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Characteristics and correlates of the use of social media for nutrition among young adults in the United Arab Emirates

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Abstract

Background The utilization of social media (SM) is widespread among young adults; nevertheless, there is limited understanding regarding their use for obtaining nutrition information. This study aimed to examine the characteristics and determinants of using SM for nutrition information amongst young adults in the United Arab Emirates (UAE).

Methods A multicomponent questionnaire was emailed to all students attending the largest university in the country. The questionnaire addressed, in addition to sociodemographic information, the characteristics of SM use for nutrition information such as the various platforms, frequency, type, features, sharing information with family/friends and healthcare professionals, as well as the reasons for use. Descriptives and logistic regressions were used in data analysis. Within the regression models, the outcome variable was whether participants used SM to obtain nutrition information.

Results Among a sample of 400 respondents, 261 (65.2%) reported utilizing social media (SM) to access nutrition information. The predominant platform for this purpose was Instagram, followed by Snapchat. When participants were queried about the most critical feature of SM for obtaining nutrition information, 63.6% indicated a preference for ease of use, whereas only 12.6% emphasized the importance of information being supported by scientific evidence. A large majority of respondents (93%) disclosed that they shared nutritional information obtained from SM with their friends and family; however, 60% reported that they never shared such information with healthcare providers. Interestingly, over 90% of participants expressed an interest in leveraging SM platforms to communicate with healthcare providers. The leading motivations for using SM for nutrition-related purposes included seeking "healthy eating and recipes" as well as "body weight management." Additionally, females and individuals actively attempting to lose weight exhibited a higher propensity to engage with SM for nutrition insights (OR:1.94,CI:1.13–3.31; OR:1.62,CI:1.05–2.52, respectively), while those with any health condition were less likely (OR: 0.41,CI: 0.18–0.9).

Conclusions The study findings showed that the use of SM to access nutritional information is common among young adults. It further highlighted some concerns related to the validity and safe use of the acquired information

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with little attention to the robustness of the scientific evidence or willingness to discuss the information with healthcare providers. The study presents an opportunity to formulate evidence-based public health interventions to utilize various SM platforms in the promotion of healthy nutrition and lifestyle habits among young adults.

Keywords Social media, Nutrition, United Arab Emirates, Young adults

Background

Young adulthood is a critical stage of the lifecycle, wherein prevalent dietary practices are more likely to continue as lifelong habits, affecting not only growth and development but also disease risk later in life [1, 2]. A mounting body of evidence revealed that young adults are progressively adopting unhealthy practices such as consuming lower amounts of fruits, vegetables, and dairy products while consuming alarmingly high levels of fastfood and added sugars, coupled with sedentary lifestyles [3, 4]. A multitude of factors have been implicated in affecting this shift in dietary intake, including the increased reliance on convenient, processed foods, coupled with the ubiquity of fast-food establishments. Additionally, the sedentary nature of contemporary living, compounded by reduced physical activity, has created an environment conducive to poor dietary choices [5] More recently, increased screen time has been consistently reported to be correlated with obesity and diet-related disorders [6]. In this context, social media (SM) emerges as a primary influence of youth's overall behavior, including dietary habits and practices [7].

SM is defined as any web-based communication channel dedicated to community-based input, content-sharing, and collaboration; encompassing publicly available platforms like YouTube, Instagram, Google and Snapchat [8]. Over 4.7 billion people aged 16 to 64 years, equivalent to 60% of the global population are active SM users [9]. Recently, topics including health, wellness and nutrition are garnering interest amongst SM users with regular postings by health/wellness bloggers and influencers [10]. Within the context of health promotion, SM presents many opportunities including easy exchange of information, formation of supportive online communities, and providing a sense of belonging for those dealing with health challenges [11]. A recent review examining SM use in health promotion reported that various SM outlets demonstrate potential in promoting behavioral change among its users [12]. However, it is important to consider the drawbacks of using SM for health and nutrition promotion, including misinformation/disinformation, unqualified sources in addition to body image issues, especially among the young generation. The recent global pandemic of the COVID-19 showed how SM was used to rapidly spread false claims, unverified advice, and pseudoscientific information, potentially leading individuals to make ill-informed health decisions [13]. Furthermore, the fact that anyone can share their opinions

and advice on SM may expose users to health recommendations from individuals without proper training or credentials [14]. As for body image issues, various SM platforms often emphasize unrealistic beauty standards, promoting unhealthy weight loss methods and encouraging extreme diets or unrealistic fitness routines, which could negatively impact mental and physical health [15]. As such, despite the promise of SM to be an important medium for public health interventions, understanding the characteristics of its use, especially among youth is paramount. This emphasis becomes particularly relevant in countries with prevalent diet- and nutrition-related diseases.

