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Food choices and dietary habits of college going girls with special emphasis on breakfast consumption practices

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Abstract
Choosing nutritious foods, eating mindfully and planning appropriate meals while eating; are the important components which make a significant impact on one's well-being. The choice of whether and what to eat and drink first thing in the morning has been demonstrated to have a significant impact on our health, well-being and cognitive abilities. Breakfast is widely regarded as the most vital meal of the day. A nutritious breakfast ensures the best day possible in the long run of day-to-day life. Human body organs burn around 400 to 500 calories during the night during sleep for seven to eight hours. Breakfast skipping has become common practice in recent years for a variety of reasons. Sadly, this practise gives rise to a variety of diseases and conditions in long term, including weight gain, heart disease, bone thinning, irritability, mood swings, low energy, poor memory, mental stress, high blood pressure, and an unhealthy mix of blood cholesterol. Several studies have looked at the relationship between lifestyle choices (such as skipping breakfast) and health outcomes. College students, especially young girls were shown to be more likely to skip breakfast. This not only increases negative health impact, but also lowers the quality of one's food, sleeping pattern and degree of physical activity. The objective of the study was to assess the socio-demographic profile, dietary and lifestyle pattern of the college going girls and to identify the probable causes of faulty dietary habits, if any, with special emphasis on their breakfast consumption. 850 subjects were selected randomly from the two colleges of the Ghaziabad. Results indicated that 63% (n=536) were found to be skipping breakfast. Factors significantly associated with breakfast skipping were age, average family income (monthly), parental education, time spent in commutation to college, contribution to house hold work. The most common reason cited for skipping breakfast were lack of time, not liking to eat so early, having no appetite. The prevalence of breakfast skipping among the college going girls was moderately high. Lower nutrition knowledge could be associated with the above findings. Thus, nutritional interventions to impart education at college level can be an effective tool, as adolescents/young adults spend most of the time here. It is strongly recommended that this age group especially college going girls should be educated and made aware of healthy breakfast eating practices and good nutrition patterns for healthy lifestyle and thus contribute towards healthy nation.

Keywords: College going girls, eating behaviours, breakfast skipping, meal skipping

Introduction
Over the years significant studies have demonstrated that having breakfast has numerous health benefits compared to skipping it. Nutritionists and scientists are equally vocal about the importance breakfast and consider it as the most essential meal of the day. Despite this, one in four Indians admits to be neglecting the fact of it (Sivaramakrishnan *et al*., 2012) [32]. Given today's fast paced life, Indians are increasingly discounting the value of a nutritious breakfast. Although, individuals have become more health conscious these days and have recognised the necessity of being fit and eating a balanced diet, the long-term benefits of a nutritious breakfast are often disregarded.

The trend of skipping breakfast is more common in teenagers and young adults especially girls. Various national and international reports [13, 27, 35] reveal that adolescent (10–19 years) constitute 21% of India's total population, making it to be the largest in the world (1.5billion adolescents). The health status during this formative period has profound impact in the later life. College going age is crucial transition period from adolescence to adulthood. Major biological, educational and social role transformation occurs at this stage.

During this phase of life, one enjoys some degree of freedom and a sort of independence along with the responsibility for taking own decisions. However, the transition to adulthood also can be a time of increased vulnerability and risk. Habits acquired in adolescence and young adulthood can impact the entire life course, which is an important motivation for focusing on this age group [22, 35]. Behaviours, such as poor diet and/or inadequate physical activity in young adulthood can increase the risk of developing chronic disease later in life. These young adults are often considered to be healthiest age group, but their actual health status is very complicated. (IMO workshop summary, p45) [16].

Diets have evolved significantly over time. Income, pricing, individual preferences and beliefs, cultural traditions, as well as geographical, environmental, and social factors, all influence the adolescent's dietary choices. Globalization, increased urbanisation, income-induced diet diversity, and changing lifestyles; all have had an impact on the food consumption patterns of young adults over the last two decades. Nowadays, eating outside of the traditional meals of breakfast, lunch, and dinner is a regular phenomenon among college students. The craze for trendy foods, attractiveness of food, body image consciousness, peer influence, media advertisements; and the association of food with celebrities are all typical reasons that stimulate young people to eat.

