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ORIGINAL ARTICLE

ASSESSING THE EFFECTS OF SOCIAL MEDIA ON EATING BEHAVIOR IN ALGERIAN UNIVERSITY STUDENTS

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ABSTRACT

Background. Social media plays a central role in the daily lives of university students, influencing various aspects of behavior, especially their eating habits. The goal of this study was to adapt and validate the scale of effects of social media on eating behavior (SESMEB), which was initially established in Turkish, for use by Algerian university students.

Methods. A cross-sectional study was conducted between March 2025 and May 2025. Participants filled out an online questionnaire covering socio-demographic data, social media usage patterns, and the SESMEB. Internal consistency was assessed using Cronbach's alpha and the Spearman-Brown coefficient was used to measure reliability. Confirmatory Factor Analysis (CFA) was used to assess construct validity, and independent t-tests were used to investigate item discrimination across extreme groups.

Results. The Algerian version of SESMEB demonstrated excellent internal consistency (Cronbach's alpha = 0.930). CFA confirmed a strong unidimensional structure, with factor loadings ranging from 0.49 to 0.75 and high model fit indices. SESMEB scores were significantly correlated with daily social media time ($p < 0.001$), indicating that higher social media engagement corresponded to a greater influence on eating behavior.

Conclusion. The adapted SESMEB is a valid and reliable instrument for assessing the influence of social media on eating habits among Algerian university students. These findings provide a foundation for future study focused at encouraging healthy digital and nutritional behaviors among young people.

Keywords: *Algerian students, eating behavior, social media, reliability, validity*

INTRODUCTION

As information and communication technologies have advanced, digital technology has become firmly integrated in daily life. This has resulted in a surge in social media. According to the most recent figures, there are 5.24 billion active social media user identities worldwide, up 4.1 percent in the last year [1]. University students, in particular, spend a significant amount of time on social media during the day and night, and it can be argued that such technologies play a vital role in their everyday life [2]. Individuals may freely communicate, exchange material, and express themselves through social media, as well as engage with people in their own nation and throughout the world [3]. Students use social networking platforms and applications extensively, making them an integral part of their everyday lives. According to research, university students are the most regular users of these platforms across all age categories [2, 4]. Highlighting the potential for social media to have a profound impact on young adults.

Technology is continuously changing to satisfy users' increasing demands. Digital literacy is required to engage in society and the economy [5]. However, psychological, social, and health issues might be linked to social media abuse or overexposure [6].

The rising popularity of online healthy eating groups has resulted in consumers being regularly exposed to diet and health advice via social media [7].

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Furthermore, internet and social media use has been found to raise knowledge of nutrition, dietary choices, and healthy lifestyles [8].

Social media platforms are frequently overloaded with food-related material. This might increase the impulse to eat harmful or irrelevant meals. Furthermore, ads for unhealthy food products tend to target young individuals [9, 10]. On the other hand, healthcare practitioners and organizations are increasingly using social media to provide information about healthy lifestyles and illness prevention. Providing a unique chance to increase public health awareness, self-efficacy, and treatment regimen adherence in various groups [8, 11]. Social media has the ability to change people's eating habits. According to the studies of Güneş and Demirer [12] and Xu et al. [13], as people's duration of social media use grows, so do their sedentary habits, and utilizing social media accounts with visual material is linked to an increased risk of eating disorders. In addition, physical appearance perfectionism used social media to have a higher impact on eating behavior. Considering these changes, it is clear that as social media becomes more integrated into daily life, people begin to build social identities in the digital realm. As a result, it is critical to investigate how health misinformation spreads and how much it influences people's decisions and health-related behaviors [14].

The widespread use of social media emphasizes the importance of assessing its impact on eating habits, particularly among students. This is the first study in Algeria to assess the impact of social media on eating habit among Algerian university students. We do not have any past data analysis on the SESMEB in Algeria. So, this condition warrants our research, which contributes to a deeper understanding. Therefore, to conduct such evaluations effectively, measuring instruments must be validated and adapted for the appropriate language and cultural environment. As a result, the purpose of this study was to adapt the SESMEB, a tool particularly created to evaluate how social media use affects eating habits, while maintaining its reliability and validity for the group being studied.

