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# The impact of social media on eating habits, lifestyle modifications and body image perception of adults aged 20-40 years

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**Abstract**
Social media sites, like Facebook, Instagram, YouTube, and Twitter, provide an enormous number of features that enable people to create and engage with content, connect, and exchange experiences, making them essential components of contemporary life and people try to modify their life as shown on these social media platforms which affect their eating habits, lifestyle and body image perception. This study aimed to assess the impact of social media on eating habits, lifestyle modifications and body image perception of adults aged 20-40 years. A cross-sectional study was conducted in Mumbai on 50 male and 50 female participants of age 20-40 years. Data was collected using purposive sampling and a self-designed questionnaire was used which included 6 sections; sociodemographic characteristics, anthropometric measures, social media usage patterns, social media and eating habits, social media and lifestyle modifications and social media and body image perception. The study used SPSS version 25 for Windows to analyse data, categorize variables like gender, time spent on social media, and body image perception, compare them using chi-square and Mann-Whitney U tests, and assess correlations using Spearman's correlation. The study examined the relationship between social media usage, body image, and eating habits among participants. The majority of participants used Instagram, YouTube, and Facebook, with higher percentages of those with negative body image using YouTube ($p = 0.045$) and Facebook ($p = 0.010$). Social media influenced participants to restrict certain foods, and negative body image was associated with eating habits. Longer social media usage was linked to overuse, negative eating habits, feeling judged about appearance ($p = 0.011$), and dissatisfaction due to fewer likes. Males were more likely to post content promoting smoking compared to females. While 66% had a positive body image, 34% had a negative body image, with Instagram having the highest percentage of participants with negative body image perception. Negative body image was associated with being negatively affected by social media ($p = 0.021$). Males reported comparing their appearance more often than females ($p = 0.021$). The present study highlights the widespread influence of social media on various aspects of adult life. The likelihood of trying a diet recommended by an influencer and recommending it to others was significantly seen. There was a positive and statistically significant correlation with eating habits, body image perception and a negative correlation of posting content on social media and daily hours of sleep.

**Keywords:** Social Media, eating habits, lifestyle modifications, body image perceptions

## Introduction
The transition to an online lifestyle is a reality of the time in which we live. It is a combination of two words. Social means interacting and communicating with people and receiving content. Facebook makes most popular social networking site in the world with features like news feed, tools to text share message/image and video content. Instagram-connected social network platforms enables users to create videos (reels), images which can be shared in public or private form. (Xin *et al*., 2019) [28] The bite-sized, constantly accessible nature of YouTube videos encourages frequent checking and content bingeing across devices. (Norlidah *et al*., 2013) [29] Twitter is a global microblogging platform with 356 million users as of 2022, where users can post short messages called 'Tweets' of up to 280 characters, including images and links, while following others' timelines. (Lauren Sinnenber *et al*., 2017) While social media can exacerbate addiction, mental health, and privacy issues, it also offers helpful knowledge, connections, and assistance; however, careful use and content consideration are necessary to

mitigate potential adverse health impacts. (Rea Stamatiou *et al*., 2022) [22]. When assessing an individual's overall eating habits, eating speed is a behavior that is frequently disregarded. It can have a major impact on how quickly one feels full and how much food is consumed, which could have additional negative health effects. By focusing on eating patterns, researchers can understand the complex interplay between socio-behavioral, economic, environmental, and cultural factors that influence an individual's diet. Young individuals view social media as a platform for exchanging knowledge about eating habits, where sharing and discussing food consumption can have a mutually influential effect, with beliefs about peers' consumption of sugary drinks and pastries predicting young adults' intake of such products (Eric Robinson *et al*., 2016) [18]. Food and beverage companies leverage social media influencer advertising, where celebrities endorse products to their followers, presenting new marketing opportunities; however, social media has been linked to impulsive behavior and food cravings, which may interact and exacerbate eating behavior issues (Lisa Filippone *et al*., 2022) [7]. Social media has a noticeable influence on lifestyle changes. Social media usage, particularly before bedtime, has been associated with poor sleep quality, irregular sleep-wake cycles, insomnia, and daily exhaustion due to factors like exposure to bright light suppressing melatonin release and the constant accessibility of content on devices. (Neha Rana *et al*., 2021) [17]. Social media also glamorizes smoking, making it appear socially acceptable and increasing the risk of peer influence, highlighting the need for comprehensive tobacco control laws on social media platforms. (Kharismatul Laili *et al*., 2022) [11] Most tobacco product companies use social media extensively. Numerous data points to issues with young people's exposure to and attractiveness to social media marketing for tobacco products. (Erin Keely O'Brien *et al*., 2020 [13] Social media platforms facilitate the widespread promotion of events that revolve around alcohol consumption, such as Happy Hours, Ladies Nights, and drinking holidays. This helps normalize alcohol consumption (Thanh-Trung Phan *et al*., 2019) [23]. Negative attitudes regarding one's body occur when there is a perceived divergence between one's assessment of one's ideal and real body, which leads to body dissatisfaction. (Grace Holland *et al*., 2016) [8] Social media frequently promotes an idealized or twisted perception of the body and beauty. People's perceptions of themselves and their bodies might be adversely affected by the constant barrage of supposedly "perfect" faces and bodies on social media. Social networking sites prioritize images and are primarily visual. Self-presentation and the objectification of bodies are encouraged by this emphasis on appearance and pictures (Nikol Kvardova *et al*., 2023) [10]. Likes and comments on social media offer external reinforcement primarily focused on appearance and visual self-presentation. (Ashraf Sadat Ahadzadeh *et al*., 2017) [1]

