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A Study on Dietary Intake of College Going Girls Residing at Home, Hostel and as Paying Guest

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Abstract

A crucial period of adulthood awaits, soon after the end of adolescent period, as then the girls are just on the threshold of marriage and motherhood. Adolescence is a crucial phase of growth and development, since it offers the second and last chance for the catch up growth in life cycle, therefore the present study was undertaken to study the dietary intake of 200 college going girls, aged 18-24 years residing in home, hostel and as paying guest. An interview schedule was used to collect the data regarding general information, anthropometric measurements, specific and dietary information. It was observed that subjects residing at home had better nutrient intake in comparison to those who were residing in hostel and as paying guest. Majority of students did not skip their regular meals. The consumption of protective foods such as fruits, vegetables, milk and milk products was very low in all subjects. Snacking was a very common habit in all groups though more in subjects residing as paying guest (36%) as compared to those residing in hostel (12%) and home (10%). Poor nutrition leading to physical inactivity contributed to the increased risk of weight disbalance. Subjects residing at home (10%) were overweight; whereas subjects residing in hostel (44%) and as paying guest (20%) were underweight. The findings hence forth illustrate the need for educational campaign regarding healthier food choice, lifestyle and weight management that would make a positive impact on the present and future health of the young girls and also their motherhood leading to healthy off springs.

Keywords: Adolescence, Adulthood, College Girls, Home, Hostel, Paying Guest.

Introduction

The health of the people is the wealth of a country and nutrition is one of the most important prerequisite for good health. Emerging adulthood can be considered the healthiest time of life. Arnett says emerging adulthood is the period between 18 and 25 years of age where adolescents become more independent and explore various life possibilities (Jeffrey Arnett, 2000).

In today's world girls are getting educated and for their education they may have to depart their home and stay in hostels or as paying guest. Living away from home tends to be the toughest adjustments for students specially regarding food. They do not know the nutritional values of the foods they eat and their academic responsibilities along and other factors distract their eating pattern. Most students tend to snack more than they did while living at home. Lifestyle changes, stress, peer pressure, eating behaviour, irregularity in meals, more consumption of junk food, poor hygiene condition and long access to food also contribute to erratic eating patterns and could be added factors and be picky eaters leading to poor health status in emerging adulthood.

The girls also lose a considerable amount of iron during menstruation thereby needing more iron. About 50 percent of the college going girls have been found to be anaemic in a survey conducted by the state health department of Haryana which pointed to unhealthy food habits especially among adolescent girls. (Deepender Deswal, TNN Jun 19, 2012)

Such changes can have a profound impact on nutrients intake. They need essential amino acids, carbohydrate, essential fatty acids, vitamins and minerals to sustain life and health.

Objectives of the Study

1. To study the anthropometric measurements of the subject residing at home, hostel and as paying guest.
2. To study the dietary intake of the above sample.

3. To compare the dietary intake of the subjects with recommended dietary allowances

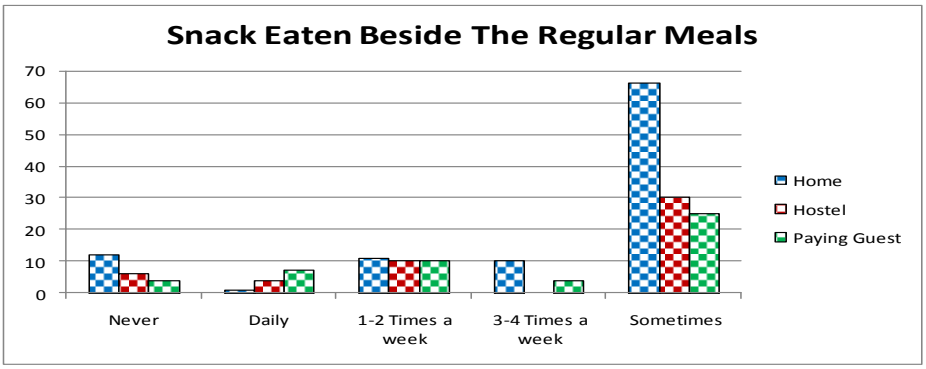
(**Gopalan, C., Sastri, B.P. and Balasubramanian, S.C,** ICMR [2010]).

Methodology

The area selected for the study was Agra(Uttar Pradesh).200 college going girls were selected as the study sample. These girls were residing at home, hostel, and as paying guest(100,50, and 50 respectively) by random sampling method Direct interview schedule method was used to collect data during survey through pre-structure questionnaire. Anthropometric indices were taken height(cm), weight(kg) and BMI(kg/m2). The nutrient intake of all the subjects were assessed by 24 hrs dietary recall method for 3 consecutive day. The gathered data was processed, tabulated, classified and analysed in terms of percentage.

