

Original Research Article

Social media usage influences dietary choices among university students at the Catholic university of Eastern Africa

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ABSTRACT

Background: Social media use is widespread among young adults, particularly university students, influencing various aspects of life including dietary choices. In Kenya, where youth comprise a significant population, exposure to misleading food trends and unhealthy content on platforms like Instagram and YouTube raises concern. Despite growing health risks such as obesity, little research has examined this influence locally.

Methods: A descriptive cross-sectional study was conducted among undergraduate students aged 18-25 at The Catholic university of Eastern Africa, Nairobi. Using Fischer's formula (1998), a sample size of 242 was determined and recruited through consecutive sampling. Data were collected via structured questionnaires and analyzed using SPSS 21.0. The data was presented in tables and pie charts.

Results: The study revealed that 64.4% of university students reported unhealthy dietary choices. Frequent fast-food consumption was also common, with 44.8% eating it three times weekly. However, no significant association was found between dietary choices and social media variables.

Conclusions: This study revealed that the most students had unhealthy dietary choices (64.4%), no significant link was found with social media usage, indicating other influencing factors. Universities should promote nutrition education, and health authorities should partner with influencers to encourage healthy eating.

Keywords: Social media usage, Dietary choices, University students, Fast food consumption, Nutrition education

INTRODUCTION

Social media has become an integral aspect of daily life, particularly among young adults aged 18-25, who form a significant proportion of university students.¹ It's defined as a platform where individuals interact, share, and exchange information through computer-based technology, social media now plays a pivotal role in shaping behaviours, trends, and lifestyles.² Platforms such as Facebook, Instagram, TikTok, Snapchat, Twitter, WhatsApp, and especially YouTube are extensively used by this demographic, with more than half of the global population approximately 4.76 billion people using social media, averaging 2 hours and 31 minutes daily.³

This generation of youth, which constitutes over 20% of Kenya's population often looks to social media influencers for guidance on fashion, fitness, and food choices.⁴ Unfortunately, this influence is not always positive. There is a growing concern that social media promotes unhealthy eating behaviours among young adults, driven by exposure to misleading diet trends and high-calorie food advertising. In the United States, for example, 57.4% of young adults are either overweight or obese a trend partly attributed to poor dietary habits promoted via social media.⁵ Similarly, anorexia, especially among young women aged 19-25, is increasingly linked to peer pressure and unrealistic body standards popularized on these platforms.⁶

In Kenya, obesity prevalence is higher among women than men, with 13.4% of adult women and 3.6% of adult men living with obesity.⁷ The urban youth population such as students at Catholic university of Eastern Africa, where most of the approximately 6,000 students have access to smartphones, tablets, or computers is heavily exposed to social media content.⁸ While social media presents opportunities for nutrition education, its misuse can lead to malnutrition through poor dietary patterns and overconsumption of unhealthy foods. Given the health implications ranging from obesity to chronic illnesses like hypertension and type 2 diabetes and the critical role young adults play in national development, it is imperative to leverage social media as a tool for positive nutritional influence.^{9,10} Therefore, this study seeks to explore rate of social media usage influences dietary choices among university students at the Catholic university of Eastern Africa and aims to inform strategies that promote healthier behaviours.

METHODS

The study employed a descriptive cross-sectional design and was conducted between September 2024 and January 2025 at the Catholic university of Eastern Africa, Nairobi, among students aged 18-25 years.

Inclusion criteria

Undergraduate students who are studying at the Catholic university of Eastern Africa have and have attended for at least one semester within the institution and agreed to participate in the study were included.

Exclusion criteria

Participants who were seriously unwell during the study period and also those who do not access any social media platforms/ without smart phones were excluded from the study.

The sample size for the study was calculated using the Fischer's formula with the estimated population proportion assumed at 50% (0.05), resulting in a sample of 242 participants.¹¹ Consecutive sampling was employed to recruit eligible respondents who met the inclusion criteria until the required sample size was achieved, ensuring all available and consenting students were included without selection bias.

All ethical protocols were diligently followed in this study. Informed consent was obtained from all participants, and measures were taken to ensure privacy, confidentiality, and voluntary participation through independent communication. The research received official authorization, from the university of Nairobi/Kenyatta national hospital ethics and research committee (ERC) under reference number UP703/09/2023. Additional approvals were secured from relevant local authorities. Data collection was carried out

using a structured questionnaire, after which the data were cleaned and entered into SPSS version 21.0 for analysis. Descriptive statistics such as frequencies and proportions were calculated, while inferential analysis was performed using the Chi-square test, with statistical significance set at $p < 0.05$ and a 95% confidence level.

RESULTS

Dietary choice

Current dietary choice

The results revealed that the majority of participants had unhealthy dietary choices, 105 (64.4%) reporting such habits, followed by 58 (35.6%) participants, who reported healthy dietary choices (Figure 1).