According to research, young adults recurrently engage in poor dietary habits, such as low consumption of fruits and vegetables (Katarla *et al.*, 2018) [17, 22], high reliance on energy-dense snack items, and frequent meal skipping (Ambekar *et al.*, 2019) [2, 36]. Meal skipping can be defined as complete omission or underconsumption of meals from one or more typical main courses (breakfast, lunch or dinner) (Dubois *et al.*, 2009) [7]. Meal skipping, notably breakfast, have been allied to a lower-quality diet (Timlin *et al.*, 2007; Sivaramakrishnan et al., 2012) [37, 32] and overall lower energy, vitamin, and mineral intakes (Deshmukh-Taskar *et al.*, 2010; Pendergast *et al.*, 2016) [6, 24]; increased likelihood of central obesity (Ma *et al.*, 2003; Smith *et al.*, 2010 [33]) [19, 33], markers of insulin resistance (Smith *et al.*, 2010; Pereira *et al.*, 2011) [25] and risk factors for cardiometabolic disease (Smith *et al.*, 2010; Farshchi *et al.*, 2005) [33, 9]. Young adults' reported rates of meal skipping are consistently greater than those of other age groups (Australian food survey, 2014) [3], with estimates ranging from 24 to 87 percent (Silliman *et al.*, 2004; Sakamaki *et al.*, 2005) [31, 30].

Breakfast skipping is common practice across the globe, with adolescents and college students apparently being the most affected. (Rampersaud *et al.*, 2005) [28]. The commonest reasons for skipping breakfast appear to be a lack of time, absence of early hunger, and for adolescents, body weight concerns are there (Affinita *et al.*, 2013) [1]. The fear of gaining weight as a motivation for skipping breakfast is a particularly concerning trend because it contradicts data, which shows that skipping breakfast is linked to an increasing prevalence of obesity rather than weight loss. Despite the data, many people, particularly school and college aged adolescents, believe and practise missing breakfast for weight loss. (Zullig *et al.*, 2006) [40].

Adequate nutrition is a big challenge throughout the life cycle especially for women. In India, as a result of social prejudice; girls are more likely to suffer from malnutrition. College going girls can be considered as potential mothers. Poor nutrition begins before birth and continues through adolescence and adulthood, where it can perpetuate itself in a vicious cycle for future generations. If adolescent girls are schooled about nutrition, they can implement their abilities and talents today and evolve into responsible parents' tomorrow. Several studies across the globe have documented the phenomenon of breakfast skipping but most of them have focussed on school going children and its effect on their cognitive performances. There is paucity of literature on breakfast consumption pattern across different age/gender groups. This study uncovers captivating data regarding breakfast consumption habits of college going girls (aged 17-22 years), as well as their attitudes and perspectives toward breakfast.

Breakfast eaters of all ages typically consume a more nutritious diet. Children and adolescents must meet nutritional requirements in order to maintain an adequate pace of growth while avoiding vitamin deficiencies that can result in ill health (Emery, 2005) [8]. Breakfast-skipping individuals consumed fewer calories throughout the day, than breakfast-eating individuals, suggesting that there are no nutritional adjustments later in the day to compensate for the energy once the breakfast was omitted. As a result, breakfast skippers have decreased consumption of macro as well as micro nutrients (Nicklas *et al.*, 2000) [21]. Breakfast is seen as a critical initial source of energy for the day, in order for the brain to cope with the demands of early morning (Bellisle, 2004) [5]. While skipping breakfast results in a lack of energy, it also adds to long-term metabolic alterations, and may have an effect on overall nutritional and health status. Lack of energy results in lower glucose levels and elevated insulin levels in the body are associated with impaired cognitive function. The void between previous day's dinner and next day's breakfast of around ten to twelve hours causes, low blood glucose levels and a habit of skipping breakfast can prove to be dangerous and may have a detrimental effect on the individuals. It has been established that the eating habits of the family food preparer have an impact on the eating habits of other family members (Smith *et al.*, 2010; Hannon *et al.*, 2003) [34, 11]. Women and girls are typically in charge of meal preparation in the home. As a result, women's breakfast-skipping habits are likely to have an impact on the habits of their male counterparts and their children. Children who watch their mother skip meals on a regular basis are more likely to skip breakfast (Pearson *et al.*, 2012) [23]. It is possible that identifying the under lying causes will lead to the development of more focused measures for reducing the prevalence of breakfast skipping and increasing health and well-being of whole family. Disorganized meal pattern (skipping meals), curiosity to try new products, peer influence, concern about appearance, search for identity, struggle for acceptance and independence and psychological changes can impact the dietary habits and food choices of the young girls, as it is a very influenceable phase of life.

Thus, these factors need to be studied and understood well in context to young college going girls so as to develop effective nutrition interventions to bring timely behavioural changes. Thus, this study is undertaken with the objective of exploring and analysing the factors affecting food choices and breakfast consumption pattern of college going girls.

