



Statistical analysis on parent's perspective about obesity

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ABSTRACT

Country's development is in the hands of future generation. Obesity is the biggest threat to the children's health. The hidden risks of fast food such as obesity and food borne illnesses are not a simple complication. The fast food industry is a complicated web of growing problems. This threat is nowadays common among urban areas as they have more exposure to modern life style. The extension of fast food culture and its dreadful consequences even in rural areas is to be prevented

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Introduction

Today's major problem for children in this society is obesity. Childhood obesity is the result of consuming too many calories and not getting enough physical activity. If this situation continues future generation will face lot of health oriented problems. It is the need of the hour that the parents must aware about problems behind obesity and the way of protecting their children from the above said problem. Childhood obesity has more than tripled in the past 30 years. The percentage of children aged 6–11 years in the United States who were obese increased from 7% in 1980 to nearly 20% in 2008. Similarly, the percentage of adolescents aged 12–19 years who were obese increased from 5% to 18% over the same period.

Reason for obesity

In most of the cases child obesity is caused by eating too much and exercising too little. Parents have to understand reason of overweight of their children and try to take essential steps. The calorie consumed should be burnt. Lack of energy balance will lead to obesity. Watching television or playing computer games for more than two hours makes the children to involve in less physical activity which leads to obesity. It is a habit of many of the children to watch the television and have snacks without knowing the required quantity. The companies market their high calorie readymade food products to which the children are attracted towards it through advertisements, offers and gifts. Elders must be the role model for their children to make better food choices. Heredity is also a reason for obesity. The children of overweight parents face the same risk through the genes. However healthy food habits and regular exercise will control overweight.

Complication faced due to obesity

A report of British stated that the obese children appear to develop risks for heart disease usually not seen until adulthood -- putting their health in jeopardy as they age. Dr. Gregg Fonarow, Professor of cardiology at the University of California, Los Angeles, and spokesman for the American Heart Association, highlighted that obesity will affect the health future generation in many ways such as cardiovascular risk factors and, among adults, contributes to diabetes, premature cardiovascular disease and death. It is the major risk factor causing cardiovascular

diseases and it leads to short span of life for normal human being.

Review of literature

Manu Raj & R. Krishna Kumar (2010) highlighted in their article that obesity will become the serious problem and it will affect the significant portion of the US population. Proper defensive strategies have to be taken by all the countries to protect the people. Fruits, vegetables and fiber content food items will lead to the healthy life.

Kumanyika SK, et.al (2008) highlighted that a nutrition composition of food items have to be served in school canteen. It is suggested to conduct physical activities through physical education department, training program for the school teachers to offer quality food and to provide adequate financial support for organizing the above said activities to maintain balanced weight among the children.

Herva A et.al (2006) highlighted that psychosocial abnormalities are closely related with obese among the individuals. It may be related with depression in adulthood.

Van Horn L et.al (2005) emphasized that individuals should try to avoid eating food items outside. Balanced diet, fruits, vegetables, fiber content diet and low calorie food items will help to live healthy. Limited sugar and salt will enhance the healthy lifestyle.

Watts K, (2005) enlightened that regular exercise with low calorie, low fat food items helps to reduce the morbidity related with excess weight.

Ackard DM et.al (2003) suggested healthy behavior among the people formed by consuming balanced rich in quality foods contains calcium and fiber. In this paper it is insisted that the mother should breast feed her child at least for one year because the child who was not breast fed properly will face the problem of obesity. Poirier P, Despres JP (2001) specified that the overweight and obese children can burn the fat through regular hard workouts.

Objectives of the research

- (i) To analyze the reasons for obesity among the children.
- (ii) To know about the food preference of the children.
- (iii) To analyze the factors that influences the purchase of junk foods.

Limitations of the Study

The study is confined only to the obesity problem of the Children in Nagapattinam District, Tamilnadu, India. The researcher focused on the risk faced by the children consuming junk foods regularly, food preferences of children and the factors influencing the purchase of junk foods. Eighty samples were taken for the study. The data were collected from the parents of 8 - 14 years old children only. The research was confined to three months.

Research Methodology

Structured questionnaire for this study is framed by the researcher in which all the questions are predetermined before conducting the survey. Likert's Five Point Scale is used for the analysis. Sample size of 80 is taken into an account from a population of 100 respondents. The questions were asked to the parents (either mother or father) while dropping and picking up their wards to school. The researcher adopted simple random sampling technique for the collection of data. Both primary and secondary data were used for the study. Primary data is the fresh data collected from the respondents through structured scheduled questionnaire. The secondary data are collected from books, articles, and journals. Statistical Tools such as Simple Percentage Analysis, Chi- Square Test, spearman's rank correlation were applied.

Hypothesis

1. There is no significant relationship between the child consuming junk food and the child's mother going to job.
2. There is no significant relationship between the purchase of junk foods and influence of advertisements.

