employment status played a significant role, with employed individuals (97.5%) showing higher utilization compared to unemployed individuals (85.9%, p<0.001).

Table 2: Association between behavioral changes and social media utilization

Behavioral Changes	Groups	Utilization of Social Media				p-value
		No		Yes		
		No.	%	No.	%	
Following regular fitness or diet routines	No	40	13.6	254	86.4	<0.001
	Yes	12	3.6	324	96.4	
Motivation for vaccinations and preventive care.	Rarely	11	8.2	123	91.8	<0.001
	Occasionally	4	2.2	178	97.8	
	Frequently	37	11.8	277	88.2	

Participation in campaigns/challenges.	Rarely	12	5.6	156	94.4	
	Occasionally	3	2.0	161	98.0	
	Frequently	37	14.1	261	85.9	<0.001
Trying new diets/exercises and adopting practices.	Rarely	12	5.6	156	94.4	
	Occasionally	3	2.0	161	98.0	
	Frequently	37	14.1	261	85.9	<0.001
Following recommended health practices	Rarely	13	8.3	143	91.7	
	Occasionally	2	1.1	180	98.9	
	Frequently	37	12.7	255	87.3	<0.001

The participants who reported following a regular fitness or diet routine were more likely to utilize social media (96.4%) compared to those who did not (86.4%). When it comes to motivation for vaccinations and preventive care, occasional motivation was seen to be associated with the highest utilization rates (97.8%), while both frequent (88.2%) and rare motivation (91.8%) showed comparatively lower engagement. A similar trend was observed for participation in health-related campaigns or challenges, where occasional participants demonstrated the highest utilization (98%), followed by frequent participants (85.9%). Likewise, occasional adopters of new diets or exercises (98%) reported greater reliance on social media than frequent adopters (85.9%). When examining the adoption of recommended health practices, occasional followers showed the highest utilization (98.9%), while frequent followers (87.3%) were less likely to depend on social media.

DISCUSSION

This research aimed to assess the utilization of social media among adults for accessing public health information.This study explored the influence of sociodemographic characteristics on the utilization of social media for health-related information and its impact on health-related behavioral changes. The findings highlight important variations in age, gender, education, employment, and cultural background, as well as differences in platform preferences and behavioral engagement.

Younger participants (<40 years) were significantly more likely to utilize social media for health information compared to older adults (93.3% vs. 85.6%, p=0.005). This is consistent with global evidence showing that younger adults are "digital natives" with greater familiarity and reliance on online platforms for information, including health (13,14). Younger cohorts also tend to value convenience and immediacy of digital sources compared to traditional media. In contrast, older adults often face barriers such as lower digital literacy, skepticism of online information, and a preference for face-to-face healthcare consultations (15). Interestingly, a recent study in Europe suggests increasing uptake of digital health tools among older populations, particularly during the COVID-19 pandemic when tele-health became a necessity (16).

Females were significantly more likely to use social media for health purposes than males (95.7% vs. 86.8%, p<0.001). However, a study in Middle Eastern contexts has found higher male digital health engagement, possibly due to cultural restrictions on women's participation in certain online spaces (17). Women are known to be more proactive health information seekers and are more engaged in preventive behaviors, which may explain this trend (18,19). Moreover, social media communities often provide emotional and social support, which aligns with gendered patterns of health communication (20).
Participants with postgraduate education were more likely to use social media for health information (95.1% vs. 90.1%, p=0.034). Education is often linked to greater digital literacy, critical thinking, and health literacy, enabling individuals to navigate complex online health information more effectively (21,22). Highly educated individuals may also follow professional networks and scientific organizations on digital platforms. On the other hand, studies have found that individuals with lower education levels rely more heavily on social media compared to traditional medical sources, potentially due to easier accessibility of informal content (23,24).

Employed individuals were more likely to rely on social media for health (97.5% vs. 85.9%, $p<0.001$). However, some studies have reported that unemployed or underemployed individuals may spend more time online, though not necessarily for health information, but rather for entertainment or socialization (25,26). Employment provides not only financial access to digital technologies but also exposure to workplace wellness initiatives that encourage digital health engagement (27,28). Furthermore, employed individuals may have less time to attend in-person consultations, making social media a convenient alternative.

