



A STUDY TO ASSESS THE DIETARY HABITS THAT LEAD TO OBESITY AMONGST ADOLESCENT GIRLS LIVING IN THE HOSTELS OF KOTA

Ms. Anjali Saxena
Research Scholar
University of Kota, Kota

Dr. Bindu Chaturvedi
Senior Lecturer,
Department of GPEM

ABSTRACT

Being obese is a major malaise that is afflicting a vast chunk of youngsters living in the up-market localities of urban India. Over the years, obesity has become more of a lifestyle disorder rather than a medical problem and the root of course lies in the uniquely skewed dietary pattern followed by these adolescents. Looking good nowadays seems to be a necessity for the adolescents as they have to constantly live under peer pressure which makes it binding upon them to keep themselves sleek so as to be acceptable to one and all. In the earlier days, it wasn't much of a problem as so much of interaction amongst opposite genders wasn't a norm, life in schools and colleges were more about studies and discipline but today the scene has turned around to such an extent that looking beautiful and acceptable comes naturally to the girls and the ones who are not able to keep with the times seem lost and lag behind their peers. It's not just the clothes and the dressing sense that matter amongst the adolescents, rather it's the physique or the vital bodily statistics that seem to build the confidence among the youth of today.

Adolescence is considered to be such an age that undergoes rapid fire changes that are not just emotional and physical but physiological and hormonal as well. This is what makes this age the most significant when it comes to studying lifestyle disorders. It's also an age when keeping a check on what to eat appears to be burdensome as metabolism in this age is the most effective and almost everything that a youngster eats gets digested with an ease, a luxury that people have to lose with growing age. This is an age group that doesn't require much of a physical exercise to keep fit; as such adolescents may pick unhealthy eating habits

that may later on develop complications and either result in these adolescents putting on weight or contracting some chronic digestive ailment.

Obesity is an affliction that could primarily be seen amongst urban adolescents more than the rural ones as they are exposed more to a comfortable lifestyle where parents give them enough liberty to have their own vehicles thus making life pretty much lethargic for these young ones. Further, eating out quite often is a norm. Adolescents find it quite easy eating out almost 4 days in a week as they have enough money for that and there are too many outlets selling junk nowadays which is known to be one of the most significant reasons causing obesity. Though these youngsters have to suffer a lot in terms of loss of image, they don't seem to have much of a control on what they eat as growing age makes it almost imperative for them to eat passionately with an uncontrollable desire. Eating lots of fast food and food at roadside vendors makes them quite vulnerable to putting on weight and developing ailments which may cause them serious troubles in the days to come.

Key words: Obesity, Vulnerable, ailment, chronic, peer pressure

INTRODUCTION

The study was conducted amongst the adolescent girls of Kota living in hostels and preparing for competitive exams. Though it was quite difficult choosing a sample out of the girls belonging to different states, still it seemed imperative to do so as was the need. The only drawback being, girls from such varied states come to Kota that finding anything common amongst them is a complete challenge, let alone food. Food is something that changes in India with every state, so even if adolescents of the same age group are interviewed, it's highly unlikely to find them consuming the same food. It's not just a matter of choice; it's completely a matter of upbringing, like for instance girls born and brought up in families where non-vegetarian is a norm are pretty much fond of non-vegetarian food and leave no opportunity of gorging upon mutton, chicken or beef as and when they get to, the same doesn't hold true for girls born in families where non-vegetarian food is strictly restricted. Thus the quality of nutrients they intake can't be considered to be the same by any standards. The same can be said for the girls coming from southern states like Kerala and Tamil Nadu. Their food that is rice based is absolutely different from what the girls from the North love eating. For a while, if we keep this apart, we can very well compare girls from the same age group as they have more or less similar choices when it comes to choosing the best amongst the fast food available at big brand restaurants.

