

Awareness of Fast Food Consumption Hazards Among Obese School Children

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ABSTRACT

Background: The increasing prevalence of childhood obesity has become a critical public health concern globally. A major contributing factor is the excessive consumption of fast food, which is typically high in calories, saturated fats, sugars and sodium. These unhealthy dietary habits, coupled with sedentary lifestyles, have led to a rise in obesity-related health conditions such as type 2 diabetes, hypertension and cardiovascular diseases among children. The lack of information of the long term health problems connected with fast food intake among school-aged children, particularly those who are already obese, exacerbates this situation.

Materials and method: This study was observational undertaken on 90 participants aged between 8 -15 years. Participant's awareness of the risks associated with fast food eating in obese school children was ascertained through the use of a questionnaire. A structured questionnaire will be circulated among the school children for data collection. Children's knowledge of the health concerns of eating fast food, including obesity, diabetes, heart disease, and other connected disorders, may be found out from this survey.

Result: According to study, among 90 participants only 21.44% are aware about fast food consumption hazards and 84.29% children's are unaware about fast food consumption hazards. By making children aware of the negative impacts of fast food, they may be more inclined to make healthier food choices.

Conclusion: The study explains about poor eating habits among obese school children requires raising awareness of the risks associated with fast food intake. Children can be empowered to choose healthier foods if they are taught about the long term consequences, such as diabetes, heart disease, and obesity.

Keywords: Obesity, Fast food, School Children's, Health risks, Hazards

1. INTRODUCTION

Obesity is defined as abnormal or excessive fat accumulation that presents a risk to health. Obesity results from an energy imbalance, meaning that when energy intake consistently surpasses energy expenditure over time [1]. The body mass index (BMI), calculated as weight divided by height squared (kg/m^2), is the most commonly used measurement to define obesity, as noted by Cole et al.[2]. These foods 'food additives have been shown to be carcinogenic and to trigger allergies that can result in rashes and asthma ,both of which are common in children[3].Non- communicable diseases are the biggest public health challenge of this century, and childhood obesity is an important part of this[4].

Obesity is a chronic disease .overtime, it could play a role in the development of additional health issues such as heart disease, diabetes and cancers. Childhood obesity has emerged as a pressing global health concern in recent decades, with fast food consumption playing a significant role in its prevalence. Obesity is a heterogeneous and multifactorial disease; it is characterized as excessive accumulation of body fat results from a disorder in the body's weight regulatory systems [5].Consistent intake of fast food and sugary drinks will heighten the likelihood of obesity in children [6]. Obesity is a pressing issue affecting both developed and developing nations, spanning all socioeconomic statuses and age ranges. The world Health Organization has designated it an escalating global epidemic. The WHO Consultation on Obesity report highlights that obesity and excess weight can have a detrimental effect on blood pressure, cholesterol, triglycerides, and insulin resistance. There's some confusion about the impacts of obesity due to varying BMI thresholds and the presence of other health conditions linked to obesity. The most severe health issues linked to obesity include cardiovascular diseases, insulin resistance-related conditions like type 2 diabetes, certain cancers, and gallbladder disease. Obesity also contributes to non-fatal health problems such as breathing issues, chronic muscle and joint problems, skin conditions, and fertility issues.

As body fat increases, the risk of developing type 2 diabetes and hypertension also rises. Alarming, obesity-related type 2 diabetes is now affecting children even before puberty, and about 85% of people with type 2 diabetes are obese or overweight [7].

Childhood obesity has been linked to a number of short-and long- term psychological and physical issues [8]. In addition to the detrimental effects obesity has on health in children, a new study shows that the obesity epidemic has negative economic effects. Between 5% and 7% of all medical expenses in the United States are related to obesity. A forecast for 2003 indicated that the total costs of obesity could reach \$139 billion annually, based on an analysis of the 2001 surgeon general report on the subject. Furthermore, the same study raises the possibility that technology is largely to blame for the obesity pandemic. Technological developments have lowered food costs, particularly for meals high in energy, and allowed us to be more productive at work and at home while consuming less calories. These modifications cause a direct increase in net calories and may compound the effect of other factors (such as television and the built environment) to encourage weight gain. In addition to being a health issue, obesity is also a financial issue. Numerous economic factors influence our decisions about food intake, physical exercise, and eventually weight [9].