MATERIAL AND METHODS

Study design and data collection

The study took place between March 2025 and May 2025. Given that the produced scale had 18 items and one dimension, the study required at least 5 participants per item. In this scenario, a minimum of 90 volunteers were needed. Inclusion criteria required voluntary participation, active use of social media, and current enrollment at the university of Relizane in bachelor's, master's, or doctoral programs. Exclusion criteria included having a diagnosed chronic illness, any mental health disorder, or an existing eating-related problem. These parameters ensured that the survey targeted a healthy, university-based population actively engaged with social media, in line with the study's objectives. As a result, data from 179 individuals who answered all of the questions were analysed.

The questionnaire was created with Google Forms and conducted online. The questionnaire was divided into three sections: socio-demographic information, social media usage patterns, and the SESMEB (scale of effects of social media on eating behavior). The first section of the questionnaire consists of questions designed to identify participants' sociodemographic traits and educational background including age, gender, marital status, education level. The second section addressed participants' social media usage patterns. It included questions on the type of platforms most frequently used, the average daily time spent on social media, frequency of content sharing. The third section consisted of the scale of effects of social media on eating behavior (SESMEB). The SESMEB was originally developed by Keser et al. [3] to measure the perceived impact of social media use on eating habits. It is a unidimensional scale composed of 18 items rated on a five-point Likert scale ranging from 1 ("never") to 5 ("always"). Higher scores indicate a greater perceived influence of social media on eating behavior. The items address several aspects of this influence, including increased exposure to food-related content, the effect of social media on food choices and cravings. The English version of the SESMEB has good reliability and validity with a Cronbach's alpha coefficient of 0.928.

The SESMEB was translated from English into Arabic for use in the Algerian context. The translation process followed a forward-backward translation procedure to ensure linguistic and conceptual equivalence. First, the scale was independently translated from English into Arabic by a university English teacher. A back-translation into English was then carried out by a postgraduate in English interpretation who was unfamiliar with the original instrument. Discrepancies were resolved to maintain accuracy.

A pilot test was then conducted with a small group of university students from the target population to identify any ambiguous or confusing items. Based on their feedback, slight adjustments in wording were made.

Statistical analysis

All statistical analyses were carried out using IBM SPSS Statistics for Windows version 26.0 (IBM Corp., Armonk, NY, USA) and AMOS version 26.0

(IBM Corp., Armonk, NY, USA). A two-sided p-value < 0.05 indicated statistical significance.

Descriptive statistics for continuous variables were provided as mean ± standard deviation or median and interquartile range, based on the assumption of normal distribution. For categorical and ordinal variables, the findings were presented as frequencies and percentages. In addition, associations between categorical variable and Likert-scale items were assessed using *Chi*-square tests of independence. The normality assumption for continuous variables was specified with the Kolmogorov-Smirnov test and histogram, and boxplot. Tukey's non-additivity test result was used to determine if the total score could be computed.

Item analysis was used to investigate discrimination and internal coherence. Corrected item-total correlations were calculated; values > 0.40 were considered acceptable. Items were further analyzed using the extreme group approach, which involved comparing the highest-scoring 27% of participants to the lowest-scoring 27% on each question using two-sided independent samples t-tests. Items with statistically significant differences and appropriate critical ratio (CR) values were considered discriminative. Effects were found when at least 15% of responses fell into the lowest or highest score categories.

Confirmatory Factor Analysis was used to assess construct validity. Sampling adequacy was evaluated using the Kaiser-Meyer-Olkin (KMO) statistic and Bartlett's sphericity test. AMOS was used to evaluate a one-factor model that corresponded to the SESMEB's theoretical structure. Multiple indices were used to evaluate model fit, including *Chi*-square to degrees of freedom ratio (χ^2/df), Root Mean Square Error of Approximation (RMSEA), Goodness-of-Fit Index (GFI), Adjusted GFI (AGFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Normed Fit Index (NFI). Acceptable fit was assessed as χ^2/df < 3, RMSEA < 0.08, and GFI/AGFI/CFI/TLI/NFI > 0.90. Factor loadings ≥ 0.40 were considered good.

