A Comprehensive Review on The Influence of Social Media on Eating Habits

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ABSTRACT
Over 90% of adolescents have at least one social media account, and their social media presence is growing. Food and beverage companies profit on this trend by promoting their products to teens via social media. Depending on the nutritional value of the products being advertised, the influence of social media marketing may increase the chance of acquiring negative health consequences such as obesity, hypertension, and type 2 diabetes. The purpose of this review was to look into the effects of social media on student’s dietary habits. Two key conclusions emerged from the studies: teens were more likely to recall eating unhealthy foods, and celebrity endorsement was a common component of the commercials. According to this analysis, food and beverage corporations use social media to market their products to adolescent consumers. Celebrities and influencers tend to be frequently involved in strategies, as does the advertising of "unhealthy" items. As a result of these findings, healthcare providers should consider frequently assessing teenagers for social media use and current eating patterns, as well as teaching adolescents, parents, and families about health risks. Furthermore, enacting legislation and rules may be advantageous in avoiding this exposure.

Keywords: Food habits; Food marketing; Food preferences; Adolescents; Social media.

INTRODUCTION
One of the most important daily activities that impacts how well the entire human body functions throughout the day is eating. This activity is influenced by a number of external causes, with social media having a large impact on technology and emerging trends. Social media, for instance, is described as Internet-based platforms that let users to engage with one other flexibly and selectively, either in real-time or with both wide and specific audiences that appreciate user-generated content and the perception of interplay with other people. Social media is influencing people's eating habits through news, posts, and adverts on many platforms. Influencers on social media are well-known content producers with a large following who promote goods and offerings to motivate others. Influencers on social media are fresh, independent forth supporters that help to form through postings, blogs, and tweets, audience behaviour. A social media influencer's recognition is based on a more favourable attitude among their fans toward buying the goods and businesses the influencer promotes.

The majority of young people take advantage of these expanded choices for social networking such as Facebook, Instagram, YouTube, Twitter, etc (Davila, J. et al., 2012). The phenomenon has led to the growth of social media influencers (SMI)—content producers who actively share their opinions and knowledge about products online, some of whom can subsequently draw a large audience and serve as a
resource for their followers. SMIs have had a big impact on social media marketing, and brand marketers are now turning to SMIs instead of traditional celebrities to endorse their products. (Cheung.M.L.et al, 2022). Young adult populations can also benefit from social media sites like Facebook and YouTube as well as mobile game nutrition-intervention apps like Food Hero to promote awareness, knowledge, shape core beliefs, and inspire attitudes. Adolescents have acknowledged the value of social media platforms like Facebook, YouTube, and Snapchat in delivering peer support for healthy eating through information sharing and social support (Chung.A.et al, 2021). This scoping study sought to clarify the impact of social media on eating habits among 100 subjects between the ages of 18 and 45 years old.

OBJECTIVES
• To conduct a survey of 100 subjects to find out their eating patterns.
• To elicit information on the demographic profile of the subjects.
• To assess the eating habits of the subjects.
• To determine the influence of social media on the eating behaviour of the subjects.

LITERATURE STUDIES
Social media use has soared over the last 15 years and has evolved into an important element of a student's social life. It is now recognized as a learning platform that improves student capacities and engagement while allowing students enrolled in relevant courses to interact with one another. Despite its benefits, students' lives are strongly influenced by what others write on their accounts, as they are more prone to mood and self-control changes. As a result, rather than being persuaded by their parents' or instructors' recommendations, children are more swayed by the deceptive influencers on social media. The dietary habits of college students have been of interests to researchers for many years. Research has shown that college-aged students are forming poor eating habits during this time of life that can negatively affect their health as adults (Lockwood & Wohl, 2012). Given that diet is directly related to four of the top ten causes of death in adults, influencing the lifestyle choices of college-aged students is critical, as nutrition has a cumulative effect across the lifespan (Byrd-Bredbenner, Moe, Berning, & Kelley, 2016). Nutrition education for college-aged students can be delivered via numerous methods including college courses, seminars, social norms marketing campaigns, and technology including social media (Killos, Hancock, McGann, & Keller, 2010; Lockwood & Wohl, 2012; Tyma, 2011). In this technological age, it is crucial to further explore social media relevant to nutrition education, examining the literature, and determining how it can be utilized as a dietary change tool in an era when today’s college students are “plugged in” as early as the toddler years. As nutrition education is under the realm of health promotion, research does show social media as a preferred method for reaching multiple target audiences (Korda & Itani, 2013; Tobey & Manore, 2014; Tyma, 2011). Facebook and Twitter have been identified as two of the top three preferred social media platforms for college-aged students, and both demonstrate success in enhancing student engagement (Clauson, Singh-Franco, Sicar-Ramsewak, Joseph, & Sandars, 2013; Mckay, Sanko, Shekhter, & Birnbach, 2014; Tyma, 2011). This integrated literature review will look at scientific studies on nutrition education, behavior change theories, and social media use in a college nutrition course.
Social media and eating disorder