Significant differences were noted between regions, with SEAR (97%) and EMR (96.9%) participants reporting higher utilization, compared to only 81.7% among "Others." These results reflect the strong uptake of social media across Asia and the Middle East, where mobile-first digital ecosystems dominate (29). Conversely, populations in Western or mixed ethnic categories may diversify their information sources beyond social media, relying on healthcare systems with well-established access (30). Cultural factors may also contribute: collectivist societies encourage sharing and peer validation of health information, increasing social media reliance (31).

Most participants reported occasional use (49%), suggesting that social media acts as a supplementary rather than primary source of health information. This aligns with studies showing that people often consult social media when triggered by specific health needs rather than as a daily habit **(32,33)**. Interestingly, both extremes — "always" and "never" users — were minorities, echoing findings that moderate use fosters trust and avoids both overexposure to misinformation and detachment from digital health innovations (34,35).

Twitter emerged as the most frequently used platform (50.7%), followed by Facebook, Instagram, and YouTube. TikTok and WhatsApp were less common. This pattern reflects global variations, where Twitter and Facebook are favored for information-seeking, while TikTok is more associated with entertainment (36). However, in a Western study, Instagram and TikTok have surpassed Facebook for health-related campaigns, especially targeting younger populations (37). The high percentage of "Others" (54.3%) in this study may reflect region-specific platforms popular in the UAE, suggesting the need for localized digital health strategies (38).

Fitness influencers were the most followed (56.9%), surpassing healthcare professionals (48.3%) and government organizations (44.1%). This reliance on influencers may reflect the perception of relatability and lifestyle integration that professionals cannot always provide (39). However, it raises concerns about misinformation, as shown in multiple studies documenting inaccurate or unsafe advice from unqualified influencers (40). Contrastingly, in some European contexts, healthcare professionals remain the most trusted sources on social media (41). The moderate reliance on celebrities and peers (40% and 37.7%) suggests that social identity and social proof play a role in health-seeking behaviors (42).

Participants following diet and fitness routines were more likely to use social media (96.4%), consistent with evidence that digital fitness communities encourage adherence through peer accountability and motivational content (43). However, over-reliance on such platforms has also been linked to disordered eating and unrealistic body ideals, highlighting potential negative consequences (44). Occasional users reported the highest motivation for preventive care (97.8%), while frequent users showed comparatively lower engagement (88.2%). This suggests that moderate exposure may optimize receptivity to health messages, while excessive use can lead to "infodemic fatigue" (45). Contradicting findings exist, where higher exposure has been shown to increase compliance with vaccination campaigns, particularly during COVID-19 (46). The divergence may stem from platform content quality, highlighting the importance of content moderation and credibility.

Occasional participants demonstrated the highest social media reliance (98%), compared to frequent participants (85.9%). This mirrors findings in digital health literature that occasional participation can maximize benefits without overwhelming users (47). In contrast, studies of "viral" campaigns like #Movember and #IceBucketChallenge have demonstrated that frequent engagement can amplify awareness and fundraising, though not always translating into sustained behavioral change (48). Again, occasional adopters (98%) outperformed frequent adopters (85.9%). One possible reason is that frequent exposure leads to trial-and-error fatigue, while moderate engagement allows for selective adoption of credible practices.

This finding contrasts with study from Western populations, where frequent adopters of digital diets and fitness routines reported better weight loss and health outcomes (49). Occasional followers reported the highest adherence (98.9%), compared to frequent followers (87.3%). This may be explained by "information overload," where too much exposure creates confusion and reduces trust in health recommendations (50). Conversely, a study argues that frequent reinforcement improves compliance, especially when recommendations are consistently credible (46).