Split-half and internal consistency metrics were used to assess reliability. Cronbach's alpha coefficient was determined for the complete scale, with $\alpha > 0.70$ indicating acceptable reliability and $\alpha \geq 0.80$ indicating good to outstanding reliability. The Spearman-Brown coefficient was used to test split-half reliability after dividing the scale in half based on item order. The "alpha if item deleted" values were analyzed to see if removing any item would significantly improve internal consistency.

Group comparisons were conducted to investigate variations in SESMEB scores based on sociodemographic and social media use characteristics. Because the distribution of scale scores was not always normal, nonparametric tests were used: Mann-Whitney U tests were employed for comparisons between two independent groups.

RESULTS

Sociodemographic and survey characteristics

A total of 179 university students participated in this study. Of these, 68.7% of participants were women and 31.3% were men. The mean age was 22.16 ± 3.5 years. Most participants (99.4%) were unmarried, and 50.3% were bachelor's students (Table 1).

Table 1. Socio-demographics characteristics of participants

Variables		Frequences (%)/ Mean ± SD
Sex	Male	31.3
	Female	68.7
Age (years)		22.16 ± 3.5
Marital status	Single	99.4
	Married	0.6
Level of studies	Bachelor student	50.3
	Master student	48
	Doctoral student	1.7

SD – standard deviations

Table 2 presents participant responses to items measuring SESEMB's perceived effect. A considerable majority of respondents indicated rare or occasional participation in content sharing, with 36% stating they "sometimes" share content, 31% "rarely" and only 15% expressing frequent or consistent posting. Similarly, nearly half (46%) said they "never" used filters, a significant association was found between gender and filter use ($\chi^2 = 21.66$ (4), $p < 0.001$) males were significantly more likely to report "never" using filters, whereas females were more likely to report "sometimes". In terms of food-related impacts, social media appears to increase hunger in a significant proportion of individuals, with 31% reporting "sometimes" and 37% reporting "often" or "always" feeling appetite stimulation. Male were significantly ($\chi^2 = 11.38$ (4), $p < 0.05$) more likely to report "never". Nonetheless, when asked about their fast-food intake, nearly half (46%) denied an increase since utilizing social media. The importance of social media in affecting brand selection elicited diverse responses: 34% indicated no effect, 25% "sometimes," and 23% expressed regular influence. Similarly, recipe adoption was rather widespread, with 61% of participants reporting at least occasional tries at recipes found online, males significantly ($\chi^2 = 36.98$ (4), $p < 0.001$) reported "never" while females reported more "always". Snack desires and food awareness produced

complex results. While 45% recognized an increase in snacking frequency, 58% also reported becoming more careful of their food intake as a result of social media exposure. A small percentage of respondents (28%) acknowledged following influencers for nutritional or eating habits recommendations. In terms of larger dietary behavior changes, 37% disputed that web information had influenced their eating patterns, while 43% recognized varied degrees of change. Nearly half (41%) said they avoided specific meals because of bad depictions. Visually appealing food posts were also a powerful incentive, with 53% stating that they occasionally or frequently induced consuming desire. Social media was also a source of food inspiration, with 63% reporting that they used it on occasion, females were significantly (χ^2 = 36.32 (4), $p < 0.001$) more likely to choose "always" than males. Adoption of dietary trends was less evident, with 45% saying they were "never" affected, while 36% acknowledged to following trends such as vegan or keto diets on a regular or occasional basis, females were significantly (χ^2 = 36.32 (4), $p < 0.001$) more likely to select "always", while males were more likely to choose "never". The motivation to make trending meals was relatively strong, with 61% claiming some impact. Psychological effects were also obvious; 59% claimed

Table 2. Associations between social media engagement (%), gender, and daily usage with food-related behaviors

