

## **JUNK FOOD ADDICTION AMONG MEDICAL STUDENTS IN RAWALPINDI- A KAP STUDY**

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### **Abstract**

Use of high calorie junk foods has increased dramatically in the recent past, leading to many social and health problems. Pakistan is facing the same situation. It is therefore, a strong need to develop public health strategies targeting to reduce intake of junk food. Study was conducted over period of 9 months (from January to August 2013) among students of Foundation University Medical College. It was a cross sectional study. A total of 445 students were selected. Response rate was 85.5%. Male to female ratio was 1: 1.7. The percentage of girls was more because there are more female students as compared to male students in every class. Age ranged from 17-29 years with mean of 21 years. The percentage of Boarders to Non-boarders was 41% (182) and 59% (262) respectively. 38% (169) of students take junk food daily while 39% (174) on weekly basis. Majority 169 (38%) students prefer home deliveries; while 111 students (25%) prefer to dine in. However 37% like to take food with them. Knowledge about non communicable diseases was quite good however the term 'junk food' was not accurately defined by all students. Around 200 (23%) of students spend Rs. 1000 for buying junk food weekly, while 142 (32%) spend more than 1000 rupees. 191 (43%) of the students have experienced an increase in junk food frequency since they are living in hostel, 174 (39%) have no idea or didn't notice any change whereas 80 (8%) had no change in their dietary habit despite of being living in hostel. On consuming junk food, 209 (47%) of the students have a pleasant feeling while majority 249 (56%) have no elevation of mood following junk food. Most (231, 52%) of the students said that they are not addicted to junk food. Junk food is quickly replacing the traditional home made and healthy foods. Health Education sessions regarding risks and hazards associated with junk food consumption must be done regularly in schools/ colleges to prevent junk food epidemic especially among youth.

**Keywords:** Social norms, Health messages, Junk food

## 1. INTRODUCTION

Eating is the normal physiological process. Junk food is an informal term applied to certain foods that perceived to have little or no nutritional value but there ingredients are considered unhealthy for consumption<sup>1,2</sup> but taste good.

Junk food is usually ready to eat foods rich in saturated fats, salt or sugar containing little or no fruit, vegetables, or fiber. In addition to this junk food is easy to carry, purchase and consume<sup>3</sup>. Junk food includes sugar, donuts, cookies, chips, candy bars, fried foods, muffins, burgers, bread, milkshakes, coca cola, pizza and canned foods etc.<sup>4</sup>.The junk food is psychologically addictive. Initially they are given to the children as “reward” for being good and this early conditioning persists long into adult hood<sup>5</sup>. This leads to indulgence in over eating; causing changes in the brain resulting in tough behavior with compulsion to eat and thus junk food addiction<sup>6</sup>.The term addiction means psychological dependence, which is a mental or cognitive problem, not just an illness.

Addiction has three stages. The first stage is Bingeing that is defined as escalation of intake with a high proportion of intake at one time followed by signs of withdrawal, which become apparent when the abused

substance is no longer available. The final stage of addiction is craving, resulting from enhanced motivation<sup>7</sup>.Junk food alters brain activity similar to drugs like cocaine or heroin whereas high calorie foods may cause compulsive eating and obesity<sup>8</sup>.

The foremost side effect of Junk food addiction is obesity. Obesity increases the risk of many metabolic and chronic diseases and is an independent risk factor for death from coronary heart disease<sup>9</sup>.

This study was done to know the reasons of using junk food despite its hazardous effects on health including related financial burden and to create health awareness among students.

## 2. OBJECTIVES

- To determine the reasons of using junk food and associated financial burden among students of Foundation University Medical College
- To create awareness among students.

## 3. DURATION AND TYPE OF STUDY

Study was conducted over period of 9 months (from January to August 2013) among students of Foundation University Medical College. It was a cross sectional study.

Inclusion Criteria: Students of Foundation Medical University willing to participate in the study

Exclusion Criteria: House Officers working in attached hospital

#### 4. METHODS

**Subjects:** The study cohort of medical students with age of 17-29 years was selected. Participants were students of Foundation University Medical College, Rawalpindi. A total of 470 students were approached and objective of the study was shared. Out of 470, 445 agreed to participate in the study and gave written consent. All enrolled students were briefed about the study. A close ended questionnaire was used to collect data. There was a pretesting of the questionnaire in the field. Some editing was done. Questions were designed under three heads. Section one had information on demography while others three captured data on knowledge, attitude and practices regarding junk food respectively.

Trained students handed over questionnaires to the participants and facilitated them in case of quarry. It took about 30 minutes to fill questionnaire by the participants. Data was entered and after cleaning of the data, analysis was done using SPSS (Statistical Package for Social Scientists) software version 15.

The study had been approved by the Ethical Committee Members of the institution.

#### 5. RESULTS

A total of 445 students were selected. Response rate was 85.5%. Male to female ratio was 1: 1.7. The percentage of girls was more because there are more female students as compared to male students in every class. Age ranged from 17-29 years with mean of 21 years. The percentage of Boarders to Non-boarders was 41% (182) and 59% (262) respectively.

There were 105 students from first year, 98 from second year, 97 from third year, 85 from fourth year, and 60 students were from final year. A total of 445 students filled the questionnaire in the entire college.

