



Science

CONSUMPTION OF JUNK FOOD; A CAUSE OF DENTAL CARIES AMONG EARLY CHILDHOOD

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ABSTRACT

Unfortunately, today's world has been adapted to a system of consumption of junk foods which has several adverse effects on health. Thus the study was conducted to find out the food habits and problems associated with fast food consumption amongst the children of 3-6 years of age of Pilibhit District of UP. The result showed that cent per cent respondents consumed candies followed by potato chips, chocolate, ice-cream and soft drink, as 93.33 %, 90 %, 96.66 %, and 66.66 % respectively. Besides this the frequency of consumption was also very high. It was seen that due to the food consumption pattern the respondents were having the problem of dental caries (100%) halitosis (bad smell) (93.33 %) severe decay (93.33%) pain in teeth while consuming sweet hot and cold (80%) chalky white spots (80%) plaque deposit on teeth surface (73.33 %) and brown spots (66.66 %). Junk food can affect a child's physical development in detrimental ways, including unhealthy weight gain, which can result in self-esteem problems in future also. Thus it should be controlled.

Keywords:

Junk Food, Dental caries, Eating habits, Unhealthy diet, Empty calorie.

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1. INTRODUCTION

Junk food simply means an empty calorie food. An empty calorie food is a high calorie or calorie rich food which lacks in micro-nutrients such as vitamins, minerals, or amino acids, and fiber but has high energy (calories). These foods don't contain the nutrients that your body needs to stay healthy. Hence, these foods that has poor nutritional value is considered unhealthy and may be called as junk food. 'Junk food' is an informal term applied to some foods which are perceived to have little or no nutritional value, but which also have ingredients considered unhealthy to consume at all [1].

What makes these foods to be called as 'Junk food' is that it contains high levels of refined sugar, white flour, trans fat and polyunsaturated fat, salt, and numerous food additives such as monosodium glutamate and tartrazine; at the same time, it is lacking in proteins, vitamins, essential minerals, fiber, among other healthy attributes. These foods have little enzyme producing vitamins and minerals and but contain high level of calories in their place. A food that is high in fat, sodium, and /or sugar and provides high calories yet useless in value is generally known as a junk food. On the contrary, junk food is easy to carry, purchase and consume. Generally, a junk food is given a very attractive appearance by adding food additives and color to enhance flavor, texture and for increasing long shelf life [2].

Junk food allows people to eat without planning- eat not only when it is pre-set meal time, but also when they have spare time. Ingredients of junk foods give great taste and make them addictive [3]. Fat and sugar in combination are capable of producing a dopamine- driven surge of intense pleasure in people with a propensity for addictive behavior. On the other side , it must be noted that they are hazardous to health too. High fat content, particularly cholesterol, sugar and salts have their adverse effects on health. soaring calorie content with sugar can lead to obesity. High cholesterol from junk food also affects liver on the long run where it is metabolized as it strains liver, damaging it eventually [4].

Dense sugar content can cause dental cavities and type 2 diabetes mellitus [5]. A short- term adverse effect as a result of eating junk foods 'lack of energy' which occurs because junk foods don't provide essential nutrients, even though they can be very much sufficing, due to which one feels weakened. Unfortunately, meals consisting of junk food don't fill up for long. Cholesterol and salt are known to setoff blood pressure, stroke and heart disease in a chain. Excessive salts can affect functioning of kidneys too Most of the times these junk foods contain colors, which are often inedible, carcinogenic and harmful to the body. Flavorings and colorings can be allergic causing asthma, rashes and hyperactivity [6].

Increased consumption of sugar sweetened beverages, candy, chips, and cookies provides excessive calories to child, increase the risk of caries, and when combined with inadequate intake of fruits and vegetables, deprives the child of nutrients essential to growth and development [7]. Meals such as breakfast, often are skipped altogether. Teenagers who miss breakfast are more likely to snacks and junk foods have the highest sugar content of any type of meal (that is, breakfast, lunch, dinner or snacks) Consumption of whole grains and dairy products has been shown to decrease an individual's appetite, while diets high in sugar cause people to feel hungry and seek more calories [8]. Routine snacking on refined carbohydrates such as candies, cookies, cakes, fruit drinks, soda, processed foods such as potato chips, pasta, sweetened cereals; French fries, etc are a high risk factor for caries to develop. More snacking several times throughout the day and allowing the snacks to stay on teeth cannot be neglected as an importance cause of dental caries. As oral health data on schoolchildren is lacking in our country this research is conducted to determine the prevalence of dental caries in children consuming junk food [9].

2. MATERIAL AND METHODS

2.1.CONSTRUCTION OF TOOL

A preliminary survey was conducted in Pilibhit district to develop a rapport with children and become aware with their problems faced by asking informal questions. The interview schedule was prepared consisted of several types of questions like; name, age, sex, food habit and frequency of consumption of junk food as well as keen observation was also done along with photography to findout the problems in the teeth of target group.

2.2.SELECTION OF SAMPLES

Purposive sampling design was used to select the study area and respondents. The stage included selection of colony and selection of children.

2.2.1. SELECTION OF COLONY

Altogether three colonies in Pilibhit, were selected purposively for the present study, as required sample size was easily available in these colonies. Hence both male and female children were selected for the study.

2.2.2. SELECTION OF SAMPLE SIZE

For the selection of sample an exhaustive list of all the children of selected colonies from the age group of 3-6 years were prepared, then with the help of fish bowl method altogether total of 30 children were selected from the age group 3-6 years out of which 12 respondents were male whereas 18 were female.