## Methodology

This cross-sectional study assessed how social media affected Mumbai-based adults between the age group of 20 and 40's eating habits, lifestyle mo, and perceptions of their bodies. Following ethical approval, 50 men and 50 women were purposefully chosen according to age, residency in Mumbai, and daily usage of social media for at least 30 minutes. A Google form was used to administer a self-created questionnaire was used to gather data. The research gathered information on sociodemographic characteristics, anthropometric measures, social media usage patterns, social media and eating habits, social media and lifestyle modification where it focused on sleep, smoking and alcohol consumption and social media and body image perception. The study's methodology met with ethical standards by getting participants' informed consent and informing them about the study. The study used SPSS version 25 for Windows to analyze data, categorize variables like gender, time spent on social media, and body image perception, compare them using chi-square and Mann Whitney U tests, and assess correlations using Spearman's correlation.

## Results

**Table 1:** Basic Characteristics of Study Participants

| Basic Characteristics | Frequency |
|---|---|
| **Gender** | |
| Male | 50 |
| Female | 50 |
| **Age** | **29.9** |
| **Education** | |
| SSC | 1 |
| HSC | 5 |
| Graduate | 61 |
| Post Graduate | 24 |
| MBA | 7 |
| Ph.D. | 2 |
| **Occupation** | |
| Unemployed | 14 |
| Self-Employed | 11 |
| Employed | 66 |
| Homemaker | 9 |
| **Social Media Types** | |
| YouTube | 88 |
| Instagram | 90 |
| Facebook | 56 |
| Twitter | 11 |

The study was conducted on 100 participants out of which 50 were male and 50 were female. The minimum age of study participants was 20 years and maximum was 40 years. The mean age was 29.9±5.9 years. From 100 participants, 90% participants used Instagram, 88% used YouTube, 56% used Facebook and 11% used Twitter application. (Table 1).

**Table 2:** Social Media Applications when classified with Gender, Body Image Perception and Time Spent

| **Classification by Gender** | | | | | | |
|---|---|---|---|---|---|---|
| | **Males (n=50)** | | **Females (n=50)** | | **$\chi 2^{\chi}$** | **p-value** |
| | N | % | N | % | $\chi$ | |
| YouTube | 44 | 88% | 44 | 88% | 0 | 1.000 |
| Instagram | 47 | 94% | 43 | 86% | 1.778 | 0.182 |
| Facebook | 31 | 62% | 25 | 50% | 1.461 | 0.227 |
| Twitter | 7 | 14% | 4 | 8% | 0.919 | 0.338 |
| **Classification by Body Image perception** | | | | | | |
| | Positive (n=66) | | Negative (n=34) | | **$\chi 2$** | p-value |
| | N | % | N | % | | |
| YouTube | 55 | 83% | 33 | 97.1% | 4.003 | 0.045* |
| Instagram | 57 | 86.4% | 33 | 97.1% | 1.787 | 0.181 |
| Facebook | 43 | 62.5% | 13 | 38.2% | 6.598 | 0.010* |
| Twitter | 7 | 10.6% | 4 | 11.8% | 0.031 | 0.861 |
| **Classification by Spent on Social media** | | | | | | |
| | **1-3 hours (n=63)** | | **3 or more hours (n=37)** | | **$\chi^2$** | **p-value** |
| | **N** | **%** | **N** | **%** | | |
| YouTube | 57 | 90.5% | 31 | 83.8% | 0.989 | 0.320 |
| Instagram | 55 | 87.3% | 35 | 94.6% | 1.378 | 0.241 |
| Facebook | 38 | 60.3% | 18 | 48.6% | 1.288 | 0.256 |
| Twitter | 6 | 9.5% | 5 | 13.5% | 0.379 | 0.538 |

P value <0.05*

Table 2 gives social media applications used when classified according to gender. There was no significant percentage. When classified according to body image perception, higher percentage of participants had negative body image perception using Facebook and YouTube with statistically significant p-value 0.010 and 0.45 respectively. There were no significant differences seen when social media applications were classified according to the time spent on social media.

**Table 3:** Uses of Social Media when classified by Gender and Time Spent on Social Media

| **Classification by Gender** | | | | | | |
|---|---|---|---|---|---|---|
| | **Males (n=50)** | | **Females (n=50)** | | **χ2** | **p-value** |
| | N | % | N | % | | |
| Networking | 28 | 56 | 29 | 58 | 0.14 | 0.840 |
| Recipes | 11 | 22 | 32 | 64 | 17.993 | 0.000** |
| Learning | 29 | 58 | 28 | 56 | 0.041 | 0.840 |
| Entertainment | 33 | 66 | 33 | 66 | 0 | 1.000 |
| **Classification by Time Spent on Social media** | | | | | | |
| | **1-3 hours (n=63)** | | **3 or more hours (n=37)** | | $\chi^2$ | p-value |
| | N | % | N | % | | |
| Networking | 32 | 50.8 | 25 | 67.6 | 2.676 | 0.102 |
| Recipes | 26 | 41.3 | 17 | 45.9 | 0.208 | 0.648 |
| Learning | 32 | 50.8 | 25 | 67.6 | 2.676 | 0.102 |
| Entertainment | 37 | 58.7 | 29 | 78.4 | 4.010 | 0.045* |

P value <0.05* P value<0.01**

In the table 3 given below, it can be seen that higher percentage of female use social media for recipes rather than using it for networking, learning, entertainment with significant p value 0.000. No significant differences were seen in networking, learning and entertainment. When classified by time spent, significant value is obtained which shows that 3 or more hours on social media is spent for entertainment with significant p value 0.045. No significant differences were seen in networking, recipes and learning.

