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# Effect of Social Media on Food Choices of University Students

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## ABSTRACT

**Aim of the Study:** This study examines the influence of social media on the food choices of undergraduate university students. The study's goal is to assess the percentage of junk food and healthy food consumption influenced by social media, as well as the effectiveness of various platforms such as Instagram, TikTok, Snapchat, YouTube, and Facebook on student food preferences.

**Methodology:** A questionnaire was used to conduct a quantitative survey, and 300 female participants were recruited from four government universities in Lahore, with 75 participants from each. The collected data was subjected to descriptive and bivariate analyses, which included the use of frequency percentages, bar graphs, and the Pearson Chi-square method.

**Findings:** The findings show that social media has a significant impact (93.3%) on undergraduate students' food choices, as supported by a p-value of 0.006. According to the study, social media influences 81% of junk food consumption, while 93% of respondents reported being influenced by social media to consume healthy food. Instagram was discovered to be the most effective platform in shaping students' food preferences (48.3%), followed by YouTube (38%), and TikTok (6%). Snapchat (4.7% effectiveness) and Facebook (3%) were discovered to be the least effective.

**Conclusion:** These results underscore the significance of social media in shaping healthy eating habits, as well as the importance of public health initiatives and policy decisions concerning the depiction and promotion of healthy food on social media platforms. This study contribute to the body of evidence establishing a link between social media and food preferences.

**Keywords:** Social Media, Food Choices, Junk Food, Healthy Food.

## Introduction

Social media has become an indispensable part of our daily lives, revolutionizing how we communicate, interact, and obtain information. Individuals are exposed to a plethora of food-related content, such as recipes, cooking videos, and food advertisements, as a result of the rise of social media platforms. This content has the potential to influence people's food choices and eating habits, particularly young adults,

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who are the most active users of social media platforms. The current study aims to investigate the impact of social media on female undergraduate university students' food choices (Lehu, 2020).

Undergraduate university students, ranging from almost 18 to 25 years old, undergo a crucial developmental stage that marks the transition from adolescence to adulthood. During this period, young adults are still developing new skills towards independence and are vulnerable due to their lack of life experience. Therefore, it is essential to promote healthy food choices as young adults tend to consume high amounts of sugar-sweetened beverages and fast food, with low intakes of fruits and vegetables. These modifiable food choices can have long-term health implications, including an increased risk of chronic metabolic diseases such as cardiovascular diseases and diabetes mellitus (Arnett, 2007).

Social media exposure to food-related content was associated with increased food cravings and unhealthy food choices (Rounsefell, et al., 2020). Food education for women was found to be more effective than food education for men, partly due to the fact that women have traditionally been in charge of acquiring and preparing food in their homes. Digital food can trigger or exacerbate maladaptive eating behaviours in university women with eating disorders in the United States who use or have used diet and fitness apps. Educators should be aware of these potential unintended consequences in order to avoid triggering or exacerbating maladaptive eating behaviours (Eikey, 2021). Young adulthood is an important age to intervene in order to promote healthy food choices. They are heavy consumers of sugar sweetened beverages and fast food, with low intakes of fruits and vegetables. These modifiable food-choice behaviours have long-term health consequences, such as an increased risk of chronic metabolic disease (Gakidou, et al, 2016).

Food and beverage companies are known to take advantage of young adults' social weaknesses by using image-based marketing strategies, such as peer ambassadors and celebrity endorsements, to sell the illusion of success, beauty, and good health through their products because social media content is not well regulated (Freeman, Kelly, Vandevijvere, 2015).

A study is being conducted to gain insight into the impact of social media on the dietary habits of young females, who are considered more vulnerable to the influence of social media in terms of food choices. This study will explore the types of food content that are most popular among female undergraduate university students, the extent to which social media influences their food choices, and the factors that moderate the relationship between social media and food choices (Robinson, 2019).

