



**ASIAN UNIVERSITY
FOR WOMEN**

Summer Project

Food Habit and Nutrition Status of the Children in Slum Areas

Under 12 Years

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Abstract

This study was carried on 220 children (136 females and 84 males) aged below 12 years of selected sample of five slum area. Malnutrition is common and serious problem among children. So we calculated the BMI of those 220 children to see the percentage of children who are suffering from malnutrition. The aim of this project was to find out some data regarding to food habit and nutrition demand of the children of slum area. We measured height and weight of children under 12 years old. From those data we found the BMI (Body Mass Index) to check their nutrition level. We collected the data of their daily meals menu and checked whether it fulfills their nutrition requirement. We took data from different slum areas of Chittagong and Tangail district. We asked the mother of children about what their childrens are eating in their daily basis and compare it with the standard food menu which fulfill the requirement of nutrition for children per day. The result we found is most of the children in slum area are underweight

and few are obese. Female are more likely to be underweight than male. The age range that children are suffering from underweight is 6-9 years.

Introduction

Malnutrition is a serious problem in Bangladesh. Mainly children are suffering from this. Especially children's of slum areas are in greater risk. Malnutrition is not a disease but a state that results from not to eat a healthy diet food in which one or more nutrients are not present or there are excessive level of nutrients which causes health problems. Nutrients may include calories, protein, carbohydrates, vitamins or minerals. If one have lack of nutrients they are considered as under nutrients or as underweight. There are some symptoms of undernutrition such as lack of interest in food or drink, having less weight than the actual weight, inability to concentrate in work, frequently getting sick, low immune system etc. For undernutrition there are mostly two reason- failure to eat enough food for economic condition and the other is anorexia nervosa, a psychological disorder in which you consider yourself as fat and the amount of food you eat is not enough to fulfill your nutrition level. As we went to slum areas mostly the cases we found for undernutrition is less access of good food because of financial problem. Malnutrition stunts children growth, mental development and lack of strength to fight against diseases. So our aim was to conduct the survey to see the percentage of underweight, normal weight, overweight, obese among the slums children in Chittagong and Tangail.

Literature Review

The percentage of malnutrition among children has become a serious issue in Bangladesh. Research shows that “Rates of malnutrition in Bangladesh are among the highest in the world, with six million children estimated to be chronically undernourished (Katherine, Hypher, Newton, and Rumsby, 2015, p. XIII).” This is something that we all need to think and discuss. Government along with some local and international organization has taken several step to minimize the effect. However there are some reluctance and lackings to monitor, manage and invest enough funds to tackle malnutrition effectively. Throughout our survey we wanted to see some leading reason behind malnutrition. Poverty can be one of them. Study also shows that, “Poverty and inequality are basic drivers of malnutrition in Bangladesh. The gap between the poorest and the richest groups in relation to malnutrition is significant at 28 percentage points and must be addressed in order for Bangladesh to truly address its malnutrition burden. (Katherine, Hypher, Newton, and Rumsby, 2015, p. 6)” People who lives under poverty line sometimes fails to fulfil their nutrition demand. Sometimes only the wealthy people get the ability to afford a proper nutritious diet habit. Some of the other reason can be food insecurity, mother’s socio- economic condition and over growing population in urban areas. “In 2011, 69% of Bangladeshi households experienced some food insecurity. (Katherine, Hypher, Newton, and Rumsby, 2015, p. 6).” Bangladesh is a densely populated country with limited supply of resources. Poor people often fails to access that limited supply of resources. Women in Bangladesh still have a lower social status than men. This is continuing generation to generation as a cultural and traditional norms. Women have less access to food, health services and education. They don’t get enough nutritious food during pregnancy which leads a premature

birth. Rapid urbanization is also deeply concerned with the indication of nutrition especially, among with the children in slum areas. “One-third of the urban population currently live in slums, where many environmental factors negatively affect health and nutrition. In 2013 the stunting rate was 50% in the worst-affected urban areas (Katherine, Hypher, Newton, and Rumsby, 2015, p. 7)”. “Findings from one survey shows that among the children who experienced diarrhoea, about 17 per cent and 39 per cent were found severely and moderately underweight (Ahmed, Barnett, and Longhurst, April 2015, p. 9).” However during our survey we did not get that much of history or information about children having diarrhea or any other communicable disease. Most of them had the history of having slight fever and common cold.

