

Research Article*Open Access, Volume 5***Different social media utilization consequences on adult food behavior and mental health condition****Al-Amin Hossain; Ashrafuzzaman Zahid; Ananya Raiyan; Nazia Nawshad Lina; Mohasin Hossain; Rashida Parvin****Department of Nutrition and Food Technology, Faculty of Applied Science and Technology, Jashore University of Science and Technology, Jashore-7408, Bangladesh.****Corresponding Author: Rashida Parvin**

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Abstract

Social media has become an integral part of our day-to-day life. Now-a days it difficult to find anyone not using social media or smart phone. The use of smart phone and social media consistently controlling our daily life style, eating pattern and emotions. Thus, the aim of our study to explore the impact of different social media scrolling on (i) changes of adult's daily food intake pattern and (ii) their mental health condition. The outcome of the study indicates adults mostly used the following social media like YouTube > WhatsApp > Instagram > TikTok > LinkedIn > Snapchat > Twitter. These media have negative health effect like sleep problems, depression, and stress. Instagram, TikTok and YouTube users are significantly ($P<0.05$) experience sleep issues, while Facebook users are significantly linked to depression ($P<0.05$). Facebook and WhatsApp users are correlated with higher likelihoods of stress issues ($P<0.05$). Eating disorders had significant associations with Instagram and Snapchat ($P<0.05$). The study concludes that while social media can offer benefits in terms of information access and support networks, its overuse contributes to negative mental health outcomes and unhealthy eating behaviors.

Keywords: Social media; Food behavior; Mental health; Depression.

Introduction

People as Human beings are by born social creatures. They can't live alone or without any company. They need family, friends and relatives to live a happy life, lift self-worth, minimize stress, anxiety, depression. Social media is an online platform where people can meet new person or continuously connected with their familiar friends and relatives for sharing emotions and getting new information. Now-a-days young generation mostly rely on different social media such as Facebook, youtube, Twitter, Snapchat, LinkedIn, Instagram and Tik tok to find and contact with new or old one.

Internet based social media utilize specific features for information transfer like active or passive sharing of text, image or video-based content [1]. These media directly influencing human lifestyle, eating pattern and physical-mental health condition. Previous studies proved that inappropriate content of social media significantly increased eating disorder and different addiction like smoking, drug, alcoholism etc [2]. Social media scrolling at night before sleeping significantly associated with different health problem like insomnia, poor sleep, irregular sleep awake and tiredness at day time due to lack of proper sleep [3]. It also enhanced fast food cravings as an influence of social media advertisement [4].

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The term “mental health” refers to emotional, psychological, and social well-being. It affects nearly every aspect of one’s life, influencing how we think, feel, act, respond to stress, interact with others, and even make decisions [5]. Numerous recent studies have also discovered detrimental correlations between teenage and young adult use of social media and a range of mental health indicators. Unhealthy eating habits can have a detrimental effect on mental health, which can start a vicious cycle of unhealthful eating and psychological discomfort [6]. Again, emotional eating or a dependence on convenience foods might result from mental health problems, which can prolong the cycle of unhealthy eating [7]. Social media use increased healthy food consumption as well as junk food too [8]. Overeating, Disordered eating and adverse psychological effects are the outcome of continuous exposure of social media [9,10].

The aim of this study was to i) identify the different types of social media user ii) the effect of different media on adults’ mental health condition and iii) the changes of eating behavior during social media utilization.

Materials and methods

Study location

The present study was a field based cross-sectional, observational study, conducted on prolonged social media user lived in Jhenaidah and Jashore district of Khulna division, Bangladesh. The study period was January, 2024 to June, 2024. A questionnaire was used to collect and the participants provided consent before responding to the survey. This study was conducted among young population who were willing to participate in the study and honestly answer all the questions. The questions were simple, easy, and translated in Bangla when required for a better understanding of the questions. The objective was to obtain accurate information from non-English speaking students. Students who did not respond to the questions appropriately were excluded from the study.

Sample

There were 270 adults agreed to participate in this study aged between 18 to 38 years old. The collected data were kept confidential. The questionnaire assessed the following variables: age, time spent on the internet to use social media (hours), most frequently used social networking site, sleep duration, purposes for which social media platforms were used (academic purposes, chatting, gaming, or movie viewing), effect of social media use on relationships food habits, social media preoccupation and distraction from food consumption.

Statistical analyses

Descriptive and inferential statistical analyses were conducted. Continuous variables were examined by computing means, Standard Deviation (SDs), and ranges, whereas categorical variables were examined by computing frequencies and percentages (%). The significance level was set as 5%. The significance of the difference in categorical variables between two or more groups was examined using the chi-squared test (Fisher’s exact test), which is a nonparametric test for qualitative data analysis. Fisher’s exact test was used when the cell frequencies were very low. Analysis of variance was used to test the significance of the difference in study parameters between three or more

groups. SPSS 22.0 and R version 3.2.2 were used for data analysis, and Microsoft Word and Excel were used to generate graphs and tables.

Result and discussion

Basic characteristics of social media users

Among 270 participants, a total of 266 students (98.5%) reported that they used social media applications (Table 1). Here, 89.2% are Muslim and 10.8% are non-Muslim. Participant ages ranged from 18 to 38 years. 94.1% (n=254) of them were aged 18-28 years, and 5.9% (n=16) of them were aged 29-38 years. The study was conducted on 269 participants out of which 152 were male and 117 were female. Most of them are live in urban area and moderately working in their daily life. Maximum participants are studied in Honors level. The monthly income varies in different group of people. Mostly earned 15,000 to 30,000 BDT per month and use social media, while moderately user had less than 15,000 BDT/month income. High income respondents spend minimum time on social media.