Table No. 1. Distribution of Subjects According to Consumption of Snacks in between Meals.

S. No.	Consumption of Snacks	Residence	Home (100)	Hostel (50)	Paying Guest (50)	Total (200)
1.	Never	Percentage	6	2	4	4.50
2.	Daily	Percentage	10	12	36	17
3.	1-2 times a week	Percentage	14	6	8	10.50
4.	3-4 times a week	Percentage	12	2	6	8
5.	Sometimes	Percentage	58	78	46	60
Chi-Square (P-Value)			**26.76 (P<0.05)**			

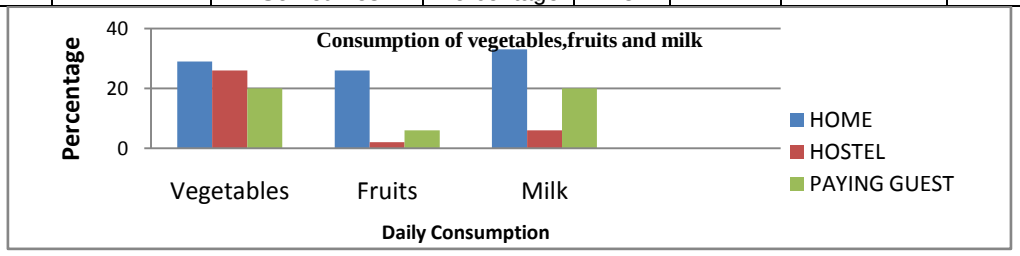


Result and Discussion

The above table shows the distribution of subjects according to consumption of snacks in between meals. Out of total respondents,6%,4% and 2% residing in home, paying guest and hostel respectively did not consume snacks between meals, whereas 36%,12% and 10% subjects residing in paying guest, hostel and home respectively consumed snacks in between meals daily. 78%,58% and 46% subjects residing in hostel, home and paying guest respectively consumed snacks between meals infrequently. There was statistical significant difference between the consumption of snacks in between meals among different groups as per type of residence of the subjects.

Table No. 2. Distribution of subjects according to the consumption of vegetables, fruits and milk.

S.NO	Parameters	Category	Residence	Home (100)	Hostel (50)	Paying Guest(50)	P value
1	Vegetables	Daily	Percentage	29	26	20	0.04
		2-3 times a week	Percentage	3	8	24	
		Sometimes	Percentage	68	66	56	
2	Fruits	Never	Percentage	29	70	54	0.001
		Daily	Percentage	26	2	6	
		2-3 times a week	Percentage	0	4	14	
3	Milk	Never	Percentage	42	82	54	0.06
		Daily	Percentage	33	6	20	
		2 times a day	Percentage	0	0	2	
		2-3 times a week	Percentage	2	0	2	
		Sometimes	Percentage	23	12	22	



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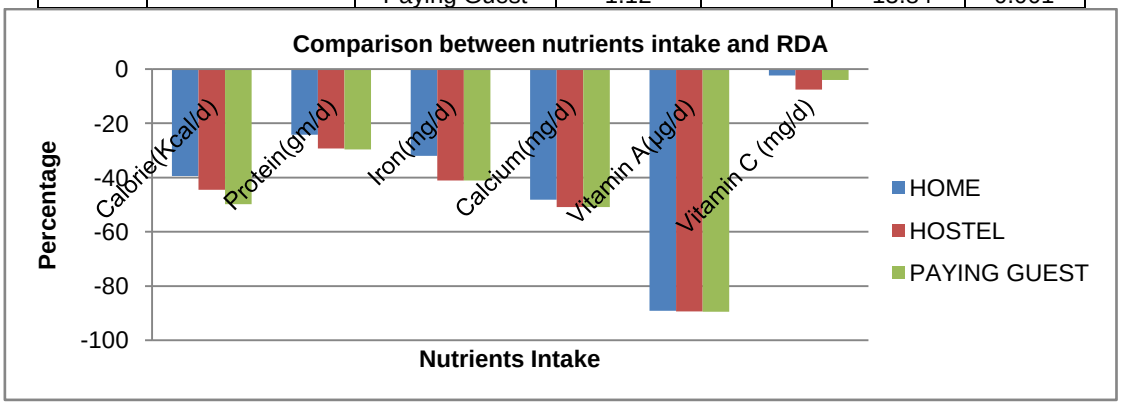
The above table shows the distribution of the subjects according to the consumption of vegetables and fruits. Regarding vegetables, out of total respondents, 29%,26% and 20% subjects residing in home, hostel and paying guest respectively consumed daily, whereas 68%,66% and 56% residing in home, hostel and paying guest respectively consumed vegetables infrequently. As per the consumption of fruits, 70%,54% and 29% residing in hostel, paying guest and home respectively did not consume fruits, whereas 26%,6%,2% of the subjects residing in home, paying guest and hostel respectively consumed fruits daily. There was statistical significant difference between the consumption of vegetables and fruits among different groups as per type of residence of the subjects.