Methodology

Selection of sample

850 college going girls (17-23 years) were randomly selected for the study. Informed consent was taken from each subject.

Locale of study

The study was conducted in two colleges of Ghaziabad

namely V.M.L.G. (PG) College and Manyavar Kashiram Government Degree College.

Study instrument

A well-structured and a pre-tested questionnaire (pilot study done on 20 subjects) was used to collect socio- economic information such as age, marital status, education, place of residence, family education, type of family, family size, family income and occupation of parents etc. For nutritional information data on dietary and lifestyle pattern with special emphasis on breakfast consumption was gathered through questionnaire. The subjects were asked to fill 24- hour dietary recall for three consecutive days (2 working and 1 non-working day).

Results and Discussion

In the present scenario, where the life style related diseases are taking centre stage and spreading as epidemic in the young generation, any measure that may help in facilitating healthy food choices deserve to be put in to consideration. Habits, especially eating behaviour is a modifiable factor and can contribute to short term as well as long term health gain. Since making food choices is a frequent and expected part of everyday life, it becomes important that needs careful analysis, especially in reference to the young generation.

The most surprising revelation was that results indicated that out of 850 subjects, 536 (63%) reported to be skipping breakfast.

The major domains that cover the entire idea of food choices and breakfast consumption pattern of college students can be discussed under social factors, dietary factors, environmental factors and personal factors.

Social factors

Socio economic status (SES): The socio demographic profile of selected respondents can be seen in Table 1. This study indicates that the majority of the subjects (67.41%) were from the age group of 17- 20 years and most of them were pursuing graduation (84.94%). Majority of undergraduates were from social sciences faculty (54.35%) followed by commerce (36%) and science (9.65%). Majority of the girls (97.88 %) were unmarried and 73.41% of them belonged to nuclear family, almost (70.94%) girl's family had maximum 5 members in their house. Most of the girls (86.94%) belonged to Hindu religion followed by Muslim, Sikhs and Christians. Majority of the subjects were belonging to OBC category (39.29%) followed by General and SC/ST category. The income of family was computed by enquiring about their income from all the family members and various other sources, and it was observed that 64.12% of the subject's family income was less than Rs.25,000 every month.

Table 1: Distribution of the Subjects according to socio demographic profile (N=850)

S. No.	Socio demographic variables	Consumers (n=314)		Skippers (n= 536)		Total (N=850)		Chi square	p value
		N	%	N	%	N	%		
1.	**Age**								
	17- <20	175	55.74	398	74.25	573	67.41	30.912	<0.05
	20- 22	139	44.26	138	25.75	277	32.59		
2.	**Education**								
	Graduation	263	83.76	459	85.63	722	84.94	0.546	>0.05
	Post- graduation	51	16.24	77	14.37	128	15.06		
3.	**Faculty**								
	Arts	158	50.32	304	56.72	462	54.35	11.344	<0.05
	Commerce	112	35.67	194	36.19	306	36.00		
	Science	44	14.01	38	7.09	82	9.65		
4.	**Marital status**								
	Unmarried	298	94.90	534	99.63	832	97.88	21.300	<0.05
	Married	16	5.10	2	0.37	18	2.12		
5.	**Religion**								
	Hindu	286	91.08	453	84.52	739	86.94	9.595	<0.05
	Muslim	17	5.42	63	11.75	80	9.41		
	Sikh	7	2.23	14	2.61	21	2.47		
	Christian	4	1.27	6	1.12	10	1.18		
6.	**Caste**								
	General	108	34.39	195	36.38	303	35.65	10.782	<0.05
	OBC	108	34.39	226	42.16	334	39.29		
	SC/ST	98	31.22	115	21.46	213	25.06		
7.	**Area of Residence**								
	Rural	85	27.07	137	25.56	222	26.12	0.234	>0.05
	Urban	229	72.93	399	74.44	628	73.88		
8.	**Family type**								
	Nuclear	227	72.29	397	74.07	624	73.41	0.319	>0.05
	Joint	87	27.71	139	25.93	226	26.59		
9.	**Family Size**								
	2-5	220	70.06	383	71.46	603	70.94	27.606	<0.05
	6-10	34	10.83	107	19.96	141	16.59		
	11and above	60	19.11	46	8.58	106	12.47		
10.	**No. of siblings**								
	≥ 2	160	50.96	308	57.46	468	55.06	3.286	<0.05
	3 and above	154	49.04	228	42.54	382	44.94		
11.	**Birth order**								
	1	58	18.47	211	39.37	269	31.65	42.717	<0.05