**Table 4:** Eating habits and Social Media

| **Classification by Gender** | | | | |
|---|---|---|---|---|
| Responses | **Male (n=50)** | **Female (n=50)** | **Z value** | **P value** |
| Likelihood to try a diet promoted by a SM influencer | 3.1 (1.129) | 2.62 (1.176) | -2.041 | 0.041* |
| Likelihood to recommend a diet that a SM influencer promote to friends and acquaintances | 3.1 (2.42) | 2.42 (1.18) | -2.618 | 0.009* |
| Buy a product that as promoted by a SM influencer | 2.9 (1.26) | 2.5(1.129) | -1.69 | 0.091 |
| Consume any food on SM even if it is not my eating habit | 2.5 (1.31) | 2.3 (1.99) | -0.69 | 0.49 |
| Food shared on SM are more beneficial to health | 3.2 (1.12) | 3 (0.75) | -1.154 | 0.249 |
| After started SM, the consumption of fast food has increased | 2.9(13.7) | 2.9(1.19) | -0.032 | 0.975 |
| **Classification by Body Image perception** | | | | |
| Responses | **Positive (n=66)** | **Negative (n=34)** | **Z value** | **P value** |
| Likelihood to try a diet promoted by a SM influencer | 2.6 (1.16) | 3.2 (1.12) | -2.269 | 0.023* |
| Likelihood to recommend a diet that a SM influencer promote to friends and acquaintances | 2.5 (1.25) | 3.1 (1.14) | -2.5 | 0.012* |
| Buy a product that as promoted by a SM influencer | 2.5 (1.36) | 2.9 (1.33) | -1.176 | 0.24 |
| Consume any food on SM even if it is not my eating habit | 2.21(1.18) | 2.76 (1.32) | -2.114 | 0.035* |
| Food shared on SM are more beneficial to health | 3.1 (0.96) | 3.0 (0.96) | -0.595 | 0.552 |
| After started SM, the consumption of fast food has increased | 2.6 (1.25) | 3.3 (1.24) | -2.338 | 0.019* |
| **Classification by Time Spent on Social media** | | | | |
| **Responses** | **1-3 hours (n=63)** | **3 or more hours (n=37)** | **Z Value** | **P value** |
| Likelihood to try a diet promoted by a SM influencer | 2.5 (1.02) | 3.3 (1.25) | -3.152 | 0.002* |
| Likelihood to recommend a diet that a SM influencer promote to friends and acquaintances | 2.4 (1.21) | 3.2 (1.18) | -2.788 | 0.005* |
| Buy a product that as promoted by a SM influencer | 2.4 (1.02) | 3.1 (1.37) | -2.466 | 0.014* |
| Consume any food on SM even if it is not my eating habit | 2.1 (1.02) | 2.8 (1.47) | -2.404 | 0.016* |
| Food shared on SM are more beneficial to health | 3.14 (0.89) | 3.08 (1.06) | -0.455 | 0.649 |
| After started SM, the consumption of fast food has increased | 2.5 (1.12) | 3.5 (1.28) | -3.828 | 0.000** |

P value <0.05* P value<0.01**
Data presented as Mean (SD)

Table 4 represents eating likelihood due to social media when classified according to gender, body image and time spent. It can be seen that males are more likely to try a diet promoted by social media influencer and recommend a diet to friends and acquaintances with statistically significant p value 0.014 and 0.009 respectively. When classified by gender, people with negative body image are more likely to try a diet promoted by social media influencer and recommend a diet to friends and acquaintances with statistically significant p value 0.023 and 0.012. Those with a negative perception (mean 2.76) are more likely to consume any food on SM even if it is not their eating habit compared to those with a positive perception. This difference is statistically significant (p=0.035). When classified by time spent on social media, it

can be seen that people who spend time 3 or more hours are more likely to try diet and promote and recommend a diet to friends and acquaintances with significant difference.