Items	Never	Rarely	Sometimes	Often	Always	Gender association χ^2 (df) p-value	Spending time association χ^2 (df) p-value
How often do you share content on social media?	19	31	36	10	5	0.19 (4) 0.989	3.65 (1) 0.56
Do you use filters for your social media posts?	46	19	24	8	3	21.65 (4) < 0.001	4.563 (1) 0.033
The dishes I see on social media stimulate my appetite.	11	21	31	22	15	11.38 (4) 0.023	1.7 (4) 0.791
Since I started using social media, my fast-food consumption has increased.	46	22	18	7	6	4.93 (4) 0.295	6.64 (4) 0.156
Social media influences my preference for certain food or beverage brands.	34	20	25	13	10	3.35 (4) 0.5	11.758 (4) 0.019
I try new recipes that I see shared on social media.	18	21	26	16	19	36.97 (4) < 0.001	12.21 (4) 0.016
Social media content influences my food choices.	27	17	26	17	13	2.683 (4) 0.612	16.72 (4) 0.002
Social media makes me crave snacks more often.	31	24	22	13	10	9.519 (4) 0.049	4.36 (4) 0.359
Social media makes me more aware of the amount of food I consume.	20	21	32	13	13	2.497 (4) 0.645	30.9 (4) < 0.001
I follow influencers for advice on diets or eating habits.	30	22	21	17	11	1.358 (4) 0.851	25.42 (4) < 0.001
My eating habits have changed because of what I see online.	37	20	18	15	10	5.797 (4) 0.215	27.221 (4) < 0.001
I avoid certain foods due to how they are portrayed on social media.	31	28	22	11	8	4.74 (4) 0.315	17.85 (4) 0.001
Social media posts increase my desire to consume visually appealing foods.	25	22	20	16	17	3.847 (4) 0.427	9.05 (4) 0.06
I use social media to find meal ideas.	17	20	27	13	23	36.32 (4) < 0.001	21.82 (4) < 0.001
Social media content encourages me to adopt certain food trends (e.g., vegan, keto).	45	20	18	8	10	7.65 (4) 0.105	18.18 (4) 0.001
I feel motivated to prepare dishes that are trending on social media.	18	22	21	20	20	32.41 (4) < 0.001	14.13 (4) 0.007
Social media has made me more attentive to my calorie intake.	22	20	24	20	15	2.431 (4) 0.657	29.704 (4) < 0.001
I feel guilty about my eating habits after seeing posts about healthy lifestyles.	29	16	24	13	18	11.524 (4) 0.021	20.048 (4) < 0.001
I compare my food choices to those of the people I follow on social media.	48	20	14	14	5	0.754 (4) 0.944	19.59 (4) 0.001
I spend money on certain foods after seeing them on social media.	35	25	18	9	12	7.181 (4) 0.127	15.601 (4) 0.004

that social media increased their attention to calorie consumption, and 55% expressed occasional or regular guilt after seeing healthy living information, males were more significantly to select "sometimes" whereas females showed a slight agreement toward "often" and "always". In addition, higher education level was strongly associated with the feeling of guilt in response to healthy lifestyle ($\chi^2 = 22.25$ (8), $p = 0.004$). In terms of social comparison, over half (48%) said they "never" compare their food choices to influencers, while 33% acknowledged to doing so on occasion. Finally, economic effect was clear, with 39% of individuals reporting purchasing foods after seeing them advertised online.

Chi-square analyses (Table 2) found a significant relationship between daily social media usage (≤ 3 hours vs. > 3 hours) and all examined eating behavior variables (p-values varied from 0.03 to < 0.001). The examination of standardized residuals revealed consistent trends across items. Light social media users (≤ 3 hours/day) were more likely to be impacted by food-related information, especially in higher Likert categories ("often" and "always"). Trying out new recipes, selecting foods based on content, and following influencer diet recommendations. Awareness of food consumption, adoption of food trends, and drive to produce popular recipes. Calorie counting, feelings of guilt after viewing healthy living posts, and food purchases. While heavy social media users (> 3 hours/day) tended to select lower Likert categories ("never" or "rarely") for food/beverage preferences, and higher categories for using filter for post, trying new recipes and spending on specific foods.

Item analysis

Item-total correlations (Table 3) were positive ranging between 0.118 to 0.752. Items with adjusted item-total correlation values of less than 0.40 were removed, resulting in a final scale of 18 items.

Tukey's test for non-additivity indicated no significant violation of additivity assumptions ($F (1, 3025) = 2.016$, $p = 0.156$). Supporting the calculation of a total score across all items. No floor or ceiling effects were observed. Based on 27% highest and lowest scoring groups (Table 4), all items demonstrated satisfactory discrimination.

Confirmatory factor analysis (CFA) was conducted on responses from all 179 participants. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.912, and Bartlett's test of sphericity was statistically significant ($\chi^2 (153) = 1794.867$, $p < 0.001$), indicating sampling adequacy and suitability for factor analysis.