	2	151	48.09	171	31.90	322	37.88		
	3	67	21.34	103	19.22	170	20.00		
	4	38	12.10	51	9.51	89	10.47		
12.	**Education status of mother**								
	Post-graduation	23	7.32	23	4.29	46	5.41	59.261	<0.05
	Graduation	55	17.52	59	11.01	114	13.41		
	Intermediate	53	16.88	89	16.60	142	16.71		
	High school	16	5.10	83	15.49	99	11.65		
	Secondary	10	3.18	68	12.69	78	9.18		
	Primary	62	19.75	57	10.63	119	14.00		
	Illiterate	95	30.25	157	29.29	252	29.65		
13.	**Education status of father**								
	Post-graduation	26	17.83	37	6.90	63	7.41	44.201	<0.05
	Graduation	108	4.78	148	27.61	256	30.12		
	Intermediate	44	10.52	155	28.92	199	23.41		
	High school	32	10.19	82	15.30	114	13.41		
	Secondary	33	14.01	29	5.41	62	7.29		
	Primary	15	4.78	33	6.16	48	5.65		
	Illiterate	56	17.83	52	9.70	108	12.71		
14.	**Working status of mother**								
	Working	59	18.79	107	19.96	166	19.53	303.782	<0.05
	Non- working	255	81.21	429	80.04	684	80.47		
15.	**Occupation of father**								
	Service	84	26.75	189	35.26	273	32.12	61.743	<0.05
	Business	79	25.16	170	31.72	249	29.29		
	Labourer	81	25.80	149	27.80	230	27.06		
	Teaching	13	4.14	11	2.05	24	2.82		
	Agriculture	57	18.15	17	3.17	74	8.71		
16.	**Average family income (monthly)**								
	0-25,000	215	68.47	330	61.57	545	64.12	6.310	<0.05
	25001-50,000	69	21.97	125	23.32	194	22.82		
	50,001 and above	30	19.66	81	15.11	111	13.06		
17.	**Place of residence of the subject**								
	Home/Family	297	94.59	511	95.34	808	95.06	0.235	>0.05
	Hostel	17	5.41	25	4.66	42	4.94		
18.	**Approximate time taken by the subject to commute to college (in minutes)**								
	0-30	101	32.17	220	41.04	321	37.76	30.543	<0.05
	31-60	135	40.99	244	45.53	379	44.59		
	61-90	55	17.52	66	12.31	121	14.24		
	90-120	23	7.322	6	1.21	29	3.41		

It has been observed that SES has a complex relationship with the food choices made. Some studies suggest that young adults with high SES are more prone to sedentary life style and eat more energy dense snacks while some suggest that youth with high SES have more access to highly nutritious food as they are costly. In developing countries, the scenario is quite different. In developing countries, it has been observed that students of lower and middle SES group show significantly higher snacking behaviour. A complete meal can be replaced with a low cost, energy dense and nutritionally poor snack. Thus, SES is an important determinant in making food choices.

Table 1 concludes that education and occupation of parents, family income, time taken to commute to the college; all are significantly related to the skipping of breakfast. While education (whether under graduates or post graduates), area of residence (rural or urban), type of family (nuclear or joint) and place of residence (home or hostel), are not significantly related to the breakfast consumption.

Table 2: Data on Impact of Media on eating habits of the subjects

S. No.	Questions	Consumers (n= 314)	Skippers (n=536)
1.	**Do you choose the food item by seeing the advertisement?**		
	Yes	226 (71.97%)	410 (76.5%)
	No	88 (28.03%)	126 (23.5%)
2.	**Media is good source for choosing healthy food?**		
	Strongly agree	103 (32.80%)	165 (30.78%)
	Agree	88 (28.03%)	190 (35.45%)
	Unaware	41 (13.05%)	37 (6.90%)
	Disagree	37 (11.78%)	69 (12.87%)
	Strongly disagree	45 (14.34%)	75 (14.00%)
3.	**You snack while**		
	With Friends	192 (61.15%)	269 (50.20%)
	With Parents/Family	42 (13.38%)	116 (21.64%)
	Watching TV	65 (20.70%)	103 (19.21%)
	Alone	15 (4.77%)	48 (8.95%)

4.	**Do you eat with your family?**		
	Yes	206 (65.60%)	192 (35.82%)
	No	108 (34.40%)	344 (64.18%)
5.	**Do you eat outside to show off?**		
	Yes	154 (49.05%)	220 (41.05%)
	No	160 (50.95%)	316 58.95%)

a) Media: In the present study out of 850 subjects, 369 (43.40%) reported that they watch television in their leisure time and 45.33% of them were breakfast skippers which accounts to a fairly good proportion.19.76% of the subjects admitted to have snack while watching TV; while 64.24% were in the favour that media is a good source for choosing healthy foods.