Almost 50% of the commercials on children's television, according to one study, included food, the majority of which (91%) contained large amounts of fat, sugar, or salt. Fruits and vegetables were not featured in any of the ads. [10]. According to study, children between the ages of three and four are more likely to favor marketed products, and that youngsters who watch television regularly are more likely to have negative perceptions about nutrition [11]. Additionally, it has been shown that youngsters who are exposed to the media have greater worries about their weight [12]. Conversely, it has been shown that the "Fighting Fat, Fighting Fit" program, which targeted obesity in the UK through the media, considerably decreased snacking and fat intake [13].

Considering the grave effects associated with obesity, determining the risk factors is crucial. Given the unclear causes of childhood and teenage obesity, this endeavor is not simple. Genetic, metabolic, behavioral and environmental variables are all involved in the development of obesity, making it a complicated disorder. But the sharp rise in obesity prevalence during the previous few decades can only be attributed to substantial lifestyle modifications that have an impact on both adults and children [14]. These days, the terms "Obesogenic" or "Obesogenic" are typically used to describe these environmental elements linked to obesity [15]. The quantity of calcium consumed through diet is high, while girls' iron, zinc, fiber, vitamin D and selenium intake is below Nordic levels. The prevalence of iron insufficiency was determined to be quite low. In addition, there has been a decline in physical activity over time as sedentary pursuits like playing video games on computers and watching television have become increasingly popular in recent decades [16]. In children, hyperlipidemia, glucose intolerance, hepatic steatosis and cholelithiasis are the most common medical consequences of obesity; on the other hand, hypertension, 9 pseudo tumor cerebra, sleep apnea, orthopedic complications and polycystic ovarian disease are less common medical consequences of obesity [17]. There are a lot of things around children that encourage overindulgence in food and discourage physical activity. Foods with high fat and sugar content are frequently served in big portions. These elements may cause kids to consume more calories than they require in order to feel satisfied. Ads on TV and other screens can influence people to make bad dietary choices. The food shown in advertisements for children is typically heavy in sugar, salt or fat [18].

Fast food has strong positive associations with weight gain and insulin resistance, suggesting that it increases the risk of obesity, type 2 diabetes, hypertension and dyslipidemia. As a result, fast food is among the major factors determining the rates of obesity. Moreover, fast food increases the risk of unhealthy and excessive weight gain due to industrialization and sedentary lifestyles [19].

2. MATERIALS AND METHODOLOGY

The study was observational type of study with 90 participants conducted in Satara district, Maharashtra. The study duration was about 6 months. The review was conducted with the approval of Ethical committee of the institution where the study was conducted. By reviewing the inclusion and exclusion criteria of the participant, the sample population was selected. The participants were told about the study and consent form was taken from them regarding the study. Questionnaire was distributed to participants through Google Forms. Participant's responses to the question were then recorded. Copyright no. L-149044/2024.

3. RESULT

The purpose of this study was to determine whether obese school children were aware of the risks associated with eating fast food. The inclusion and exclusion criteria were followed in the conduct of this study. These attendees were given access to a validated questionnaire through an online Google form. The questionnaire was developed to find out how much school children who are body fat knew about the risks associated with eating fast food. There were 14 questions on the given questionnaire.

According to static analysis:

Data:

Sr No.	Number		Percentage	
	Yes	No	Yes	No
1.	100	0	100	0

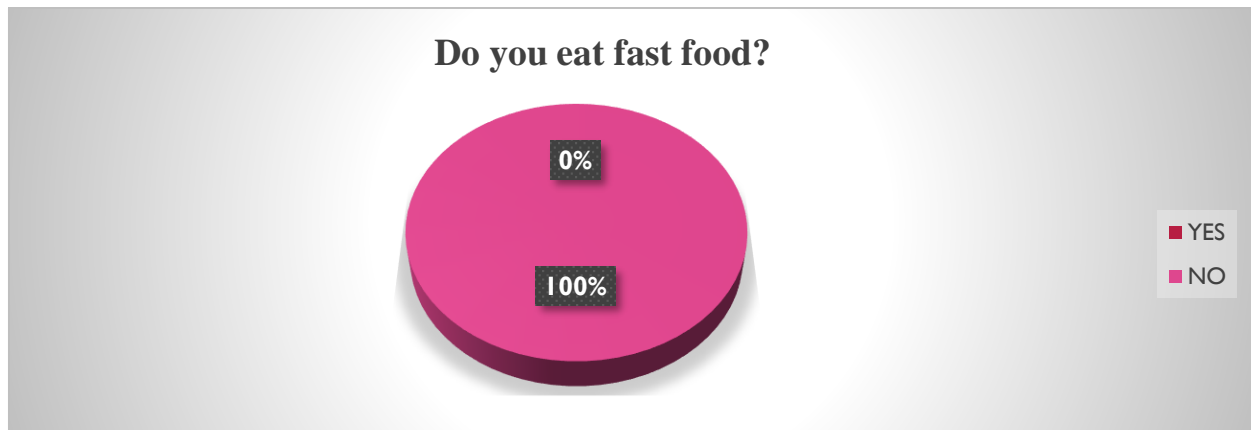


Fig.1. No .of school children eating fast food

Interpretation: All children are consuming fast food. This highlights the prevalence of fast Food consumption in this group.

Sr. No.	Number		Percentage	
	Yes	No	Yes	No
2.	100	0	100	0

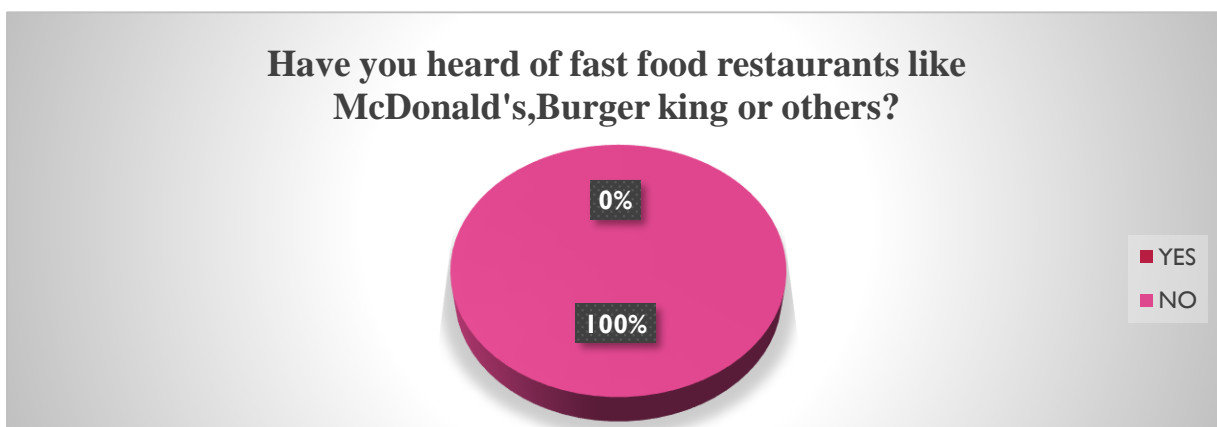


Fig.2.No.of school children's have knowledge about fast food restaurants.

Interpretation: All children are familiar with fast food restaurants like McDonald's, Burger King and others. This demonstrates widespread familiarity with these establishments among The group.

Sr. No.	Percentage			
	Never	1-2 times	3-4 times	5 or more times
3.	0%	35%	51%	14%

