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# A comparative study on eating behaviour among early and late adolescent girls

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■ABSTRACT : The present study was done to compare the eating behaviour among early (11-16 yrs) and late (17-22 yrs) adolescent girls of district Ghaziabad. To evaluate the effect of age and socio-economic status on eating behaviour among the population of district Ghaziabad, total 500 subjects, were selected by stratified multistage random sampling technique from Modinagar and Ghaziabad. Majority of respondents were educated, unmarried, belonged to nuclear family and from middle income group (LIG). The data reflect the choice of food and the effect of nutrients on eating habits of these two age groups with different economic conditions.

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**KEY WORDS:** Eating behaviour, Stratified multistage random sampling, Adolescent

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There are 1.4 Billion adolescents in developing nations, making up 1/5<sup>th</sup> to 1/4<sup>th</sup> of their country's population but often receive few health care resources and vacant attention (Pandey *et al.*, 1999).

Adolescent is a significant period of human growth and maturation. It may represent a window of opportunity to prepare nutritionally for adult life. This period is characterized by an exceptionally repaid rate of growth which exceeds only during total life and early infancy (Medhi *et al.*, 2007).

Present study is aimed at following objectives to study the socioeconomic characteristic of the adolescent girls, to study the eating behaviour in early and late adolescent girls in different income grops, to suggest the importance of better eating habits among above mentioned age groups.

### ■ RESEARCH METHODS

Present study was conducted in Ghaziabad district of Uttar Pradesh. To evaluate the effect of age and socioeconomic status on eating behaviour among the population of district Ghaziabad, total 500 subjects were selected by stratified multistage random sampling technique from Modinagar and Ghaziabad.

Questionnaire and interview method were used to collect data regarding different variables. After collecting the data it was tabulated and analyzed to see the statistical significance between inter group and intra group.

250 respondents were from 11-16 years girls and 250 were from 17-22 yrs. girls of age group. These were further sub divided on the basis of income in to Low income group (LIG), Middle income group (MIG) and High income group (HIG.)

#### ■ RESEARCH FINDINGS AND DISCUSSION

Table 1 reveals among the age group of 11-16 yrs. majority of respondents 63.2 per cent preferred not to skip meals followed 36.7 per cent of respondents who wanted to skip meals in LIG. Majority of MIG respondent, 72.3 per cent preferred not to skip meals and 75 per cent of respondents skip meals in HIG Among the age group of 17-22 years, majority of respondents preferred to skip meals among MIG and HIG, 84.5 per cent and 77.1 per cent and 84.4 per cent of respondents in LIG group preferred not to skip meals.

Table 2 shows among the age group of 11-16 yrs. majority of respondents 69 per cent skip meals due to lack of appetite in LIG and MIG. In HIG 50 per cent skip meals due to not having food of their choice and 50 per cent due to lack of appetite. In case of 17-22 yrs., majority of respondents skip meals due to lack of appetite in all income groups.

Table 3 indicates that majority of respondents preferred to three meals in a day in the age group of 11-16 years and all income groups None of the respondents preferred to take more than four meals among the age group of 11-16 LIG, and 17-22 years LIG and MIG and majority of respondents take less than 3 meals in a day in the age group of 17-22 in MIG and HIG.

As we know that home made food are very healthy for health, a comparison of views were done in between all groups and it was found that LIG in both age groups were carry lunch to their working place. Majority of respondents in age group of 11-16 years in MIG and HIG preferred to carry lunch to their working place. On the other hand majority of respondents do not carry lunch to their working place in MIG and HIG in the age group of 17-22 years (Table 4).