Significance of the Study

Children in slum areas are in great risk. Our research was to find out the BMI from the children of slum areas and to know the reason behind suffering from malnutrition. Also our research was to find out that whether food availability and food habit affects child growth and nutritional status or not.

Objective of the study

Our project is based on slum areas children. The aim of our study was to-

- To understand food habit on daily basis
- To measure nutritional status through Body Mass Index (BMI) calculation
- To observe lifestyle practices in terms of hand washing, physical activities and nutrition knowledge

- To gain real time experience about lifestyle of people living in slum areas.

Methodology

Our study design is a cross sectional and quantitative based study. In our project the calculated sample size was 250 participants but we achieved 220 participants in 5 slums of Chittagong and Tangail. The name of the slums are-

1. Sholosohor slum area
2. Boropool slum area
3. Pahartoli slum area
4. Bhatcura slum area
5. Highway slum area.

We made some questionnaires and took short interview of random childrens below 12 years and their mothers using those questionnaires. We went to those individual slum physically and ask face to face specific relevant question to the participants. Some of the specific questions were about daily meal, family size, disease prevalence, hand wash practices etc. While asking question we considered participant based on their age. If the participant is above 5 years then we consider themself as a participant and if she/he is below 5 years then we consider their mother or any guardian as a participant. After asking the question we measured height and weight though measuring tape and digital weight machine. Later on we analyzed other data to find out the reason behind their health situation. Then we calculated BMI to check their body fat and nutrition level. For analyzing data we used “Microsoft Office Excel Software”.The standard BMI ranges considered as:

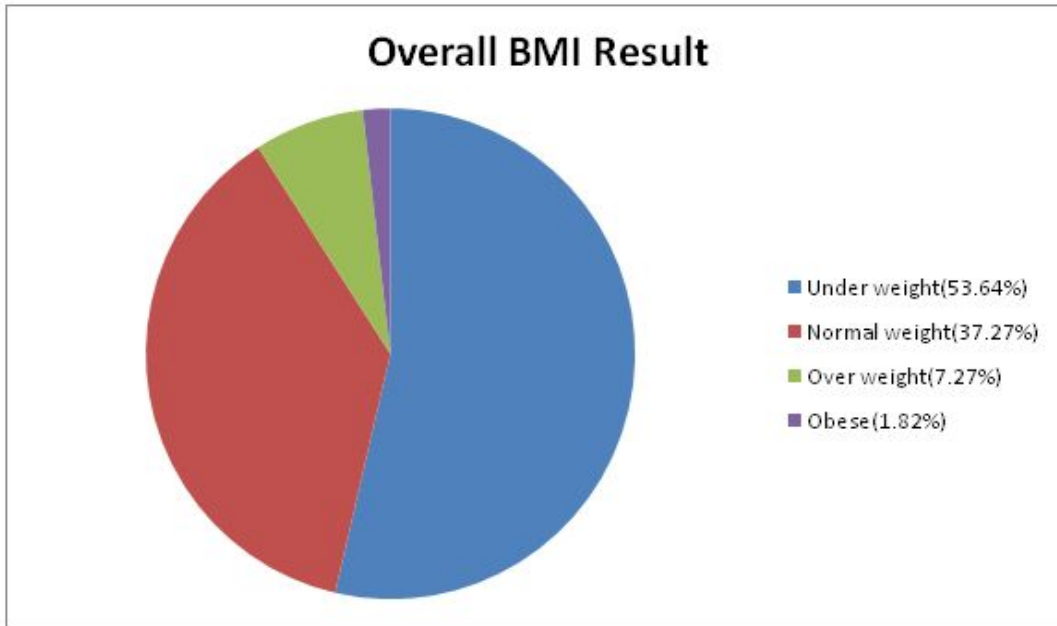
- ❑ Underweight: BMI is less than **18.5**.