Regarding milk consumption, 82%,54% and 42% residing in hostel, paying guest and home did not drink at all, whereas 33%,20% and 6% residing in home, paying guest and hostel respectively drank daily. 23%,22% and 12% residing in home, paying guest and hostel respectively consumed infrequently. There was no statistical significant difference between the consumption of milk among different groups as per type of residence of the subjects. Similar findings were observed by Malhotra A et.al(2007), Kelly Mc Grath (2007) and Laura M. Fiorito (2009) that daily consumption of vegetables, fruits and milk was less than the daily recommended allowances by college students.

Table No. 3. Comparison between nutrients intake and RDA of different residence group.

S.No.	Parameters	Residence	Mean	RDA	% Deficit	P value
1.	Calories(Kcal/d)	Home	1349.55	2230	-39.48	0.001
		Hostel	1236.19		-44.56	0.001
		Paying Guest	1186.72		-49.78	0.001
2.	Protein(gm/d)	Home	41.68	55	-24.21	0.001
		Hostel	38.87		-29.32	0.001
		Paying Guest	38.68		-29.67	0.001
3.	Iron(mg/d)	Home	14.29	21	-31.95	0.001
		Hostel	12.38		-41.10	0.001
		Paying Guest	12.74		-41.04	0.001
4.	Calcium(mg/d)	Home	311.04	600	-48.16	0.001
		Hostel	294.35		-50.94	0.001
		Paying Guest	294.33		-50.94	0.001
5.	Vitamin A(µg/d)	Home	542	4800	-89.08	0.001
		Hostel	509.31		-89.38	0.001
		Paying Guest	505.21		-89.47	0.001
6.	VitaminC(mg/d)	Home	39.05	40	-2.37	0.062
		Hostel	36.98		-7.55	0.001
		Paying Guest	38.41		-3.97	0.033
7.	VitaminB1(mg/d)	Home	1.15	1.1	+4.54	0.001
		Hostel	1.09		-0.9	0.565
		Paying Guest	1.1		0	0.940
8.	VitaminB2(mg/d)	Home	1.22	1.3	-6.15	0.001
		Hostel	1.15		-11.53	0.001
		Paying Guest	1.12		-13.84	0.001



The above table reveals the comparison between nutrients intake and RDA of different residence group. The deficit % between mean calorie intake and RDA was 49.78, 44.56 and 39.48 residing in paying guest, hostel and home respectively, whereas protein deficit % was almost same for subjects residing in paying guest and hostel,29.67 and 29.32 respectively followed by 24.21 residing in home. The iron deficit % was almost same for subjects residing in hostel and paying guest, 41.10 and 41.04 respectively followed by 31.95 residing in home. The calcium deficit % was 50.94 each for subjects residing in hostel and paying guest and 48.16 residing in home. The vitamin A deficit % was

almost same for subjects residing in paying guest, hostel and home, 89.47,89.38 and 89.08 respectively, whereas vitamin C deficit was 7.55,3.97 and 2.37 residing in hostel, paying guest and home respectively. The vitamin B1 deficit % was +4.54 residing in home and 0.9 residing in hostel, whereas vitamin B2 deficit % was 13.84,11.53, and 6.15 residing in paying guest, hostel and home respectively. There was statistical significant difference between calories(kcal/d), protein(gm/d), iron(mg/d), calcium(mg/d), vitamin A(µg/d) and vitamin B2(mg/d) in the subjects of all type of residence.

Conclusion

In the present study it was found that all the college going emerging adult girls residing at home, hostel and as paying guest had normal BMI but the intake of nutrients, calories(kcal/d), protein(gm/d), iron(mg/d), calcium(mg/d), vitamin A(µg/d), vitamin C(mg/d), vitamin B1(mg/d) and vitamin B2(mg/d) were statistically significantly low as compared to ICMR,2010. Subjects residing at home had better intake of nutrients than hostel residence and paying guest. Snacking habit was more prevalent in subjects residing as paying guest. Fruits, vegetables, milk and milk products consumption was very low in all the subjects.

Present study concluded that the high prevalence of sedentary behaviour, physical inactivity and unhealthy dietary habits among emerging adult girls is a major concern. Since college going age is a critical period of growth and development, the young girls of our country and very importantly the future mothers; a focused attention is required on their nutrient intake, dietary habits and their nutritional status for their current and future health and well being.

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