The SMI on food choices among undergraduate university students is an area that requires further investigation. Given the importance of food choices for overall health and well-being, it is essential to understand the ways in which social media is affecting the food choices of university students. This study aims to address this research gap by exploring the influence of social media on food choices among undergraduate university students. By examining the relationship between social media use and dietary habits, this research will provide valuable insights into the factors that influence food choices among university students (Emond, 2019).

Compared to traditional forms of media, social media has several distinct features that make it an influential force in shaping food choices. Unlike traditional media, social media platforms enable users to interact with one another, create and share their own content, and access content created by others. Moreover, social media provides users with a constant stream of information and updates, and allows them to follow individuals and organizations whose interests and opinions they find relevant. As a result, social media has the potential to shape food choices in more subtle and complex ways than other forms of media, which can have implications for dietary behavior and overall health (Sodexo, 2023).

### *Significance of the Study*

This study investigates how social media affects college students' dietary preferences. The research findings can help businesses comprehend consumer demand and create successful food marketing plans. Additionally, it has implications for promoting a healthy diet, directing policy, and advising government

agencies and student service organisations on food-related education and regulation in the social media sphere. The study advances knowledge of how media influences people's behaviour.

## *Study Objectives*

1. To access food choices of BS students influenced by social media

    I.   To access the percentage of junk food consumption influenced by social media

    II.  To access the percentage of healthy food consumption influenced by social media

2. To assess the effectiveness of Instagram, TikTok, Snapchat, Youtube & Facebook on student preference of food.

## Methodology

### *Research Design*

A quantitative survey was used in the research design to examine how social media may have an impact on female undergraduate university students' dietary preferences. Data on social media use, food preferences, attitudes and perceptions towards food, and food-related behaviours were gathered using a close-ended questionnaire with several sections.

### *Sample Size & Technique*

Stratified by academic year and field of study, convenience sampling was used to gather a sample of (N=300) female undergraduate students from Lahore's four universities. To ensure clarity and validity, the questionnaire underwent pre-testing.

### *Data Collection Tool*

Researchers used questionnaire for data collection. Research tool was consisted on demographics, social media use, food-related attitudes and behaviours, consumption of junk food versus healthy food, and the efficiency of social media platforms were all covered in the questionnaire. It included inquiries about the frequency and duration of social media use, the influence of social media on dietary decisions, choosing restaurants based on social media recommendations, buying products that have received social endorsements, and following accounts that are focused on food. The effectiveness of various social media platforms was also evaluated, along with the impact of social media on consumption of unhealthy and nutritious foods.

### *Data Process*

A thorough process was followed, starting with the creation of the customised questionnaire. Participants were given clear explanations and assurances regarding the research purpose, confidentiality, and use of their information in the consent section. Descriptive statistics, like frequencies and percentages, as well as the Pearson Chi-square method for bivariate analysis were used to analyse the collected data. The statistical analysis used SPSS version 25 software. Utilising graphs that showed frequencies, percentages, and using p-values, the results were interpreted.

## Results

The results on the influence of social media on food choices among female undergraduate students were analyzed using descriptive and bivariate methods, presented in tables, and interpreted according to research objectives. SPSS version 25 is used for analysis.

### Demographic Information

Table 1: *Frequency and percentages for age of students and year of study*

| Items | Category | Frequency | Percent % |
|---|---|---|---|
| Age in years | 17-19 | 60 | 20 |
| | 20-22 | 202 | 67.3 |
| | 23-25 | 38 | 12.7 |
| Year of study in BS | BS-1 | 60 | 20 |
| | BS-2 | 73 | 24.3 |
| | BS-3 | 78 | 26.0 |
| | BS-4 | 89 | 29.7 |

The table shows that maximum respondents (67.3%) are lying under the category of 20-22 years of age and maximum respondents were from BS-4 (29.7%), while the minimum respondents were from BS-1 (20%).