Data Analysis and Interpretation

Details about parents occupation

Details of parents going to job	Number of respondents	Percentage
Only father	34	42
Only mother	3	2
Both father and mother	43	56
Total	80	100

Source: primary data

Inference:

From the above table it is depicted that in 56% of the family, both father and mother are going to job. Also the mother does not have enough time to take care in giving healthy food and she switches over to readymade food.

Details of number of children

Number of children	Number of respondents	Percentage
Single	52	65
Two	25	31
More than two	3	4
Total	80	100

Source: primary data

Inference:

From the above table, 65% of the family have single child. Being a single child they are given packet money which influences them to buy whatever they like to have. Those children are highly privileged and they take it as an advantage over their parent's affection to consume more junk foods.

Details of number of months the child is breast fed

No. of months the child is breast fed	Number of respondents	Percentage
0	4	5
1-3 months	20	25
4-6 months	26	33
7-12 months	19	24
Above 12 months	11	13
Total	80	100

Source: primary data

Inference:

Nearly 30% of the children are not breast fed properly. Doctors advise the mother to feed their child at least for one year and those children who are not fed by the mother will face the problem of obesity in their childhood stage.

Details of playing activities of the children

Playing activity	Number of respondents	Percentage
Only indoor games (Video games, Carom, Chess etc.,)	39	49
Outdoor games (Cricket, Football, Cycling, etc.,)	19	24
Both indoor and outdoor games	22	27
Total	80	100

Source: primary data

Inference:

49% of the children play only indoor games. The parents should encourage their children to play outside. Playing indoor games makes the children to involve only in mind activity and less physical activity which is also a reason for overweight.

Details of number of hours the children spend for exercise/yoga

Number of hours	Number of respondents	Percentage
Nil	31	39
≤ 1 hour	38	47
More than one hour	11	14
Total	80	100

Source: primary data

Inference:

From the above table, it is inferred that 47% of the respondents expressed that their children are doing exercise for less than one hour. 39% of the respondents highlighted that their children are not at all doing any exercise at their home.

Perceived reason for child obesity according to parents

Perceived reason for child Obesity	SA%	A%	MA%	DA%	SA%	Total
Heredity	15	14	37	20	14	100 %
Junk food (Pizza, Burger, Oil fried snacks, etc.,)	31	29	19	10	11	100 %
No exercise/No outdoor games	24	26	19	11	10	100 %
Watching television	26	30	29	12	3	100 %
Lack of parents awareness	24	21	29	12	14	100 %
Pocket money	15	14	26	29	16	100 %
Improper medical check-up	16	21	34	18	11	100 %

Source: primary data

Inference:

From the above study, it is observed that 56% of the parents felt that watching television is the main reason for obesity among children. They eat snacks endlessly without knowing the quantity while watching TV. It is observed 45% of the parents are not aware of the calorific value and the quality of food items bought outside.

37% of the respondents agreed that they use to visit the dispensary occasionally, unless a serious health problem occurs. Regular checkup and the doctor's counseling can prevent the children from obesity.

Almost 50% of the parents agreed that lack of regular exercise among their children is a leading factor for overweight. The children are engaged with electronic gadgets most of the time which prevents them to do exercise and play outside. The

proliferation of electronic items such as mobile phone, laptops, tablets etc among the children leads to overweight.

29% of the respondents agreed that the children are eating high fat food items by using the pocket money offered.

Food preference of the children – Ranked by the parents

Food preference of the children	Ranking order
Oil fried snacks	1
Restaurants/ street side food	2
Readymade food (Noodles, Pasta, etc)	3
Sweets/ chocolates	4
Bakery items/ butter cream cakes	5
Carbonated cool drinks / ice creams	6
Homemade food	7
Baked , steamed food	8
Fruits / vegetable salads	9

Source: primary data

Inference:

Using spearman rank correlation methods the data given by the parents were analyzed. From the above table it is inferred that the children prefer junk food items (Oil fried snacks). Least preference is given for healthy food such as home made items, baked/steamed food and fruits and vegetable salads.

Factors influencing the children to buy junk food

Influencing factors to buy junk food	SA%	A%	MA %	DA%	SA%	Total
Advertisement	27	33	15	15	10	100 %
Gifts and offers	19	20	30	16	15	100 %
Taste and flavor	26	27	29	10	8	100 %
Through friends and relatives	21	15	26	20	18	100 %
Attractive Packaging	20	26	27	16	11	100 %
Dislike home food	15	27	32	16	10	100 %
Modern lifestyle	20	21	29	15	15	100 %

Source: Primary Data

Inference:

Advertisement influences the kids to kindle their parent to consume junk food, almost 60% of the respondents agreed to the statement. Also the children learn through friends who bring the junk food to school. The relatives and guests offer junk food to show their love and there by the children come to know about the new arrivals in the market.

53% agree that the taste and flavor is influencing the children for repeated purchase of junk foods.39% of the respondents agreed with the statement that the children buy snack items for the offers and gifts given together with the pack.

Due to the extension of nuclear family, a modern culture makes the family to buy foods outside, agreed by 41%. Fast food culture just fills the stomach which leads to big problem in health aspects of urban children. 41% of the children are influenced by lucrative packaging design of junk food products. Attractive design, color, logo and caption of the packed items yield impulse buying behavior among the children.