According to epidemiological studies, the prevalence of eating disorders among adolescent girls has increased over the last 50 years. Anorexia nervosa has a reported prevalence rate of 0.48% among girls aged 15 to 19. Bulimia nervosa affects around 1% to 5% of adolescent girls. Adolescents are more likely than ever to be concerned about their weight, shape, size, and body image, and as a result, diet to lose weight (2-5). Little is known about these body image and weight-related issues which arises. These behaviors have been identified as potential risk factors for the onset of eating disorders. Many academics have theorized that the media may play a key role in fostering and intensifying the issue of body dissatisfaction, and so may be partly accountable for the rise in the development of eating disorders.

Children and adolescents today grow up in a world filled with mass media (television, movies, videos, billboards, magazines, movies, music, newspapers, fashion designers, and the Internet). Statistics show that a youngster or adolescent watches up to 5 hours of television each day and spends an additional 6 to 7 hours viewing various media. Several papers have proven a link between the slim female beauty goal and the muscular male body ideal portrayed in the media and a variety of psychiatric symptomatology, including body dissatisfaction and eating disorders, over the last 20 years. Several studies have found a considerable change in the weight and size of female and male models portrayed in western media, as well as the image of the ‘perfect or ideal figure’. The cultural ideal for women's body size and shape has been significantly smaller and leaner over time, whereas the cultural ideal for men's body size and shape has become stronger and more muscular. This is best demonstrated by Katzmarzyk and Davis, who analyzed variations in the body weight and form of Playboy centerfolds over a two-decade period (1978-1998). They discovered that the models' body weights and measurements had decreased significantly, with 70% of the women being underweight and more than 75% of the women being less than 85% of their optimal body weight. A comparable study conducted on male centerfold models in Playgirl magazine between 1973 and 1997 discovered that male models had become much more muscular over time. Guillen and Barr examined the themes in a popular magazine for adolescent girls and discovered that the emphasis on fitness rose between 1970 and 1990, and the body form of models reported a tendency toward more androgynous-looking bodies.

These cultural standards may explain, in part, why many teens are preoccupied with their bodies and unsatisfied with their body image, and are likely to engage in a variety of risky weight-loss procedures in their pursuit of the perfect body.

Social Media and Body Dissatisfaction Adolescents

According to research, young people typically suffer body dissatisfaction, with adolescent girls feeling more than boys. Adolescent boys typically want to be bigger and stronger, whereas adolescent girls typically want to weigh less. A meta-analysis of 25 research with female participants looked at the impact of viewing thin body ideal pictures in the media. After watching thin media pictures versus photos of average size models, plus size models, or inanimate objects, body image was substantially more negative. Women younger than 19 were shown to be more strongly affected by this effect. Several cross-sectional studies have found a link between exposure to beauty and fashion publications and higher weight worries or eating disorder symptoms in females. Field et al discovered that the importance of thinness and attempting to look like women on television, in movies, or in magazines predicted young girls (9 to 14 years old) starting to purge at least monthly. In another prospective study,
the same group discovered that boys and girls (aged 9 to 14 years old) who tried to look like celebrities were more likely than their classmates to acquire weight problems and become frequent dieters. According to a study evaluating the association between media and eating disorders among undergraduate college students, media exposure predicted disordered eating symptomatology, drive for thinness, body dissatisfaction, and ineffectiveness in women, and endorsement of personal thinness and dieting in people. These methodologically different research show how young people's judgments of their own body form and size, as well as their own sense of body pleasure, can be influenced by exposure to unrealistic and often harmful body pictures. The media's influence may also extend to the formation of certain, potentially hazardous, weight loss behaviors.

According to the literature, children and adolescents are especially vulnerable to messages and images conveyed through mass media. Many children and teenagers are unable to tell the difference between what they see and what is genuine. For example, many young people are unaware that the fashion industry uses airbrushing and digital enhancement to portray the 'perfect' female and male figure. These images promote unreasonable and unattainable standards.

**New Diet Trends:**

With all the exaggerated diet advice out there, a new diet trend is created every few minutes. We naively adopt whatever new diet advice sounds "right" to us, from "don't eat anything after 8 pm" to "grease will make you fat," and we experience a sense of guilt whenever we merely set sights on a portion of French fries. It is past time eliminate these beliefs and present the available information.