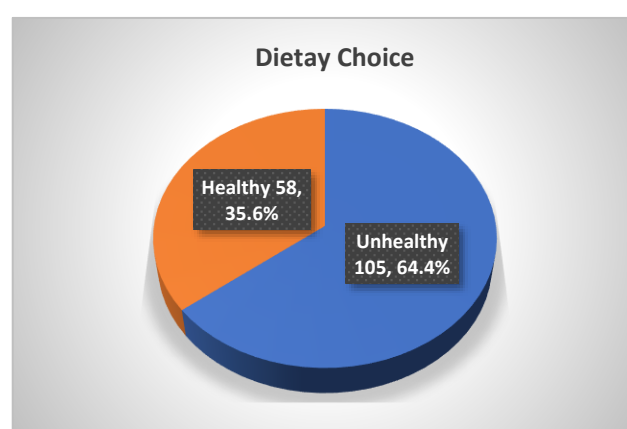


Figure 1: Dietary choices.

Frequency of fast-food consumption

The study revealed that the majority of participants consume fast food three times, 73 (44.8%) reporting this frequency, followed those who consume fast food twice, 57 (35.0%) participants (Figure 2).

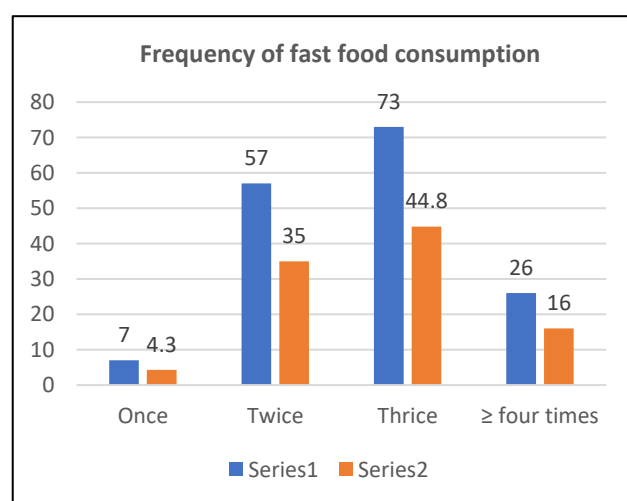


Figure 2: Frequency of fast-food consumption.

Distribution of social media usage rates

The data reveals that Instagram is the most preferred social media platform among participants, with 45 (27.6%) respondents, closely followed by TikTok and YouTube, with 43 (26.4%) respondents each. Regarding hours spent on social media, the majority of participants, 67 (41.1%), spend 7 hours or more on social media, followed by 63 (38.7%) who spend four to six hours daily.

When asked about the type of content viewed, 112 (68.7%) participants reported fast food promotions and deals, while 51 (31.3%) participants reported cooking tutorials and food blogs. In terms of the influence of social media content on dietary choices, the majority of participants, 121 (74.2%), noted that it was not very influential, followed by 42 (25.8%) participants who noted that it was very influential. Lastly, in terms of the source of dietary information, 15 (9.2%) participants indicated it was from celebrities, followed by the 14 (8.6%) participants who indicated fitness influencers (Table 1).

Association between rate of social media usage and dietary choice

The results revealed that Instagram had the highest frequency of unhealthy dietary choices, 32 (19.6%) participants, followed by TikTok, 30 (18.4%)

participants. However, there was no significant association with dietary choices ($p=0.616$). In terms of hours spent on social media, participants who spent 4-6 hours and those who spent 7 hours and above had the highest frequencies of unhealthy choices, 41 (25.1%) participants each, followed by those spending 2-4 hours, 23 (14.1%) participants. There was no significant association with dietary choices ($p=0.699$). Regarding the type of content viewed, fast food promotions and deals were the most frequently viewed content by those with unhealthy dietary choices, 69 (42.3%) participants, followed by cooking tutorials and food blogs, 36 (22.1%) participants.

However, there was no significant association with dietary choices ($p=0.267$). Concerning the influence of social media content on dietary choices, the majority of participants who found social media content not very influential had unhealthy dietary choices, 76 (46.6%) participants, followed by those who found it very influential, 29 (17.8%) participants. This also showed no significant association with dietary choices ($p=0.467$).

Lastly, for the source of dietary information, participants who obtained information from food brands had the highest frequency of unhealthy choices, 6 (3.7%) participants, followed by those using fitness influencers, 12 (7.4%) participants. However, this did not show a significant association with dietary choices ($p=0.416$) (Table 2).

Table 1: Distribution on rate of social media usage.

Variables	N	Percent (%)
Preferred social media	TikTok	43
	All the above	1
	YouTube	43
	Instagram	45
	WhatsApp	5
	Snapchat	6
	Facebook	7
	LinkedIn	1
	Discord	1
	X-space	11
Hours spent on social media	2-4	33
	4-6	63
	7 and above	67
Type of content viewed	Cooking tutorial and food blogs	51
	Fast food promotion and deals	112
Influence of social media content on dietary choices	Very influential	42
	Not very influential	121
Source of dietary information	Food brands	8
	Fitness influencers	14
	Celebrities	15
	Professional nutritionists/dietitians	7

Table 2: Association between rate of social media usage and dietary choice.