They all almost equally love junk like Burgers, pizzas and pastas which is universally known to be harmful but are a craze amongst the youngsters. It's very difficult to find an adolescent who doesn't love fast food. To the extent that in this age group, junk is a routine. It may not come as a shock, if an adolescent admits to consuming junk food even 7 days in a week if he or she has the financial resources to do so. The study chose 1050 adolescent girls living in the hostels of Kota as subjects as residing in a hostel brings along with it the burden to fend for yourself. Choosing the right mess to eat, setting a tight schedule for meals, developing enough discretion to choose what to eat and what not gets pretty difficult for an adolescent as this is an age when these young girls love to experiment new and innovative food every day. Hostels across the city were visited and the friendliest ones were chosen to target the subjects. Though we weren't expecting the girls to come up with absolutely honest answers still the study revealed a lot in terms of special interests that these adolescents possess. The subjects were chosen randomly as it would have been very difficult to select subjects based on certain fixed criteria. Neither caste, nor religion nor any other basis was brought into use while zeroing upon the subjects. Girls between the age group 16 to 25 were the ones chosen to be interviewed as they could be considered to be having almost matching consumption habits.

OBJECTIVES

To carry forth the study expecting best results out of it requires a certain set of objectives that would help us sail smoothly. Objectives become a necessity as there is always a need to have a destination to be reached. Further objectives make it pretty easy for us to match our progress with the desired goals as it is not always possible to get the results almost as they were expected. Variations often occur between expectations and conclusions. The objectives decided were as follows:

1. To find out the number of hostel living girls out of the chosen sample who were consuming fast foods.
2. The frequency with which they visited fast food joints and other road side vendors for afternoon or evening snacks.
3. To find out the number of girls skipping meals especially breakfasts.
4. To find out the number of girls who were obese and overweight and were languishing as a result of that.
5. To find out the number of girls interested in consuming non-vegetarian food and the frequency with which they had it.

MATERIALS AND METHODS

Selection of subjects:

The study required a sample of girls to be taken as subjects from the hostels of Kota as the study has focused on hostel living girls and the ones who are specifically suffering from obesity. Hostels and paying guest facilities are the only accommodations where majority of girls from outside are living. A total of 1050 girls were chosen randomly out of 12 different hostels. The selection was done arbitrarily without any fixed criterion. The only similarity amongst the girls being that they all belonged to upper middle income group and thereby eating habits were almost the same. Though they all hailed from different regions, still their fast food eating habits were presumed to be the same. Though 1050 girls out of the thousands of girls coming to Kota are not their true representative but since they all belong to the same age group, habits of eating are more or less the same.

Questionnaire

The girls were handed over a detailed questionnaire to be answered subjectively as well as objectively. The questions were open-ended as well as close-ended and sought answers about the age, caste, financial background, dietary habits, beliefs and preferences regarding food. These questions have a special significance as they help us to deduce the true dietary pattern that an adolescent has picked as a result of his upbringing in a particular family. It's in fact the family only that inculcates a certain dietary habit in a child and what an adolescent eats is a true reflection of what he has learnt as a result of being in that family.

Further, the questionnaire also comprised questions that sought answers regarding the kind of knowledge these adolescents possessed about the importance of nutrition and the food that suited them the best and was in their best interests. It also seemed to seek answers to questions pertaining to the sources they utilized for gaining any vital information about food. The questionnaire was pretty much exhaustive in nature and also contained questions demanding answers to queries regarding the ailments that these youngsters normally suffered while being at the hostel.

Moreover, the questionnaire even comprised questions regarding the frequency with which these adolescents consumed fast foods like burgers and pastas as they are universally

acknowledged to be one of the major reasons behind obesity and other weight related problems. Fast foods like noodles, pizzas and burgers are nowadays a rage amongst the youth and the questionnaire concentrated upon seeking answers to questions regarding the frequency with which the girls chosen as subjects consume this junk. It was not just the fast food upon which the questionnaire focused, it also sought information regarding the frequency with which these young girls consumed cold drinks, candies, sweets and heavily salted snacks and wafers.

Last but not the least, the questionnaire employed a 24 hour recall method to seek information regarding what an adolescent living in a hostel ate across the day in terms of breakfast, lunch, supper or even the snacks, cold drinks and wafers that these adolescents may pick anytime without caring much about what time of day it is.