The influence of media in making food choices is under recognized. Media, especially television have great impact on youth. It affects the life style of an individual in three ways; firstly, it promotes sedentary life style, secondly, while watching television one tends to consume more energy dense snacks unknowingly and lastly, the promotional advertisements of ready to eat food, fast food chains and energy drinks influence the food choices made by youngsters. Media has capacity to persuade as it promotes experimentation, influence consumers beliefs and offer brand switching.

b) Influence of parents and friends: Table 2 indicates that 54.23% of the girls preferred snacking with their friends in contrast to 18.58%, who snacked while with their parents/family. 44.00% confessed of eating outside/canteen to show off to their friends whereas 46.82% of the subjects sat together with the family for meals. Eating is a social phenomenon; it mostly occurs in presence and under the influence of others. Family and friends act as model while making food choices. College students spend more time with their friends than with their family; and this acts as the major driving force behind their food choices and snacking behaviour. College girls become more independent and start making decisions on their own. Thus, in such situation, parental control seems to be less effective. Parents generally act as 'inhibitor' on the 'junk food' that is favoured and promoted under peer pressure.

Dietary factors

Food choice decisions are multifaceted, situational, dynamic and indeed very complex. Each eating episode requires many types of decisions including whether, what, where, when, with whom, how, how long, and how much to eat. Research indicates that most people make over 220 food decisions per day (Hall *et al.*, 2012) [10]. Since making food choices is a frequent and expected part of everyday life it becomes important that needs careful attention, especially in reference to the young generation.

Table 3: Data on dietary habits of subjects (N=850)

S. No.	Variables	N	Percentage
1.	**Eating Habits**		
	Vegetarian	529	62.23
	Ova-Vegetarian	159	18.71
	Non-Vegetarian	162	19.06
2.	**Average no. of meals per day**		
	2	475	55.89
	3	347	40.82
	4	28	3.29
3.	**Approximate time of the first meal of the day**		
	7am- 8am	65	7.64
	8am- 9am	77	9.06
	9am-10am	98	11.54
	Later than 10am	610	71.76
4.	**Do you over eat?**		
	Yes	83	9.76
	No	184	21.65
	Sometimes	583	68.59
5.	**Do you have habit of binge eating?**		
	Yes	389	45.76
	No	461	54.24
6.	**Do you observe fast?**		
	No	118	13.88
	Once a week	86	10.12
	Once in 15 days	3	0.35
	Once in a month	14	1.65
	Religion specific fast	629	74.00
7.	**Do you skip other meals too?**		
	No	310	36.47
	Yes	161	18.94
	Sometimes	379	44.59
8.	**Do you carry packed lunch to college?**		
	No	341	40.12
	Yes	444	52.24
	Sometimes	65	7.64

9.	**Do you eat at college canteen?**		
	No	97	11.41
	Yes	476	56.00
	Sometimes	277	32.59

a) Individual food preferences: Learning about the food eating continues throughout the life time. Prior experiences with food and early learning since birth have a potential to affect food preferences, food selection and amount of food consumed. At college going age, food choices are largely driven by taste rather than any consideration of nutrition and food safety.

Table 3 indicates that majority of the respondents (62.23%) were vegetarians while 18.71 per cent were ova vegetarians and 19.06 per cent were non vegetarians. Meal regularity pattern revealed that only 40.82 per cent of the respondents were consuming 3 meals regularly, while nearly half of the respondents (55.89%) skipped meals i.e., having only 2 meals a day.

Nearly three fourth (74.00%) were observing religion specific fasts (*Navratri, janamashtmi, shivratri, ramzaan, etc.*), while 13.88% did not practice fasting and 10.12% practiced fasting at least once a week.

b) Meal skipping: Meal skipping has been found a common practice among the college going students. Irregular meals promote snacking behaviour and led to develop preference for energy dense and nutritionally poor snacks and sweetened drinks. Thus, a careful watch is needed for improving the health status of the young generation.