The one-factor model (Figure 1) showed the graphic expression of the CFA. The standardised

Table 3. Item analysis results for the SESMEB

Item No.	Items	Item total correlation
Item 1	How often do you share content on social media?	0.118
Item 2	Do you use filters for your social media posts?	0.245
Item 3	The dishes I see on social media stimulate my appetite.	0.466
Item 4	Since I started using social media, my fast-food consumption has increased.	0.615
Item 5	Social media influences my preference for certain food or beverage brands.	0.652
Item 6	I try new recipes that I see shared on social media.	0.640
Item 7	Social media content influences my food choices.	0.669
Item 8	Social media makes me crave snacks more often.	0.561
Item 9	Social media makes me more aware of the amount of food I consume.	0.649
Item 10	I follow influencers for advice on diets or eating habits.	0.508
Item 11	My eating habits have changed because of what I see online.	0.715
Item 12	I avoid certain foods due to how they are portrayed on social media.	0.584
Item 13	Social media posts increase my desire to consume visually appealing foods.	0.639
Item 14	I use social media to find meal ideas.	0.752
Item 15	Social media content encourages me to adopt certain food trends (e.g., vegan, keto).	0.602
Item 16	I feel motivated to prepare dishes that are trending on social media.	0.701
Item 17	Social media has made me more attentive to my calorie intake.	0.588
Item 18	I feel guilty about my eating habits after seeing posts about healthy lifestyles.	0.599
Item 19	I compare my food choices to those of the people I follow on social media.	0.612
Item 20	I spend money on certain foods after seeing them on social media.	0.676

Table 4. Comparison of total scores between the highest and lowest 27% of the sample

Item No.	Items	t	p-value
Item 3	The dishes I see on social media stimulate my appetite.	7.936	< 0.001
Item 4	Since I started using social media, my fast-food consumption has increased.	9.442	< 0.001
Item 5	Social media influences my preference for certain food or beverage brands.	11.308	< 0.001
Item 6	I try new recipes that I see shared on social media.	13.241	< 0.001
Item 7	Social media content influences my food choices.	13.098	< 0.001
Item 8	Social media makes me crave snacks more often.	8.045	< 0.001
Item 9	Social media makes me more aware of the amount of food I consume.	11.503	< 0.001
Item 10	I follow influencers for advice on diets or eating habits.	8.159	< 0.001
Item 11	My eating habits have changed because of what I see online.	14.364	< 0.001
Item 12	I avoid certain foods due to how they are portrayed on social media.	9.720	< 0.001
Item 13	Social media posts increase my desire to consume visually appealing foods.	12.758	< 0.001
Item 14	I use social media to find meal ideas.	19.554	< 0.001
Item 15	Social media content encourages me to adopt certain food trends (e.g., vegan, keto).	10.105	< 0.001
Item 16	I feel motivated to prepare dishes that are trending on social media.	13.747	< 0.001
Item 17	Social media has made me more attentive to my calorie intake.	11.769	< 0.001
Item 18	I feel guilty about my eating habits after seeing posts about healthy lifestyles.	11.384	< 0.001
Item 19	I compare my food choices to those of the people I follow on social media.	10.448	< 0.001
Item 20	I spend money on certain foods after seeing them on social media.	12.132	< 0.001

t – independent samples t-test statistic; p – probability value

Table 5. Factor loadings, t values and variances explained for the model

Item No.	λ	t	p-value
Item 3	0.49	-	-
Item 4	0.634	6.41	< 0.001
Item 5	0.683	6.05	< 0.001
Item 6	0.631	5.79	< 0.001
Item 7	0.702	6.12	< 0.001
Item 8	0.565	5.46	< 0.001
Item 9	0.699	6.11	< 0.001
Item 10	0.542	4.98	< 0.001
Item 11	0.748	5.87	< 0.001
Item 12	0.605	5.69	< 0.001
Item 13	0.640	7.59	< 0.001
Item 14	0.741	6.27	< 0.001
Item 15	0.650	5.55	< 0.001
Item 16	0.681	6.01	< 0.001
Item 17	0.634	5.81	< 0.001
Item 18	0.600	5.65	< 0.001
Item 19	0.624	5.78	< 0.001
Item 20	0.707	6.15	< 0.001

λ – standardized factor loading; t – critical ratio; p – probability value

factor loadings ranging from 0.49 to 0.748. Only Item 3 had a loading below 0.50, though all loadings exceeded 0.40, meeting minimum adequacy criteria. All t-values for the explanatory level of the theoretical structure (hidden variable) on the items (observed variables) were significant at $p < 0.01$ ranging from 4.98 to 7.59.

