

Awareness about obesity among the mother of young child in urban area of Dhaka city, Bangladesh

Abstract

Obesity as a condition in which excessive accumulation of fat in the adipose tissues has taken place. It arises when the intake of food is in excess of physiological needs. Obesity now considered as a “killer lifestyle” disease is an important cause of preventable death worldwide. According to the World Health Organization, 1.2 billion people worldwide are officially classified as, overweight. This is probably the most sedentary generation of people in the history of the world. To assess Awareness about obesity among the mother of young child in urban area of Dhaka city, Bangladesh. Cross sectional research with 105 participants among the target population of this study were mothers enthusiastically grace with presence in Dhaka City of Bangladesh. Data were numerically coded and captured in Excel 2007, using an SPSS 22.0 version. The study found that mean age of the participant was 3.70 (1.365) years and most of the participants were above 4 years. The youngest participants in this study were 1 year old and oldest participants were 5 years old. Obesity may induce the Musculo-skeletal problem obesity showed that strongly Agree participants were highest rate that was 51.4% (n=54) and strongly agree participants were rate that was 48.6% (n=51). Overall, parents showed a good awareness on nutrition and obesity. Unfortunately, such a good awareness was found insufficient to make them recognize the overweight problem in their children. There is a need for the improvement of the methods and content of nutritional educational packages as well as efforts to improve parents’ recognition of their child weight status.

Keywords: Overweight, obesity, awareness, Non-communicable Disease

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Mohd Harun-Or-Rashid,¹ Abul Hasnat Mohiuddin,² Md Harun-Ar-Rashid³

¹Lecturer, Physiotherapy Department, Bangladesh Medical College & Hospital, Bangladesh

²In Charge & Physiotherapist, Rotary Health Care & Physiotherapy Centre, Bangladesh

³Founder & Consultant at Naogaon Pain Paralysis Rehabilitation Centre, Bangladesh

Correspondence: Mohd. Harun-Or-Rashid, Lecturer, Physiotherapy Department, Bangladesh Medical College & Hospital, House # 34/35, Road # 14/A, Dhanmondi R/A, Dhaka-1209, Bangladesh, Tel +8801819111116, Email hawlader17@gmail.com

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Abbreviations: BMI, body mass index; SES, socioeconomic status; SPSS, statistical package for the social sciences; UNFPA, united nation food program agency; USD, united states dollar; WHO, world health organization

Introduction

Obesity is defined, “as an incident in which tremendous amassing of fat in the adipose tissues has taken place. It occurs when the ingestion of food is in surfeit of physiological desires. Obesity is the most frequent nutritional disorder in the western countries and amongst the superior takings groups in the developing countries.¹ Obesity now careful as a “killer lifestyle” disease is an significant cause of escapable bereavement worldwide. According to the World Health Organization, 1.2 billion people worldwide are legitimately classified as, overweight. This is almost certainly the most sedentary invention of people in the history of the world.² Adolescent obesity also known as New World Syndrome” is a global health defy of the 21st century, with morbidity obesity affecting 5% of the country’s population.³ Obesity ruins a grim public health predicament worldwide.⁴ It is a chief provider to many needless deaths in the world, and it is recognized as an influential risk factor for frequent chronic diseases such as hypertension, type 2 diabetes mellitus, gallbladder disease, cardiovascular diseases, renal diseases, sleep apnea, orthopedic complications, hyperlipidemia, and psychosocial disorders.⁵ In fresh times, obesity has increased and accomplished an epidemic status⁶ between 1975 and 2006; the number of obese adults in the world has grown around three times higher to over 650 million WHO, 1998. According to the World Health Organization (WHO), the consciousness of obesity has improved by 47% in men and 39% in women between 2000 and 2002.⁷ Obesity, which is exemplify by surfeit accumulation of body fat escorted by nominal physical work