- ❑ Normal weight: BMI is **18.5 to 24.9**.
- ❑ Overweight: BMI is **25 to 29.9**.
- ❑ Obese: BMI is **30** or more.

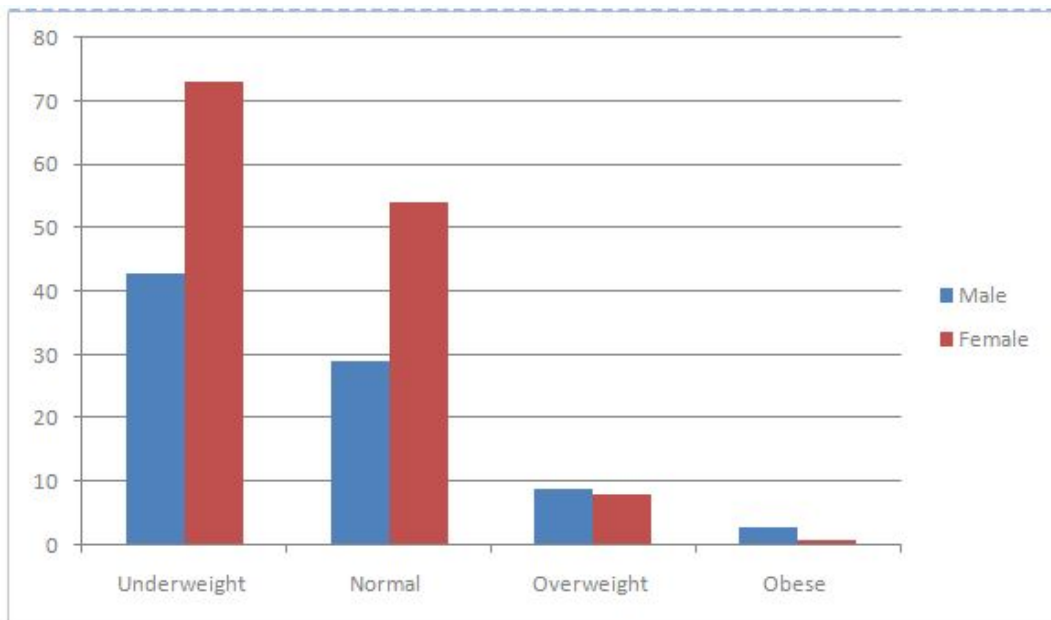
This research was reviewed by Asian University for Women Ethical Review Committee.