Model fit indices from the confirmatory factor analysis showed a good match between the hypothesized one-factor model and the observed data. The normed *Chi*-square (χ^2/df) was 1.056, which is significantly lower than the recognized criterion of 2, suggesting an excellent model fit. Additional fit indices verified the model's adequacy: root mean square error of approximation (RMSEA) = 0.018, goodness of fit index (GFI) = 0.94, adjusted goodness-of-fit index (AGFI) = 0.90. The incremental fit indices were likewise high, with comparative fit index (CFI) = 0.997, Tucker-Lewis index (TLI) = 0.995, and normed fit index (NFI) = 0.943, all exceeding the suggested 0.90 threshold.

The SESMEB construct is unidimensional and internally consistent, as evidenced by statistically significant standardized regression weights ranging from 0.490 to 0.748 ($p < 0.001$). These results support the unidimensional structure and construct validity of the Algerian SESMEB.

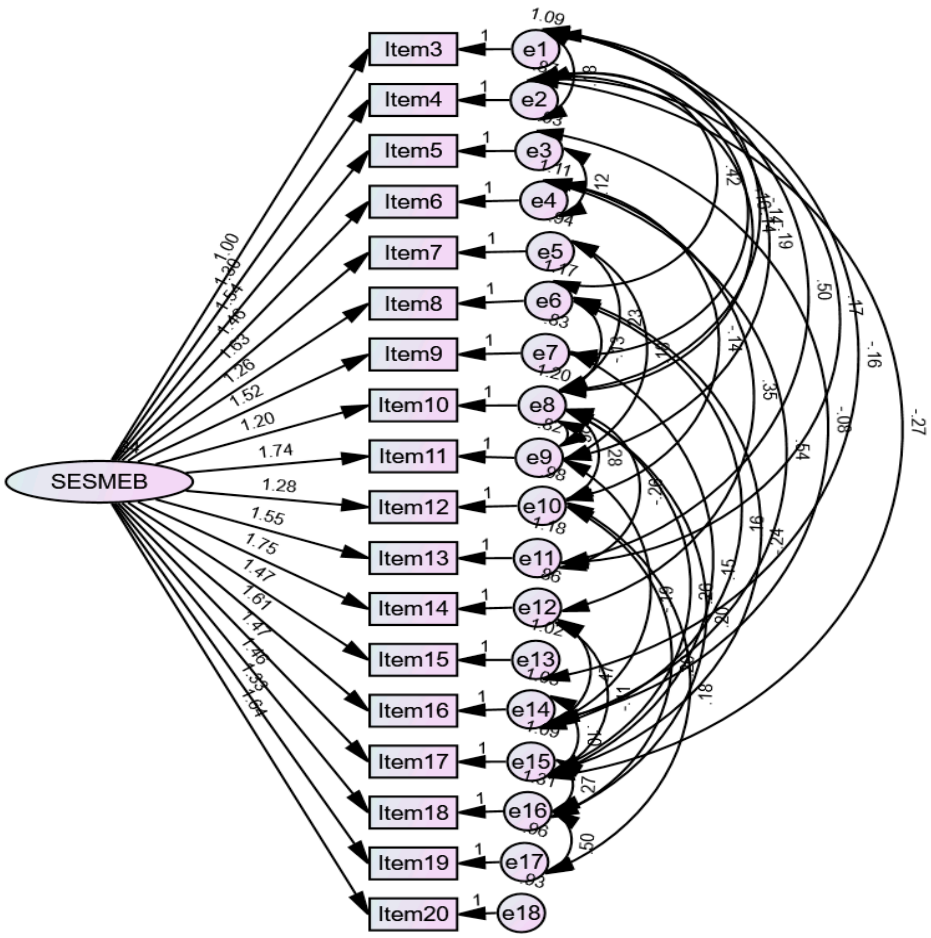

Figure 1. Standardised path coefficients of the SESMEB model

Reliability of the Algerian SESMEB

The Cronbach's alpha coefficient for the final 18-item scale was 0.930, indicating excellent internal consistency. The Spearman-Brown coefficient was 0.914, and the correlation between the two halves of the scale was 0.847, further confirming high reliability. The coefficient of 0.930 indicates great dependability, with values above 0.80 regarded exceptional [14].