|           | No. of respondents    |              |      |      |     |       |                       |             |     |      |     |      |  |
|-----------|-----------------------|--------------|------|------|-----|-------|-----------------------|-------------|-----|------|-----|------|--|
| Responses |                       |              | 11   | -16  |     | 17-22 |                       |             |     |      |     |      |  |
|           | LIG                   |              | MIG  |      | HIG |       | LIG                   |             | N   | 1IG  | Н   | HIG  |  |
|           | No.                   | %            | No.  | %    | No. | %     | No.                   | %           | No. | %    | No. | %    |  |
| No        | 86                    | 63.2         | 68   | 72.3 | 5   | 25    | 92                    | 84.4        | 13  | 15.4 | 13  | 22.8 |  |
| Yes       | 50                    | 36.7         | 26   | 27.6 | 15  | 75    | 17                    | 15.5        | 71  | 84.5 | 44  | 77.1 |  |
| Total     | 136                   | 100          | 94   | 94   | 100 | 100   | 109                   | 100         | 84  | 100  | 57  | 100  |  |
|           | x <sup>2</sup> =32.39 | 98 df=2, p<0 | 0.05 |      |     |       | x <sup>2</sup> =1.635 | , df=2, p<0 | .05 |      |     |      |  |

| Table | e 2 : Distribution of r | espondents            | s on the ba | sis of why | do they sl | cip meals |                                     |       |      |     |      |     |      |  |
|-------|-------------------------|-----------------------|-------------|------------|------------|-----------|-------------------------------------|-------|------|-----|------|-----|------|--|
|       | Responses               | No. of respondents    |             |            |            |           |                                     |       |      |     |      |     |      |  |
| Sr.   |                         |                       |             | 11         | -16        |           |                                     | 17-22 |      |     |      |     |      |  |
| No.   |                         | LIG                   |             | M          | ſIG        | Н         | IG                                  | L     | IG   | M   | IIG  | Н   | IIG  |  |
|       |                         | No.                   | %           | No.        | %          | No.       | %                                   | No.   | %    | No. | %    | No. | %    |  |
| 1.    | Lack of time            | 13                    | 9.5         | 0          | 0          | 0         | 0                                   | 4     | 3.6  | 6   | 7.1  | 10  | 17.5 |  |
| 2.    | Lack of appetite        | 94                    | 69.1        | 60         | 63.8       | 10        | 50                                  | 82    | 75.2 | 78  | 92.8 | 47  | 82.4 |  |
| 3.    | Any other               | 29                    | 22.3        | 34         | 36.1       | 10        | 50                                  | 23    | 21.1 | 0   | 0    | 0   | 0    |  |
|       | Total                   | 136                   | 100         | 94         | 100        | 20        | 100                                 | 109   | 100  | 84  | 100  | 57  | 100  |  |
|       |                         | x <sup>2</sup> =10.47 | 73 df=2, p< | 0.05       |            |           | x <sup>2</sup> =9.915, df=2, p<0.05 |       |      |     |      |     |      |  |

| Table | e 3 : Distribution of | responden             | ts on the b  | asis of tot | al number | of meals                            | intake in | a day |      |       |      |     | Í    |  |  |
|-------|-----------------------|-----------------------|--------------|-------------|-----------|-------------------------------------|-----------|-------|------|-------|------|-----|------|--|--|
|       | D                     | No. of respondents    |              |             |           |                                     |           |       |      |       |      |     |      |  |  |
| Sr.   |                       |                       | 11-16        |             |           |                                     |           |       |      | 17-22 |      |     |      |  |  |
| No.   | Responses             | LIG                   |              | Ν           | 1IG       | Н                                   | IG        | L     | .IG  | N     | IIG  | Н   | IIG  |  |  |
|       |                       | No.                   | %            | No.         | %         | No.                                 | %         | No.   | %    | No.   | %    | No. | %    |  |  |
| 1.    | Less than 3           | 32                    | 23.5         | 30          | 31.9      | 5                                   | 25        | 20    | 21.0 | 70    | 83.3 | 30  | 52.6 |  |  |
| 2.    | Three                 | 100                   | 73.5         | 53          | 56.3      | 5                                   | 25        | 36    | 78.8 | 12    | 14.2 | 10  | 17.5 |  |  |
| 3.    | Four                  | 4                     | 2.9          | 6           | 6.3       | 5                                   | 25        | 3     | 3.0  | 2     | 2.3  | 10  | 17.5 |  |  |
| 4.    | More than four        | 0                     | 0            | 5           | 5.3       | 5                                   | 25        | 0     | 0    | 0     | 0    | 7   | 12.2 |  |  |
|       | Total                 | 136                   | 100          | 94          | 100       | 20                                  | 100       | 109   | 100  | 84    | 100  | 57  | 100  |  |  |
|       |                       | x <sup>2</sup> =0.932 | 2, df=2, p<0 | 0.05        |           | x <sup>2</sup> =1.503, df=2, p<0.05 |           |       |      |       |      |     |      |  |  |