Over the last few decades, the United Arab Emirates (UAE) has experienced a remarkable shift in its economic landscape. The economic growth coupled with a fast-paced nutrition transition has been characterized by a shift towards the consumption of a more westernized dietary pattern and an increased consumption of energy-dense foods [16]. This nutrition transition has been paralleled by surges in the prevalence of obesity and non-communicable diseases (NCDs) amongst its population [17]. While NCDs are prevalent across all age groups in UAE, young adults are particularly at risk. In fact, a national cohort study in the UAE examining the prevalence of cardio-metabolic risk factors in 33,000 Emirati men under 30 years found that almost 50% of the Emirati young adults are overweight or obese and 40% exhibited impaired fasting glucose levels [18]. SM use in the UAE has grown dramatically, with 99% of its adults using SM, spending an average of 7.5 h each day on SM platforms, a number that exceeds the average global numbers (64.4% use SM spending an average of 6 h daily) [9]. Thus, the objectives of this study were to examine the characteristics and determinants of using SM for the access of nutrition information in a sample of university students in the UAE. The findings of this study could inform discussions for policy and further research to examine SM as a potential venue for nutrition promotion amongst young adults.

Methods

A cross-sectional study was conducted, between January and May 2022, among students attending the largest national university in the UAE, the University of Sharjah (UoS) [19]. To be eligible for participation, the students had to be registered at UoS during the data collection period, at the Diploma, Bachelor and Masters levels. Students ought to be 18 years of age or older. The

protocol and data collection instrument were reviewed and approved by the Research Ethics Committee at the target university (REC-21-03-03-09-S). The invitation email included a brief introduction to the study, its objectives, and the procedures involved. Interested participants were asked to provide electronic informed consent. They were informed that their participation was voluntary and anonymous and that they could choose not to answer any question and withdraw from the study at any time without impacting their status as students at the university.

The following formula was used to calculate the sample size:

$$N = Z^2 \times P \times (1 - P)/d^2$$

where N = sample size, Z = 1.96 (Z statistic for 95% confidence level); P = 0.5 (expected prevalence or proportion in order to account for the maximum possible variability that may be present in the population; 50% event probability was used); d = (margin of error) = 0.05; and N (sample size) = 377 participants [20, 21].

Thus, 377 students were needed to estimate a 50% prevalence of use of SM for nutrition information, assuming a power of 80% and an error margin of 5%. Two waves of reminder emails were sent to attain this sample size. This study was reported according to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) for reports of cross- sectional studies (Supplementary Material).

The central administration at the university sent an invitation email to the list of students currently registered from various faculties. Data collection was carried out using a self-administered online questionnaire using Google Forms. The questionnaire was designed following an extensive review and analysis of relevant literature by searching key databases (PubMed, Web of Science and Google Scholar) using relevant broad search items such as Social media, Nutrition, young adults, United Arab Emirates. A panel of experts - a clinical nutritionist, a nutrition epidemiologist, and a public health researcher qualitatively verified its content validity to ensure that the questions adequately covered the study objectives and to address any issues related to question wording, clarity, and relevance. Following the expert panel's recommendations regarding the content of the questionnaire, some questions were removed to avoid redundancy, and some were reworded for clarity. To produce a questionnaire that is sensitive to the participants' experiences capturing their perspectives on the topic, the panel included two students who were currently registered at the university. Initially, the questionnaire was developed in English, translated into Arabic by an expert who was bilingual and whose and fluent in Arabic, then back translated into English by a bilingual expert fluent in English to ensure consistency. The original and back-translated versions were compared to guarantee parallel-form reliability of both English and Arabic versions of the questionnaire.

The link to the questionnaire was inserted into the body of the emails sent to the students. After development, a pilot study was conducted on 10 students to confirm cultural and contextual adaptability. The data collected from the pilot test were not incorporated into this study's data. The time needed to complete the questionnaire ranged between 10 and 15 min.

The questionnaire consisted of two main sections: sociodemographic information and characteristics of SM use for access to nutritional information. In the first section, information was obtained regarding the respondents' age, sex, nationality, area of residence, living situation, year at the university, study major, presence of any chronic health condition and crowding index. Crowding index was defined as the average number of people per room, excluding the kitchen and bathroom. The second section of the questionnaire addressed the mode and characteristics of the use of SM for nutrition. Participants were first asked whether they have ever used any form of SM for access to nutritional information (yes, no); if yes, they proceeded to continue the questionnaire; otherwise, they would reach the end of their participation. To inquire about the characteristics of use, the following items were included in this section: the frequency of use, sharing nutrition information obtained from SM with family and friends, applying nutrition information obtained from SM, the most important feature considered when using SM for nutrition, as well as the reasons and the main advantage of using SM for nutrition. Participants were asked if they shared information that they obtained from SM with their healthcare provider and whether they support communicating with their healthcare providers via SM platforms. Participants in the study were asked to evaluate their engagement with a range of SM platforms using a 8-point scale. A rating of 1 indicated minimal usage, while a rating of 8 represented maximum usage. This approach allowed for a nuanced understanding of participants' social media habits.