SESMEB scores of students

Instagram, Facebook, and TikTok were the most frequently used social media platforms among students, with 45.3%, 38%, and 11.7%, respectively (Table 6). SESMEB scores differed significantly by daily social media usage, with higher usage associated with greater reported influence on eating behavior ($p < 0.001$).

Table 6. SESMEB scores of participants according to social media using

Variable	Frequency	SESMEB Score Median (IQR)	p-value
Daily time spent on social media			
< 3 h	22.9%	59.00 (15.50)	< 0.001**
≥ 3 h	77.1%	41.00 (20.00)	
Sharing frequency on social media			
Never or rarely	86%	47.00 (22.50)	0.083
Always	14%	52.00 (21.50)	
Using filters or photoshop for your social media posts			
Yes	54%	46.00 (20.00)	0.501
No	46%	48.00 (23.75)	

IQR – interquartile range; p – probability value; ** highly significant $p < 0.001$

DISCUSSION

The current study aims to modify and evaluate the scale of effects of social media on eating behavior for usage by Algerian university students. Providing a culturally and linguistically suitable instrument for assessing how digital platforms influence eating habits in this community. The findings show that the

modified scale has high psychometric qualities and give useful insights into how social media influences students' eating practices. The results emphasize social media's multidimensional effect. Our findings show that social media has a consistent influence on appetite stimulation, recipe experimentation, and food awareness. Previous research has found that exposure to food-related material can lead to increased snacking and impulsive eating [3]. At the same time, a paradoxical rise in both snacking and calorie awareness has been seen, implying that social media promotes both indulgence and self-regulation. Influencer-driven behaviors were less prevalent than anticipated, with just a minority indicating consistent reliance on influencer dietary recommendations. Whereas [15] found that influencer marketing of unhealthy foods has been shown to directly boost children's initial consumption, emphasizing the significance of influencer-mediated exposure. Many respondents reported trying new recipes or being inspired to produce visually appealing or trendy foods, demonstrating social media's motivating power. Finally, the economic impact of social media was proven, with nearly 40% saying they bought food after seeing it online. The substantial connections revealed between gender, particularly those related to food preparation, dietary influence, and attitudes about eating habits, can be understood in light of Algeria's sociocultural background. In Algerian families, women have historically been responsible for food planning and preparation. This employment is expected to boost their exposure and involvement with food-related social media material. As a result, women may be more likely to try new recipes, follow culinary fads, or display strong emotional responses.

Our data show a strong relationship between daily social media use and several aspects of eating behavior. Light social media users (≤ 3 hours/day) showed higher reactivity to food-related material. They were more likely to attempt new recipes, base their eating choices on social media material, follow influencer diet advice, track calorie intake, consume trendy foods, and feel guilty after seeing healthy living postings. Notably, heavy users demonstrated increased involvement for activities such as filter use, occasional recipe tinkering, and selective spending on specific items.

The SESMEB has strong internal consistency (Cronbach's $\alpha = 0.930$), exceeding the usually recognized criterion of 0.80, suggesting high reliability [16]. Confirmatory factor analysis confirmed the scale's unidimensional structure, with all factor loadings exceeding the acceptable threshold of 0.40 and fit indices indicating high model adequacy (e.g., RMSEA = 0.018; CFI = 0.997). These findings are consistent with earlier SESMEB adaptations, demonstrating its stability across several cultural contexts [3].

In today's world, social media has become the key source of health and nutrition information. Peer groups in adolescence have a major impact on health-related behaviors, including food patterns [17]. At this period of development, young people are more vulnerable to social influences, and their eating habits are frequently affected by the norms and expectations of others. These perceived social norms might generate different types of peer pressure, influencing how teenagers choose and consume food [18, 19]. Over time, the number of likes and views becomes more important to users, influencing their eating habits.