**Objective 1:** To access food choices of BS students influenced by social media.

Table 2: *Frequencies & Percentages for Assessment of food choices of BS students influenced by social media*

| No. | Items | Category | Frequency | Percentage % |
|---|---|---|---|---|
| 1. | How often do you use social media platforms (E.g. Instagram, Snapchat, Youtube, TikTok, etc.)? | Never | 3 | 1 |
| | | Rarely | 19 | 6.3 |
| | | Occasionally | 23 | 7.7 |
| | | Often | 57 | 19 |
| | | Almost daily | 198 | 66 |
| | | Total (+) occurrence | 297 | 99 |
| 2. | How much of an impact does social media have on the food choices you make? | No impact | 20 | 6.7 |
| | | Little impact | 100 | 33.3 |
| | | Moderate impact | 112 | 37.3 |
| | | Significant impact | 68 | 22.7 |
| | | Total (+) occurrence | 280 | 93.3 |
| 3. | Have you ever tried a food or restaurant based on what you saw on social media? | Never | 25 | 8.3 |
| | | Rarely | 56 | 18.7 |
| | | Occasionally | 87 | 29 |
| | | Often | 111 | 37 |
| | | Always | 21 | 7 |
| | | Total (+) occurrence | 275 | 91.7 |
| 4. | How likely are you to share pictures of your meals on social media? | Never | 66 | 20 |
| | | Rarely | 76 | 25.3 |
| | | Occasionally | 67 | 22.3 |
| | | Often | 71 | 23.7 |
| | | Always | 26 | 8.7 |
| | | Total (+) occurrence | 240 | 80 % |

| 5. | Have you ever changed your order at a restaurant because you wanted to take a better picture of it for social media? | Never | 142 | 47.3 |
| | | Rarely | 49 | 16.3 |
| | | Occasionally | 41 | 13.7 |
| | | Often | 53 | 17.7 |
| | | Always | 15 | 5 |
| | | Total (+) occurrence | 158 | 52.7 |
| 6. | Have you ever seen an influencer or celebrity endorse a food product / restaurant on social media, and then tried it yourself? | Never | 74 | 24 |
| | | Rarely | 55 | 18.3 |
| | | Occasionally | 71 | 23.7 |
| | | Often | 84 | 28 |
| | | Always | 18 | 6 |
| | | Total (+) occurrence | 228 | 76 |
| 7. | Do you follow food accounts or pages on social media for inspiration or recipe ideas? | Never | 36 | 12 |
| | | Rarely | 50 | 16.7 |
| | | Occasionally | 76 | 25.3 |
| | | Often | 94 | 31.3 |
| | | Always | 44 | 14.7 |
| | | Total (+) occurrence | 264 | 88 |
| 8. | I spent _____ hours of a day on social media | 0-1 | 11 | 3.7 |
| | | 1-2 | 34 | 11.3 |
| | | 2-3 | 63 | 21 |
| | | 3-4 | 71 | 23.7 |
| | | >4 | 121 | 40.3 |

The evaluation of how undergraduate students' dietary decisions are affected by social media is presented. Tables displaying the data are discussed alongside corresponding graphs. According to the respondents' use of social media, 66% of them use it almost daily. 37.3% of participants in the study on the influence of social media on eating habits think it has a moderate effect. While 25.3% of respondents rarely share meal photos on social media, 37 percent of respondents frequently try food or restaurants based on social media. 17.7% of participants claim they switched the order of the pictures to get better ones. 31.3% of respondents frequently follow food accounts on social media for inspiration, while 28% frequently try recommended foods, restaurants, or recipes.