Statistical analysis
The sociodemographic variables and the characteristics of SM use for access to nutritional information were presented as frequencies and percentages. Logistic regression analysis was used to identify the sociodemographic determinants of SM use for nutrition. Simple and multiple logistic regression analyses were used, and the results were presented as odds ratio, p-value, and 95% confidence interval (CI). The multiple regression model was adjusted for age, sex, and other variables that showed a p-value greater than 0.2 in the simple regression analysis.

A p-value of less than 0.05 was considered statistically significant. The data analysis was conducted using Stata software version 13 for Windows.

Results

Out of 435 completed Google forms, 400 had complete responses and were included in the final analysis (completion rate: 91.9%). Table 1 summarizes the sociodemographic characteristics of the study population. Almost one-third of the participants (35.2%) were exceeding normal BMI recommended ranges while close to two-thirds (64.5%) were trying to lose weight. Over half of the participants were of Emirati nationality (59%). Furthermore, close to two-thirds of the respondents were of non-health

related majors and only 7% had a chronic disease. The comparison of socio-demographic and lifestyle related characteristics between those who use SM for nutrition and those who do not use SM for nutrition showed no significant differences except for sex and those trying to lose weight, whereby a significantly higher proportion of SM use for nutrition was observed among female individuals to male individuals (82.8% vs. 17.2%; $p = 0.040$) and those actively trying to lose weight (68.6% vs. 31.4%, $p = 0.019$).

The rating of frequency of use of various SM platforms, using a scale of 1–8, whereby a rating of 1 indicated minimal usage, while a rating of 8 represented maximum usage, showed that Instagram ranked first (7.74),

Table 1 Sociodemographic, dietary and lifestyle characteristics of the study population stratified by SM use for nutrition ($n = 400$)

Variable	Total ($n = 400$)	Do not use SM for nutrition ($n = 139$)	Use SM for nutrition ($n = 261$)	*p*-value
Age (Years)				
≤ 20 years	137 (34.3%)	47 (33.8%)	90 (34.5%)	0.893
> 20 years	263 (65.8%)	92 (66.2%)	171 (65.5%)	
Sex				
Male	81 (20.3%)	36 (25.9%)	45 (17.2%)	0.040
Female	319 (79.8%)	103 (74.1%)	216 (82.8%)	
Self-Reported Body Mass Index (BMI) (kg/m²)[a]				
Normal	259 (64.8%)	87 (62.6%)	172 (65.9%)	0.232
Overweight	83 (20.8%)	35 (25.2%)	48 (18.4%)	
Obese	58 (14.5%)	17 (12.2%)	41 (15.7%)	
Trying to lose weight				
No	142 (35.5%)	60 (43.2%)	82 (31.4%)	0.019
Yes	258 (64.5%)	79 (56.8%)	179 (68.6%)	
Nationality				
Emirati	236 (59%)	73 (52.5%)	163 (62.5%)	0.054
Other	164 (41%)	66 (47.5%)	98 (37.5%)	
Place of residence				
The Emirate of Sharjah	266 (66.5%)	87 (62.6%)	179 (68.6%)	0.227
Other Emirates	134 (33.5%)	52 (37.4%)	82 (31.4%)	
Living with parents				
Yes	378 (94.5%)	130 (93.5%)	248 (95%)	0.533
No	22 (5.5%)	9 (6.5%)	13 (5%)	
Crowding index[b]				
≤ 1 person per room	126 (31.5%)	38 (27.3%)	88 (33.7%)	0.191
> 1 person per room	274 (68.5%)	101 (72.7%)	173 (66.3%)	
University level				
First, second or third year	217 (54.3%)	74 (53.2%)	143 (54.8%)	0.767
Fourth year and above	183 (45.8%)	65 (46.8%)	118 (45.2%)	
Major at the university				
Health-related	122 (30.5%)	49 (35.3%)	73 (28%)	0.132
Non-health related	278 (69.5%)	90 (64.7%)	188 (72%)	
Presence of any chronic health condition				
No	372 (93%)	125 (89.9%)	247 (94.6%)	0.079
Yes	28 (7%)	14 (10.1%)	14 (5.4%)	

[a] The body mass index (BMI) was calculated as weight (kg)/height (m²), and classified accordingly into normal (18.5–24.9), overweight (25.0–29.9), and obese (> 30 kg/m²) [22]

[b] Crowding index was defined as the average number of people per room, excluding the kitchen and bathroom

Snapchat second (7.07), followed by communication apps (6.88), YouTube (6.03), TikTok (4.17), Twitter (4.15), and Facebook (1.09). (Fig. 1)

Table 2 includes a detailed description of the use of SM for nutrition, which was reported by 261 participants (65.2%). Almost half of the participants (47.9%) reported knowing about SM for nutrition outlets from personal knowledge. Half of the study respondents (55.2%) reported always sharing information from SM for nutrition with family and friends. Most respondents (91.2%) encouraged the use of SM platforms in communicating with their health care provider. However, only 23% reported sharing the nutrition information from SM with health care providers. Participants who used SM while searching for tips for healthy eating and recipes and body weight management comprise 64% and 62.1% of the population, respectively. The most important features when using SM for nutritional information were "easy to use" (63.6%), "free of charge" (12.6%), and "supported by scientific evidence" (12.6%). The main advantage of using SM for nutrition, as reported by more than half of the participants (52.5%), was accessibility. (Table 2).