In a family of both mother and father going to job, the mother does not have enough time to take more care in cooking tasty and variety of food. Therefore they get aversion on repeated and tasteless home food, agreed by 42%.

Testing of hypothesis

Hypothesis: 1

H_0 : The child consuming junk food is independent to the factor that the child's mother is going to job.

H_1 : The child consuming junk food is dependent to the factor that the child's mother is going to job.

Calculated value= $(O_i - E_i)^2 / E_i = 4.45$

Degrees of freedom= $(r-1)*(c-1) = 2$

Level of Significance= 5%

Table value= 3.841

T.V. < C.V. Reject H_0

It is concluded that the child consuming junk food is dependent to the factor that the child's mother is going to job.

Hypothesis: 2

H_0 : The purchase of junk food is independent to the advertisements.

H_1 : The purchase of junk food is dependent to the advertisements.

Calculated value= $(O_i - E_i)^2 / E_i = 4.99$

Degrees of freedom= $(r-1)*(c-1) = 2$

Level of Significance= 5%

Table value= 3.841

T.V < C.V. Reject H_0 .

It is concluded that the purchase of junk food is dependent to the advertisements.

Findings

(i) In 58% of the family, mother is also employed. The mother does not have enough time to take care in giving healthy food and she switches over to readymade food.

(ii) 65% of the family have single child. Being a single child they are given packet money which influences them to buy whatever they like to have. Those children are highly privileged and they take it as an advantage over the parent's affection to consume more junk foods.

(iii) 30% of the children are not breast fed properly. Those children will face the problem of obesity in their childhood stage.

(iv) 56% of the parents felt that watching television is the main reason for obesity among children. They eat snacks endlessly without knowing the quantity while watching TV.

(v) 45% of the parents are not aware of the calorific value and the quality of food items bought outside.

(vi) 50% of the parents agreed that lack of regular exercise among their children is a leading factor for overweight.

(vii) 29% of the respondents agreed that the children are eating high fat food items by using the packet money offered.

(viii) Advertisement influences the kids to consume junk food, almost 60% of the respondents agreed to the statement.

(ix) 53% agreed that the taste and flavor is influencing the children for repeated purchase of junk foods.

(x) 41% of the children are influenced by lucrative packaging design of junk food products.

(xi) 42% of the respondents agreed that in a family of both mother and father going to job, the mother does not have enough time to take more care in cooking tasty and variety of food. Therefore they get aversion to repeated and tasteless home food

Suggestions

1. Parents have to encourage their children to go for yoga and meditation classes to reduce the overweight and improve the concentration on studies.

2. To control obesity, the schools should conduct regular physical education classes to the children.

3. Encourage the children to have fruits, vegetable soups, oil free snacks, salads, steamed food and biscuits as the snack items in the evening.

4. Practice the children to have less salt and less sugar in their food. The parents are insisted to add low salt/sugar while cooking the food.

5. The parents should monitor the calorific value of the food which the child eats.

6. Relatives should avoid giving packed food as a gift whenever they achieve something.

7. Encourage the children to have proper eating practices and phase of eating.
8. Motivate and practice the students to go to school by walk or by cycle if the school is nearby home.
9. Avoid practicing sedentary activity such as eating the food on the bed and watching television simultaneously.
10. Prevalence of obesity can be reduced by giving proper treatment to the children at early stage and systematized food habits.
11. Encourage the children to learn swimming, cycling and walking at evening rather than sitting in front of Television at home.
12. The health of the children lies in the hands of the mother. Working mothers should take additional care in cooking variety of tasty and healthy food.
13. The health of the children lies in the hands of the mother. Working mothers should take additional care in cooking variety of tasty and healthy food.
14. The mother should breast feed her child at least for one year, as the review says the children who are not given mother's milk face the problem of obesity. Family, friends and doctors should encourage to breast feed the child exclusively for 6 months.
15. Government may induce the company to give a caption that "junk food leads to obesity" in the wrappers of readymade food.

Conclusion

Childhood obesity is a growing problem in India and now it started widening even in rural areas. Therefore a survey was conducted among the parents of school children of 8-14 years in Nagapattinam which is a coastal area of Tamilnadu. Parent's perspective about the reason for obesity among children and the type of food the children prefers were analyzed. Also the medium through which the children learn about the high fat junk food were also investigated. Obesity has many complications like high cholesterol, high pressure, asthma, joint pains and psychological problems like depression. Awareness program and education about child obesity can help the parents to be aware of child obesity. The children cannot judge the quantity of food he consumes while watching television. They are not able to differentiate the reality and fantasy advertisements and therefore they are influenced by the commercial advertisements and demand for junk food. The healthy food habits and physical activity of the elders will make a drastic change among the

children. The health of the children lies in the hands of the mother. Working mothers should take additional care in cooking variety of tasty and healthy food. Parents and teachers should encourage the children to carry out more physical activities and lend a hand to them to live a healthy life.

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