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Health and Nutritional Condition of Street Children of Dhaka City: An Empirical Study in Bangladesh

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Abstract: The study was conducted at the seven areas in Tejgaon, known as the centre of Dhaka city, the capital of Bangladesh, which consist of 41 police stations. Street children are very common in this part of Dhaka city. A well structured questionnaire was developed containing both the closed and open ended questions to collect data through face-to-face interview with the respondents. A sample of 80 street children with a ratio of 90% boys and 10% gamines was collected through the simple random sampling method from the selected areas. Results reveal that about 65% street children are underweight. Nearly 77.5% children take their meals three times and 22.5% children eat only two times in a day. Most of the study children (85%) have developed the habit to wash their hand before taking meal that is good for their health. Findings also demonstrate that about 60.5% street children are able to take bath on a daily basis and almost 61.3% of them have been suffered from different diseases during the last 3 months prior to the commencement of the study.

Keywords: Health and Nutrition, Street Children, Underweight, Dhaka City, Bangladesh

1. Introduction

Street children are the kids coming to fight to gild the streets for their habitual abode and livelihood drifted into a nomadic life [1]. Child is the kid up to 18 years age as rule to the section 4 of Child Act 2013 prevailing in Bangladesh. Street children is a term generally used to signify the homeless children to live on the streets at different cities and urban areas worldwide and the homeless youth are often termed as street kids and street youths. There is no absolute definition of street children and contradiction found in different countries centering the street children and so a good number of policymakers take on the UNICEF concept of homeless, careless and risky boys and girls aged less than 18 years to settle on the streets for their livelihood are called the street children [2]. The street children are the part of turn away from home in more developed countries to come from single-parent homes [3] or due to the consequence of polygamy in different societies across the world. They are often in use in illicit activities such as drug dealing, crime, theft, swindling and gang activities due to their deprivation

on culture, moral, tradition, shelter, income, social networking, health, nutrition, hygiene cares and religious rights owing to living away from families since their childhood [4] and however, a greater bulk of them is legal life supporting works doers such as parking car washing, baggage loading, show polishing [5] and others in different countries on the basis of cultural variation worldwide.

The UNICEF have grouped 3 groups of street children as (i) Street Living Children (children ran away from their families and live alone on the street), (ii) Street Working Children (children to spend most of their day time on the streets fending for themselves, but returns home on a regular basis) and (iii) Street Family Children (children living on the streets with their families).

Children depart their home and directing to the streets in view of poverty, intra-family feud and alluring the modernity getting obstacles in continuation on these trends in their ongoing family structures [6, 7].

The numbers of street children are rising with the age rising of the globe and they may reach 800 million if proper initiatives are postponed to solve the problems in this connection [8]. There are 63% of them going to bed hungry

and 53% are chronic malnutrition sufferers [9-14], 27 million are severely underweight and 33million are not in school entry at all [1&15-17]. In 1990, the government assumed that there are about 1.8 million children on the streets in Bangladesh, about 215, 000 children including 1, 00000 girls are thought to be in Dhaka City alone and 12 years later, there are probably 7 million children on Bangladeshi streets, most of them work as car cleaners, beggars, vendors, newspaper sellers, garages helpers, rag pickers and in other informal areas in different hazardous works [18].

According to a report from Consortium for Street Children, a United Kingdom based consortium of related Non Government Organizations, UNICEF estimated that 100 million children were growing up on urban streets around the world. Fourteen years later, in 2002, UNICEF similarly reported, "The latest estimates put the numbers of these children as high as 100 million" [19].

The children are the different diseases sufferers on the basis of seasonal variation and some are chronic health disorders sufferers according to their dwelling topographic variation [20-22]. About 73% of street children in Dhaka city suffer from chronic malnutrition while mortality and morbidity status among street dwellers has reached an alarming level for lack of basic health and nutritional care services [9, 16&23].

The current research was designed to provide empirical outputs of the health and nutritional situation of the street children abide in Tejgaon, the central body of Dhaka city in Bangladesh.

2. Data and Methodology

The study was a pilot study. The study was conducted at Kawran Bazar, Nakhalpara, Shaheen Bag, Arjatpara, Tejgaon Industrial Area, Tejturi Bazar and Tejkunipara on Tejgaon police station at Dhaka city in Bangladesh. There were taken a sum of 80 street children in central Dhaka. The simple random sampling method was in application to frame the street children for the smooth continuation of the study. A planned questionnaire was developed containing both the closed and open ended query to collect data through face-to-face interview with the respondents. The questionnaire was pretested in areas far away from the sample areas and revised according to the feedback gained in the field level. The questionnaire was formed to gain the relevant information considering personal, household, social and economic details, dietary patterns, general behaviors, anthropometric assessments and interrelation between different variables.

The anthropometric data were collected using the techniques illustrated below.

Weight Measurement: The body weight was recorded using the standard weighing machine keeping the respondent bare footed with minimal cloths.

Height Measurement: The body height was recorded using modified tape keeping the respondent stranded on a platform, bare footed with their head upright and looking straight forward.

Nutritional State: The nutritional states of the respondents were found applying the widespread Quetelet Index.

The questionnaire was checked daily taking the interview and again these were carefully rechecked after collecting all the data and coded prior the inflowing into computer technology. The data was edited in case of sighting discrepancy (doubt entry, wrong entry etc.). The data were processed to undergo statistical analysis using SPSS 16 windows program. Microsoft Word, Microsoft Excel were used to represent the tabular, charts and graphical sign.

