

## Expenses incurred on junk food consumption among adolescent girls: A pilot study

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### Abstract

**Background:** Owing to taste, appearance and favorable environment created by mass media the craze of junk foods is increasing with time. This not only led to increase in prevalence of lifestyle diseases but also results in over expenses by children on these food items.

**Objectives:** The present study was therefore conducted to assess expenses incurred on junk food among schoolgoing adolescents girls in Barabanki, Uttar Pradesh.

**Material and Methods:** A pilot study was conducted among 336 adolescent girls from both government as well as private schools of Barabanki district in Uttar Pradesh. The study subjects were enrolled in the study using multistage sampling. Girls were interviewed face to face using semi-structured questionnaire to gather information about their dietary habits and preponderance towards junk foods and were assessed for their mean monthly expenditure on the same.

**Results:** The mean out of pocket expenditure was  $127.38 \pm 102.45$  INR (medium 97; Range 0 – 530). About 40.7% of the study subjects were habitual to daily intake of any type of junk food. However rest 30.3% take junk foods 3 to 4 times a week. Statistically significant mean difference was observed between nuclear and joint families as well as between rural and urban residence and between study subjects belonging to lower middle and above socio-economic status.

**Conclusion:** Awareness among youngsters regarding the long term hazardous effects of junk foods must be increased. Caregivers can play a significant role in substituting the children preference towards healthy food.

**Keywords:** adolescent, expenditure, junk food

### Introduction

Adolescence is an age of transition when an individual experiences rapid growth and development, both physical and psychological and changes from being a child to an adult. [1] It is evident from literature that diet plays an important role in growth and development of adolescents, therefore the development of healthy eating habits is of utmost importance. Like other countries India is also transiting towards the changing fast food trend [2]. “Junk food” is an informal term applied to some foods which are perceived to have little or no nutritional value, but which also have ingredients considered unhealthy when eaten regularly or to those considered unhealthy to consume at all [3]. Youngsters are most vigorously affected due to this uprising junk food trend in India [4]. Awesome taste, eye catching appearance along with advertisement on large scale has played a major role in diverting people choice particularly adolescents towards selling joints [5]. Implication and effect of fast and junk food has been observed in each and every socio-economic stratum. Even with the epidemiological transition junk foods like pizza, chowmein, burger, tikki, chat, samosa and other deep fried items have made a grab over the mind and food habits of youngsters. Skipping the healthy breakfast at home and then eating junk food consumption outside in schools canteen and nearby has now become quite common among Indian households. Such dietary behaviours are associated with increased weight gain from childhood to adolescence and then

from adolescence to adulthood [6]. Even experts now attribute the current childhood obesity epidemic to these fast and junk foods [7]. Apart from that, the expenses on junk food both in terms of frequency and amount has been increased over past few years. Therefore consumption of junk food items can assume to be like double edged sword in relation to household expenditure as it leads to expenses both in terms of food expenditure and health expenditure (if any type of the morbidity occurs). As limited studies are present to assess the expenses of youngsters on these junk foods, the present study therefore aimed to have an overview about expenses incurred on junk food among schoolgoing adolescents girls in Barabanki, Uttar Pradesh.

### Material & Methods

**Study area:** The present study was conducted in schools and inter-colleges of the Barabanki district, both in rural and urban areas.

**Study design:** Cross-sectional pilot study.

**Study participants:** School going girls aged 10–19 years.

### Data collection

A list of schools and inter colleges was obtained from District Education Office of Barabanki district. Three blocks were randomly chosen among 15 blocks of Barabanki. One intercollege and one middle school were then selected from each of the chosen block using simple random sampling. A

total 336 going adolescent girls participated in the study from six randomly selected schools and inter colleges. Data was collected from each study subject using a semi-structured questionnaire and data on socio-demographic parameters such as age, socioeconomic status, residence etc. were assessed and reconfirmed *via*. School records. During face to face interviews the girls were inquired about the junk food consumption over last few months and the gross expenses incurred for the same.

**Results**

**Biosocial characteristic of study population**

The mean age of the adolescent girls in the study sample was 14.3 ± 3.1 years. About half of the adolescent girls (55.6%) were in the age group of 10 – 13 years. Most of them (67.2%) belonged to nuclear families. Majority of the adolescent girls were Hindu by religion. Almost half of them belonged to Other Backward Castes (48.8%); followed by General and Schedule Caste/Tribes category (39.2% and 11.9% respectively). Near about two-third of adolescent girls belonged to the upper lower and below socio-economic status. [Table No. 1] About 40.7% of the study subjects were habitual to daily intake of any type of junk food. However rest 30.3% take junk food 3 to 4 times a week. Only one-fifth of the subjects stated that they didn't consume any type of junk food over last one month. [Table. 2]

The mean out of pocket expenditure was 127.38 ± 102.45 INR (medium 97; Range 0 – 530). The mean expenditure was comparatively higher among early adolescent girls, those who belong to joint families, residing in rural areas, studying in government schools, belonging to non-Hindu religion, among General & OBC category and those belonging to lower middle and above socio-economic status. However statistically significant mean difference was observed between nuclear and

joint families as well as between rural and urban residence. Also the mean expenditure was significantly higher among girls belong to lower middle and above socio-economic status. [Table 3]