or exercise, is a threat to the good health and well being of a person. While starvation is of concern to most people, over-nourishment is as well dodgy. Obesity can escort to development of several impediments such as physical disabilities, metabolic disorders, cardiac failure, stroke, high blood pressure, respiratory problems, and psychological belongings, osteoarthritis of the weight-bearing joints, low life anticipation and defenselessness to misfortunes.⁸ Changes in the dietary lifestyle from expenditure of conventional foods to intakes of high energy but low nutrient opaque foods, frequent snacking and outdoor food expenditure coupled with a extra deskbound lifestyle are concerned in fueling the increasing problem of obesity.⁵ Obesity may result from a complex interface of hereditary, social and environmental features that may manipulate eating and physical activity behavior.⁹ The rising body of prose underneath that infancy obesity perseveres through adult life¹⁰ constructs it awfully crucial to study and appreciate features connected with obesity counting acquaintance and stances of responsiveness themselves towards obesity.

Materials and methods

Study design

This study was accomplish use cross sectional study beneath a quantitative study intend. Cross sectional study design were chose to convene the study aim as an efficient way to accumulate data.

Study area

The setting for this study was accomplished at DIT Road, Rampura and Khilgaon Dhaka corporation region for the study.

Study population

Young child age 1-5 years dwelling in Dhaka city of Bangladesh were allowing for as research population.

Sample size

The sample size was calculated using the following formula:¹¹

Where p= Awareness about obesity among the mother of young child

$$p= 20.5\% \text{ (Population census-2005)}$$

$$q= 1-p$$

$$q=1-.20.5$$

$$=0.795$$

$$z= 1.96 \text{ (95\% confidence interval [CI])}$$

d= adequate margin of error (.05)

Definite sample size was

$$n = \frac{z^2 pq}{d^2} = \frac{z^2 p(1-p)}{d^2}$$

$$= 1.96 \times 1.96 \times (20.5\%) (1-20.5) / (.05)^2$$

$$= 1.96 \times 1.96 \times 0.205 \times 0.795 / 0.05 \times 0.05$$

$$= 3.8416 \times 0.205 \times 0.795 / 0.0025$$

$$= 250$$

But as the study achieve as a part of academic research project and there were some restraint with ecological fence position. So that 105 mother of young child was taken as the sample of this study from of DIT Road, Rampura and Khilgaon at Dhaka City.

Sampling method

Samples were preferred used convenience sampling technique.

Inclusion criteria

- Age of young child 1-5 years.
- Equally girls and boys of young child are integrated.

Exclusion criteria

- Uneven medical circumstances.
- Traumatic injury around the body.
- Psychologically sick.

List of variables

Main outcome variables: Socio-demographic factors (Age, Religious, Occupation, Gender of child, educational status).

Confounding variables: Obesity related knowledge. 3. Obesity awareness about measures and consequences of mother of young child.

Data assemblage implement

Data was composed through a well-planned questionnaire equipped by the interviewer and permitted by the examination board. Baseline information was collected through interviewer-administered questionnaire through face to face interview. The data was collected from selected areas by me. The collected data was tartan and confirmed by the investigator at the end of the work every day. Any imprecision and consistency was corrected in the next working day.

Procedure of data compilation

Researcher himself composed data by face to face interview. The interviews was conducted in confidence as far as probable and before preceding the data collection, the feature of the study was explicated to each adequate respondent and conversant written approval were acquired from the respondents. Interview was taken in a quiet place; no other person was allowable to persuade the retort of the respondent. It took on standard 30 minutes to complete the interview of a single respondent.

Data analysis

Data were scrutinizing Statistical Package for the Social Science (SPSS) version 16.0. Microsoft office Excel 2007 and version 12 was used to embellish the bar graph and pie charts. The results of this study were consisted of quantitative data. By this study a lot of information was collected.

Ethical implication

Proper consent of the study was acquire from research board (Local Ethical committee), ethical Review Board of UNIC. Apiece respondent was conversant about the research, certain and informed written approval was taken. All participant was confident that all information was kept confidential and was not be used for any other purpose except research. Research findings and results of the study will be explained to the participants exclusive of any deformations.