Findings/ Results

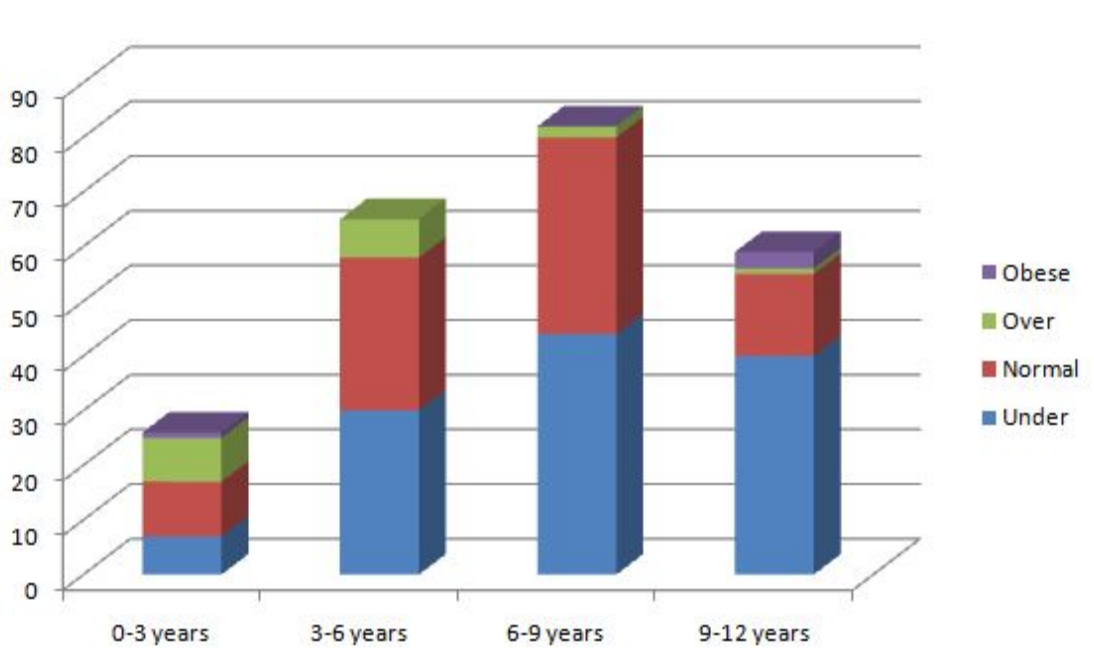
After doing our project, we analyzed and found out that in total our participants were 220. Among of them female participants were 136 and male were 84. The mean age was 6-9 years who are mostly suffering from undernutrition. Around 53.64% of the children are underweight (Graph 1). Among of these participants, females were more likely to suffering from undernutrition (Graph 2). The range of BMI level varies differently in different ages (Graph 3). The children of 6-9 ages are in more risk than other children. Children don't have any serious diseases. But they mostly suffers from common cold, fever etc. Another thing we observed in slum areas that water quality was very bad, there are high chances of germ contamination. Childrens were playing outside of the house. When we asked them about different activities, it seems like children are very active in playing. As per our observation, most of the mother seems very much concern and worried about their child's health.



F.g: BMI level in percentage



F.g: The percentage of BMI among male and female



F.g: The range of BMI level in different ages.

Discussion

As per our thought children of slum areas are more likely to suffer from malnutrition. We went to 5 different slums which are beside the railway station. We went every house to house to find children to measured their weight and height by our weight machine. Our achieved sample size was 220. The people of slum areas were happy by thinking that we might going to help them financially and going to provide them relief after measuring their weight. In most of the house we went, they said they can't give good food to their children because of their economic condition. So economic condition affects their health negatively. Many of the mother's were concern; poverty makes an obstacle to get enough supplies. They also told us their children doesn't like to have vegetables and the food they like it's hard to feed them everyday by looking

at their financial condition. Children don't have any serious diseases but they often suffer from fever, cough etc. We saw that even if they talk about their economic condition and all, they are giving money to their children for eating junk food such as chips, chocolates, other roadside food. Daily consumption of junk food makes hunger recession. For that they might not feel like to eat their meal properly. After analyzing our survey we found out that consumption of vegetable is lower than egg and meat. Also most of the children said, they wash their hand before eating but as per our observation using hand wash is not common over there. So there is a chance of high biases in their answers.

Limitations

During our research the first challenge we faced was budget problem. Because of the limited budget we could not buy a digital weight machine with good quality. The machine we brought is the analog weight machine which showed problems during our research. Everytime we had to fix the machine and measure the children's weight. Secondly, it was very hard for us to avoid the passing comment of the boys in one of the slum areas. Still somehow we finished our work over there. Also the participation of male was less than female. Moreover finding the sources wasn't easy as most of the surveys on this topic was conducted among school going children.