The result from the Table 5 reveals that the majority of respondents in all income groups preferred home made food and remaining respondents preferred ready made food and rest of the respondents preferred both home made food and ready made food.

In case of type of method they prefer for cooking, respondents liked to go for steaming, roasting, as compared to deep frying in their daily life.

## **Summary :**

Table 1 reveals among the age group of 11-16 yrs majority of respondents 63.2 per cent preferred to skip meals followed 36.7 per cent of respondents who do not wanted to skip meals in LIG. Majority of MIG respondent, 72.3 per cent preferred to skip meals and 75 per cent of respondents do not skip meals in HIG among the age group of 17.22 yrs, majority of respondents preferred to don't skip meals among MIG and HIG, 84.5 per cent and 77.1 per cent and 84.4 per cent of respondents in LIG group preferred to skip meals.

Table 2, shows, among the age group of 11-16 yrs. Majority of respondents 69 per cent skip meals due to lack of appetite in LIG and MIG. In HIG 50 per cent skip meals due to not having food of their choice and 50 per cent due to lack of their choice and 50 per cent due to lack of appetite. In case of 17-22 yrs majority of respondents skip meals due to lack of appetite in all income groups.

Table 3, indicates that majority of respondents preferred to three meals in a day in both age groups and all income groups. None of the respondents preferred to take more than four meals among the age group of 11-16 LIG and 17-22 yrs LIG and MIG Table 4, it was found that LIG in both age groups were carry lunch to their working place. Majority of respondents in age group of 11-16 years in MIG and HIG preferred to carry lunch to

|            |           | No. of respondents    |                                     |     |      |     |       |     |      |     |     |     |      |
|------------|-----------|-----------------------|-------------------------------------|-----|------|-----|-------|-----|------|-----|-----|-----|------|
| Sr.<br>No. | Responses |                       |                                     | 11- | -16  |     | 17-22 |     |      |     |     |     |      |
|            |           | LIG                   |                                     | N   | 1IG  | Н   | IG    | L   | IG   | М   | IG  | HIG |      |
|            |           | No.                   | %                                   | No. | %    | No. | %     | No. | %    | No. | %   | No. | %    |
| 1.         | Yes       | 121                   | 88.9                                | 77  | 81.9 | 20  | 100   | 89  | 81.6 | 0   | 0   | 9   | 15.2 |
| 2.         | No        | 15                    | 11.                                 | 17  | 18.0 | 0   | 0     | 20  | 18.3 | 84  | 100 | 48  | 84.2 |
|            | Total     | 136                   | 100                                 | 94  | 100  | 20  | 100   | 109 | 100  | 84  | 100 | 57  | 100  |
|            |           | x <sup>2</sup> =0.837 | x <sup>2</sup> =8.594, df=1, p<0.05 |     |      |     |       |     |      |     |     |     |      |