Results

Among 105 respondents, utmost proportion 41.9% (n=44) of respondent's age was between 5 years and lowest proportion 9.5% (n=10) of respondents, age was between 1 years.

Table 1 Distribution of respondents by their age (n=105)

Age	Frequency	(Percentage)%
1	10	9.5
2	12	11.4
3	21	20
4	18	17.1
5	44	41.9
Total	105	100

Among 105 respondents, uppermost proportion (41.9%) of respondent's age was between 5 years and lowest proportion (9.5%) of respondents, age was between 1 years

Table 2 Distribution of respondent's Gender (n=105)

Gender	Frequency	(Percentage)%
Boy	100	95.2
Girl	5	4.8
Total	105	100

This table showed that no awareness participants were highest rate that was 52.4% (n=55) and lowest moderate awareness were 47.6% (n=50).

This table showed that friends and neighbors participants were highest rate that was 32.4% (n=34) and lowest participants were Health facilities 1.9% (n=2).

Table 3 Distribution of Awareness of obesity promotion activities (n=105)

	Frequency	Percentage
No awareness	55	(52.4)
Moderate awareness	50	(47.6)
Total	105	100

Table 4 Distribution of Source of information about obesity (n=105)

	Frequency	Percentage
School teacher	28	(26.7)
Friends and neighbor	34	(32.4)
Television	17	(16.2)
Books and news paper	16	(15.2)
Health facilities	2	(1.9)
Others source	8	(7.9)
Total	105	100

This table showed that strongly agree participants were highest rate that was 48.6% (n=51) and lowest disagree were 1% (n=1).

Table 5 Distribution of Obesity is major health problem (n=105)

	Frequency	Percentage
Strongly agree	51	48.6
Agree	47	44.8
Neither agree nor disagree	6	5.7
Disagree	1	1
Total	105	100

This table explained that no participants were uppermost rate that was 58.1% (n=61) and yes participants were rate that was 41.9% (n=44).

Table 6 Distribution of Know how to prevent obesity (n=105)

	Frequency	(Percentage)%
Yes	44	41.9
No	61	58.1
Total	105	100

This table demonstrate that agree participants were uppermost rate that was 54.3% (n=57) and not response participants were 45.7% (n=48).

Table 7 Distribution of Obesity is an indicator of good health (n=105)

	Frequency	(Percentage)%
Agree	57	54.3
Not response	48	45.7
Total	105	100

This table showed that less rice participants were highest rate that was 21% (n=22) and lowest exercise participants were 1.9% (n=2).

This table showed that Leads to diseases participants were highest rate that was 15.2% (n=16) and lowest Breathlessness and Problem in standing and sitting participants were same ratio 1.9% (n=2).

Table 8 Distribution of preventive measures of obesity (n=105)

	Frequency	Percentage
Walking	4	3.8
Exercise	2	1.9
Dieting	4	3.8
Jogging	11	10.5
Less rice	22	21
Consumption	20	19

Table 8 Continued...

	Frequency	Percentage
Doing Yoga	18	17.1
Intake of less fried foods	16	15.2
Intake of less sweets	4	3.8
Intake of less non-vegetarian foods	4	3.8
Total	105	100

Table 9 Distribution of awareness about consequences of obesity (n=105)

	Frequency	Percentage
Breathlessness	2	1.9
Problem in standing and sitting	2	1.9
Problem in walking	4	3.8
Problem in working	7	6.7
Leads to diseases	16	15.2
Leads to bad figure	14	13.3
Causes arthritis	14	13.3
Problem in sitting	12	11.4
Problem in fittings of cloth	4	3.8
Leads to high blood pressure	4	3.8
Cause leg pain	6	5.7
Cause laziness	4	3.8
Problem in climbing staircase	8	7.6
Problem in standing	8	7.6
Total	105	100

The Table showed the nutritional status of participating children. The mean (SD) of WAZ, HAZ, WHZ and MUACZ were -1.05 (2.0), -1.25 (2.72), -0.34 (1.79) and -0.23 (1.87) respectively. Overall 18.3% children were severely underweight, 28.6% were severely stunted, 8.7% were severely wasted according to WHZ and 7.8% were severely wasted according to MUACZ.