The sociodemographic determinants of SM use for nutrition are presented in Table 3. The adjusted results
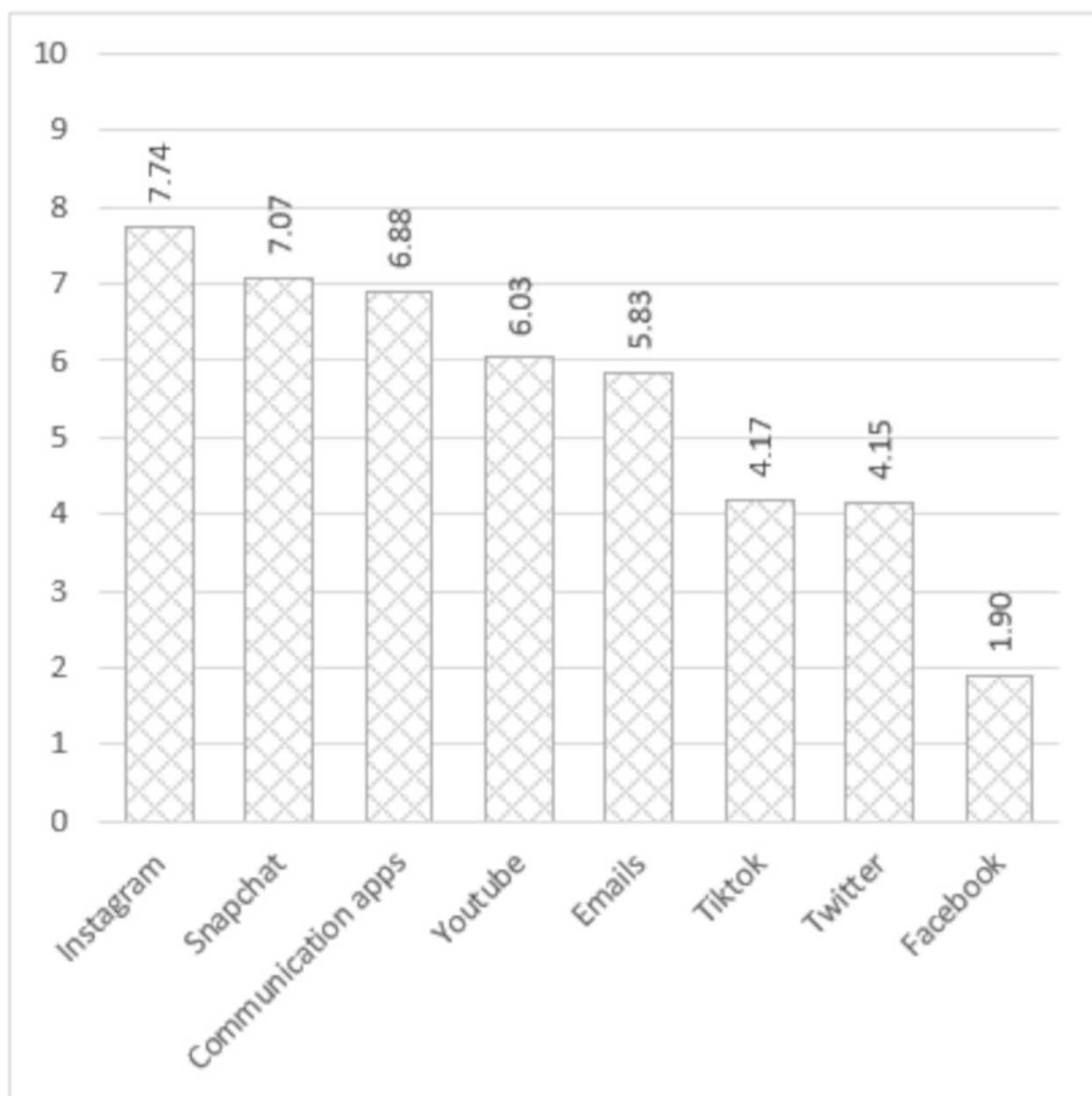
Fig. 1 SM platforms used by participants to obtain nutritional information

Table 2 Description of social media use for nutrition (n = 261)