Conclusion

As per our research, a large number of children were undernourished which is an issue to be concern. Lack of access to enough nutritious food and junk food consumption may responsible for those under nutrition. The mindset of economic condition is also affecting them by thinking

that they won't be able to give good food to their children. Also the area they live in is so unhygienic. Germs can be contaminated with their food and cause diseases. Hand washing should be practiced to overcome diseases. There should be more attention to empower women because they are the vital part of the solution of improving nutrition in Bangladesh.

Work citation

Ahmed, N., Barnett, I., and Longhurst, R., (April 2015), *Determinants of Child Undernutrition in Bangladesh Literature Review*.

<https://pdfs.semanticscholar.org/8303/9567f8a64e3abf5256f72b7d87d7414c9988.pdf>

Katherine, R., Hypher, N., Newton, J., and Rumsby, M., (2015), *Malnutrition in Bangladesh; Harnessing social protection for the most vulnerable*, Published by Save the Children

https://bangladesh.savethechildren.net/sites/bangladesh.savethechildren.net/files/library/Malnutrition%20in%20Bangladesh_0.pdf

Appendix

SURVEY QUESTIONS:

1. During the PAST 7 Days, how many times did you eat fruit?
 - I did not eat fruit during the past 7 days
 - 1-3 times during the past 7 days
 - 4-6 times during the past 7 days
 - 1-2 times per day during the past 7 days
 - 3 or more times per day during the last 7 days

2. During the PAST 7 Days, how many times did you eat other vegetables? (Do not count green salad.)
 - I did not eat other vegetables during the past 7 days
 - 1-3 times during the past 7 days
 - 4-6 times during the past 7 days
 - 1-2 times per day during the past 7 days
 - 3 or more times per day during the last 7 days

3. During the PAST 7 Days, how many times did you eat breakfast in the morning?
 - I did not eat breakfast in the morning during the past 7 days
 - 1 day
 - 2 days
 - 3-4 days
 - 5 or more days

4. During the PAST 7 Days, how many times did you drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, Sprite, or Dr. Pepper
 - I did not drink soda or pop during the past 7 days
 - 1-3 times during the past 7 days
 - 4-6 times during the past 7 days
 - 1-2 times per day
 - 3 or more times per day

5. During the PAST MONTH, how often did you eat at fast food places?
 - I never eat at fast food places
 - 1-3 times during the past month
 - 2 times a week or less
 - 3-5 times a week
 - I eat everyday at fast food places

6. Do you pay attention to making healthy food choices when you eat?
 - I never pay attention to making healthy food choices
 - I sometimes pay attention
 - I frequently pay attention
 - I always pay attention

7. On an AVERAGE SCHOOL DAY, how many hours do you watch TV?

- I do not watch TV on an average school day
 - Less than 1 hour per day
 - 1 hour per day
 - 2-3 hours per day
 - 4 or more hours per day
8. How do YOU describe YOUR weight?
- Very underweight
 - Slightly Underweight
 - About the right weight
 - Slightly overweight
 - Very overweight
9. How would you describe your health?
- Poor
 - Fair
 - Good
 - Very Good
 - Excellent
10. Is physical activity enjoyable for you?
- Never
 - Sometime
 - Usually
 - Always
11. How old are you?
- 0-3 years old
 - 3-6 years old
 - 6-9 years old
 - 9-12 years old
12. What is your gender?
- Male
 - Female
13. How many family members do you have?
- Less than 4
 - More than 4
 - More than 6
 - Others: _____
14. Number of earning member:
- 1
 - 2
 - More than 2
15. Do you wash your hand before eating and after using toilet?
- Yes
 - No
16. Is he/she has a serious disease?
- Yes
 - No

17. When do you eat egg?

- I did not eat egg during the past 7 days
- 1-3 times during the past 7 days
- 4-6 times during the past 7 days
- 1-2 times per day during the past 7 days
- 3 or more times per day during the last 7 days

18. During the PAST 7 Days, how many times did you drink milk?

- I did not drink milk during the past 7 days
- 1 time
- 2 times
- 3-4 times
- 5 or more times