DIETARY PRACTICES

These young adolescents are living far away from their parents and as a result, don't get much of an attention that is so much required in this age. This is an age when majority of these young girls want to experiment new and innovative foods almost every day as whatever becomes a routine gets boring and monotonous. This is also an age when metabolism is quite strong and anything they get to eat, gets digested too without much of a hassle. It's commonly seen that such youngsters love to gorge upon cakes, pastries, snacks, wafers, candies and patties all of which are heavily salted and thereby absolutely lethal to the youngsters in the long run. Further, these adolescents also love consuming too many of cold drinks which are high on sugar and thereby may cause the youngsters to gain weight. Same stands true for candies and chocolates which consist of excessive sugar, in fact these eatables are so high on sugar that they may cause imbalances in blood sugar levels even amongst those youngsters without any family history of diabetes. Most of the roadside food that these adolescents eat is high on hydrogenated oil and is thus downright harmful if consumed with a routine.

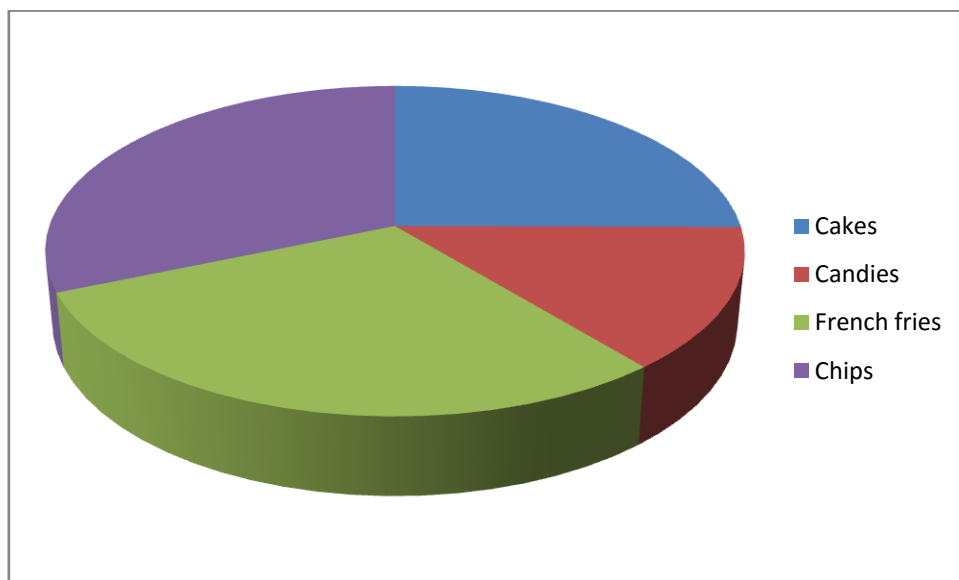
All the more, these adolescents have an erratic pattern of eating. They follow no schedules and eat when they want, no matter what time of day it is, which gradually causes them to suffer from digestive ailments which turn chronic with time especially when they are not cared for. It's not just the erratic schedule which troubles them, they are quite unmindful of the fact that what they are consuming most of the time may not cause them immediate harm but it will accumulate over the years to cause them all the trouble later.

Most of what they are eating is unhygienic, unhealthy and sometimes even partially cooked road side stuff high on salt and hydrogenated oil which takes a heavy toll on the youngster's body in the days to come.