Adolescents have never-before-seen access to knowledge, social networks, and opportunities for self-expression thanks to social media platforms. These platforms can be useful resources for health education, giving teenagers access to information on everything from diet to mental health. For example, millions of people have seen Instagram ads like #MentalHealthAwareness, which encourages teenagers to talk candidly about anxiety or sadness(51). Teens in areas where mental health is culturally taboo, like sections of South Asia or Sub-Saharan Africa, can seek help online anonymously without worrying about being judged. Teenagers can also connect with friends who have gone through similar things thanks to social media, which helps them feel like they belong.For those from marginalized communities, including adolescents who identify as sexual minorities, this is especially advantageous because they might receive acceptance and support online that they don't get in their offline settings (51).

But social media's widespread use also comes with a lot of drawbacks. Constant exposure to well chosen pictures and lifestyles might cause body dissatisfaction and inflated expectations(52). Adolescents who compare themselves to peers or influencers may experience low self-esteem and feelings of inadequacy. Teenagers frequently look to influencers for health-related advice, but the reliability of these sources varies greatly, according to a study published in ScienceDirect.Influencers' effects vary depending on a number of elements, including the adolescent's unique traits, the relatability of their content, and the influencer's sincerity. Adolescent girls, for instance, have stated that, if the influencer is reliable, relevant, and genuine, an influencer-driven strategy may be beneficial in enhancing their mental health and body image (52).

For teenagers to critically assess the health information they come across online, they must be digitally literate. Teenagers who are more digitally literate are better able to discern reliable sources from false information, which helps them make well-informed health decisions. On the other hand, people with lower levels of digital literacy are more susceptible to misleading information and risky medical procedures(53).The potential hazards of adolescent social media use are becoming more widely acknowledged by governments and health organizations. For example, New York City has brought legal action against firms such as Meta and TikTok for creating addictive systems aimed at children, while California requires health warning labels for users of major social media sites who are under the age of 18 . The goals of these interventions are to reduce the risks of sleep disturbance, mental health deterioration, and negative behaviors brought on by excessive social media use. The effectiveness of such regulations is still up for dispute, though, with some worried about how they may affect free speech and digital companies' autonomy(54).

According to recent studies, sociodemographic characteristics including age, gender, education, employment, and cultural background have a big impact on how people use social media to get health-related information. Younger people, especially those under 40, use digital platforms for health information at higher rates, which is consistent with their familiarity and skill with online surroundings. On the other hand, older persons may find it difficult to use digital health resources due to obstacles such a lack of computer literacy and a preference for traditional medical consultations(55).

Gender disparities also show up in how people seek out health information, with women typically using social media more actively for health-related goals. Women's increased participation in preventative health practices and the encouraging groups frequently found on internet platforms could be the causes of this development(56).

Digital health engagement is also influenced by educational attainment; people with higher education levels typically possess greater digital health literacy, which allows them to evaluate and use online health information more efficiently. But it's important to remember that some research suggests people with less education might rely more on social media for health information, possibly because of how relatable and easily accessible the content is on these sites(57).

Because working people frequently have better access to digital technologies and may interact with digital health material more because they have less time for in-person consultations, employment status also plays a significant influence. On the other hand, those who are unemployed or underemployed may spend more time online, though not always for health-related reasons. This emphasizes the necessity of focused programs to effectively engage this group(58).

While there are many other social media sites available for sharing health information, Twitter, Facebook, and Instagram are some of the most popular ones. However, new platforms like TikTok are becoming more and more popular for health-related content, particularly among younger audiences. This change calls for flexible approaches in health communication to take advantage of the distinct qualities and methods of audience interaction of various platforms.

Influencers on social media have grown to be important sources of health information, especially those in the fitness and wellness industries. Many consumers find their relatability and lifestyle integration appealing, despite

ongoing doubts over the reliability and security of the advice they offer. Partnerships between trusted personalities and medical professionals can increase the legitimacy and dissemination of health messaging(59).

The extent to which people can explore and use online health information depends in large part on their level of digital health literacy. It might be difficult for adolescents in particular to distinguish between accurate and false health information. Research has demonstrated that while teenagers with lower literacy levels may be more vulnerable to deceptive content, individuals with higher digital health literacy are better able to make educated health decisions(60).

Initiatives to increase teenagers' digital health literacy are crucial to addressing these issues. Enhancing critical thinking abilities, encouraging media literacy, and offering resources to assess the reliability of internet health information should be the main goals of such programs. Policymakers, healthcare professionals, and educational institutions must work together to put policies into place that enable teenagers to appropriately navigate the world of digital health(61).