**Fat makes you fat**

We have clearly been misled by whoever suggested that our unhealthy lifestyle is caused by the consumption of fat. It does, to some extent, but the truth is a little more nuanced than that. It is critical to comprehend that there are both good and harmful fats, and we must have the ability to distinguish between the two. Trans fats and saturated fats are regarded as harmful to the heart. Tropical oils (coconut oil, palm oil, etc.) are among them. Fatty meat cuts, prepackaged snacks, fried foods, high-fat dairy goods, etc. The healthy fats are monounsaturated and polyunsaturated, which should be consumed in moderation. Tofu, almonds, vegetable oils (olive, canola, etc.), salmon, herrings, and other foods are examples. The actual enemy is unhealthy fat.

**It's the carbs' to blame,**

Any new diet you may have recently started following, like the Atkins, discourages the consumption of carbs. The myth is supported by the incorrect notion that eating carbs leads to weight gain. A high-carb diet is considered to increase the intake of saturated fats, which is a major contributor to lifestyle issues. However, a low-carb diet reduces the consumption of a balanced, healthy diet, and while it may aid in weight loss in a short period of time, there may be negative long-term effects. By ingesting just the right amount of carbohydrates and plant-based, low-saturated-fat proteins, we can lose weight in a healthy way.

**Cheat Day! Hell yeah**

It can keep you motivated to stick to your diet because the idea to have a cheat day is so appealing. Sure, you might resist the temptation to eat an additional cookie on Wednesday if you think about having butter chicken along with gulab jamun for dessert on Friday night, although not all of us can. Even if we
make plans and set limits for our cheat days, we still tend to indulge in some pleasures that are not that we later regret. Instead of allowing your taste buds rule your day, it is better to keep a "cheat meal."

D stands for detox and diet.

Many ardent supporters of fad diets even vigorously promote various detox diet programs that make lofty claims about promoting weight reduction. Science disproves many of them by noting out that our kidneys, liver, skin, and lungs are already performing the necessary detoxification processes for a healthy body as we speak. With detoxifiers for the skin, hair, and every internal organ, the detox craze has taken off like wildfire. The truth is that even if we follow to one of the seven-day detox programs religiously, we may lose weight but not since our body has been cleansed of all toxins and simply starved for a full week.

**Truth Check in the Raw**

Celebrities and a lot of people swear by the raw food diet, which is based on the idea that boiling food destroys the minerals and enzymes found in our food. Justifications include "raw food helps the body detoxify." While it is possible that cooking reduces the nutritional content of some food items, this isn't always the case. Consuming raw food frequently results in "negative calories," which is when less calories are obtained from the food than are required to breakdown it. Although it might cause weight loss, this could be harmful to your health.

**Are celebrities endorsing unhealthy diets?**

Popular celebrities frequently post images of harmful foods and drinks on Instagram, according to a study that was published in JAMA in January 2022. They might be encouraging and socializing diets that can result in diabetes and obesity given their considerable influence.

Instagram is one of the most widely used social networking sites in the world, with more than billion active members. Influencers on Instagram frequently have several million followers and the ability to influence the public's views based on the content they share.

On Instagram, many of us share pictures of food, but these posts have less to do with enjoying particular meals and are more concerned with the splendour and status the image might convey. Think rainbow-colored waffles and mile-high bacon cheeseburgers, along with smoothies covered in rainbow M&Ms and topped with a donut and a gigantic lollipop. These pictures could be "Instagrammable," but they might give the idea that individuals often consume these expensive, calorie-dense foods.

Thousands of posts featuring unhealthy foods and sweetened beverages are shared every day, despite the fact that obesity and diabetes rates are rising in the India. Given how closely the two illnesses are related, this is very concerning.

Among the 181 celebrities with big followings on Instagram, including actresses, sports, artists, and TV personalities, a 2022 study published in JAMA revealed that the majority of celebrities frequently share a "unhealthy profile" of meals and drinks. More than 87% of the accounts on social media in the study sample had overall nutrition scores that were deemed to be too unhealthy for youth-targeted advertising in the United Kingdom.

According to the study, beverages and sweet baked goods are the most common foods and drinks that celebrities share pictures of on social media. Additionally, the study found that food posts with "less healthy nutrition scores" had a higher likelihood of receiving more comments and likes from followers, "indicating greater social approval." Seeing such well-known people frequently post these images can create the sense that using these goods is commonplace, healthful, and possibly even attractive to others.
The study's conclusions imply that celebrities who publish pictures of bad meals may encourage unsustainable and unhealthy eating habits. It is perfectly acceptable to include sugar, carbohydrates, or even desserts in one's diet, but this should be done in moderation, regardless of one's health state, possibly more so for individuals with diabetes.

Influencers have altered the social media experience by flooding Instagram with content that promotes goods, companies, and ways of life in general. Celebrities "can shape followers' perceptions of what is normative to consume" by sharing and promoting these kinds of foods and beverages, according to the study's authors, even though many are aware of how false social media can be.