Table 3: *Associations between frequency of social media platform use with other items of Section A*

| Sr. no. | Association with How often do you use social media platforms * | Pearson Chi Square | | |
| --- | --- | --- | --- | --- |
| | | Value | df | P-value |
| 1 | Impact of social media on food choices | 25.578 [a] | 12 | 0.006 |
| 2 | Tried a food/ restaurant based that you saw on social media | 33.801 [a] | 16 | 0.006 |
| 3 | You share pictures of your meals on social media | 22.729 [a] | 16 | 0.121 |
| 4 | Changed your order just for good pictures to Post | 12.677 [a] | 16 | 0.696 |
| 5 | Seen an influencer endorse a food/restaurant/recipe and then tried it | 24.411 [a] | 16 | 0.081 |
| 6 | You follow food accounts on social media for inspiration/ideas | 11.041 [a] | 16 | 0.807 |
| 7 | Spent how many hours a day on Social media | 65.066 [a] | 16 | 0.000 |

Overall, these results of pearson Chi-Square indicate that social media use is significantly associated with various food-related behaviors and choices among BS students, suggesting that social media may have a significant impact on their eating habits and food choices.

**Objective 1I:** To access the percentage of junk food consumption influenced by social media

Table 4: *Percentages for the Assessment of percentage of Junk food consumption influenced by social media.*

| Sr. No | Items | Percentages of Responses (%) | | | | | |
|--------|-------|------|--------|-------------|-------|--------|------------------|
| | | Never | Rarely | Occasion-ally | Often | Always | % of Occurr-ence |
| 1. | Consume junk in a week | 6 | 19.3 | 25.3 | 34.4 | 15 | 94 |
| 2. | Tried new junk food because of its promotion on social media | 19 | 22 | 25.7 | 29.7 | 3.6 | 81 |
| 3. | Follow junk food/ mukbang account on social media | 20.6 | 19.7 | 18 | 29.7 | 12 | 79.4 |
| 4. | Social media positvely/ negatively affects food choices | 7.6 | 22.7 | 30 | 31 | 8.7 | 92.4 |
| 5. | Seen junk food relevant pictures & videos on internet | 3.3 | 14.7 | 22.7 | 32 | 27.3 | 96.7 |
| 6. | Exposure to junk on social media make me crave it more | 6.7 | 19 | 20.3 | 28.7 | 25.3 | 93.3 |

Almost 81% junk food consumption is influenced by social media as supported by total percentage of occurrence (81%) of serial no. 2 of table given above. Other Items of the section B asscess other junk food relevant behaviours influenced by social media.

**Objective 1II:** To access the percentage of healthy food consumption influenced by social media

Table 5: *Percentages for the Assessment of percentage of Healthy food consumption influenced by social media*

| Sr. no. | Items | Percentages of responses | | | | | |
|---------|-------|------|--------|-------------|-------|--------|------------------|
| | | Never | Rarely | Occasion-ally | Often | Always | Total % of occurr-ence |
| 1 | Consume healthy food in a week | 3.3 | 12.3 | 18.7 | 33 | 32.7 | 96.7 |
| 2 | Follow nutritionist post/blogs/ pages on social media | 14 | 22.7 | 22.3 | 27.7 | 13.3 | 86 |
| 3 | Tried a salads/ smoothie because of promotion on social media | 18.3 | 24.7 | 26.3 | 24.7 | 6 | 81.7 |
| 4 | Follow health recipe seen on blog/ post/ snap | 21.3 | 22.7 | 24.3 | 23 | 8.7 | 78.7 |
| 5 | Social media increases healthy food consumption | 7 | 20.3 | 27 | 33.7 | 12 | 93 |
| 6 | Seen healthy food relevant pictures and videos on internet | 7 | 15.7 | 25.3 | 24.7 | 27.3 | 93 |

Almost 93% increase in healthy food consumption is influenced by social media as supported by total percentage of occurrence (93%) of serial no. 5 of table above. Other items of the section C asscess other healthy food relevant behaviours influenced by social media.

**Objective 2:** To assess the effectiveness of Instagram, TikTok, Snapchat, YouTube & Facebook on student preference of food.