#### 6. KNOWLEDGE

Being medical students, majority of the students had knowledge of diseases like obesity, diabetes, hypertension and food poisoning however knowledge regarding depression and libido was less. (Table-1)

Hazards	Frequency	Percent	Valued percent	Cumulative percent	T test significance
Obesity :					
<b>Yes</b>	414	93.0	93.0	93.0	1.09
<b>No</b>	31	7.0	7.0	100.0	
<b>Total</b>	445	100.0	100.0		
Diabetes Mellitus :					
<b>Yes</b>	313	70.3	70.3	70.3	1.34
<b>No</b>	132	29.7	29.7	100.0	
<b>Total</b>	445	100.0	100.0		
Hypertension :					
<b>Yes</b>	332	74.6	74.6	74.6	1.29
<b>No</b>	113	25.4	25.4	100.0	
<b>Total</b>	445	100.0	100.0		
Depression :					
<b>Yes</b>	160	36.0	36.0	36.0	1.69
<b>No</b>	285	64.0	64.0	100.0	
<b>Total</b>	445	100.0	100.0		
Food poisoning :					
<b>Yes</b>	370	83.1	83.1	83.1	1.20
<b>No</b>	75	16.9	16.9	100.0	
<b>Total</b>	445	100.0	100.0		
Increased libido:					
<b>Yes</b>	139	31.2	31.2	31.2	1.73
<b>No</b>	306	68.8	68.8	100.0	
<b>Total</b>	445	100.0	100.0		

Table 1: Frequency and percentages of knowledge of different junk food related illness among medical students of Fauji Foundation University Medical College, Rawalpindi.

Further, the term ‘junk food’ was not accurately defined by all students, a product taken as a junk food by one group of students was not a junk food for others sowing lack of knowledge about what exactly junk food is.

All students receive pocket money from their parents on monthly or weekly basis and spend as per their needs (Figure 1).

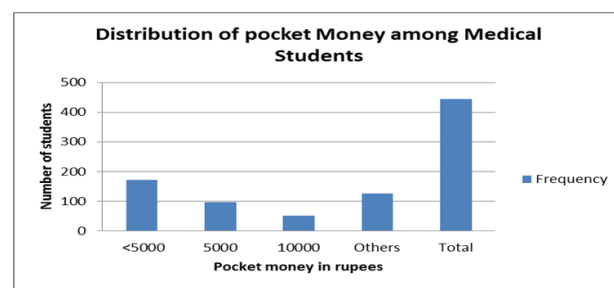


Figure 1: Frequency of pocket money amongst students

## 7. PRACTICES

Regarding consumption of junk food, 38% (169) of students take it daily while 39% (174) on weekly basis. This indicates an overall high level of inclination towards junk food intake. When it comes to boarders, majority 169 (38%) students prefer home deliveries; while a percentage of 111 (25%) prefer to dine in. However 37% like to take food with them.

Around 200 (23%) of students spend Rs.1000 for buying junk food weekly, while 142 (32%) spend more than 1000 rupees, 103 had no idea. More than 50% of the students admitted having a craving for the junk food (Figure 2).

When asked about risk factors for indulgence into junk food addiction, 191 (43%) of the students have experienced an increase in junk food frequency since they are living in hostel, 174 (39%) have no idea or didn't notice any change whereas 80 (8%) had no change in their dietary habit despite of being living in hostel.

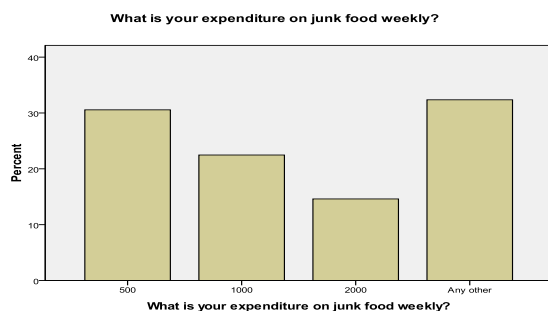


Figure 2: Distribution of amount spent on junk food weekly

## 8. ATTITUDE

On consuming junk food, 209 (47%) of the students have a pleasant feeling followed by 11(25%) and 27 (5.8%) who feel satisfied and depressed respectively and 22% had no effect. When students were asked about the role of junk food in elevating mood, majority 249 (56%) responded in No. Majority (231, 52%) of the students said that they are not addicted to junk food.

## 9. DISCUSSION

The results of this study indicated enhanced practices of junk food intake in undergraduate medical students of Foundation University, Rawalpindi. It was found that junk food intake is more in boarders as compared to the day scholars.

The study showed that students have a strong psychological and social inclination towards junk food, well aware of its hazards, but still there is a high prevalence of junk food intake. Thamarai et al in their study revealed the same findings. Based on their study, 93.3% of medical students were aware of the definition and 61.7 % were aware of the composition of the junk foods. 46.3% of students consumed 1-5 cans of soda drinks per week, 29.7% students reported the frequency of eating pizza per week may vary<sup>10</sup>.

Current study showed that around 200 (23%) of students spend Rs.1000 for buying junk food weekly, while 142 (32%) spend more than 1000 rupees, 103 had no idea. Same are the findings in study<sup>10</sup> with results that 39.7 % of students spending less than Rs.200 per month. At the same time, 13 % students have mentioned the amount may exceed Rs.1000 and above per month.

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