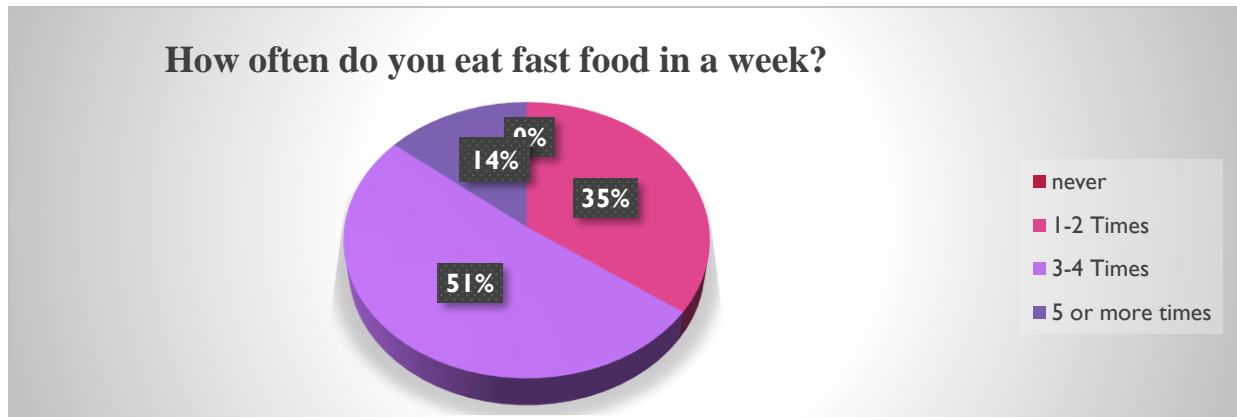


Fig.3. No. of frequency children having fast food in a week

Interpretation: The majority (51%) of children consume fast food 3 to 4 times per Week, Followed by 35% consuming it 1 to 2 times. A smaller portion (14%) consumes fast Food 5 or more times weekly, while no children reported never eating fast food.

Sr No.	Number		Percentage	
	Yes	No	Yes	No
4.	18	72	20%	80%

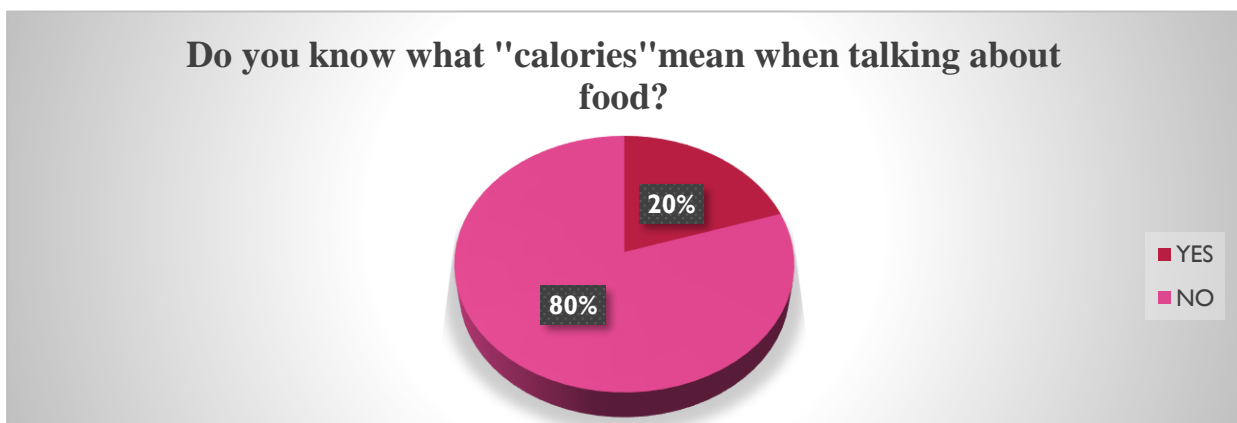


Fig.4. Knowledge of children about calories.

Interpretation: The pie chart illustrates children's understanding of the term 'calories' in Relation to food. Only 20% of children surveyed understand the meaning of calories, while 80% do not.