Table 1: Basic characteristics of social media users.

Characteristics	Category	Frequency, n (%)
Religion	Muslim	240(89.2)
	Hindu	29(10.8)
Age (years)	18-28	253(94.1)
	29-38	16(5.9)
Sex	Male	152(56.5)
	Female	117(43.5)
Household Income (BDT) K=1000	less 15k	84(31.2)
	15-30 k	120(44.6)
	more 30k	65(24.2)
Living area	Urban	152(56.5)
	Rural	117(43.5)
Educational Level	SSC	3(1.1)
	HSC	30(11.2)
	Honors	192(71.4)
	MS	43(16.0)
	Others	1(.4)
Activity Level	Hard	66(24.5)
	Moderate	153(56.9)
	Sedentary	50(18.6)

From (Figure 1) Facebook, YouTube and WhatsApp user comprise the maximum portion like 93.3%, 83.3% and 75.9%. Moderate people about 33.3% use Instagram and slightly poor number of adults uses TikTok, LinkedIn and snapchat; but only 9.3% participant use Twitter in our study.

(Table 2) showed significant associations between social media users and mental health outcomes. Different mental health problem like sleep problem, depression, eating disorder, stress related disorder, panic disorder, and psychotic disorder were associated with social media users. Here, Instagram, TikTok, YouTube and WhatsApp users are significantly experienced ($P<0.05$) sleep issues compared to other users. Facebook users are significantly more depressed in daily life than other media users ($P<0.05$). Instagram and snapchat users showed

Table 2: Association of mental health disorder with different social media use among the participants.

Health problems	Types of social media	Facebook	Instagram	LinkedIn	TikTok	Twitter	Snapchat	YouTube	WhatsApp
Sleep problem	No	1	1	1	1	1	1	1	1
	Yes	2.32	2.29	1.25	2.13	0.55	0.92	2.92	0.28
	P Value	0.18	0.01*	0.58	0.04*	0.26	0.85	0.02*	0.001*
Depression	No	1	1	1	1	1	1	1	1
	Yes	5.58	1.014	0.88	1.09	0.99	1.01	1.67	0.60
	P Value	0.03*	0.97	0.74	0.82	0.96	0.98	0.21	0.16
Eating disorder	No	1	1	1	1	1	1	1	1
	Yes	2.97	2.93	0.95	2.29	0.99	0.11	1.19	0.52
	P Value	0.31	0.02*	0.92	0.08	0.99	0.04*	0.76	0.19
Stress related disorder	No	1	1	1	1	1	1	1	1
	Yes	5.29	1.25	0.80	1.20	0.41	0.24	2.04	0.42
	P Value	0.03*	0.51	0.63	0.64	0.19	0.03*	0.10	0.02*
Panic disorder	No	1	1	1	1	1	1	1	1
	Yes	2.57	2.36	1.10	1.86	0.49	0.80	1.72	0.87
	P Value	0.38	0.04*	0.85	0.17	0.33	0.71	0.39	0.79
Psychotic disorder	No	1	1	1	1	1	1	1	1
	Yes	0.92	8.05	0.001	1.74	1.95	0.45	0.96	0.71
	P Value	0.99	0.01*	0.99	0.46	0.47	0.38	0.99	0.77

Here P value <0.05*

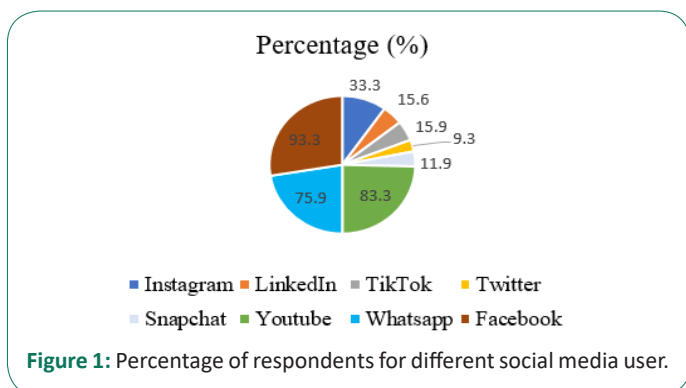


Figure 1: Percentage of respondents for different social media user.

significantly high ($P < 0.05$) eating disorder and psychotic problem. Lastly, Facebook and WhatsApp user considerably suffering from stress related problem in their daily life. Thus, social media platforms like Facebook and Instagram are notably associated with various mental health challenges. The information generated from this study emphasis what type of social media affects the mental health and eating disorder more. Prolonged scrolling of social media negatively influences mental health condition by reducing quality sleep time, depressed participant, increased stress during work and accelerate irregular food intake, especially junk food.

Conclusion

This study provides a comprehensive understanding of the relationship between different social media user and their impact on mental health and food behavior among young adults. A significant number of participants using Facebook, Instagram, snapchat and WhatsApp as social media suffering from different mental health problem like stress, depression, and sleep problems as well as eating disorder. In conclusion, while social media plays a valuable role in communication and information dissemination, its overuse and the nature of content consumed can have detrimental effects on mental health and food behavior. Addressing these challenges will require a multifaceted approach involving public health strategies, user education, and platform moderation to foster a healthier digital environment.

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