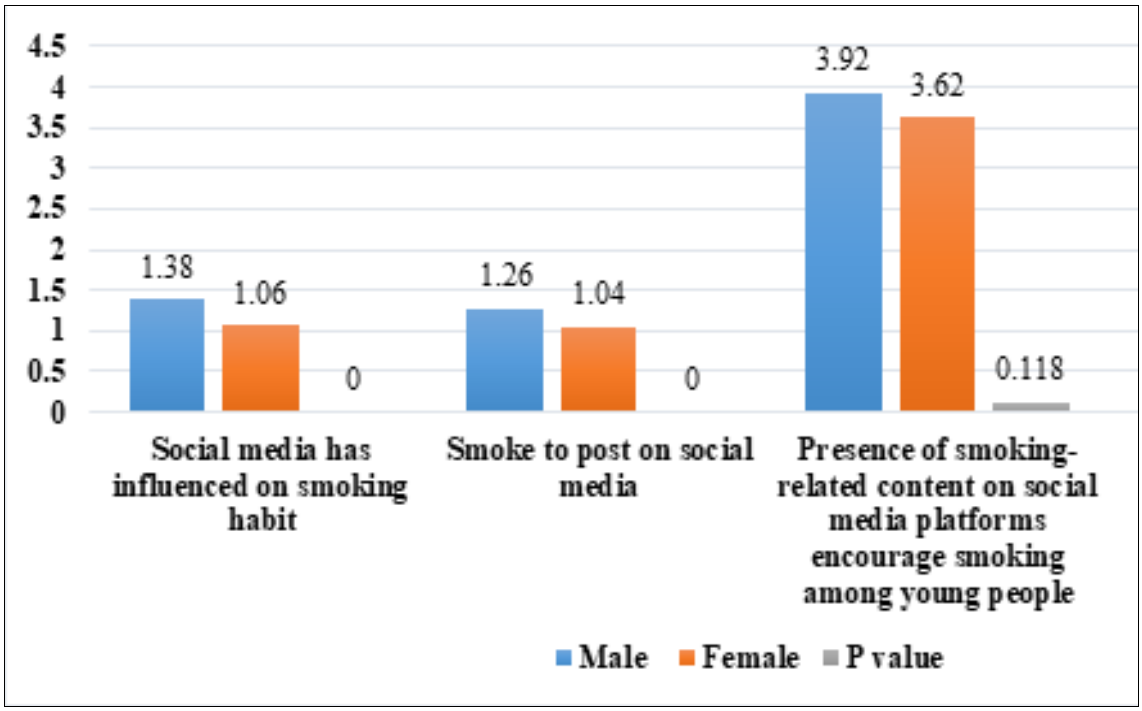


**Fig 1:** Influence of social media on smoking when classified according to gender

In fig 1 Males reported higher influence of social media on their smoking habit compared to females, which was statistically significant (p=0.013). Males were more likely to smoke to post on social media compared to females, with a statistically significant p-value of 0.028.

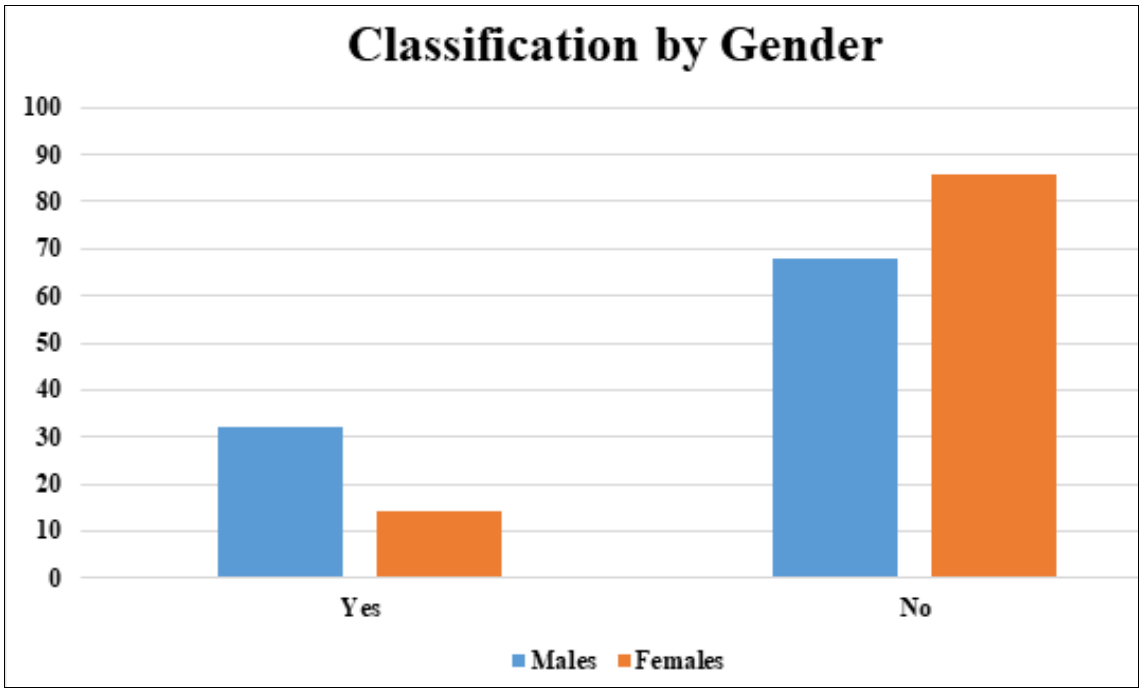


**Fig 2:** Participants posted photos or content related to own alcohol consumption

In Figure 2, when classified by gender showed significant associations with posting photos or content of their own on social media. A higher percentage of males posted alcohol content compared to females with statistically significant p value 0.032.