ANALYSIS OF DATA

1. The data gathered through a stiff questionnaire that was handed over to 1050 girls and meticulous prodding of adolescents gave us a rich insight into the consumption patterns of youngsters on a routine basis. As it was quite evident that most of these youngsters don't have healthy eating habits as a result of which they have to suffer innumerable physical problems. The data accumulated through the standard questionnaires has been tabled for a methodical analysis:

Food Products	Number of girls consuming this food (2 to 3 times a week) in %
Cakes	72
Candies	40
French fries	85
Chips	90



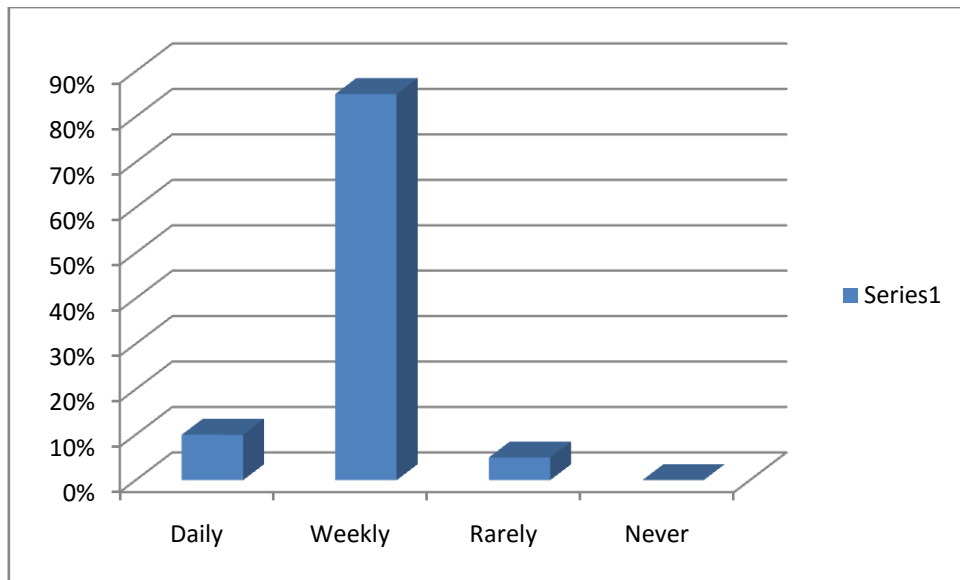
As the above given data is quite evident of the fact that girls living in hostels go on a random eating spree without giving much of a notice to what they are eating. The data quote above exhibits the fact that a big chunk of girls consume French fries and chips which are usually deep fried in hydrogenated oil and is one of the widely known reasons causing obesity among adolescents across the world. Further, cakes and candies which they love to consume on their whims are high on sugar which again is infamous and is notoriously known for causing obesity.

2. Another set of data that gave us vital information about the fast food consumption habits of adolescent girls living in the hostels of Kota made it amply clear that girls in this age love to devour anything junk irrespective of what the consequences will be. Most of the fast food is easily available at innumerable outlets present in every nook and corner of Kota and is of course as delicious as it is harmful. Thus out of the 1050 girls interviewed as subjects, these were the figures collected for an analysis:

Daily	Weekly	Rarely	Never
10%	85%	5%	0%

*The figures given above represent the number of girls (in percentage) consuming fast food.

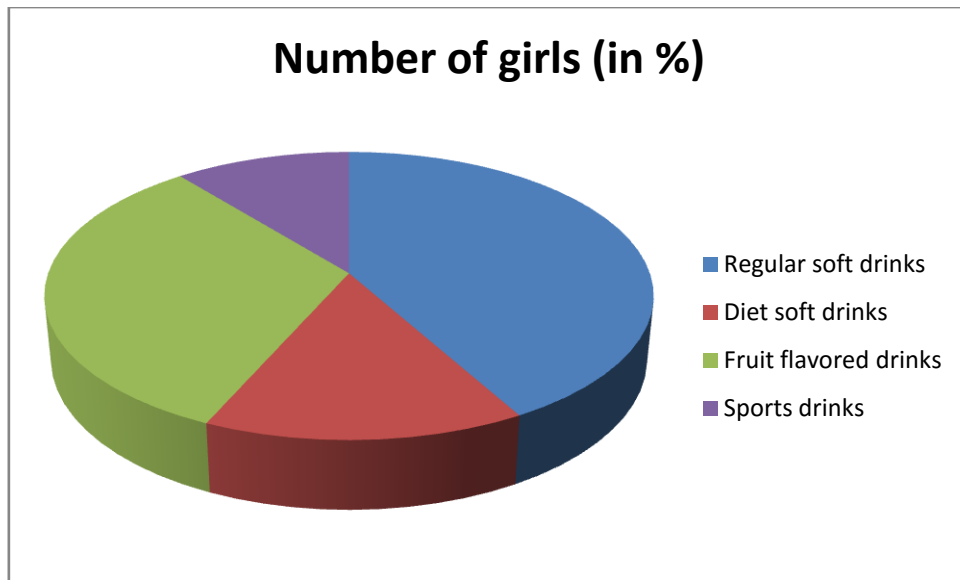
As the data quoted above quite convincingly indicates that a vast majority of girls love consuming fast food on a weekly basis. Most of the fast food products like burgers, pastas and pizzas are made out of very finely ground flour which is known to be harmful to the intestines. Further, too much of fat, butter and oil goes into stuffing the burgers and pizzas which are medically proven to be the reason behind obesity amongst the adolescents.