**Discussion**

However a number of studies are present in context to eating habits among adolescents, but the literature in respect to the expenses incurred on junk food by the youngsters was quite limited. Although the expenses on junk food couldn't be catastrophic, but indirectly it may indicate toward the changing preponderance of youngster toward junk food items. Thus the cost spending on junk food might be assured as an indirect measurement of the burden of risk of non-communicable disease like obesity. In the present study the prevalence of consumption of junk food has been found 79.8% over last one month with about 40.7% of the adolescent girls eating any sort of junk food daily. The proportion reported was quite lower as compared to other studies. [8, 9, 10] Also with respect to daily consumption of junk and fast food the proportion was quite higher as compared to other studies. [8, 11, 12, 13] This must be taken in context as this increasing frequency might pose adolescents towards future obesity in later stages of life. Minimal literature is present in relation to fast food consumption and its related expenses in Indian context. However the trend of consumption pattern of junk food both in terms of quality and quantity may indirectly provide an overview towards expenses depending upon the current local market prices. But due to a major variation of junk food prices from region to region it was quite seemingly impossible task. However the study finding reveals the need of study in larger context with exploration of more intervening variable.

**Table 1:** Socio-demographic characteristics of school going adolescent girls (N=336)

| Variables              | Number                             | Percentage (%) |      |
|------------------------|------------------------------------|----------------|------|
| Adolescent (yrs)       | 14-19 (Mid and late adolescents)   | 149            | 44.3 |
|                        | 10-13 (Early adolescents)          | 187            | 55.7 |
| Type of family         | Nuclear                            | 226            | 67.2 |
|                        | Joint                              | 110            | 32.8 |
| Residence              | Rural                              | 167            | 49.7 |
|                        | Urban                              | 169            | 50.3 |
| Type of school         | Government                         | 256            | 76.1 |
|                        | Private                            | 80             | 23.8 |
| Religion               | Hindu                              | 260            | 77.4 |
|                        | Non- Hindu                         | 76             | 22.6 |
| Caste                  | OBC                                | 164            | 48.8 |
|                        | SC/ST                              | 40             | 11.9 |
|                        | General                            | 132            | 39.3 |
| Standard (Class)       | 11 <sup>th</sup> -12 <sup>th</sup> | 266            | 79.1 |
|                        | 6 <sup>th</sup> -10 <sup>th</sup>  | 70             | 20.9 |
| Socioeconomic** status | Upper lower and below              | 215            | 63.9 |
|                        | Lower middle and above             | 121            | 36.1 |

\*\* Modified BG Prasad socioeconomic scale 2015

**Table 2:** Distribution of adolescent girls on the basis of pattern of consumption of junk food (N=336)

| Consumption of any type junk food | Number | Percentage (%) |
|-----------------------------------|--------|----------------|
| Daily                             | 137    | 40.7           |
| 3 – 4 times a week                | 102    | 30.3           |
| 1 – 2 times a week                | 29     | 8.6            |
| Never                             | 68     | 20.2           |

**Table 3:** Distribution of adolescent girls on the basis of Expenses on Junk Food over last one month (N=336)

| Variables                   |                                    | Gross Monthly Expenses on Junk Food (INR) |                    |                      |
|-----------------------------|------------------------------------|-------------------------------------------|--------------------|----------------------|
|                             |                                    | Mean Expenditure                          | Median Expenditure | Range of Expenditure |
| Adolescent age –group (yrs) | 14-19 (Mid and late adolescents)   | 120.39 ± 39.66                            | 110                | 0-530                |
|                             | 10-13 (Early adolescents)          | 131.09 ± 105.66                           | 120                | 70 – 480             |
| Type of family              | Nuclear                            | 112.37± 87.72                             | 105                | 0 – 420              |
|                             | Joint                              | 158.53 ± 122.44                           | 120                | 0 – 530              |
| Residence                   | Rural                              | 129.53 ± 88.64                            | 115                | 20 – 340             |
|                             | Urban                              | 125.23 ± 114.85                           | 120                | 0 – 530              |
| Type of school              | Government                         | 127.70 ± 103.12                           | 122                | 110 – 230            |
|                             | Private                            | 107.20 ± 40.64                            | 100                | 0 – 530              |
| Religion                    | Hindu                              | 119.79 ± 97.36                            | 80                 | 0 – 530              |
|                             | Non- Hindu                         | 151.33 ± 111.70                           | 100                | 0 – 400              |
| Caste                       | SC/ST                              | 121.64 ± 102.94                           | 100                | 0 – 200              |
|                             | General & OBC                      | 129.81 ± 99.15                            | 110                | 0 – 530              |
| Standard (Class)            | 11 <sup>th</sup> -12 <sup>th</sup> | 127.38 ± 102.45                           | 100                | 0 – 530              |
|                             | 6 <sup>th</sup> -10 <sup>th</sup>  | 129.32 ± 101.23                           | 100                | 20 – 280             |
| Socioeconomic status**      | Upper lower and below              | 126.56 ± 102.65                           | 105                | 20 – 400             |
|                             | Lower middle and above             | 128.85 ± 102.65                           | 110                | 40 – 530             |

\*\* Modified BG Prasad socioeconomic scale 2015

### Conclusions

The expenses on junk food directly indicate towards the increasing choice of adolescents and their switch over to these unhealthy foods. Therefore it is necessary to make the youngster aware about under hazards of such food. Also the behaviour change towards junk food should be tried so as to bring up the healthy food habit.

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