Sr. No.	Number		Percentage	
	Yes	No	Yes	No
5.	7	83	8%	92%

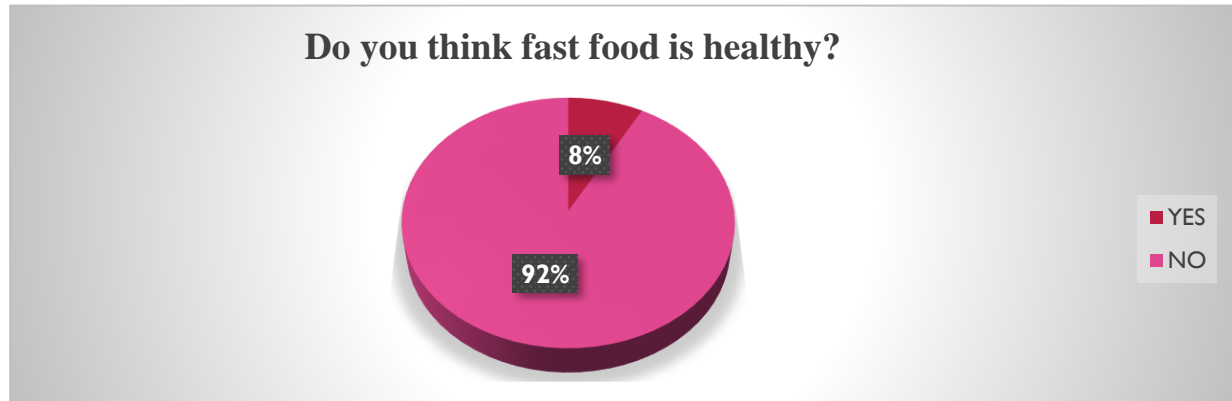


Fig.5.No.of children think fast food is healthy

Interpretation: 92% of children responded “No”, indicating they believe fast food is

Sr. No.	Percentage		
	It's tastes good	It's quick and convenient	I don't know
6.	39%	42%	19%

Not healthy.8% responded “yes”, believing fast food is healthy.

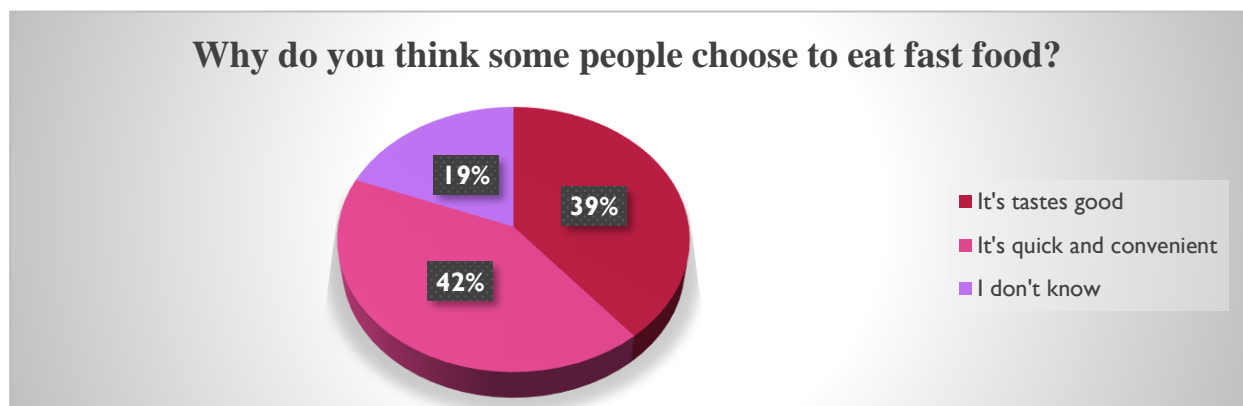


Fig.6. Reasons why people choose to eat fast food.

Interpretation: The pie chart illustrates the reasons why people choose to eat fast food, According to a survey of children. The most common reason is its convenience, with 42% Of respondents stating this. Taste is the second most popular reason, with 39% choosing This option. Lastly, 19% of children were unsure why people opt for fast food.