	Frequency	Valid Percentage
Use of Social media (SM) for nutritional information		
No	139	34.8%
Yes	261	65.2%
How did you know about the social media (SM) for nutrition outlet?		
Self	125	47.9%
Family & Friends	95	36.4%
Health care providers	37	14.2%
Others	4	1.5%
How often do you use SM for nutrition per week?[a]		
≤ 1 time	116	45%
2–4 times	105	40.7%
≥ 5 times	37	14.3%
Missing	*3*	
Do you share the information from SM for nutrition with others (family and friends)?		
Never	18	6.9%
Sometimes	99	37.9%
Always	144	55.2%
Do you share nutrition information from SM with healthcare provider?		
Never	157	60.2%
Sometimes	44	16.8%
Always	60	23.0%
Do you encourage the use of SM platforms in communicating with your healthcare provider?		
No	23	8.8%
Yes	238	91.2%
What was/were reasons for using the SM for nutrition?		
Healthy eating and recipes	167	64%
Body weight management (increase or decrease)	162	62.1%
Fitness and physical activity	147	56.3%
Do you apply any of the nutrition advice from SM?		
Never	26	10%
Sometimes	136	52.1%
Always	99	37.9%
When using SM for nutrition, what is the most important feature?		
Easy to use	166	63.6%
Free of charge	33	12.6%
Supported by scientific evidence	33	12.6%
Has high ratings	13	5%
Recommended by trusted others	16	6.2%
What is the main advantage of using SM for nutrition?		
Accessible	137	52.5%
Quick	60	23%
Affordable	23	8.8%
Convenient	41	15.7%

[a] Total number does not total to 261 as this question had three missing responses

showed that being a female and trying to lose weight were predictors of SM use for nutrition. Females were almost 2 times as likely (OR:1.94) to use SM as compared to males, while those trying to lose weight were 1.6 times as likely (OR:1.62) to use SM. On the other hand, participants with any health condition are 60% less likely to use SM for nutrition.

Discussion

This study investigated the prevalence and characteristics of SM use for nutrition and its sociodemographic correlates amongst young adults in the UAE. The findings of this study highlighted a prevalent and frequent use of SM for nutrition amongst students with Instagram being the most widely used. Users are mainly self-referred and frequently share the information that they obtain with their

Table 3 Sociodemographic determinants of social media use for nutrition ($n = 400$)

	Crude model			Adjusted model		
	OR	*p*-value	95% CI	OR	*p*-value	95% CI
Age (Years)						
≤ 20 years	1			1		
> 20 years	0.97	0.893	(0.63–1.5)	1.04	0.866	(0.66–1.64)
Sex of the Participant						
Male	1			1		
Female	1.68	0.041	(1.02–2.76)	1.94	0.016	(1.13–3.31)
Body Mass Index (BMI) (kg/m^2)[a]						
Normal	1					
Overweight	0.69	0.157	(0.42–1.15)			
Obese	1.22	0.531	(0.66–2.27)			
Trying to lose weight						
No	1			1		
Yes	1.66	0.02	(1.08–2.54)	1.62	0.031	(1.05–2.52)
Nationality						
Emirati	1			1		
Other	0.66	0.055	(0.44–1.01)	0.85	0.55	(0.51–1.44)
Place of residence						
Sharjah	1					
Other	0.77	0.227	(0.5–1.18)			
Living with parents						
Yes	1					
No	0.76	0.534	(0.32–1.82)			
Crowding index[b]						
≤ 1 person per room	1			1		
> 1 person per room	0.74	0.192	(0.47–1.16)	0.74	0.21	(0.46–1.19)
University level						
First, second or third year	1					
Fourth year and above	0.94	0.767	(0.62–1.42)			
Major at the university						
Health related	1			1		
Non health related	1.4	0.133	(0.9–2.18)	1.39	0.253	(0.79–2.42)
Presence of any chronic health condition						
No	1			1		
Yes	0.51	0.084	(0.23–1.09)	0.41	0.027	(0.18–0.9)

[a] The body mass index (BMI) was calculated as weight (kg)/height (m^2), and classified accordingly into normal (18.5–24.9), overweight (25.0–29.9), and obese (> 30 kg/m^2) [22]

[b] Crowding index was defined as the average number of people per room, excluding the kitchen and bathroom

families and friends. Of concern was the fact that over 50% of participants never shared or validated nutrition information obtained from SM with the healthcare provider and that only 12% indicated that scientific evidence was an important criterion for this information. Searching for healthy tips and recipes and managing body weight were found to be common reasons for using SM for nutrition in the study population. Being of female sex and trying to lose weight were found to be predictors for SM use for nutrition.