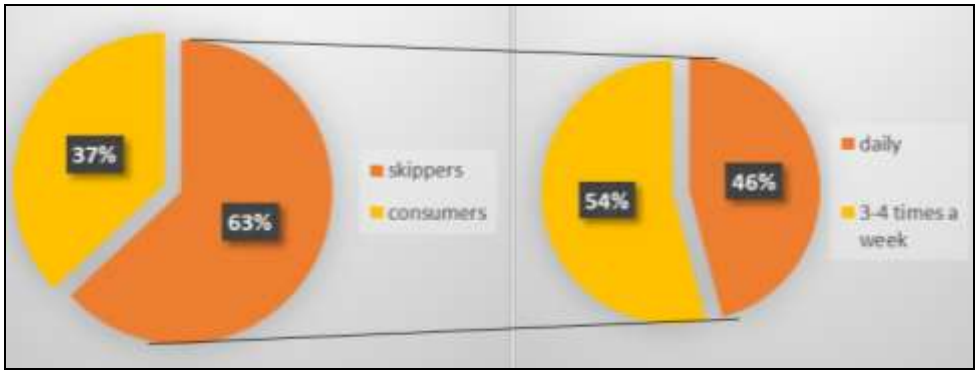
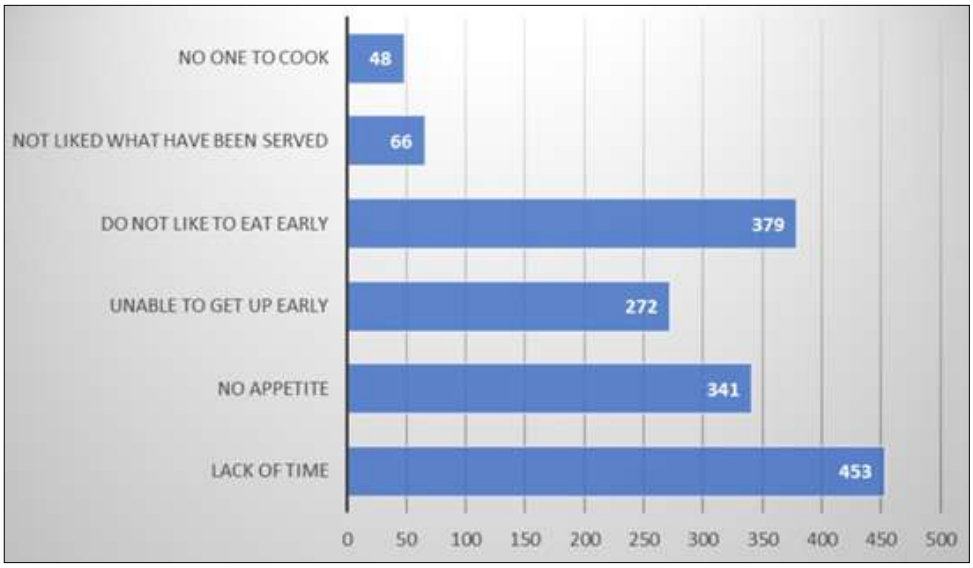


Fig 1: Breakfast Consumption Practices as observed among the subjects

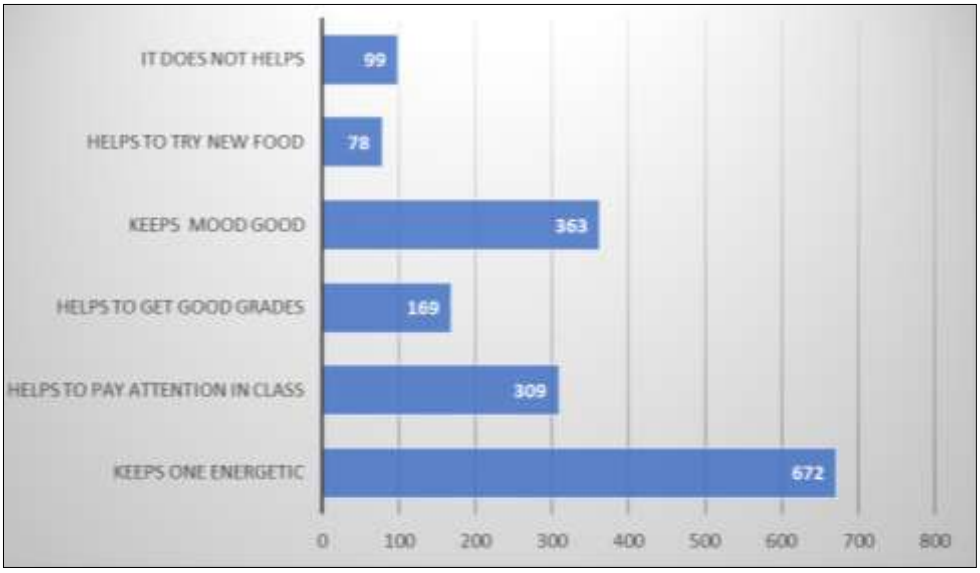
With regard to breakfast eating patterns, only 21.29% of the girls consumed breakfast daily, while 15.65% have it 3-4 times a week. As far as breakfast skipping is concerned 63.06% of girls were breakfast irregularly (28.94% missing it daily while, 34.12% skipping it 3-4times a week). 71.76% respondents reveal that they usually have their first meal of the day by later than 10am.