Table 6: *Percentages for the assessment of effectiveness of Instagram, Snapchat, TikTok, YouTube & Facebook on student preference of food*

| Sr. no. | Items | Instagram | Snapchat | TikTok | YouTube | Facebook |
|---|---|---|---|---|---|---|
| 1 | Most used SM to learn about food | 60 | 3 | 2.3 | 32.7 | 2 |
| 2 | Trust recommendations of food on which platform | 54.3 | 8.7 | 4.3 | 25.7 | 7 |
| 3 | Tried food that I saw on | 46 | 4.7 | 7.3 | 37 | 5 |
| 4 | Most effective SM platform for food related content | 48.3 | 4.7 | 6 | 38 | 3 |
| 5 | Made a purchase based advertisement/Snap /Post on following | 55.3 | 8 | 5 | 16 | 15.7 |

Instagram (48.3%) was the most effective social media platform on student preference of food, followed by Youtube (38%), Titok (6%). Snapchat (4.7%) & Facebook (3%) were the least effective platforms, as supported by the serial no. 4. Other items of the section D asscess other effectiveness of these plaforms on other food relevant behaviours.

## Discussion

The research study conducted in Lahore, Pakistan aimed to examine the impact of social media on the dietary choices of female undergraduate students. The study utilized a quantitative survey methodology with a closed-ended questionnaire to collect data on social media use, food choices, attitudes towards food, and food-related behaviors. Convenience sampling was employed to recruit 300 participants from four universities, with 75 participants selected from each institution. The questionnaire consisted of four sections, including demographic information, social media use and food-related behaviors, frequency of junk food consumption, and healthy food consumption influenced by social media.

Convenience sampling, which involves selecting participants based on their accessibility and availability, has been used in previous studies to gather data on the relationship between social media use and food-related behaviors. For instance, Smith et al. (2022) employed a convenience sampling methodology with a closed-ended questionnaire to examine the impact of social media on food preferences and dietary behaviors among 200 female undergraduate students from a single university. Similarly, Kucharczuk et al. (2022) used a cross-sectional design with multistage random sampling to investigate the influence of social media on food choices.

While convenience sampling is preferred for its ease of recruitment, cost-effectiveness, time efficiency, and practicality, other studies have employed different sampling methods. Ardrini et al. (2022) utilized a qualitative method with a phenomenological approach, conducting in-depth interviews and a focus group discussion with female students aged 18-22 years. Additionally, Ahmad and Bruno (2021) included only final year students in their study conducted in Malaysia, using online questionnaires. Including students from all years ensures a representative sample and provides a comprehensive understanding of undergraduate students' experiences and behaviors.

The questionnaire used in the study measured independent variables such as social media use and dependent variables including healthy and unhealthy food choices, food attitudes, and perceptions. Control variables encompassed demographic information. Different studies have employed various questionnaires and scales to measure these variables. For example, Hill (2016) used a self-reported questionnaire, while Sachdev and Verma (2004) employed a five-point Likert scale to measure students'

attitudes and subjective norms. The use of a five-point frequency scale in this study allowed for objective measurement of behavior frequency and simplified participant response.

The findings of the study revealed that social media has a moderate impact (93.3%) on the food choices of female undergraduate students. Participants reported trying foods or restaurants they saw on social media, sharing meal pictures, and following food accounts for inspiration. The frequency of social media use was high, with many students spending more than four hours per day. Statistical analysis demonstrated significant associations between the frequency of social media use and its impact on food choices. These findings align with previous research that has shown significant associations between social media use and attitudes and behaviors related to food choices (Pempek, 2019; Mitchell, 2015).

Regarding junk food consumption, respondents in this study reported consuming junk food about three times a week on average. Similar findings have been reported in previous research, which found that young adults consume fast food at a similar frequency (Singh et al., 2021). Many respondents in this study reported trying new junk food through social media promotions and following junk food/mukbang accounts. Exposure to junk food on social media was associated with increased cravings. These results are consistent with studies that have shown a correlation between exposure to unhealthy food content on social media and high consumption among children and adults (Alwafi, 2022).