2.3.METHOD OF DATA COLLECTION

The descriptive data was gathered personally by using interview method as well as observation of teeth from necked eyes. Visits were made to the selected colonies prior to data collection to ensure full confidence and co-operation from the respondents.

2.4.ANALYSIS OF DATA

The collected data were tabulated and analyzed with the help of subjective statistics

2.4.1. DESCRIPTIVE STATISTICS

The data were presented in frequencies and percentage, as per analysis of the information.

3. RESULT AND DISCUSSION

Data shown in Figure-1 depicts that candies were the most preferred item consumed by cent per cent of the respondents followed by potato chips, chocolate, ice-cream and soft drink, as 93.33

per cent, 90 per cent, 96.66 per cent, and 66.66 per cent respectively. Besides this the frequency of consumption was also checked and it was found that candies were the most frequently consumed items as it was consumed daily by the respondents followed by potato chips as consumed four times in a week, chocolate's thrice a week and ice-cream and soft drink twice a week as shown in Table-1.

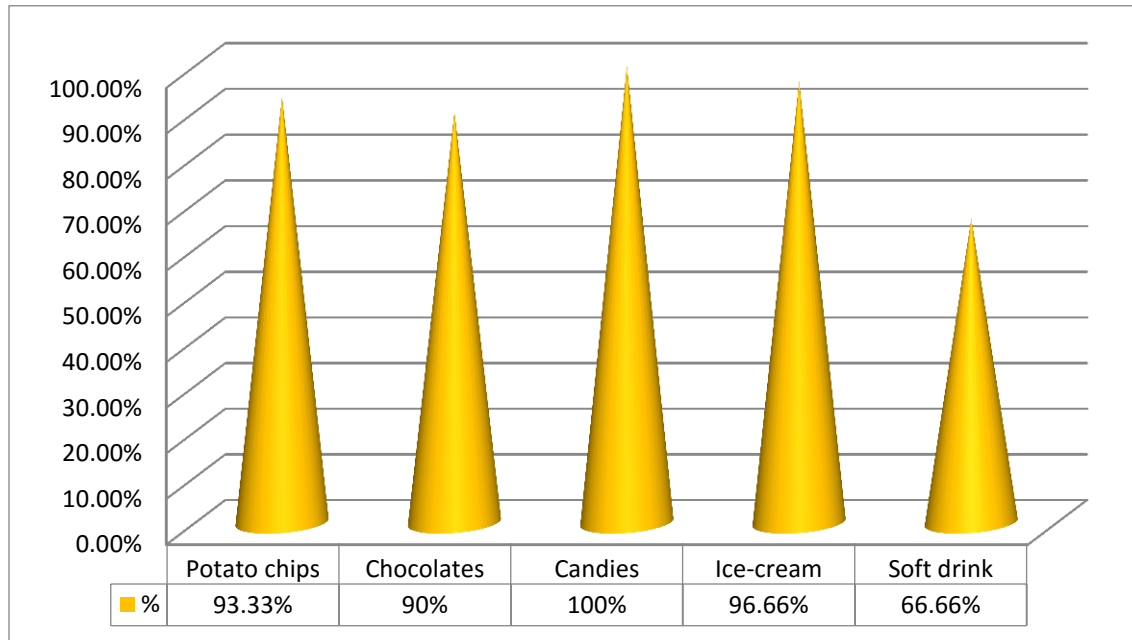


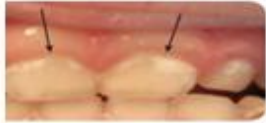




Figure 1: Junk food consumption pattern

Table 1: JUNK FOOD CONSUMPTION HABIT AMONG THE RESPONDENTS

S.No	CATEGORY	FREQUENCY	PERCENT	
1. 3	Types of junk food consumed	Potato chips	28	93.33
		Chocolates	27	90
		Candies	30	100
		Ice-cream	29	96.66
		Soft drink	20	66.66
2.	Frequency of consumption of fast food	Potato Chips	Four times a week	
		Chocolates	Thrice a week	
		Candies	Daily	
		Ice-cream	Twice a week	
		Soft drink	Twice a week	

Table 2: DENTAL PROBLEMS FACED BY CHILDREN DUE TO CONSUMPTION OF JUNK FOOD

S.No	VARIOUS DENTAL PROBLEMS	CATEGORY	FREQUENCY	PERCENT
1.		Dental caries	30	100
2		Plaque deposit on teeth surface	22	73.33
3		Chalky white spots	24	80
4		Brown spots	20	66.66
5		Severe decay	28	93.33

When it was tried to find out about the various kinds of dental problems amongst the respondents consuming junk food then the most common dental problem was found as dental caries(100%) followed by halitosis (bad smell) and severe decay (93.33 per cent) chalky white spots and pain in teeth while consuming sweet, hot and cold (80%) plaque deposit on teeth surface (73.33 per cent) and brown spots (66.66 per cent) as shown in Table-2.

4. CONCLUSION

Children attracts more towards the junk food, there are various factors responsible for it and amongst all time factor is the most common ,and taste factor is another important reason to an extent that influences to opt for junk/fast food. Wafers, chips, soft drinks, chocolates, candies and burgers are suddenly the most attractive food item. Children, especially young children, are more vulnerable to the environment and easily attracted by an unhealthy diet pattern once they have established these unhealthy dietary patterns during their early years, it is hard to correct in later life. Changing lifestyle and work habits are the main two major factors deciding consumer preference for junk food that is driving them towards junk health. Junk food can affect a child's

physical development in detrimental ways, including unhealthy weight gain, which can result in self-esteem problems whereas some junk food meals give the child, a whole days worth of calories. That can really pack on the pounds. Being dental health problem and overweight is a risk factor for a variety of chronic health problems also.

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