|     |                                     | No. of respondents |      |     |      |     |       |                                      |      |     |      |     |      |  |
|-----|-------------------------------------|--------------------|------|-----|------|-----|-------|--------------------------------------|------|-----|------|-----|------|--|
| Sr. | D                                   |                    |      | 11  | -16  |     | 17-22 |                                      |      |     |      |     |      |  |
| No. | Responses                           | LIG                |      |     | 1IG  | Н   | IG    | L                                    | IG   | N   | MIG  |     | HIG  |  |
|     |                                     | No.                | %    | No. | %    | No. | %     | No.                                  | %    | No. | %    | No. | %    |  |
| 1.  | Home made                           | 74                 | 54.4 | 55  | 58.2 | 9   | 45.0  | 53                                   | 48.6 | 51  | 60.7 | 34  | 59.6 |  |
| 2.  | Ready made                          | 41                 | 3.01 | 20  | 21.2 | 6   | 30.0  | 45                                   | 41.2 | 30  | 35.7 | 17  | 29.8 |  |
| 3.  | Both                                | 21                 | 15.4 | 19  | 20.0 | 5   | 25.0  | 11                                   | 10.0 | 3   | 3.5  | 6   | 10.5 |  |
|     | Total                               | 136                | 100  | 94  | 100  | 20  | 100   | 109                                  | 100  | 84  | 100  | 57  | 100  |  |
|     | x <sup>2</sup> =5.155, df=4, p<0.05 |                    |      |     |      |     |       | x <sup>2</sup> =39.237, df=4, p<0.05 |      |     |      |     |      |  |

| Table | e 6 : Distributio | on of respo           | ndents on t        | he basis o | f type of me | ethod they | prefer for                           | cooking i | n their dail | y life |      |     |     |  |  |
|-------|-------------------|-----------------------|--------------------|------------|--------------|------------|--------------------------------------|-----------|--------------|--------|------|-----|-----|--|--|
|       |                   |                       | No. of respondents |            |              |            |                                      |           |              |        |      |     |     |  |  |
| Sr.   | Desmonaes         |                       |                    | 11         | -16          |            |                                      | 17-22     |              |        |      |     |     |  |  |
| No.   | Responses         | LIG                   |                    | Ν          | 1IG          | Н          | IG                                   | L         | IG           | Ν      | ſIG  | Н   | IG  |  |  |
|       |                   | No.                   | %                  | No.        | %            | No.        | %                                    | No.       | %            | No.    | %    | No. | %   |  |  |
| 1.    | Frying            | 5                     | 3.6                | 74         | 78.7         | 12         | 6.6                                  | 16        | 14.6         | 61     | 72.6 | 32  | 56  |  |  |
| 2.    | Steaming          | 69                    | 50.7               | 17         | 18.0         | 5          | 25.0                                 | 57        | 52.2         | 0      | 0    | 0   | 0   |  |  |
| 3.    | Any other         | 62                    | 45.5               | 3          | 3.1          | 3          | 15.                                  | 36        | 33.0         | 23     | 27.3 | 25  | 43  |  |  |
|       | Total             | 136                   | 100                | 94         | 100          | 20         | 100                                  | 109       | 100          | 84     | 100  | 57  | 100 |  |  |
|       | -                 | x <sup>2</sup> =26.52 | 29, df=2, p<       | 0.05       |              |            | x <sup>2</sup> =31.704, df=4, p<0.05 |           |              |        |      |     |     |  |  |

their working place. On the other hand majority of respondents do not carry lunch to their working place in MIG and HIG in the age group of 17-22 years (Table 6).

The result from the table, reveals that the majority of respondents in all income groups preferred home food and remaining respondents preferred ready made food and rest of the respondents preferred both home made food and ready made food.

In case of type of method they prefer for cooking, respondents liked to go for steaming, roasting as compared to deep trying in their daily life (Table 6).

#### **Conclusion :**

The above results conclude that majority of respondents in LIG and MIG don't skip meals in the age group of 11-16 years and in the age group of 17-22 respondents of MIG and HIG skipped meals and when asked the reason for skipping meals majority of respondents answered lack of appetite, not having food of their choice, dieting. On the basis of above results, majority of respondent in the age group of 11-16 yrs. follow the proper meal pattern in all age groups three meals in a day on the other hand in the age group of 17-22 years majority of MIG and HIG group don't follow proper meal pattern, they skip meals. It is concluded from the result that the home made food are very healthy and nutritious, majority of respondents carry lunch to their working place in all income groups in 11-16 yrs. Majority of respondent's preferred steaming, roasting as the best method for cooking.

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