According to the data presented, social media has a moderate to high influence (96.7%) on the consumption of healthy food among female undergraduate university students, primarily through exposure to relevant visual content. Respondents show moderate (33%) to high (32.7%) levels of engagement with healthy eating behaviors and health-related social media. They often consume healthy food and follow nutritionist posts on social media occasionally (22.3%) or often (27.7%). The influence of social media on healthy food consumption has been observed in various studies. One study found that social media had no effect on the consumption of fruits and vegetables, energy-dense snacks, and sugar-sweetened beverages (Shawn, 2020), while another study reported a positive impact of social media, specifically through following nutritionist posts and trying promoted items, on the consumption of healthy food (Andrew, 2019).

Instagram is the most frequently used platform (60%) for learning about food and is considered effective for food-related content (48.3%). It is also the most trusted platform for food recommendations (54.3%). In one study YouTube (55.3%) is influential for making food-related purchases (Gelski, 2020). While in our study Snapchat (4.7%) and Facebook (3%) show lower effectiveness across all categories. But in one study, Facebook was reported as the most popular social platform for food and nutrition content, cited as the source for 64% of respondents who reported seeing such content. However, only 18% trust Facebook a lot (Karst, 2023). Although Facebook is popular for food and nutrition content, only 18% trust it a lot (Karst, 2023). Overall, Instagram and YouTube emerge as prominent and effective platforms for various aspects of food-related content, while Snapchat and Facebook have relatively lower effectiveness in influencing food preferences.

## Conclusion

In conclusion, this research study looked at how social media affects female undergraduate students' dietary preferences in Lahore, Pakistan. 300 participants from four government universities participated in the study, and descriptive and bivariate analyses were run on the data gathered. The majority of respondents (67.3%) fell within the 20–22 age range in terms of age categories. The majority (29.7%) are in their fourth year of study (BS-4), which is the highest level. The results showed that social media has a significant impact on female undergraduate university students' food preferences, with a moderate impact being reported by 37.3% of respondents. The overall percentage of occurrence indicates that nearly 93% of respondents said that social media had an impact on their ability to make food decisions. The study also highlighted the link (P-value = 0.006) between social media usage frequency and how it affects dietary decisions. Social media was found to have an 81% influence on respondents' junk food consumption, with many of them reporting frequent junk food consumption and product testing based on

social media promotions. Social media influenced 93% of respondents' consumption of healthy foods, with a sizable portion of them reporting higher consumption as a result of social media exposure. The most effective (48.3%) frequently used, dependable, and influential platform for food-related content was found to be Instagram, followed by Youtube (38%) and Snapchat, while Facebook and Snapchat displayed lower effectiveness. Overall, the research indicates that social media has a moderate to high impact on female undergraduate university students' consumption of both healthy and junk food, highlighting the significance of taking social media's role in promoting healthy eating into account.

## Recommendations

The following recommendations for further research are based on the completed research:

1. Since the current study used survey research, conduct experimental research, such as Pretest and Posttest studies, to ascertain the impact of social media on food choices among female undergraduate students.

2. To lessen bias and increase the representativeness of the sample, use random sampling rather than convenience sampling in future investigations.

3. In order to provide a more comprehensive understanding of the subject, investigate the effect of social media on eating choices among people in general, regardless of age.

4. To obtain a more complete viewpoint, broaden the scope of the research to include both male and female students or carry out investigations that are not gender-specific.

5. Include non-government universities in upcoming studies that look at how social media affects students' dietary decisions in various learning environments.

6. Extend the study outside of Lahore to additional cities and provinces to examine regional variations and distinctions in the impact of social media on dietary decisions.

7. Include other popular social media channels like WhatsApp, Pinterest, Reddit, WeChat, and Snack Video to get a more complete view of how social media affects dietary decisions.

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