

FOOD CONSUMPTION PATTERNS OF ADOLESCENT GIRLS IN THE PANDEMIC.

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Introduction: The Covid-19 pandemic affected everyone largely and caused immense changes in the life-style of all people. In this situation, there were several changes that happened in food consumption and physical activity. Food consumption was affected by the availability or non-availability of food items. With work from home, study from home condition, other things like watching TV and lack of activity along with mental stress and anxiety was for every human being (Rodríguez-Pérez; Molina-Montes et al., 2020).

Adolescence is the transition stage of growth from childhood and adulthood. This stage demands good nutritious food for appropriate growth. For girls, the physical, emotional and psychological changes during this period made them vulnerable changes. Adequate nutrition is an important factor for good health during adolescence (Ruiz-Roso; de Carvalho et al., 2020). Physical activity, sleep and social media, use of electronic devices are important factors for adolescent life-styles. Thus, in the pandemic situation, we studied the food consumption patterns of adolescents, their habits of sleep, physical activity and screen time routine.

Methodology: This study was a cross sectional study and random sampling technique was used to select the subjects.

I. General Information: Eighty adolescent college girls between the age group of 18-20 were chosen. A Google form was used to obtain information.

II. Physical Activity: A physical activity questionnaire was used (WHO 2002). It was slightly modified for the adolescents in this study. It included questions for sedentary, moderate and vigorous activities. The frequency and duration of physical activity was enquired.

III. Dietary Intake: A food frequency questionnaire (FFQ) was administered with questions regarding frequency of intake of foods and portions. The following food items were included,

cereals, pulses, milk and milk products, nuts, fruits, vegetables, fish, poultry products, beverages, processed foods, packaged foods (cake or pastries, and potato chips) and aerated drinks (non-diet soft drinks).

IV. Screen Time: The adolescent girls were asked what form of device (mobile phones, laptop, T.V, tabs) they used for entertainment or for educational purpose. The duration of use of devices was asked. They were also asked regarding the social media applications used (Whatsapp, Facebook, Instagram, etc), time spent chatting or playing games or surfing the internet). Data regarding how long each social media session was and how frequently they were

accessed was noted. The participants were inquired whether they followed any food related pages on any of the social media platforms and whether any food apps have influence on their food selection.

V. Sleep Pattern: The sleep pattern questions included bed time, wakeup time, and total duration of sleep. It also covered questions which provided information on how much time it would take for them to fall asleep, do they use any form of electronic device before they go to bed, whether the participants would wake up in between at night and if they did, the reason and for how long. The response on how they felt after waking up (tired, fresh etc.) was also recorded. They were also asked to rate their sleep quality as excellent, good and bad.

Results and Discussion:

Age: The participant's age ranged from 18 years to 20 years and they were students. There were 44 girls in the age group 18-19 years and 36 in the 19-20 years group.

Education: All were students who were studying online. They attended online classes at different time as per their timetable. Additionally they were doing more assignments and projects compared to earlier due to the pandemic.

Physical Activity: Exercise was reported by 47% of girls doing it sometimes. About 15.7% did not do any exercise at all, only 17% reported the duration of 1 hour and 62% did exercise for 30 minutes. Exercise during the pandemic among people of all age groups may have increased to some extent because of the availability of free time, boredom etc. But mainly for girls in their late teens and early adulthood, girls had to contribute to household work which may have left them little time to exercise. Nearly half the girls reported exercising sometimes and those 60% of those who exercised, the duration was at least 30 minutes. This showed the trend of exercising and keeping up with the needs of the body. Not only did exercise help for health concerns and fitness levels but also to keep away from social media and other

influences. Exercising regularly was a necessity when everyone was confined at home. Exercise not only keeps your body in shape but relaxes the mind and helps to stay healthy. Unfortunately, a few did not exercise at all. This may be because they were either demotivated due to lack of contact with friends; or had family issues of illness due to COVID etc. These girls could have done simple exercises at home in the comfort of their surroundings.

Dietary intake: Looking at the food consumption, our study clearly showed that majority of girls missed fried foods such as samosa, vada pav which they consumed in college canteens. They then binged on chips, biscuits and a lot of junk foods such as maggi, noodles, pasta etc. Cereals were consumed by all, but only 26% reported eating them daily. The same was for pulses where 27% consumed daily. Milk and milk products were high only for 15% of girls. Nuts consumption was poor. About 28% consumed leafy vegetables twice a week, the most common root vegetables were consumed frequently by almost 50% of the participants. Fruit consumption was frequent only for 1/4th of the girls. Consumption of fried snacks was shocking; all-girls reported consuming fried food at least once a week to more than 4 times a week. Noodles particularly Maggi consumption was at least once a week by 30% of the participants. Junk food consumption was reported by 50% of girls at least twice a week. Chips were consumed by 1/4th of the girls with 44% reporting to eat chips twice a week. Some of the reasons for such a pattern could have been as follows-

- Restrictions in grocery shopping or availability.
- Boredom resulted in eating a lot of junk food and also skipping of meals.
- Stress- people tend to eat more during stressful situations to comfort themselves. For younger age groups, junk foods may be comfort foods. COVID 19 was a stressful situation for all.
- Ignorance of what is healthy food often leads to poor eating habits.
- Social media influence – they chose to eat food that was advised by the influencers and social media.

Screen time: Mobile phones were used by all the girls for studies and other activities. Almost 7 hours per day was spent using the phones. Instagram, FB, Snapchat and Whatsapp were the most common social media sites accessed. Half of the participants said that they followed food pages and were influenced by them for food consumption. Sleep pattern was disturbed and late nights caused them to miss classes. Also attentiveness in online classes was poor.

Many people used smartphones during meal times. Skipping meals may be due to excessive smartphone usage. This may affect the eating habits of adolescents. Eating in front of the TV or computer, can lead to overeating.

Sleep: With continuous online classes and being restricted at home without a permission to go out, TV watching and screen time had increased. The sleep duration was 5-6 hours maximum. We compared the 2 age groups and there was no difference between them for sleep duration. All participants reported that sleep duration was 8 hours or more prior to the pandemic. Almost all also said that they had difficulty in falling asleep. So they played games on the mobile. Few said sleep was disturbed and they woke up in between. They consumed a snack and then slept. Almost half of the girls said they were sleepy and tired in the morning and could not concentrate on online classes. Sleep quality seemed to be poor for most of them.

Conclusion: Our results suggested that during lockdown adolescents were consuming unhealthy food more than the nutritious food. Physical activity was much lesser and sleep pattern was disrupted. If this became permanent, it will affect health. We need to guide the adolescents to eat healthy food, be physically active and have regular sleeping habits.

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