

Influence of Social Media on Eating Habits: A Comparative Study between Boys and Girls (12–18 Years)

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Abstract- Background: The widespread use of social media has transformed the way adolescents access information related to food, nutrition, and body image. Continuous exposure to food-related content, advertisements, and peer interactions on digital platforms may influence dietary behaviours and lifestyle choices during adolescence. **Objectives:** To evaluate the influence of social media on eating habits among adolescents aged 12–18 years and to compare its effects on food preferences, body image perception, and dietary behaviours between boys and girls. **Methods:** A comparative cross-sectional study was conducted among 100 adolescents (50 boys, 50 girls) aged 12–18 years using a structured questionnaire. Information regarding social media usage, food preferences, eating behaviours, body image perception, dieting practices, and peer influence was collected and analyzed. Associations between gender and study variables were assessed using the Chi-square test in Microsoft Excel, with statistical significance considered at $p < 0.05$. **Results:** Social media demonstrated a considerable influence on the eating behaviours of adolescents. Boys were more likely to report positive responses to healthy eating-related content, whereas girls showed greater susceptibility to body image and dieting messages shared through social media. Most gender-based differences were not statistically significant. A significant association was observed only for perception of healthy versus unhealthy eating habits ($p = 0.026$). No significant associations were identified for dieting behaviour ($p = 0.537$), food preferences ($p = 0.343$), peer influence ($p = 0.368$), or exposure to social media food-related content ($p = 0.951$). **Conclusions:** Social media is an important determinant of adolescents' dietary behaviours irrespective of gender. Incorporating nutrition education and media literacy into adolescent health programmes may enable young people to critically evaluate online information, make healthier food choices, and adopt sustainable dietary practices.

Keywords— Adolescents; Social media; Eating behaviour; Food preferences; Body image perception; Media literacy; Gender comparison

I. INTRODUCTION

Social media has become an important part of adolescents' daily lives and plays a major role in influencing their food choices, eating habits, and lifestyle. Popular platforms such as Instagram, YouTube, Facebook, and Snapchat expose young people to food advertisements, recipes, nutrition information, fitness trends, and body image-related content. While social media can encourage healthy eating by providing useful nutrition information and promoting healthy lifestyles, it can also increase the consumption of fast foods, sugary drinks, and

unhealthy snacks through advertisements and influencer promotions.

Social media may also create unrealistic body image expectations and encourage unhealthy dieting behaviours, especially among adolescents. Boys and girls may respond differently to this content because of differences in their interests, social influences, and body image concerns; however, there is limited information on these gender differences among Indian adolescents. The present study was therefore conducted to assess the influence of social media on eating habits among boys and girls aged 12–18 years

and to compare their food preferences, body image perception, and dietary behaviours. The findings may help in planning nutrition education and media literacy programmes to promote healthier eating habits among adolescents.

II. METHODOLOGY

1. Study Design and Participants

A comparative cross-sectional study was conducted among 100 adolescents (12–18 years), including 50 boys and 50 girls, selected from schools and colleges in urban and rural areas. Participants were recruited using a simple random sampling technique. Adolescents who were regular users of social media and willing to participate were included in the study, whereas those who did not use social media or submitted incomplete questionnaires were excluded.

2. Data Collection

Data were collected using a self-administered, structured questionnaire consisting of 40 close-ended questions. The questionnaire assessed demographic characteristics, patterns of social media use, the influence of social media on food choices and eating behaviours, health awareness, body image perception, and gender-related perceptions. Responses were obtained through both online (Google Forms/WhatsApp) and offline (printed questionnaires) modes after obtaining informed consent from participants. Confidentiality and anonymity were maintained throughout the study.

3. Variables

The independent variable was social media exposure, including frequency of use and type of content viewed. The dependent variables included eating behaviours, food preferences, meal patterns, junk food consumption, and dieting practices. Gender was considered the comparison variable.