Sr. No.	Percentage			
	High in calorie	High in sugar	High in fat	Low in nutrients
7.	10%	35%	26%	29%

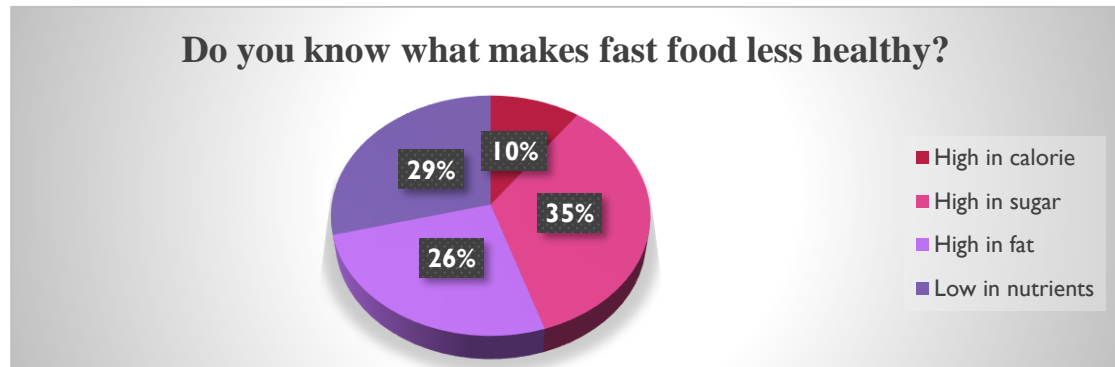


Fig.7. No. of children have knowledge about fast food is less healthy.

Interpretation: 35% Children know that a high sugar level makes fast food less healthy, followed by 29% identifying low nutrients, 26% high fat, and 10% high calorie content.

Sr. No.	Percentage			
	TV commercials	Online ads.	Friends or family	School
8.	32%	34%	28%	6%

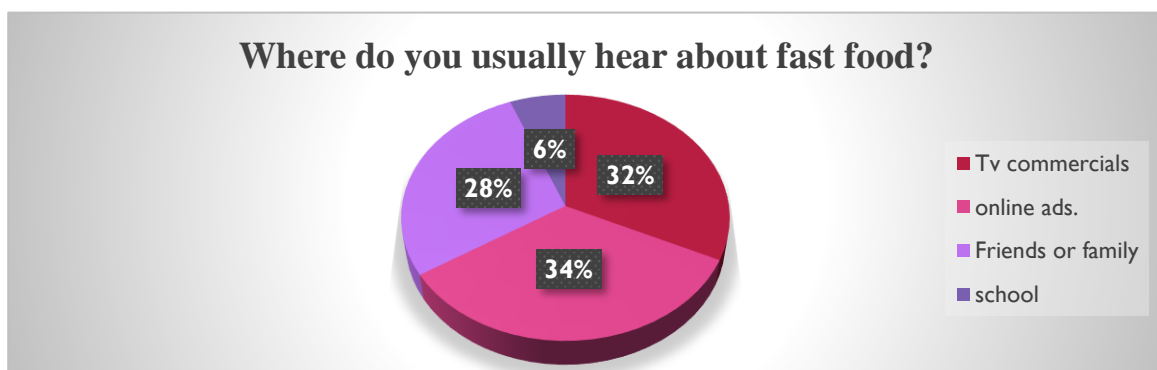


Fig.8.From where they get knowledge about fast food.

Interpretation: 34% of Children learn about fast food primarily through online advertising, followed by 32% from TV commercials, 28% from friends or family, and only 6% from school. This indicates that digital and televised media are the dominant sources of fast food awareness.

Sr. No.	Number		Percentage	
	Yes	No	Yes	No
9.	13	77	14%	86%

Are you aware of the health risks associated with fast food consumption?

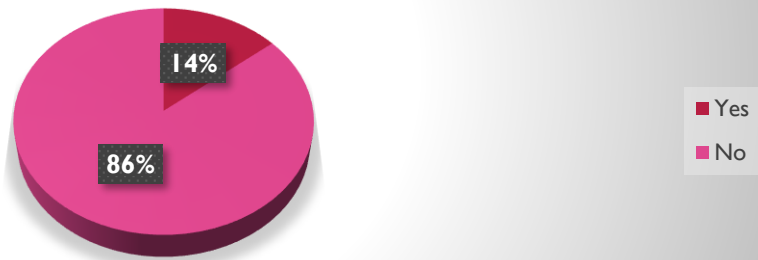


Fig.9. No. of children aware about health risks associated with fast food consumption.