The findings of this study indicated a widespread use of SM among young adults as depicted by the fact that two in three (65.2%) participants utilized SM to obtain nutrition information. Furthermore, a substantial 93% of participants reported sharing online nutrition information with friends and family. Such a prevalent use has also been described by other studies [23]. More specifically, studies from the United States and South Africa reported that 67% and 69% of adults, respectively, utilized SM for nutrition, and health/wellness information [24].

Among SM platforms investigated for SM use for nutritional information and advice, Instagram ranked first followed by Snapchat and then YouTube. Likewise, other studies investigated the engagement of young adults with health-related information on social media showed that Instagram, followed by YouTube, are the most frequently utilized SM platforms [23]. Instagram with its visual feature, allows its users to search, as well as post photos of

healthy meals, recipes, and tips resulting in a more active user engagement [25]. By offering an exciting and evocative visual platform, Instagram shows promise for use towards health and nutrition promotion targeted in particular, towards young adults.

The results of this study shed light on a few disconcerting findings with regards to key factors that young adults consider when using SM for access to nutritional information. Specifically, ease of use was among the most important features of SM, chosen by 64% of study participants while only 12% considered scientific evidence as a critical factor when using SM for nutrition. These findings are in line with a study exploring the user engagement on SM platforms in the UAE which found that 'ease of use' has a strong influence on young adults' intention to use SM for health and wellness information [23]. Similarly, a previous study from Ghana revealed that 78% of the study population did not inquire about the scientific evidence and trustworthiness of nutrition information sourced from SM [26]. Many SM accounts sharing nutrition-related information often remain unclear regarding credentials of the poster and source of information posted. Such a situation calls for monitoring of the accuracy of nutrition information published in SM [23].

In this study, the users' lack of concern for scientific rigor is further exacerbated by the marginal role of health care providers, whereby only 14% of the participants indicated that their choice for SM use for nutrition is guided by health care providers. Moreover, a concerning 60% of the surveyed population affirm that they did not vet online nutrition-related information by their health care provider. This puts the young adult at considerable risk given that much of the information perpetuated through social media is misconstrued and false. The spread of misinformation in the healthcare field has been discussed in length in literature, more recently evident during the COVID-19 pandemic whereby misinformation led to the adoption of unsafe behaviours directed against masks and vaccines [27].

Another issue that exacerbates the current problem of misinformation, is the application of social media as a marketing platform for food and various other products. Various brands seek promotional relationships with SM influencers because of their reach and impact. Young adults consuming content via SM influencers are more likely to adopt similar behaviors many of which lack scientific evidence base. For instance, research shows how SM influencers promote products such as e-cigarettes [28] and weight loss supplements [29] with dubious origins for monetary compensation on SM platforms that are popular among young adults. Hence, it is warranted that health care professionals leverage SM platforms to counteract spread of misinformation and engage young adults with correct health information online by harnessing captivating content, infographics, pictures and videos [30].

The current study highlighted a few sociodemographic correlates of SM use for nutrition namely, female sex, attempts at losing weight and presence of health conditions. In fact, women in this study are almost two times more likely to use SM for access to nutritional information. This finding corroborates with a study in the UAE that showed females exhibited a higher inclination to use social media for accessing health-related information compared to their male counterparts (72% of females to 28% of males) [23]. The current study also showed positive correlations between weight loss attempts and SM usage. This result is in line with a previous study where participants received nutrition information, shared experiences, accountability and friendly competition when engaging in SM platforms [31]. In this study, participants with health conditions were less likely to use SM for nutrition. This is expected as when individuals become sick, they rely more on healthcare providers and follow the physician's advice [23].

The findings of this study highlight several important implications and directions for future research. Given Instagram's popularity among young adults as a source of nutritional information, future studies should explore platform-specific strategies, such as leveraging unique features like Instagram Stories, Reels, or interactive polls to disseminate evidence-based content effectively. For instance, a study exploring the effectiveness of nutrition education regarding consumption of risky foods (excess sugar, salt and fat) in students found that Instagram significantly improved knowledge scores regarding risky food consumption [32]. There is also a critical need to address the apparent lack of prioritization for scientific evidence in social media content, potentially through educational campaigns targeting media literacy and algorithmic adjustments to promote validated sources of information. Longitudinal research could provide insights into how sustained use of social media for nutrition impacts dietary behaviors and health outcomes over time, particularly among young adults seeking to manage body weight or adopt healthier eating habits. Additionally, interventions should focus on at-risk groups, such as individuals with health conditions, who may be less likely to seek nutritional information on social media due to barriers like perceived irrelevance or distrust. These findings underscore the opportunity for healthcare professionals to utilize social media actively, creating engaging, visually compelling, and credible content to counteract the spread of misinformation and connect with young audiences effectively [33]. Furthermore, policymakers should collaborate with platform developers to implement regulations ensuring transparency regarding content creators' credentials and sources of information.

