

## Beverage Intake among Adolescent Girls and Boys of HIG and MIG

Tahera Khan\*, Nandini Rekhade\*\*

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### Abstract

To investigate the beverage intake of adolescent girls and boys food intake was examined using a 7-day food frequency questionnaire of HIG and MIG in Indore city. A total of 500 girls and boys, aged from 18-21 years, residing in Indore city were selected by systematic random sampling method. Nutrient intake was assessed using the 24-h recall method and the usual pattern of food intake was examined using a 7-day food frequency questionnaire. The result reveals that Non-significant difference ( $P > 0.05$ ) was observed for alcohol intake, Significant difference ( $P < 0.05$ ) was observed between the two groups ( $P < 0.05$ ) for fruit juice and non-significant difference ( $P > 0.05$ ) for coffee or tea in the food habits of adolescent girls and boys in MIG and HIG groups. Highly significant difference ( $P < 0.05$ ) was observed for skimmed milk, butter milk, whole milk, in the food items of adolescent girls and boys in MIG and HIG group.

**Keywords:** Skimmed milk; Butter milk; Whole milk; Adolescent girls and boys.

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### Introduction

To protect body from dehydration it is very important to include plenty of beverages in day to day routine. Also, it is observed that adequate fluid intake regulates body temperature and avoid many health issues. To understand beverage intake of adolescents of Indore city the following research was done with below objective.

### Objectives

To investigate the dietary pattern and nutritional status of adolescent girls and boys of HIG and MIG in Indore city

### Materials and Methods

This entire study was conducted in Indore City. In this research study 500 adolescent girls and boys of age 18-21 years were selected by purposive random sampling technique. Nutrient intake was determined by 24 hour recall method. In this study, a structured questionnaire was used regarding dietary intake and the usual pattern of food intake was examined using a 7-day food frequency questionnaire. Statistical analysis was done by using statistical tools like Z-test, mean, standard deviation, percentage, chi square test etc.

### Results

Table 1 reveals that 100 % of adolescent girls and boys were not taking all the soya milk in MIG group as compared to 14.4 %, 14.4 % and 71.2 % weekly, monthly and not at all in HIG group respectively. Also the table reveals that 16.0 %, 37.2 %, 9.2 % and 37.6 % of adolescent girls and boys were taking tea once a day, tea twice a day, coffee once a day and not at all in MIG group as compared to 27.2

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**Author's affiliation:** \*Research Scholar, \*\*Professor, Child Development, Home Science, Govt. Maharani Laxmi Bai Girls PG College, Fort, Indore, M.P., India.

**Corresponding Author:** Tahera Khan, Bhandari Hospital and Research Centre, 21, Ground Floor, Scheme No. 54, Opposite Meghdoot Garden, Indore M.P. Pin - 452010, India.

E-mail: tahirakhan03@gmail.com

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**Table 1: Distribution of Adolescent Girls and Boys in MIG and HIG as per their Beverage Intake**

Beverage intake	Indices	MIG		HIG		Chi- Value ( $\lambda^2$ )
		No	%	No	%	
Alcohol	No	247	98.8	240	96	1.55 NS
	Yes	3	1.2	10	4	
Aerated drinks	No	111	44.4	162	64.8	8.39**
	Yes	139	55.6	88	35.2	
Soya milk	Daily	-	-	-	-	33.6**
	Twice a day	-	-	-	-	
	Twice a Week	-	-	-	-	
	Weekly	-	-	36	14.4	
	Monthly	-	-	36	14.4	
Tea or Coffee	Occasionally	-	-	-	-	7.23 NS
	Not at all	250	100	178	71.2	
	Tea once a day	40	16.0	68	27.2	
	Tea Twice a day	93	37.2	64	25.6	
	Coffee once a day	23	9.2	26	10.4	
	Coffee twice a day	-	-	5	2.0	
	Not at all	94	37.6	87	34.8	
Fruit Juice	Daily	1	0.4	43	17.2	150.9**
	Twice a day	1	0.4	-	-	
	Twice a Week	-	-	42	16.8	
	Weekly	26	10.4	71	28.4	
	Monthly	119	47.6	-	-	
Skimmed Milk	Occasionally	91	36.4	-	-	28.8**
	Not at all	12	4.8	94	37.6	
	Daily	128	51.2	54	21.6	
	Twice a day	-	-	22	8.8	
	Twice a Week	5	2.0	-	-	
Skimmed Milk Curd	Weekly	3	1.2	14	5.6	15.2*
	Monthly	-	-	-	-	
	Occasionally	-	-	-	-	
	Not at all	114	45.6	160	64.0	
	Daily	24	9.6	6	2.4	
Butter Milk	Twice a day	-	-	-	-	66.8**
	Twice a Week	11	4.4	-	-	
	Weekly	10	4.0	30	12.0	
	Monthly	-	-	3	1.2	
	Occasionally	3	1.2	-	-	
Whole Milk	Not at all	202	80.8	211	84.4	34.8**
	Daily	16	6.4	-	-	
	Twice a day	-	-	-	-	
	Twice a Week	6	2.4	10	4.0	
	Weekly	11	4.4	76	30.4	
Whole Milk	Monthly	10	4.0	76	30.4	34.8**
	Occasionally	103	41.2	54	21.6	
	Not at all	104	41.6	34	13.6	
	Daily	16	6.4	76	30.4	
	Twice a day	-	-	23	9.2	
Whole Milk	Twice a Week	3	1.2	-	-	34.8**
	Weekly	-	-	-	-	
	Monthly	-	-	-	-	
	Occasionally	8	3.2	-	-	
	Not at all	223	89.2	151	60.4	