Interpretation: 86% of children are unaware of the health risks linked to fast food consumption, While only 14% are aware. This shows a major lack of awareness about fast food's health risks.

Sr. No.	Number		Percentage	
	Yes	No	Yes	No
10.	25	65	28%	72%

Have you learned about healthy eating in school?

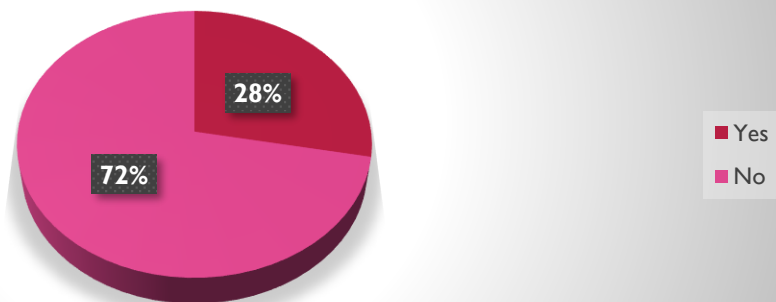


Fig.10.No. of children have knowledge about healthy eating from school.

Interpretation: 72% percent of children have not been taught healthy eating in school, while 28% children have learned about healthy eating in school.

Sr. No.	Percentage			
	Weight gain	High blood pressure	High cholesterol	Diabetes
11.	52%	4%	37%	7%

Do you experience any of the following health issues?



Fig.11. various health issues experienced by the children.

Interpretation: 52% of children face weight gain as a health issue.

Sr. No.	Number		Percentage	
	Yes	No	Yes	No
12.	86	4	96%	4%

Do you think it's important to learn about healthy eating in school?

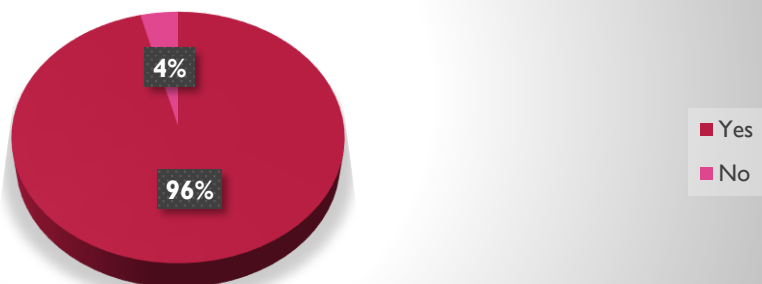


Fig.12.Childrens opinion about healthy eating should be taught in school.

Interpretation: 96% of children believe learning about healthy eating in school is important.

Sr. No.	Number		Percentage	
	Yes	No	Yes	No
13.	33	57	37%	63%

Have you ever tried to make healthier food choices instead of eating fast food?

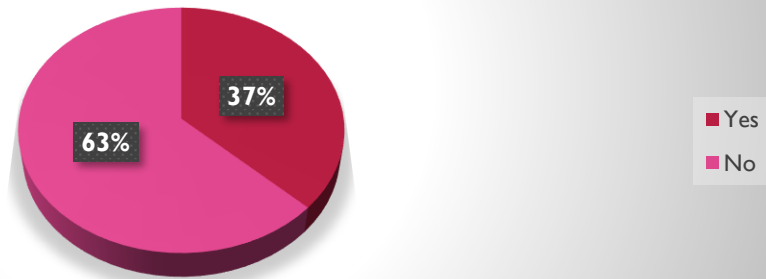


Fig.13.No. of children's made healthier food choices than fast food.

Interpretation: 63% of children have never attempted to make healthier food choices instead of eating fast food.

Sr. No.	Number		Percentage	
	Yes	No	Yes	No
14.	19	71	21%	79%

Do you think it's possible to enjoy your favourite foods while still maintaining a healthy weight?