This could include mandating labels to verify credible accounts, flagging unsubstantiated claims, or introducing disclaimers for posts with unverified nutritional advice. To promote accountability, governments and health organizations could partner with social media platforms to establish guidelines that limit the spread of misinformation and incentivize evidence-based content through visibility algorithms. Public health initiatives can also harness the peer-sharing dynamics prevalent on social media by encouraging the dissemination of credible, evidence-based nutrition information among young adults. Collectively, these approaches could maximize the potential of social media as a tool for promoting accurate and impactful nutritional guidance while mitigating the risks associated with misinformation.

A few limitations ought to be considered in the interpretation of the study findings. First, the cross-sectional nature of the data limited our ability to establish directionality. Second, there is a possibility of self-selection bias since a self-reported instrument was used to collect data; participants who were interested in SM use were more likely to participate. Lastly, the sample in this study is not representative of all young adults in the UAE and larger studies with national representation are warranted. The sample population was recruited from one university and hence limiting the generalizability of the findings. However, it is important to note that the university is the largest university in the country, hosting students from all the seven emirates of the federation, as evidenced by the distribution of the area of residence of the study participants. Additionally, the study sample was stratified in terms of nationality and included participants from various economic strata as reflected by the distribution of the crowding index. That said, it remains important to note that the sample in this study is not representative of all young adults in the UAE and larger studies with national representation are warranted.

Conclusions

In conclusion, the results of this study revealed a prevalent and frequent use of SM for nutrition among young adults in the UAE, with Instagram being the most used SM platform. This use addressed healthy dietary eating and body weight management and was mainly driven by the high accessibility of such information. However, the study also highlighted a couple of concerning findings whereby young adults do not seem to share the information that they obtained with healthcare providers and are less keen to evaluate the scientific rigor of this information. Taken together, the results of this study may provide evidence for the development of effective interventions using SM, tackling the rise in nutrition related diseases like obesity and NCDs in the UAE. Study findings further underscore an opportunity to regulate and validate nutrition and health related information posted on SM platforms while ensuring transparency, a challenging task that requires a concerted effort to ensure the health and safety of SM users. This study highlights the need for platform-specific strategies, such as leveraging Instagram's features to disseminate evidence-based nutrition content. Addressing the lack of prioritization for scientific evidence through media literacy campaigns and algorithmic adjustments is crucial. Future research should explore the long-term impact of social media on dietary behaviors, while healthcare professionals and policymakers should collaborate to enhance content transparency and counter misinformation effectively. Ultimately, integrating these efforts can safeguard against misinformation while encouraging healthier behaviors.

Abbreviations

SM   Social Media
UAE   United Arab Emirates
NCDs   Non–Communicable Diseases
BMI   Body Mass Index

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12889-025-22158-9.

Supplementary Material 1

Declarations

Ethics approval and consent to participate
The protocol and data collection instrument were reviewed and approved by the Research Ethics Committee at the university (REC-21-03-03-09-S). Interested participants were asked to provide electronic informed consent. They were informed that their participation was voluntary and anonymous and that they could choose not to answer any question and withdraw from the study at any time without impacting their status as students at the university.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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References