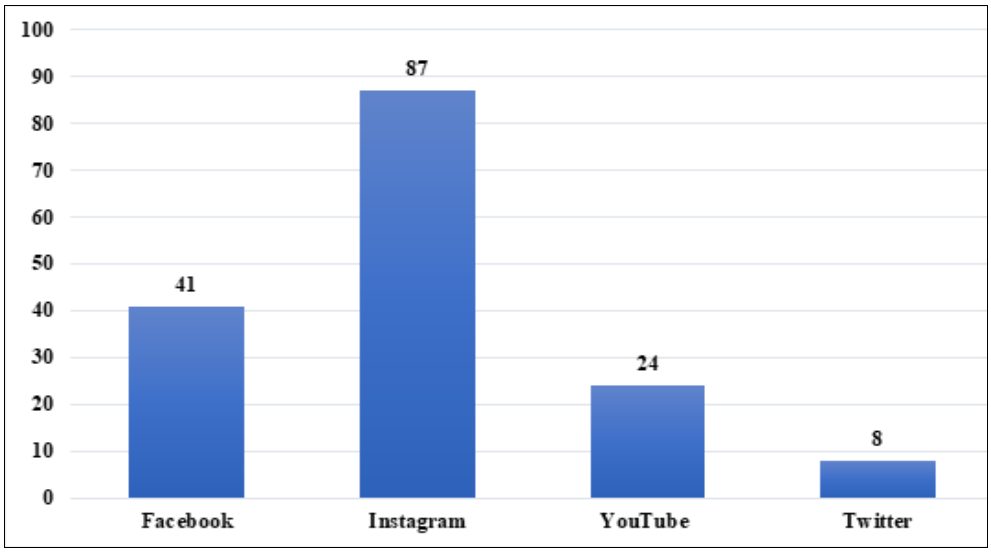


**Fig 3:** Negative Body Image Perception due to Social media applications

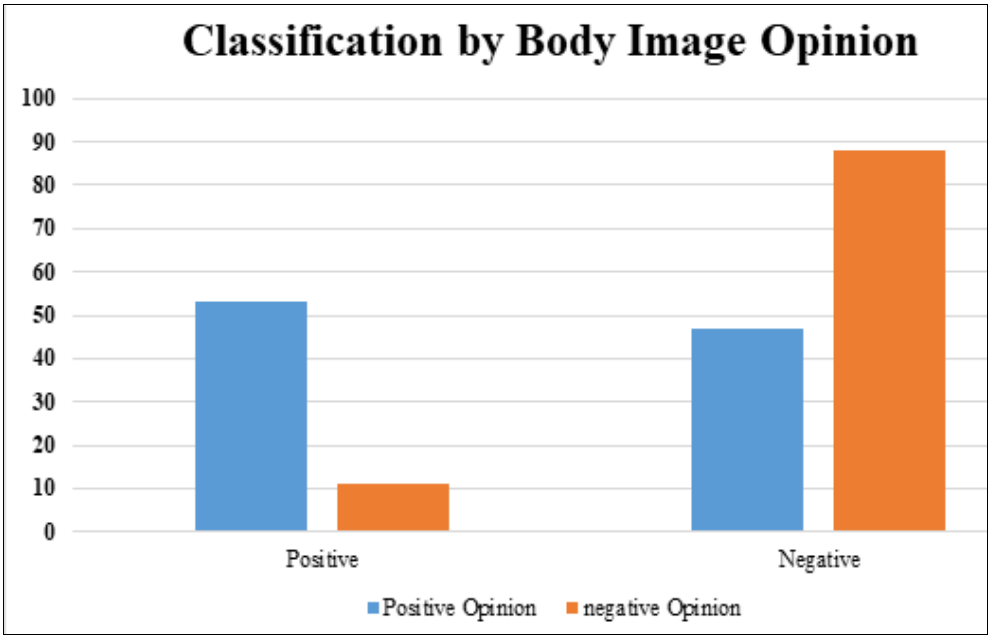


**Fig 4:** Positive and Negative effect of Social Media on Body Image Perception

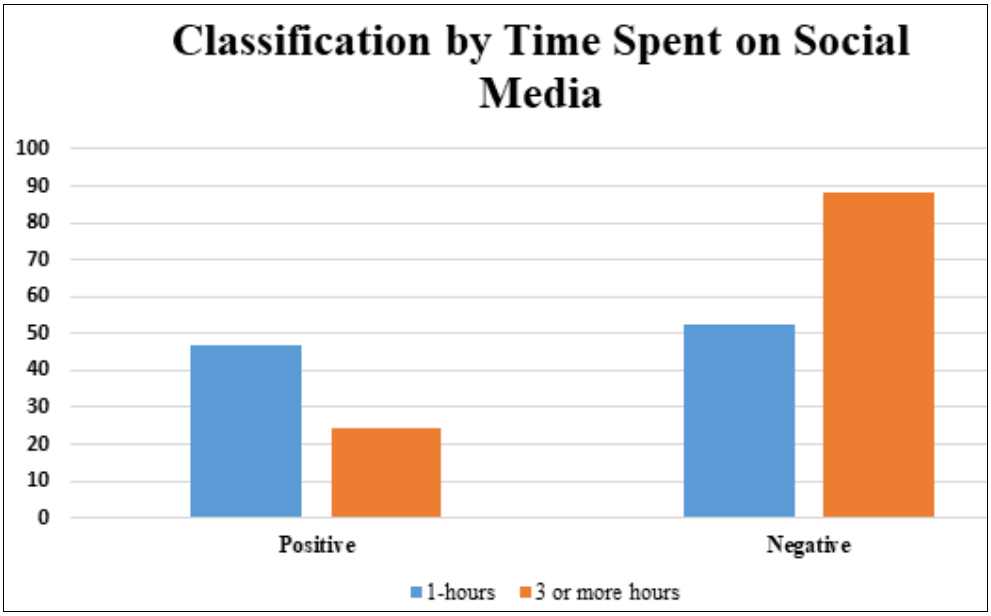


**Fig 5:** Positive and Negative effect of Social Media on Time Spent on Social Media

In the figure 3 given below reports that participants feel that Instagram has the highest percentage of negative body image perception followed by Facebook and YouTube. In the figure 4, effect if social media when classified with body image perception it was statistically significant with p value 0.000. Higher percentage (82.2%) was found of those with negative body image are being affected negatively by social media. In figure 5, when effect of social media was classified by time spent, it was also found that there was statistically significant difference p value 0.021 for those spending 3 or more hours on social media reported negative effect compared to those spending 1-3 hours.