Variables	Respondents	Dietary choice		Chi-value, df, p value
		Unhealthy (n=105, 64.4%)	Healthy (n=58, 35.6%)	
Preferred social media	TikTok	30 (18.4)	13 (8)	$\chi^2=7.199$ df=9, p=0.616
	all the above	0	1 (0.6)	
	YouTube	24 (14.7)	19 (11.6)	
	Instagram	32 (19.6)	13 (8)	
	WhatsApp	3 (1.8)	2 (1.2)	
	snapchat	4 (2.5)	2 (1.2)	
	Facebook	4 (2.5)	3 (1.8)	
	LinkedIn	0	1 (0.6)	
	discord	1 (0.6)	0	
	x-space	7 (4.3)	4 (2.5)	
Hours spent on social media	2-4	23 (14.1)	10 (6.1)	$\chi^2=0.717$ df=2, p=0.699
	4-6	41 (25.1)	22 (13.5)	
	7 and above	41 (25.1)	26 (16)	
Type of content viewed	Cooking tutorial and food blogs	36 (22.1)	15 (9.2)	$\chi^2=1.233$ df=1, p=0.267
	Fast food promotion and deals	69 (42.3)	43 (26.4)	
Influence of social media content on dietary choices	Very influential	29 (17.8)	13 (8)	$\chi^2=.529$ df=1, p=0.467
	Not very influential	76 (46.6)	45 (27.6)	
Source of dietary information	Food brands	6 (3.7)	2 (1.2)	$\chi^2=3.929$ df=4, p=0.416
	Fitness influencers	12 (7.4)	2 (1.2)	
	Celebrities	9 (5.5)	6 (3.7)	
	Professional nutritionists/dietitians	5 (3.1)	2 (1.2)	

DISCUSSION

Results revealed that Instagram had the highest frequency of unhealthy dietary choices. However, there was no significant association with dietary choices. This suggests that while Instagram may influence dietary habits, other factors such as personal preferences and lifestyle choices also play crucial roles. This finding aligns with other studies from Kenya, which highlighted that role of social media in shaping dietary habits among young adults. Instagram, known for its visually appealing content, often promotes trends that may not align with healthy eating practices.¹² In terms of hours spent on social media, participants who spent 4-6 hours and those who spent 7 hours and above had the highest frequencies of unhealthy choices. There was no significant association with dietary choices this suggests that while social media usage duration can contribute to unhealthy eating, other factors such as individual lifestyle choices and socioeconomic status may also play critical roles. This is consistent with research from Kenya, where extensive social media use has been linked to poor dietary habits, particularly among younger demographics who are more susceptible to digital marketing and peer influence.^{12,13}

Regarding the type of content viewed, fast food promotions and deals were the most frequently viewed content by those with unhealthy dietary choices. However, there was no significant association with dietary choices, indicating that while content type is

influential, it is not the sole determinant of dietary behavior. This was in disagreement with other study which have shown that exposure to fast food advertisements and deals significantly influences dietary choices, often leading to increased consumption of high-calorie, low-nutrient foods.¹⁴

Concerning the influence of social media content on dietary choices, the majority of participants who found social media content not very influential had unhealthy dietary choices. This also showed no significant association with dietary choices, suggesting that personal attitudes towards social media content significantly modulate its impact on dietary choices. In Kenya, the perceived influence of social media on dietary habits has been explored, revealing that individuals who are more critical of social media content are less likely to be swayed by unhealthy food promotions.¹⁵

Lastly, for the source of dietary information, participants who obtained information from food brands had the highest frequency of unhealthy choices. However, this did not show a significant association with dietary choices, suggesting that while source of information is important, other factors such as individual discernment and broader nutritional education also contribute to dietary decisions. This is in line with other study from Kenya which highlighted that food brands often promote less healthy options, while fitness influencers may offer mixed messages, sometimes endorsing unhealthy products.¹⁶

Limitations

This study was limited by its cross-sectional design, which restricts the ability to establish causal relationships between social media use and dietary choices. The reliance on self-reported data may have introduced recall bias or social desirability bias, potentially affecting the accuracy of responses. Additionally, the study was conducted in a single university setting, which may limit the generalizability of the findings to other institutions or broader populations of young adults in Kenya.

CONCLUSION

The study found that while most university students reported unhealthy dietary choices (64.4%), there was no significant association between social media usage and these choices. This suggests that other underlying factors influence eating habits. Nevertheless, the high exposure to fast food content on social media raises concerns about its potential long-term impact.

Recommendations

Universities should incorporate nutrition education into student wellness programs, emphasizing critical evaluation of online dietary content. Health authorities should collaborate with influencers to promote balanced eating. Further research is needed to explore additional determinants of poor dietary choices and to design interventions that leverage social media for positive behavior change.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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