The present Instagram food culture might help make unhealthy diets more commonplace. Therefore, increased fatty and high-sugar diets consumed everyday by the populace may be a factor in the obesity epidemic, which affects more than 2 in 5 adults and 1 in 5 children.

"Most of these celebrities lack credentials as nutritionists. Unfortunately, these celebrities capitalize on the misconception that eating well and making appropriate food choices are difficult," said Warshaw. The truth is that we have a lot of knowledge about healthy foods and eating habits. Is it simple to make healthy food choices and eat well every day? No, it's a struggle, but as this research indicates, nobody famous is likely to be much help.

It's crucial for these groups to understand that while we shouldn't treat celebrities or influencers like nutritionists, people nevertheless trust and pay attention to what they publish online. By restricting celebrities to only share pictures of green foods, we will not be able to completely remove diabetes and obesity, but they do have some effect over what people desire and will eat. We may be able to reduce the prevalence of diabetes and obesity if we can move toward a more widespread normalization of better diets.

We should all work toward a future with more varied and realistic diets, including all varieties of vegetables, fruits, proteins, and yes, even the occasional treat, rather than seeing countless photographs of posh drinks and ten-layer cakes.

**DISCUSSION**

Social media is like an ocean; once users dive in, they will find material that is beneficial or not, relevant, or not, accurate or untrue, and so on. There is a ton of blogs on diets and food that are written by amateurs, and some people may immediately start following a diet without doing adequate study or seeking professional advice. These are issues that require attention from the populace. According to the results of the survey, it is evident that majority of respondents (71%) regularly use social media, and the majority (65%) said they follow social media influencers. It is also clear that YouTube plays a major role in sharing information or attracting people. Few participants (28% of them) admitted to occasionally trying the diet recommended by social media influencers. More than half of the participants stated that they highly suggest to colleagues or acquaintances the diet that was advertised by a social media influencer. 15% of the participants admitted that using social media had boosted their appetite for fast food. People will also believe a post based on the number of likes, shares, and followers. For instance, 8% of the participants thought that social media dishes with the most likes and shares were more trustworthy. This study only provides a high-level overview; in-depth research will reveal how social media affects mental and physical health, how it encourages sedentary behaviour, how it leads people to believe false diet information, how it tempts users with food posts from influencers, how it contributes to the rise in lifestyle disorders and obesity, etc. People will benefit from a nutrition education programme.
that includes information on how social media affects diet. There needs to be increased awareness in order for children, teenagers, and adults to have better futures.

CONCLUSION
Social media use has soared over the last 15 years and has evolved into an important element of a student's social circle. It is now recognized as a learning platform that improves student capacities and engagement while allowing students enrolled in relevant courses to interact with one another. Despite its benefits, students' lives are strongly influenced by what others post on their accounts, as they are more prone to mood and self-control changes. As a result, rather than being persuaded by their parents' or teachers recommendations, children are more swayed by the deceptive influencers on social media. Despite its positive potential, social media has several downsides, which include

1. **Distracted Eating Patterns**
   Because social media scrolling can cause distraction, resulting in under- or over-eating, simply scrolling through social media can impair eating habits rather than the posts made there. So, putting down your phone, iPad, or computer while eating is always a smart idea.

2. **Forming Irrational Beliefs and Expectations**
   Social media is notorious for instilling excessive expectations. Rather than following those who devote their lives to gluten-free, vegan food, which may not be suitable for their circumstances, look for those who are more accessible to them.

3. **Using advertisements to influence students' minds**
   Advertising is becoming more tailored and personalized based on personal information. As a result, companies use this to promote harmful products, influencing consumers to reach for meals they wouldn't pick otherwise. This can have an impact on not only shopping habits, but also self-perceptions and behaviors.

Several studies have demonstrated that social media, particularly among younger age groups, can have a negative impact on people's views toward eating. Research has revealed:

- A direct link between eating habits and social media use.
- The relationship between children's use of social media and problematic eating patterns and behavior changes.

Social media-related issues including peer comparison, idealizing unachievable norms, and hearing hurtful remarks about weight can all lead to disordered eating.

Teenage females who spend more time on social media controlling their appearance are more likely to experience eating disorders and body image issues.

**Points to be considered:**

- Children should be encouraged to use social media appropriately and parents should monitor their usage.
- There are reasonable and unreasonable expectations for the foods that students eat.
- The laws governing convenience meals aimed at teenagers should be clarified and reinforced by the government.
- To increase the accuracy of product information, it's crucial to control internet adverts and get rid of overly dramatic ones.
Since social media has such a large influence on students, introducing them to healthy food items on social media will undoubtedly assist shift their preferences from unhealthy to healthy options. We can promote better diets and create a healthier and more effective society if we use this instrument more effectively. Health experts can also make a big contribution by educating pupils and their parents about healthy eating habits and dietary choices.

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