*Multiple responses (number may not add up to 850)

Fig 2: Reasons for skipping breakfast as reported by the subjects

Reasons for breakfast skipping (Fig 2) was lack of time (29.06%) and not liking to eat early (24.31%) were the most commonly stated reasons for breakfast skipping followed by not being hungry in the morning (21.87%), unable to get up early (17.45%), not liked what was cooked/served (4.23%) and lastly no one to cook at home (3.08%).



*Multiple responses (number may not add up to 850)

Fig 3: Benefits of eating breakfast as reported by the subjects

When enquired about the positive aspects of having breakfast, majority of the respondents admitted that having breakfast does keep them energetic (39.76%) and in good mood (21.48%). Few of them (18.28%) said that consuming breakfast helps them to pay attention in class and 10% respondents confessed that having breakfast helps them to get good grades, while 5.86% respondents stated that breakfast does not give any extra benefit to them. (Fig 3)

Fig 4: Negative implications of skipping breakfast as reported by the subjects

When asked that how do they felt when they did not eat breakfast, 24% of subjects said that they felt hungry; 19.26 % respondents accepted that skipping breakfast keeps them slim, while 16.16%, 15.61% and 14.15% confessed of feeling tired, having headache and feeing irritated respectively, after skipping the breakfast. 10.21% admitted of having trouble in paying attention in the class (Fig 4).

3) Environmental factors

a) Availability and accessibility: Table 2 shows that 56% of the subjects were regularly eating at college canteen while 32.59% were occasional eaters. 52.24% of the girls reported of bringing packed tiffin from home.

Most binged item were biscuits, fried savouries as *kurkure*, chips and *namkeen* followed by junk/ street food as *golgappe*, *tikki*, *bhelpuri*, *chowmein* etc. On enquiring about it in detail, it was found that all these items were available in college canteen as well as outside the college campus within a radius of 200m.

Food has become almost universally available and accessible, so that it can be acquired almost anywhere, anytime, by anyone. The onslaught of options for making food choice decisions leads many people to experience too many eating opportunities, that it can be labelled as a “the tyranny of choice”. Most of the college students spend time away from home and in company of friends. Eating “on the go” is a common habit of young generation and that too from the readily available street food. Easily available fast-food choices encourage students to practice unhealthy eating pattern and meal skipping. Most of the fast-food options are big in portion size, loaded with excess calories, are high in sugar and salt and low in fibres as compared to tradition foods. However, in developing countries like India street food can vary traditionally and regionally and may be somewhat rich in nutrients than their western counter parts. It has been found that mushrooming of malls and food joints readily

affects the food choices and snacking behaviour of the young girls.

4) Personal factors

a) Hunger, appetite and satiety: Table 2 indicates that 45.76% of the subjects were in the habit of binge eating, while 54.24% denied it. 68.59% of them confessed of over eating at certain occasions and only 9.76% said that they were habitual of over eating.

Hunger and satiety are brain sensations. Hunger is physiological need to eat food while appetite is another sensation experienced with eating that is very much psychological; it is desire to eat. But unlike hunger appetite can be ignored. Satiety is the satisfied feeling of being full after eating. Eating can be triggered even in the absence of hunger or extended beyond satiation (Lowe and Butryn, 2007) [18]. It may be initiated or prolonged by the presence of others, i.e., is influenced by social factors (Herman and Polivy, 2004) [12].

Thus, constant monitoring and self-regulation of eating is necessary in order to eat healthy. Empty calories can add weight to the frame, but leave one hungry for more. On the other hand, nutrient dense food fill up, gives satiety and can satisfy hunger pangs and helps to stave off in between meals temptations. Some individuals, however, show regular binge eating which is defined as consuming large amounts of food over a discrete period of time with a lack of control over eating, and which is associated with marked distress (American Psychiatric Association, 2013) [29].

b) Body image: It is evident from the data from Table 2 that 24.59% of the subjects admit that they sporadically involve in the practice of putting limitations on their eating (when enquired in detail the most stated reason was when some family function is nearing, they go on dieting spree).