*The data given above represents the frequency with which girls consume fast food.

- The girls chosen as subjects were even assessed for their habit of consuming soft drinks which are nowadays quite a fashion amongst the adolescents thanks to the TV advertisements featuring stars endorsing various brands of soft drinks. The data collected as a result of the questionnaire handed over to the subjects revealed significant figures to be analyzed.

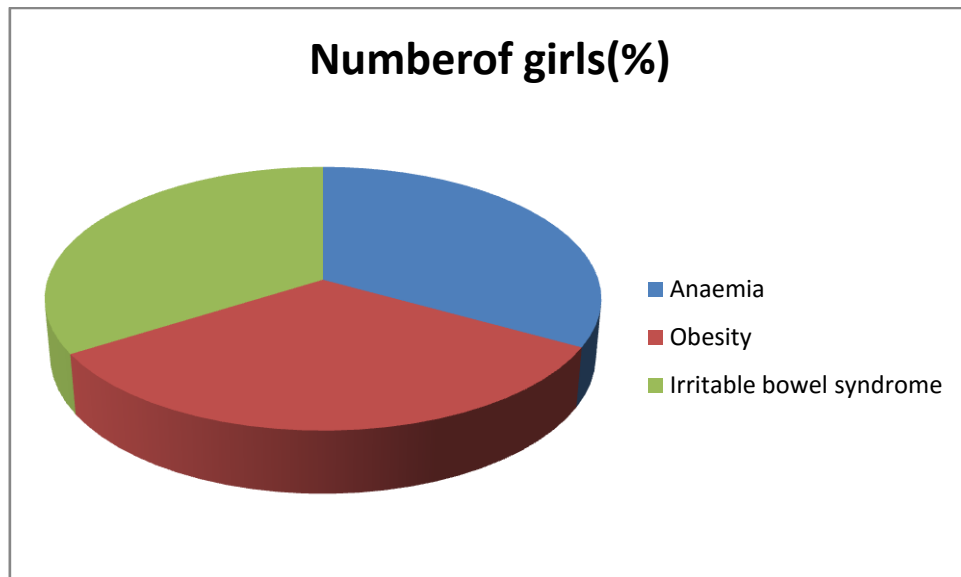
Type of unhealthy Drink	Number of girls (in %) consuming soft drinks 2 to 3 times a week
Regular soft drinks	81%
Diet soft drinks	28.57%
Fruit flavored drinks	62.85%
Sports drinks	21%



As the graph plotted above makes it sufficiently clear that about 81% of girls consume soft drinks 2 to 3 times a week. As is well known across the world that these aerated drinks are carbonated and are high on sugar and preservatives. Sugar is such excessively present in these soft drinks that a regular consumption by adolescents makes them vulnerable to diabetes and obesity. Sugar causes adolescents to put on extra weight as is well pronounced by medical practitioners and nutritionists around the world.