**Table 5:** Body image perception when classified by gender, body image opinion and time spent on social media

| **Classification by Gender** | | | | |
|---|---|---|---|---|
| | **Male (n=50)** | **Female (n=50)** | **Z value** | **P value** |
| Felt appearance is being Judged | 3.28 (1.126) | 3.22 (1.093) | -0.585 | 0.559 |
| Compared appearance to someone else's on social media | 3.28 (1.126) | 2.7 (1.389) | -2.13 | 0.021* |
| Felt dissatisfied with yourself when social media posts receive fewer likes | 2.62(1.159) | 2.24 (1.153) | -1.59 | 0.112 |
| **Classification by Body Image** | | | | |
| | **Positive (n=66)** | **Negative (n=34)** | **Z value** | **P value** |
| Felt appearance is being Judged | 3.03 (1.277) | 3.68(1.093) | -2.477 | 0.013* |
| Compared appearance to someone else's on social media | 2.82(1.323) | 3.32(1.173) | -1.834 | 0.067 |
| Felt dissatisfied with yourself when social media posts receive fewer likes | 2.33 (1.155) | 2.62 (1.181) | -1.164 | 0.244 |
| **Classification by Time Spent on Social Media** | | | | |
| | **1-3 hours (n=63)** | **3 or more hours (n=37)** | **Z Value** | **P value** |
| Felt appearance is being Judged | 3 (1.32) | 3.68 (1.002) | -2.536 | 0.011* |
| Compared appearance to someone else's on social media | 2.78 (1.237) | 3.35 (1.317) | -2.132 | 0.033* |
| Felt dissatisfied with yourself when social media posts receive fewer likes | 2.29 (1.142) | 2.68 (1.18) | -1.639 | 0.101 |

Mean (SD)
P value <0.05*
P value<0.001**

In the table 5, males reported comparing their appearance to others on social media significantly more often than females (p = 0.021). Those with negative body image felt significantly more often that their appearance is being judged compared to those with positive body image (p = 0.013). When classified by time spent those spending 3 or more hours felt significantly more often that their appearance is being judged compared to those spending 1-3 hours (p = 0.011).

**Table 6:** Correlation with Likelihood of trying diet promoted by social media influencer and correlation with Likelihood to recommend a diet promoted by SM influencer to friends and acquaintances

| **Responses** | **How likely try a diet promoted by SM influencer** | | **How likely would you recommend a diet that a SM influencer promoted to friends and acquaintances** | |
|---|---|---|---|---|
| | **Spearman Rho value** | **P value** | **Spearman Rho value** | **P value** |
| BMI | 0.003 | 0.974 | 0.058 | 0.567 |
| Usefulness of Social media | 0.111 | 0.271 | 0.048 | 0.637 |
| Time spent on Social media everyday | 0.284 | 0.004* | 0.293 | 0.003* |
| Post on social media | - | - | 0.283 | 0.004* |
| Likelihood try a diet promoted by Social Media influencer | - | - | 0.711 | 0.000** |
| Likelihood to recommend a that that a social media influencer promoted to friends and acquaintances | 0.711 | 0.000** | - | - |
| Buy a product that was promoted by a social media influencer | 0.616 | 0.000** | 0.605 | 0.000** |
| Consume food even of it is not in my eating habit | 0.501 | 0.000** | 0.567** | 0.000** |
| I think food shared on social media are more beneficial to health | -0.07 | 0.487 | -0.079 | 0.433 |
| After I started social media, my fast food consumption has increased | 0.411 | 0.000** | 0.361** | 0.000** |
| Bought a food product that was promoted by a brand influencer, defined as a social media influencer who partners with a brand for the purpose of increasing marketing and sales? | 0.483 | 0.000** | .0473 | 0.000** |
| Spend time on social media after going to bed | -0.11 | 0.275 | -0.155 | 0.123 |
| After you fall asleep at night, awaken and access or respond to anything on social media such as text messaging during the night. | 0.272 | 0.006* | 0.217 | 0.003* |
| Hours of sleep do you usually get each night | -0.134 | 0.183 | -0.054 | 0.592 |
| social media influenced your smoking habit ? | 0.146 | 0.147 | 0.255 | 0.011* |
| Smoke so that you can post on social media | 0.324 | 0.001** | 0.386 | 0.000** |
| Presence of smoking-related content on social media platforms encourages smoking among young people | 0.155 | 0.123 | 0.236* | 0.018* |
| Often do you feel as if your appearance is being judged | 0.322 | 0.001** | 0.335 | 0.001** |
| Often do you compare your appearance to someone else's on social media? | 0.545 | 0.000** | 0.527 | 0.000** |
| Feel dissatisfied with yourself when your social media posts receive fewer likes | 0.456 | 0.000** | 0.443 | 0.000** |

P value <0.05*
P value<0.001**

In table 7, there is significant positive correlation between likelihood of trying diet promoted by social media influencers and time spent on social media everyday, likelihood to recommend a diet promoted by social media influencer, buy a product that was promoted by social media influencer, increased consumption of fast food, checking social media after falling asleep, smoking to post on social media, appearance being judged, comparison with others and dissatisfied because of fewer likes. There is a statistically significant positive correlation of likelihood of recommending

diet promoted by social media influencers promoted to friends and acquaintances and time spent on social media everyday, frequency of posting on social media, likelihood to try a diet promoted by SM influencer, purchasing the food product that was promoted, increased fast food consumption, checking social media after falling asleep, smoking related content encouraged smoking among young people, felt judged, dissatisfied with fewer likes on SM.