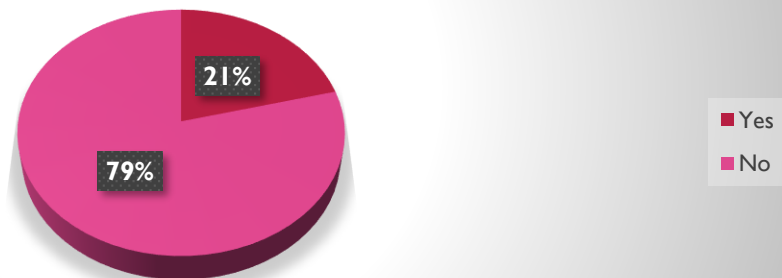


Fig.14. No. of children thinks that maintaining a healthy weight is possible by enjoying their favorite food.

Interpretation: 79% of children do not believe it's possible to enjoy their favorite foods while maintaining a healthy weight.

4. DISCUSSION

This survey study aims to create a comprehensive approach to reducing the prevalence of obesity among school children and promoting healthier lifestyles. Fast food, characterized by its high calorie, fat, sugar and sodium content, poses significant nutritional challenges. Children who frequently consume these foods are at higher risk of obesity, which in turn increases their vulnerability to a host of health issues such as type 2 diabetes, cardiovascular diseases, and metabolic syndrome.

Parental involvement is equally important. Parents must have the information necessary to help their kids choose healthier foods at home. Consuming fast food causes a number of issues for kids. Therefore, we must raise awareness of the risks associated with eating fast food. The purpose of the questionnaire was to ascertain participants knowledge of the risks associated with fast food eating in obese school children. There were 14 questions and response were obtained by asking questions. The collected data were analyzed by a statistician. According to study, among 90 participants only 21.44% are aware about consumption of fast food hazards and 84.29% children's are unaware about consumption of fast food hazards. This survey can show how well-informed kids are about the dangers of eating fast food, such as Obesity, Diabetes, heart disease and other related conditions. By making children aware of the negative impacts of fast food, they may be more inclined to make healthier food choices.

A study on the detrimental effects of fast food on 60 students in three specifically selected schools in the Jalandhar district

was conducted in 2013 by Sharma v. The findings showed that, when it came to the negative impacts of fast food, 81.67% of adolescents had below average knowledge, 18.33% had medium information, and none of the adolescents had good knowledge [20]

In order to find out how aware teenagers are of the health hazards associated with junk food and whether there are any connections between those risks and specific demographic characteristics, Ramachandra Ujwala et al performed a study at one particular university. A characteristic approach was employed with 115 engineering students using a non-probabilistic convenience sample technique and a structured questionnaire. The age group of 18 to 19 accounts for 35.65% of the samples, and 69(60%) of the participants were female. The majority of research participants (69.56%) had average knowledge, 24.35% had strong knowledge, and 6.08% had poor comprehension of the health dangers associated with junk food. The price of junk food and knowledge of its negative health effects are closely related. Conclusion: This study suggests that teens have a mediocre understanding of the risks associated with junk eating. Most of the students had not taken part in any instructional activities regarding the risks associated with junk food. [21]

Lt Col Mercy Antony conducted research on teenage consumption of junk food and awareness of its negative effects. 208 students, 35 from four English-medium schools in the Pune District of Maharashtra, India, were chosen for the study using purposeful random selection, and children from grades VII through XI were chosen by unbalanced random sampling. Utilizing a standardized questionnaire, data was gathered. Of the 66.8% of teenagers who ate junk food, 50% did so three to five times a week and drank one to three bottles of aerated drinks. Teenager's awareness of the negative impacts of junk food was mediocre, at 46.15%. In conclusion, teens generally have an average or good awareness of the negative impacts of junk food; the problem is that they don't use this information to adopt wholesome eating practices. Several things tempt the young adult to eat junk food, drawing the attention of legislators, parents, and school administrators [22]

5. CONCLUSION

By promoting better dietary choices, implementing supportive school policies, and creating an informed community, we can help these kids are more equipped to make dietary choices. According to study, 84.29% of respondents exhibit insufficient awareness and 21.44% of respondents exhibit satisfactory awareness of fast food consumption hazards. This survey can show how well-informed kids are about the dangers of eating fast food, including heart disease, diabetes, obesity, and other connected illnesses. By making children aware of the negative impacts of fast food, they may be more inclined to make healthier food choice.

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