Policies to ensure the dependability and correctness of online health content must be developed in light of the growing dependence on social media for health information. To improve the caliber of online health information, governments and regulatory agencies should set rules for digital health communication, support initiatives for digital health literacy, and foster partnerships between digital platforms and medical experts(62).

In an overview, social media has both positive and negative effects on teenage health. In addition to providing chances for self-expression, social interaction, and education, it also has concerns for mental health, body image, and false information. Improving digital health literacy, encouraging critical thinking, and putting laws in place to safeguard the wellbeing of adolescents are all important components of a multidimensional strategy for navigating this complicated environment. We can maximize social media's potential advantages while reducing its risks by encouraging a thoughtful and balanced approach to its use. In order to establish a digital environment that promotes teenagers' healthy growth, educators, healthcare professionals, legislators, and the tech sector must work together(63).

LIMITATIONS

This study has several limitations. First, its cross-sectional design restricts the ability to infer causality between social media utilization and health behaviors. Longitudinal studies are needed to assess whether observed associations translate into long-term behavioral changes. Second, self-reported data may be subject to recall bias or social desirability bias, particularly concerning sensitive health behaviors. Third, while the sample size was relatively large (n=630), the participants were drawn from a single national context, potentially limiting the generalizability of findings to other cultural or regional settings. Fourth, the study focused on a limited set of platforms and health behaviors, while the rapidly evolving social media landscape may introduce new platforms and patterns not captured in this analysis. Finally, the study did not assess the accuracy of health information consumed, which is critical given the risk of misinformation on digital platforms.

CONCLUSION

This study demonstrates that social media is a significant tool for accessing health-related information and shaping health behaviors, with usage strongly influenced by sociodemographic characteristics. Younger, female, educated, and employed participants were most likely to utilize social media, and their engagement correlated with positive behaviors such as fitness adoption, preventive care motivation, and participation in health campaigns. Importantly, moderate use of social media was associated with greater behavioral adherence than either rare or frequent engagement. These findings suggest that public health strategies should tailor digital interventions according to sociodemographic profiles and promote balanced engagement with credible sources. Strengthening collaborations between health authorities, professionals, and trusted influencers could maximize the benefits of social media while minimizing risks of misinformation. Future research should employ longitudinal and multi-country designs to capture evolving patterns and assess causal impacts of social media on long-term health outcomes.

RECOMMENDATIONS

Based on the study findings, several recommendations can be made to enhance the effectiveness of health communication and public health strategies. Awareness campaigns should be tailored to specific sociodemographic groups, particularly older adults, males, and individuals with lower education levels, who demonstrate lower engagement with health-related information on social media. Collaborating with both healthcare professionals and credible social media influencers can help improve the reliability and appeal of health messages. Furthermore, creating culturally appropriate, visually engaging, and interactive content can enhance the accessibility and comprehension of health information across diverse populations in the UAE. Campaigns should focus on promoting preventive health behaviors such as immunization, healthy diet, and regular physical activity, as these were positively associated with social media use.

For future research, longitudinal studies are recommended to examine the causal relationship between social media engagement and long-term behavioral changes. Further investigations should assess the effectiveness of specific social media platforms in influencing particular health behaviors, as well as conduct qualitative studies to understand individuals' perceptions, motivations, and barriers to using social media for health information. Comparative research across other Gulf or Middle Eastern countries could also provide insight into regional variations in digital health engagement. Evaluating the impact of social media–based health campaigns on behavioral outcomes and public trust is essential to strengthen evidence-based strategies.

In terms of dissemination, findings should be shared with ministries of health, public health authorities, and digital communication teams to inform policy and outreach programs. Public dissemination through infographics, short videos, and social media posts can raise awareness of the potential of digital platforms in promoting health literacy. Additionally, presenting the results at academic conferences and publishing in peer-reviewed journals will contribute to the global understanding of social media's role in health promotion. Collaboration among health authorities, influencers, and healthcare professionals should be encouraged to amplify credible information and counter misinformation in the digital space.

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