%, 25.6 %, 10.4 %, 2.0% and 34.8 % tea once a day, tea twice a day, coffee once a day, coffee twice a day and not at all in HIG group respectively; whereas, 0.4 %, 0.4 %, 10.4 %, 47.6 %, 36.4 % and 4.8 % of adolescent girls and boys were taking fruit juice daily, twice a day, weekly, monthly, occasionally and not at all in MIG group as compared to 17.2 %, 16.8 %, 28.4 % and 37.6 % daily, twice a week, weekly and not at all in HIG group respectively. Result also reveals that 51.2 %, 2.0 %, 1.2 % and 45.6 % of adolescent girls and boys were taking skimmed milk daily, twice a week, weekly and not at all in MIG group as compared to 21.6 %, 8.8 %, 5.6 % and 64.0 % daily, twice a day, weekly and not all in HIG group respectively; It was observed that 6.4 %, 2.4 %, 4.4 %, 4.0 %, 41.2 % and 41.6 % of adolescent girls and boys were taking butter milk daily, twice a week, weekly, monthly, occasionally and not at all in MIG group as compared to 4.0 %, 30.4 %, 30.4 %, 21.6 % and 13.6 % twice a week, weekly, monthly, occasionally and not at all in HIG group respectively; whereas, 6.4 %, 1.2 %, 3.2 % and 89.2 % of adolescent girls and boys were taking whole milk daily, twice a week, occasionally and not at all in MIG group as compared to 30.4 %, 9.2 % and 60.4 % daily, twice a day and not at all in HIG group respectively. It was also found that 55.6 % of MIG adolescent girls and boys were taking aerated drinks and 44.4% were not taking whereas 35.2% of HIG adolescent girls and boys were taking aerated drinks and 64.8% were not taking. It was observed that 1.2 % of MIG adolescent girls and boys were taking alcohol and 98.8% were not taking alcohol whereas 4.0% HIG adolescent girls and boys and girls were taking alcohol and 96.0% were not taking.

### Conclusion

The findings indicate that Significant difference ( $P < 0.05$ ) was observed between the two groups in their percentages with a

Chi-value of 33.6, 71.2 and 51.1 for soya milk; Which implies that frequency of consumption of soya milk in both the groups is different. Also, highly significant difference ( $P < 0.05$ ) was observed for fruit juice and non-significant difference ( $P > 0.05$ ) for coffee or tea in the food habits of adolescent girls and boys in MIG and HIG groups; Which implies that frequency of consumption of beverages in both the groups is different. Result also reveals that highly significant difference ( $P < 0.05$ ), was observed between the two groups in their percentages with a Chi-value of 28.8, 15.2, 66.8, 34.8, 44.9, 53.0 and 21.5 for skimmed milk, butter milk, whole milk, respectively, which implies that frequency of consumption of milk and milk beverages in both the groups is different. Also, significant difference ( $P < 0.05$ ) was observed between the two groups in their percentages with a Chi-value 8.39 for consumption of aerated drinks respectively, which implies that frequency of occurrence of the adolescent girls and boys in both the groups is different. Non-significant difference ( $P > 0.05$ ) was observed for alcohol, of adolescent girls and boys in the both groups.

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