3. Results

Table 1 presents the socio-demographic characteristic of study children. Figure shows that most of the street children are boys. The age distribution of respondents is contributing 37.5% within 7-11 and 62.5% within 12-16 years. About 21.25% children have up to 3 and 31.25% children have 6-8 siblings in their families.

Table 1. Socio-demographic shaping of street children.

Grouping	Frequency	Percentage
Sex		
Boys	72	90
Gamines	8	10
Ages (Years)		
7-11	30	37.5
12-16	50	62.5
Siblings		
< 3	17	21.25
3- 5	38	47.5
6-8	25	31.25

Table 2 shows that 17.5% respondents earned >2000, 20% 1501-2000, 52.5% 1000-1500 and 10% <1000 BDT per month. There were 22.5% respondents to take two times and 77.5% three times daily meal takers according to the study.

Table 2. Monthly income and daily meal taken frequency.

Grouping	Respondents (%)
Monthly income (BDT)	
>2000	17.5
1501- 2000	20
1000 - 1500	52.5
<1000	10
Daily meal taken frequency	
4	0
3	77.5
2	22.5
1	0

About 85% respondents washed their hand before eating as a basic hygiene practices, 60.5% took bath daily and 61.25% were diseases sufferers in the last 3 months before carried on the study depending on the table 3 findings.

Table 3. *Hygiene practices and diseases occurrences.*

Patterns	Respondents (%)
Hand washing before eating	
Yes	85
No	15
Daily bath taken	
Yes	60.5
No	39.5
Suffering from diseases in last 3 months	
Yes	61.25
No	38.75

There were found 65% underweight and 35% healthy respondents in the study population measured applying the galore popular Quetelet Index in nutritional arena. The greater percentages of respondents were in underweight comparing with healthy respondents (Figure 1).
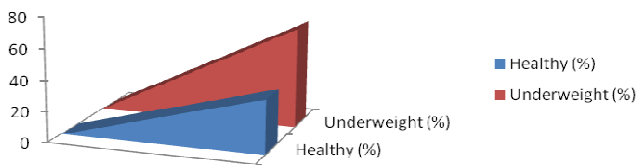

Figure 1. *Synopsis of nutritional state according to the Quetelet Index.*

Table 4. *Crosstab between nutritional state and ages.*

| Ages (Years) | Nutritional state | |
	Underweight (n)	Healthy (n)
7-11	18	10
12-16	33	19
X^2= 0.0053; p=0.941694 at 5% significance level		

Table 4 showed that maximum respondents were in underweight and the gained Chi-squared test result and p-value indicated that the age of respondents makes no differences in their nutritional state.

Table 5. *Crosstab between nutritional state and education level.*

Education level	Illiterate	Up to the PSC
Underweight (n)	35	16
Healthy (n)	9	20
X^2= 10.5564; p=0.001158 at 5% significance level		

The Chi-squared test result and p-value achieved from table 5 indicated that the education level of respondents makes difference in nutritional state and the p-value indicated that the result was highly significant.

Table 6. *Crosstab between nutritional state and drinking water sources.*

Water sources	Underweight (n)	Healthy (n)
Tube well	32	18
WASA/Supply	19	11
X^2= 0.0036; P=0.952116 at 5% significance level		

Table 6 represented that most respondents were tube well water drinkers and the Chi-squared test result and p-value indicated that the drinking water sources make no difference in nutritional state in the study culture.

4. Discussion

The study was carried on in Tejgaon, the central landscape in Dhaka of some 1.5 lac population with 25,144/km^2 population density on 2.74 km^2 surface area [24] with a view to cover of nutritional state in Dhaka, the Bangladeshi capital to aid taking intervention to upgrade their existing nutritional state forming different measures [9,16&25-27]. Their involving in different labor is widely accepted in Bangladesh despite having rule of prohibition of their forced labor according to the article 34 of the constitution of the People's Republic of Bangladesh [28]. The government should take immediate bid to reduce the malnutrition intensity in association with the social condition upgrading bid as the government is obliged to make sure the right to apt health and nutritional cares to all the rural and urban population irrespective of cast, creed, income, gender and religious observance across the country as per the section 18 (A) of the constitution of the People's Republic of Bangladesh. The education level of the children is wished to improve as the Chi-squared test result and *p*-value at 5% significance level in table 5 is highly significant. The greater bulk of street children were found in underweight gainers due to lacked access to safe drinking water, scanty nutritious foods consumption, low nutritional knowledge, lack of hygiene practices and shelter facilities. There were observed 65% underweight and 35% healthy population in defense of the conducted study which is comparable to the findings of various studies in various time frames in various countries [29-31]. With nutrients consuming in adequate proportion maintaining balanced diet, the standard nutritional state can gained through proper metabolism [20&32-34] in the body to support growth and development, health and nutritional care and physical and mental activities and help to prevent diseases [35]. If their nutrients deficiencies exist for long time, they result in interference with body functioning and increasing the occurrence of diseases [36]. The government should take national child protection system monitoring the children's rights abuse keeping them from going back to the streets through various programs like education, drug detoxification programs and providing a safe family-like living environment.

5. Conclusion

Malnutrition is the prime public health panic in developing countries, the big threat to global public health and child mortality contributor across the globe. The current study findings divulged that malnutrition problem is multi-dimensional having different linkages to social, economic and demographic conditions. The street children are in physical, mental, social and spiritual health perils and they are between the devil and the deep sea in front of different violence, abuse and other social discriminations. Along with the government, different national and international NGOs, child rights organizations and human rights organizations should speed up with their level best educational, health,

nutrition and WASH programs with a view to attain their splashing childhood.

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