The confirmatory factor analysis (CFA) gave a Cronbach's alpha reliability rating of 0.930, validating the dependability of the social media influence scale on eating habit. This makes the Algerian version of SESMEB appropriate for research. In this survey, most participants used social media sites including Instagram, Facebook, and TikTok. Facebook continues to be the most popular social media network in Algeria, with 58.7% of internet users using it. However, students prefer Instagram over Facebook, with the majority of Instagram users aged 18 to 24, which is consistent with the study's findings. Furthermore, using the SESMEB, the study assessed the influence of social media on the eating habits of Algerian university students. The findings show that people who spent more time on social media had a bigger effect on their eating habits. A separate research of a nationally representative sample of young individuals aged 19 to 32 years discovered a substantial and persistent association between social media use and eating issues.

There is evidence that social media profiles with big followings encourage healthy eating, which may lead to good behavioral changes via social nudges from followers. As such, social media may be an effective tool for encouraging good eating habits and fostering a better lifestyle. However, the impact of social media can be troublesome, especially when anybody can submit anything without official qualifications or knowledge. Influencers, in particular, frequently disseminate health-related material without sufficient training, resulting in large audiences. The study found a high relationship between the amount of time spent on social media and the SESMEB score. The SESMEB scale was employed as a one-dimensional measure to assess the overall impact of social media on eating behavior. Higher SESMEB scores imply a greater vulnerability to food-related signals, cravings generated by exposure, and the persuasive power of food advertising seen on social media. Our findings demonstrated that students who spent more than three hours per day on social media had substantially higher

SESMEB scores, indicating a greater effect on their food choices, appetites, and susceptibility to unhealthy eating cues. This gives a credible and complete assessment of social media's worldwide influence on eating decisions, which is consistent with the original instrument's goal and validity. This is consistent with nationally representative research done in the United States among young individuals aged 19 to 32 found a significant association between frequent and high-volume usage of social media platforms such as Facebook and Instagram and greater worries about eating behaviors.

Interestingly, while social media use has been linked to disordered or problematic eating behaviors [20], these same platforms have also been shown to foster healthy eating habits in some users. This dual impact emphasizes social media's complicated and frequently paradoxical function in affecting people's views and actions toward food [21, 22]. Remarkably, while the frequency of content sharing and the use of image modifying tools (filters, Photoshop) on social media did not reveal statistically significant relationships with SESMEB scores in this group, frequent content sharers had higher median scores. This might suggest a trend that merits additional investigation.

Limitations of the study

The present study had several strong points such as the use of a validated scale (SESMEB) to assess social media's effects on eating behavior; inclusion of a diverse sample of university students across different academic levels (bachelor, master, doctorate); and clear inclusion and exclusion criteria to ensure participant relevance and data quality. However, the cross-sectional design limits the ability to establish causality; self-reported data may be subject to recall and social desirability biases, and it is hard to compare the results with other studies because of the lacking literature on SESMEB research. To address these issues, future research could employ experimental design to enhance the robustness and applicability of the results.

CONCLUSION

This study underscores the SESMEB scale's potential as a reliable tool for assessing the impact of social media on eating behavior among Algerian university students. With excellent reliability and great construct validity supported by statistical studies, the scale emerges as a powerful tool for investigating how social media impacts food patterns. The findings indicate that gender and Algerian students spending time on social media platforms have an impact on their eating behaviors. The findings are consistent with previous studies and emphasize the important, if often inconsistent, effect of social media on eating behavior. Through the finding of individuals who are more vulnerable to poor dietary patterns influenced by internet material, the scale can help guide focused health promotion efforts. In order to identify at-risk students early and provide specialized seminars, peer support groups, and digital literacy campaigns that promote healthy online involvement, institutions might integrate SESMEB tests into regular student wellness initiatives. In order to track trends, establish nutrition policy, public health officials might include the scale into population-based surveys. While social media provides potential for health promotion, such as access to healthy eating trends and lifestyle guidance, it also carries hazards, notably the dissemination of misinformation or untrained dietary advice. The dual nature of this effect necessitates a comprehensive understanding of digital media's function in altering dietary preferences and habits.

Conflict of interest

The authors declare no conflict of interest.

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