**Table 7:** Correlation with Appearance being judged and correlation with dissatisfaction due to fewer likes on social media

| Responses | When on social media, how often do you feel as if your appearance is being judged | | Do you feel dissatisfied with yourself when your social media posts receive fewer likes | |
|---|---|---|---|---|
| | Spearman Rho value | P value | Spearman Rho value | P value |
| BMI | 0.167 | 0.096 | 0.015 | 0.88 |
| Usefulness of Social media | 0.178 | 0.076 | 0.161 | 0.109 |
| Time spent on Social media everyday | 0.357 | 0.000** | 0.249 | 0.012* |
| Post on social media | 0.247 | 0.013* | 0.387 | 0.000** |
| Likelihood to try a diet promoted by social media | 0.322 | 0.001** | 0.456 | 0.000** |
| Likelihood to recommend a that that a social media influencer promoted to friends and acquaintances | 0.335 | 0.001** | 0.443 | 0.000** |
| Buy a product that was promoted by a social media influencer | 0.363 | 0.000** | 0.407 | 0.000** |
| I consume food even of it is not in my eating habit | 0.403 | 0.000** | 0.472 | 0.000** |
| I think food shared on social media are more beneficial to health | -0.165 | 0.101 | -0.162 | 0.108 |
| After I started social media, my fast food consumption has increased | 0.393 | 0.000** | 0.379 | 0.000** |
| Bought a food product that was promoted by a brand influencer, defined as a social media influencer who partners with a brand for the purpose of increasing marketing and sales? | 0.391 | 0.000** | 0.543 | 0.000** |
| Spend time on social media after going to bed | -0.072 | 0.477 | -0.228 | 0.023* |
| After you fall asleep at night, awaken and access or respond to anything on social media such as text messaging during the night? Do not include morning alarm/after wake up time. | 0.142 | 0.16 | 0.307 | 0.002* |
| Hours of sleep do you usually get each night | 0.108 | 0.284 | 0.039 | 0.699 |
| Social media influenced your smoking habit | 0.183 | 0.069 | 0.243 | 0.015* |
| Smoke so that you can post on social media | 0.236 | 0.018* | 0.306 | 0.002* |
| Presence of smoking-related content on social media platforms encourages smoking among young people | 0.118 | 0.241 | 0.13 | 0.197 |
| Often feel as if your appearance is being judged | - | - | 0.453 | 0.000** |
| Often compare your appearance to someone else's on social media | 0.573 | 0.000** | 0.658 | 0.000** |
| Feel dissatisfied with yourself when your social media posts receive fewer likes | 0.453 | 0.000** | - | - |

P value <0.05*
P value<0.001**

In the table 7, there is significant positive correlation between appearance being judged on social media and time spent on social media, likelihood to try diet and recommend, purchasing products promoted on SM, increased consumption of fast food, smoke to post on social media comparison of appearance being judged and dissatisfied due to fewer likes on social media. There was significant positive correlation of feeling dissatisfied on receiving fewer likes and frequency of posting on social media, likelihood to try a diet and recommend to friends, purchasing new product, increased consumption of fast food, smoke to post on social media, appearance being judged.

## Discussion

The present study aimed to assess the impact of social media on eating habits, lifestyle modifications and body image perception of adults aged 20-40 years. The study was conducted among male and female residing in Mumbai. The findings revealed significant associations between social media usage and other aspects such as eating habits, lifestyle modification that is sleep, smoking and alcohol consumption and body image perception and provided valuable insights about influence of social media in this age group.This study had equal distribution of male and female participants which ensured balanced representation of gender perspectives. The educational and occupational status of participants are diverse. The results of the current study indicated that 98% of the total participants used social media daily. This finding align with previous research which highlighted social media usage and eating concerns of adults aged 19-32 years. The most commonly used social media applications were Instagram (90%), YouTube (88%), and Facebook (56%). In a study conducted in 2019, it was found that 20% used WhatsApp, 30% used Facebook and Instagram, 6% used Twitter and 14% used another type of social media (Sushma *et al*., 2019) [30] Social media applications when classified by gender, body image and time spent on social media, there was a significant difference found in negative body image perception opinion for YouTube (p-value 0.045) and no significance for gender classification. Euis *et al*., 2023 conducted research where participants reported that social media usage is a prevalent practice in the daily routines of the internet generation. Research indicated that the cohort born in the digital age highly prioritizes social networks for sharing information, fostering engagement, promoting participation, decentralizing communication, and ensuring accountability.

In the present study it was found that higher percentage of female use social media for recipes (p value 0.000). Similarly, in a study, it was found that young adults who recognized themselves as having less experience in cooking were observed to have checked and compared numerous recipes. They also relied on video features to enhance their skills and

cultivate self-efficacy. Additionally, participants who spent more time on social media (3 or more hours) were more likely to use it for entertainment purposes (p = 0.045), aligning with findings that social media is a popular source of amusement and leisure (Whiting *et al*., 2013) [25].