- The subject girls living in hostels were even questioned regarding their visits to nutritionists and Doctors and a disturbing trend revealed itself. The questions focused more on unraveling the problems that took the adolescents to doctors and it was found that obesity and anaemia were some of the major reasons behind their visits to doctors. Though obesity is known to cause repercussions and it manifests itself in many ways but with the youngsters, the reason is more superficial. Most of these adolescents are obsessed with self esteem and looking good for them is a significant issue. The data collected was tabled for a detailed analysis later.

Disease	Anaemia	Obesity	Irritable bowel syndrome
Number of girls (%)	68.28%	68%	70%



As the pie plotted above quite clearly suggests that around 68% of adolescent girls living in the hostels of Kota are suffering from obesity and majority of these girls get to visit doctors more because of being over-weight which has gradually become a lifestyle disorder. Most of the girls today are conscious about their looks and obesity is one of the major reasons that hamper their looks. Obesity may cause problems later regarding abnormal blood pressure but initially it's the peer pressure and the need to look good which troubles the adolescents the most.

NUTRIENT INTAKE:

It was found during the course of the research that most of these adolescents consume their meal quite unmindful of its nutritive value, the simple reason being they are not staying with parents and as a result there is a sheer lack of guidance. Further, most of the junk they eat lacks the vital nutrients that are badly needed to keep them growing and in a good shape. As they often skip their meals, they compensate for that by consuming snacks at odd hours. Snacks, as it is very well known are high on salt and may cause them to suffer abnormal blood pressures later. Further, these snacks are usually cooked in hydrogenated oil that is normally used and re-used at road side vendors and is a major reason today behind obesity that is afflicting a large number of adolescents worldwide. They skip their meals which they substitute with fast food. Green leafy vegetables which are a major source of iron, zinc and folic acid are never a part of their menu and lack of which is known to cause anaemia among

these youngsters. Moreover, they never consume milk or milk products which are a rich source of vitamin A and calcium and may keep them fit. Fruits and fruit juices too are never a part of their routine menu and thereby their consumption of vitamin C is almost negligible which weakens their immunity. Further, most of the fast food that they eat lacks roughage which keeps their bowels in order and free from constipation. Thus their nutrient intake is significantly skewed and doesn't qualify in any way to be called healthy. Obesity is all about eating junk, extra dosages of sugar, butter and hydrogenated oil.

CONCLUSION

1. In a nutshell, most of the adolescents living away from parents have the liberty to take their own decisions and as such most of them have a distorted pattern of eating. They eat all those stuffs in a routine which should otherwise be eaten rarely and that results in obesity.
2. For instance, skipping meals and consuming fast foods more than twice in a week, consuming soft carbonated drinks excessively is a routine followed commonly by these adolescents as a result of which they put on weight.
3. Consuming snacks high on salt and hydrogenated oil the whole day again makes them susceptible to obesity. Snacks kill their desire to eat regular healthy meals which again contributes to digestive disorders.
4. Sweets and candies are a routine with adolescents and they add on to their weight as is well known too much of sugar may lead to obesity.
5. Majority of these adolescent girls living in Kota for studies don't get to involve themselves into any kind of physical activity or sport which doesn't let them burn these extra ounces of fats that they accumulate as a result of junk and this may also be one of the reasons causing the problem of obesity amongst these youngsters.

RECOMMENDATIONS

1. Adolescents living far away from parents in hostels should take care to eat meals at proper hours as it keeps their energy levels high. Especially the breakfast is the most important meal of the day as it boosts the adolescents to be on their toes all the while.
2. They should ensure not to skip any meal as they get to make up for that by consuming unhealthy snacks that are heavily salted and harmful.

3. They should avoid consuming fast food like burgers and pizzas as they have almost no nutritive value and no roughage to keep their digestion in order. They normally cause chronic digestive ailments like flatulence and constipation.
4. Likewise adolescents living in hostels should avoid consuming too much of soft drinks which contain excessive sugar and thereby are detrimental to health.
5. They should even avoid consuming excessive cakes, chocolates and candies which contain too much of sugar and fat which cause them to put on weight and even develop disorders in digesting food.
6. Adolescents should involve themselves in some or other kind of physical activities like walking, cycling or some field sport which may help them in burning those extra fats they have accumulated.

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