Figure 4 shows that 19.26% of the subjects reported that they skip breakfast in order to stay slim.

Most of the young girls now-a-days are body image conscious. Body image and its disturbances, is a critical determinant of dietary practices and nutritional risk at this point of life, particularly among girls. The concept of 'body image' has become nearly synonymous with the physical appearance-related aspect, and it is currently defined as made up of three components: perception of body size and its accuracy; a subjective component of feeling satisfied or not with one's body; and a behavioural aspect. It can be easily seen that most of the girls are very much influenced by the celebrities. Concern about weight and shape of the body is found positively associated with the frequency of dieting episodes. Overall body dissatisfaction among adolescents may eventually lead to disordered eating behaviours such as anorexia nervosa or bulimia and thus alter the choice of food made.

c) Education level and nutrition knowledge: Studies have shown that adolescents have a significant amount of knowledge regarding healthy foods and believe that healthy eating involves moderation, balance and variety. Despite this knowledge they find it difficult to follow healthy eating recommendations and frequently consume food that they themselves perceive as unhealthy. It has been also found that girls have better nutrition knowledge than boys. But it has also been reported that young adults lack knowledge about the portion size and neither have the habit of reading food labels. But craze for trendy foods, mood, appeal of food, peer influence, media advertisements, association of food with famous people are the common factors that are driving youngsters towards snacking. This is evident from the Table 4.

Table 4: Distribution of subjects according to nutritional knowledge and practices (N=850)

		Knowledge		Practices				
	No.	Mean	S.D.	Mean	S.D.	r	z	P
Consumers	314	5.80	± 1.99	5.50	± 2.07	-0.060	1.062	>0.05
Skippers	536	6.94	± 1.93	6.28	± 1.93	+0.081	1.878	>0.05
Total (N)	850	6.52	± 2.03	6.00	± 2.02	-0.076	2.20	<0.05

The above Table 4 reveals that there is significant difference between nutritional knowledge regarding healthy food and practices of healthy eating among consumers as the z- value is 1.062 and p value is greater than 0.05. It reflects that in spite having considerable knowledge consumers fail to translate it to mindful practices for healthy lifestyle.

Similar is the view from the perspective of skippers, there is a significant difference between knowledge regarding healthy eating and practices of healthy eating among skippers. As the z-value is 1.878 and p value is greater than 0.05.

Conclusion

There is a lot of ambiguity in the definition of the term 'breakfast' in the literature. While (Preziosi *et al.*, 1999) [26] defined breakfast as the first eating occasion involving a solid food or a beverage that consumed after waking (Yang *et al.*, 2006) [39] and referred to it as food eaten before 09.00 hours irrespective of the meal content (Timlin *et al.*, 2007) [37] defined it as:

"The first meal of the day, eaten before or at the startof the daily activities (errands, travel, work) within2 h of waking, typically no later than 10.00 a.m. and of a caloric value between 20–35 % of the daily energy needs."

In the present study breakfast consumption was a self-reported phenomenon. After analysing and adjusting all the data, researcher conclude that breakfast is anything eaten before 10am and should provide 20-25% of daily requirement. Indian guidelines for a balanced diet states that the day's energy intake should be evenly divided between the three major meals of breakfast, lunch, and supper, with appropriate adjustments made if any snacks are taken over the course of day (Bamji *et al*., 2003) Results of the study indicate that while people may not admit to skipping breakfast, the breakfast meal they take is deficit in energy and several other macro- and micronutrients. Nutritional inadequacy of breakfast meal was extremely common among adolescents in this study. The majority of respondents reported that they just had a glass of milk or tea with two biscuits or toast for breakfast. Most likely they have to leave home quite early and they do not have enough time to prepare and eat a substantial breakfast.

Present study was conducted with the aim of assessing breakfast consumption practices and nutritional status of college going girls. College students are the backbone of the country especially girls; they are seen as future mothers. Therefore, their health issues need special attention. Healthy eating is essential for college going students to achieve their full academic potential, mental well- being and lifelong prosperity. Factors that were found to be influencing breakfast consumption in the present study were; parental education and occupation, family income, etc. the main reason cited for skipping breakfast was lack of time. Other reasons were lack of time for preparation of breakfast and poor knowledge on the nutritional importance of the first meal of the day. These

findings indicate the need to implement intervention programs at school and college level to reduce the problem of breakfast skipping and its consequences. Breakfast consumption is one of the important markers of heathy lifestyle and simple measures such as behavioural change, communication and monitoring "what you eat when" can surely improve the outcomes.

Therefore, this study strongly supports the need of nutritional education at college level.

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