4. Statistical Analysis

Data were entered into Microsoft Excel and analyzed using descriptive statistics. The Chi-square test of independence was used to examine the association between gender and study variables, including

perception of healthy versus unhealthy eating, dieting behaviour, food preferences, peer influence, and exposure to social media food-related content. A two-sided p-value of <0.05 was considered statistically significant.

III. RESULTS

The study included 100 adolescents (50 boys and 50 girls) aged 12–18 years. Most participants were undergraduate students and were from rural areas. Social media use was common, with most adolescents spending 1–2 hours daily on social media, while longer usage was slightly more common among girls. Healthy food-related content was the most frequently viewed by both genders. Social media influenced food cravings, junk food consumption, body image, and eating behaviours in both boys and girls. Chi-square analysis showed a significant association only between gender and perception of healthy versus unhealthy eating habits ($p=0.026$). No significant associations were found for dieting behaviour, food preferences, peer influence, or exposure to food-related social media content ($p>0.05$) (Tables 1–5).

Table 1. Demographic Characteristics of the Study Participants (N = 100)

Variable	Boys (n=50)	Girls (n=50)	Total (N=100)
School students	15 (30%)	16 (32%)	31 (31%)
Undergraduates	35 (70%)	34 (68%)	69 (69%)
Urban residence	19 (38%)	22 (44%)	41 (41%)
Rural residence	31 (62%)	28 (56%)	59 (59%)
Social media use <1 hour/day	5 (10%)	7 (14%)	12 (12%)
1–2 hours/day	28 (56%)	20 (40%)	48 (48%)
3–4 hours/day	7 (14%)	11 (22%)	18 (18%)
>5 hours/day	10 (20%)	12 (24%)	22 (22%)

Table 2. Social Media Usage Patterns and Frequently Viewed Food-Related Content

Food-related content	Boys n (%)	Girls n (%)
Junk/Fast food	7 (14%)	8 (16%)
Healthy food	24 (48%)	20 (40%)
Dieting/Weight-loss content	15 (30%)	12 (24%)
Traditional/Home food	4 (8%)	10 (20%)

Table 3. Influence of Social Media on Food Choices and Eating Behaviours

Variable	Boys n (%)	Girls n (%)
Food cravings after viewing food videos (Agree/Strongly agree)	37 (74%)	23 (46%)
Junk food consumption after online advertisements (Sometimes/Often/Very often)	22 (44%)	26 (52%)
Social media increases sugary/fatty food intake (Agree/Strongly agree)	36 (72%)	37 (74%)

Table 4. Influence of Social Media on Body Image, Peer Influence, and Gender Perceptions

Variable	Boys n (%)	Girls n (%)
Social media affects body image	33 (66%)	29 (58%)
Peer influence on eating habits (Always/Sometimes)	37 (74%)	33 (66%)
Believe social media influences boys and girls differently	40 (80%)	39 (78%)

Table 5. Association between Gender and Study Variables (Chi-square test)

Study Variable	Chi-square p-value	Statistical Significance
Perception of healthy vs unhealthy eating	0.026	Significant
Dieting behaviour	0.537	Not significant
Food preferences	0.343	Not significant
Peer influence on eating habits	0.368	Not significant
Social media food content influence	0.951	Not significant

IV. DISCUSSION

The findings indicate that social media has a considerable influence on adolescents' eating behaviours regardless of gender. Although boys

showed slightly more positive responses to healthy eating messages and girls were more influenced by body image-related content, these differences were not statistically significant except for perceptions of healthy versus unhealthy eating. These results emphasize the importance of nutrition education and media literacy programmes to help adolescents make healthier food choices and critically evaluate online nutrition information.

V. CONCLUSION

Social media has a substantial influence on the eating behaviours and food choices of adolescents. Although its impact was observed in both boys and girls, gender differences were limited, with a significant association identified only for perceptions of healthy versus unhealthy eating. These findings highlight the importance of strengthening nutrition education and media literacy to help adolescents critically evaluate online food-related information and adopt healthier dietary practices. Collaborative efforts by parents, schools, and healthcare professionals are essential to promote responsible social media use and support healthy lifestyle behaviours among adolescents.

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