1. Miedema MD, Petrone A, Shikany JM, Greenland P, Lewis CE, Pletcher MJ, et al. Association of fruit and vegetable consumption during early adulthood with the prevalence of coronary artery calcium after 20 years of follow-up: the coronary artery risk development in young adults (CARDIA). Study. 2015;132(21):1990–8.
2. Freeman B, Kelly B, Vandevijvere S, Baur L. Young adults: beloved by food and drink marketers and forgotten by public health? Health Promot Int. 2016;31(4):954–61.
3. Alzahrani SH, Saeedi AA, Baamer MK, Shalabi AF, Alzahrani AM. Eating habits among medical students at King Abdulaziz university, Jeddah, Saudi Arabia. Int J Gen Med. 2020;13:77–88.
4. Papadaki A, Hondros G, Scott A, Kapsokefalou J. Eating habits of university students living at, or away from home in Greece. Appetite. 2007;49(1):169–76.
5. López-Gil JF, Brazo-Sayavera J, García-Hermoso A, Camargo EM, Yuste Lucas JL. Clustering patterns of physical fitness, physical activity, sedentary, and dietary behavior among school children. Child Obes (Print). 2020;16(8):564–70.
6. Stiglic N, Viner RM. Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. 2019;9(1):e023191.
7. Sina E, Boakye D, Christianson L, Ahrens W, Hebestreit A. Social media and children's and adolescents' diets: A systematic review of the underlying social and physiological mechanisms. Adv Nutr. 2022;13(3):913–37.
8. TechTarget. What is social media? [Available from: https://www.techtarget.com/whatis/definition/social-media
9. DataReportal. DIGITAL 2023: GLOBAL OVERVIEW REPORT [Available from: https://datareportal.com/reports/digital-2023-global-overview-report
10. Klassen KM, Douglass CH, Brennan L, Truby H, Lim MSC. Social media use for nutrition outcomes in young adults: a mixed-methods systematic review. Int J Behav Nutr Phys Act. 2018;15(1):70.
11. García-Méndez C, García-Padilla FM, Romero-Martín M, Sosa-Cordobés E, Domínguez-Pérez MDM, Robles-Romero JM. Social networks: A quality tool for health dissemination? J Educ Health Promotion. 2022;11:355.
12. Ghahramani A, de Courten M, Prokofieva M. The potential of social media in health promotion beyond creating awareness: an integrative review. BMC Public Health. 2022;22(1):2402.
13. Bin Naeem S, Kamel Boulos MN. COVID-19 misinformation online and health literacy: A brief overview. Int J Environ Res Public Health. 2021;18(15).
14. Smailhodzic E, Hooijsma W, Boonstra A, Langley DJ. Social media use in healthcare: A systematic review of effects on patients and on their relationship with healthcare professionals. BMC Health Serv Res. 2016;16(1):442.
15. Aparicio-Martinez P, Perea-Moreno AJ, Martinez-Jimenez MP, Redel-Macías MD, Pagliari C, Vaquero-Abellan M. Social media, Thin-Ideal, body dissatisfaction and disordered eating attitudes: an exploratory analysis. Int J Environ Res Public Health. 2019;16(21).
16. Nasreddine LM, Kassis AN, Ayoub JJ, Naja FA, Hwalla NCJN. Nutritional status and dietary intakes of children amid the nutrition transition: the case of the Eastern mediterranean region. 2018;57:12–27.
17. Ng SW, Zaghloul S, Ali HI, Harrison G, Popkin BM. The prevalence and trends of overweight, obesity and nutrition-related non-communicable diseases in the Arabian Gulf States. 2011;12(1):1–13.
18. Alzaabi A, Al-Kaabi J, Al-Maskari F, Farhood AF, Ahmed LAJE. Prevalence of diabetes and cardio-metabolic risk factors in young men in the united Arab Emirates: A cross-sectional National survey. Diabetes Metabolism. 2019;2(4):e00081.
19. (UOS) UoS. UOS Strategy 2019–2024 [Available from: https://www.sharjah.ac.ae/en/about/Senior-Admin/osp/Pages/UOS_Strategy_19_24.aspx
20. Raosoft I. 2004 [cited 19th May 2023. Available from: http://www.raosoft.com/samplesize.html
21. Suresh K, Chandrashekara S. Sample size Estimation and power analysis for clinical research studies. 2012;5(1):7–13.
22. Tan KJTI. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. 2004.
23. Awofeso N, Gaber Y, Bamidele MJH. Determinants of youth engagement with health information on social media platforms in united. Arab Emirates. 2019;11(02):249.
24. Kreft M, Smith B, Hopwood D, Blaauw R. The use of social media as a source of nutrition information. South Afr J Clin Nutr. 2023:1–7.
25. Chan V, Allman-Farinelli MJN. Young Australian adults prefer video posts for dissemination of nutritional information over the social media platform Instagram: A pilot Cross-Sectional survey. 2022;14(20):4382.
26. Quaidoo EY, Ohemeng A, Amankwah-Poku M. Sources of nutrition information and level of nutrition knowledge among young adults in the Accra metropolis. BMC Public Health. 2018;18(1):1323.
27. Das R, Ahmed W. Rethinking fake news: disinformation and ideology during the time of COVID-19 global pandemic. 2022;11(1):146–59.
28. Vassey J, Allem JP, Barker J, Cruz TB, Pang R, Unger JB, et al. E-cigarette use and promotion by social media influencers during videogame play on twitch. Tob Control. 2023;32(4):526–7.
29. Pilgrim K, Bohnet-Joschko S. Selling health and happiness how influencers communicate on Instagram about dieting and exercise: mixed methods research. BMC Public Health. 2019;19(1):1054.
30. Shine D, Minehan M, Knight-Agarwal C, #Healthpromotion. A qualitative exploration of how dietitians can use social media to positively influence women aged 18–35 years. 2022;79(4):489–96.
31. Pagoto S, Schneider KL, Evans M, Waring ME, Appelhans B, Busch AM, et al. Tweeting it off: characteristics of adults who tweet about a weight loss attempt. J Am Med Inform Assoc. 2014;21(6):1032–7.
32. Masri E, Tunnisa MA, Ilham DJP. The effectiveness of peer education and Instagram nutrition education on changes in knowledge and consumption of risky foods in students. 2023;6(6):626–36.
33. Zielińska-Tomczak Ł, Przymuszała P, Tomczak S, Krzyśko-Pieczka I, Marciniak R, Cerbin-Koczorowska M. How do dieticians on Instagram teach?? The potential of the Kirkpatrick model in the evaluation of the effectiveness of nutritional. Educ Social Media. 2021;13(6):2005.

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