Eating habits likelihood due to social media when classified with gender showed that males are more likely to try a diet promoted by social media influencers and also recommend it to friends. Negative body image opinion was associated with the likelihood of trying new diet and consuming food shown on social media. In the past, a quantitative and qualitative content analysis of 611 images uncovered that adolescents were predominantly exposed to messages featuring non-core food (67% of images) and branded food (49% of images). These images were frequently accompanied by social contexts, such as spending time with friends, dining at restaurants, and celebrating with food (49% of images). Participants who spent more time on social media (3 or more hours) were also more likely to try diets promoted by influencers (p = 0.002), recommend these diets (p = 0.005), buy products promoted by influencers (p = 0.014), and consume foods outside their eating habits (p = 0.016). This finding align with previous studies suggesting that increased exposure to social media content can shape eating behaviors and food choices, particularly among heavy users (Wilcox *et al*., 2012) [26] The information sheds light on how social media usage affects the dietary preferences and food limitations of the participants in the survey. Intermittent fasting has gained more attention after people watching it on social media promoted by influencers. It was also seen that participants also look out for content shared by well-known dietetics influencers and follow their dietary advises shown on social media. A sizable percentage of participants stated that they began consuming more fast food after using social media. This shows that social media may encourage harmful food choices, which runs counter to the idea that it is a platform for encouraging healthy eating. Exposure to visually enticing food images on social media may set off cravings, which could be a possible underlying mechanism.

In the present study, it was found that participants sleep for 5-8 hours everyday and 39% spend 1-2 on social media at bedtime. It was found that people who spend 3 or more hours on social media feel that their sleep is getting affected due to overuse of social media. Elliottnell Perez *et al*., 2021 [14] found out that increased social media usage was linked to shorter sleep duration (P=.002) and lower sleep quality (P <.001). The association between social media use and duration (P=.001) and quality of sleep (P=.006) was mediated by age. As people aged, the correlations between social media and sleep became stronger. In the study, 81% of participants were non-smokers and 19% smoke and main causes to smoke were friends, family and stress. Influence of social media when classified by gender showed significant values. Similarly, Ranaei *et al*., 2022 [31] posted a review which concluded there was a stronger correlation between smoking and the influence of friends and family and concluded that prioritizing male kids before they enter high school can help minimize teen smoking. From 100 participants, 52% consumed alcohol and 23% posted it on social media where higher percentage of male compared to female and people with negative body image found significant difference. 30% of participants tried alcoholic beverage after watching it on social media and no significant differences were found. These results align with other research showing social media can impact alcohol-related behaviors and normalize alcohol use, especially in males.

In the present study, 66% have positive and 34% have negative body image perception about themselves and they think Instagram and Facebook affect negatively on body image perception. Interestingly, individuals who used social media for three or more hours a day were more likely to compare their looks to others (p = 0.033) and feel as though their appearance was being scrutinized (p = 0.011). This result is in line with earlier research showing that there was a strong correlation found between weight dissatisfaction, drive for thinness, thin ideal internalization, and self-objectification with elevated appearance exposure, but not with total Facebook usage. (Evelyn *et al*., 2013) [32] 73% of the total participants think that others opinion is importance on their physical appearance and it was significantly associated with 3 or more hours spent on social media. People who have negative body image opinion found to be significantly have negative effect of social image on body image perception and it was also associated with more number of hours spent on social media in this study. Significant difference and high mean was found in males that they more often compare appearance to someone else. Observing images depicting only the fit ideal and body transformations was linked to reduced body satisfaction and heightened appearance comparison. The connection between the type of images viewed and alterations in body satisfaction was influenced by appearance comparison.

It was found that participants with negative body image more often feel that their appearance is being judged. Barbara *et al*., 2021 [33] discovered a correlation between body dissatisfaction and the desire for thinness and the frequency of comparing one's own physical appearance to that of persons following on social media. It's interesting to note that while BMI did not muddle this association, education level did. In this study, it was seen that there was significant association found with 3 or more hours spend on social media and feeling of dissatisfaction because of fewer likes on social media posts. Similarly, Helena *et al*., 2023 [34] found that there were no statistically significant changes in the frequency of Instagram use or the percentage of women who followed appearance-focused accounts. Regarding the comparisons of physical appearance and body dissatisfaction, no discernible variations were observed based on the participants' usage of Instagram frequency, or if they had followed appearance-focused accounts on the platform before, during, or after the pandemic.

**Strengths and Limitations:** Diverse sample in terms of education levels, occupations, and gender representation (50% male, 50% female). Assessment of multiple factors related to social media's influence including eating behaviours, lifestyle habits, body image outcomes. Correlation analysis provided insights into relationships between different variables. The results were more valid due to rigorous analytical technique is used, and significant connections between variables were found. The study did not include a large geographical region; it was restricted to one city. Self-report measures were used to gather the data, and these can be prone to response biases such recall or social desirability bias. There is a chance that participants will record their activities or perceptions inaccurately, which could result in inaccurate data.

## Conclusion

The present study highlights the widespread influence of social media on various aspects of adult life, including eating habits, lifestyle modifications, and body image perception.

The likelihood of trying a diet recommended by an influencer and recommending it to others was significantly seen. There was positive and statistically significant correlation with eating habits, body image perception and negative correlation of posting content on social media and hours of sleep everyday. People with negative body image opinion have negative impact on body image perception. Participants spending 1-3 hours on social media felt that presence of smoking-related content on social media platforms encourage smoking among young people. Future studies could look at the long-term consequences of social media use on outcomes related to mental and physical health as well as the efficacy of treatments meant to lessen the detrimental effects of social media on wellbeing. Furthermore, examining how social media might support healthy lifestyle modifications and a better relationship with one's perception of oneself may yield insightful information. Longitudinal study can be done to obtain qualitative data.

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