Table 10 Distribution of Nutritional status of participating children (n=105)

Nutritional indicator	n (%)
Weight-for age z score	
Mean (SD)	-1.05 (2)
<-3SD	18.3
≥-3SD to <-2SD	48.1
-2SD to +2SD	29.8
>+2SD	11.5
Height-for-age z score	
Mean (SD)	-1.25 (2.72)
<-3SD	18.6
≥-3SD to <-2SD	54.2
-2SD to +2SD	15.9
>+2SD	11.3
Weight-for-height z score	
Mean (SD)	-0.34(1.79)
<-3SD	8.7
≥-3SD to <-2SD	27.1
-2SD to +2SD	25.2
+2SD	6.8
MUAC-for-age z score	
Mean (SD)	-0.23 (1.87)
<-3SD	7.8
≥-3SD to <-2SD	28.2
-2SD to +2SD	31.1
>+2SD	10.7

Discussion

The intend of this study was to assess Awareness about obesity among the mother of young child in urban area of Dhaka city area, Bangladesh. Though the study populations were those convention inclusion/exclusion criterion and awareness about obesity study at child mother at Dhaka city. Totality number of collaborator was one hundred five for quantitative study with aged (1-5) years of young child dwelling in Dhaka city were chosen for this study was cautious as research population. The study invent that mean age of the accomplice was 3.70 (SD± 1.369) years and the majority of the participants were exceeding 4 years. The youngest participant in this study was 1 year aged and oldest participants were 5 years old. Bakun, P.J and Herzog, J.B, 2003 executed a cross-sectional study for these purpose 74 patients (mean age 52.8 ± 12.9 years, 50 boys and 23 girls) were randomly selected for enclosure in the study. Another result has been statement by Dalal, K. and Lindquist, K., 2002 who accomplished that the mean age was ±48.1 and their age range was 25-50 years. So above two studies, mean age was not similar to this study. In this study, showed that boys and girls participant measure was indistinguishable. Boy 59.6% (n=31) and girls 40.4% (n=21) and no preference for race (Desai, H.G., 2004). Occupations of the participants of this study showed that House wife 62(59%), Service was 29(37.1%) and Business was 4(3.8%). Harper, A.E and Shils, 1999 showed his study service participants were uppermost ratio that 78%. Modes of birth delivery of young child of the participants were Caesarean 61(58.1%) and Vaginal were 44(49.9%). Kraak, V.A., Liveryman, C.T. and Kaplan, J.P. eds., 2005 of his study illustrate caesarean participants were highest ratio. Thus this two study were analogous. Awareness of health promotion activities participants were No awareness 52.4% (n=55) and Moderate awareness were 47.6% (n=50). Adair, L.S. and Popkin, B.M., 2005 of his study illustrate awareness ratio was uppermost rate. So that two studies turn into moderate awareness were become too sense of Bangladesh. Ever heard about obesity Yes participants were highest rate that was 59% (n=62) and no participants were 41% (n=43). Gibbs, B.G. and Forste, R., 2004 of his study showed yes participants were 89%. Source of information about obesity demonstrated that Friends and neighbor participants were highest rate that was 32.4% (n=34) and School teacher participants were second highest rate that was 26.7% (n=28). Television and Books and news paper were 16.2% (n=17) and 15.2% (n=16). Akarolo-Anthony, 2004 showed that news paper and books were highest ratio and another study Eliasziw M, 2001 showed TV were highest ratio. Know the risk factors for the obesity showed that yes participants were highest rate that was 58.1% (n=61) and no participants were second highest rate that was 41.9% (n=44). Babu, R.L., Mali, N. and Shinde, M., 2004 found of this study yes were highest ratio. Obesity may induce the Musculo-skeletal problem obesity showed that strongly Agree participants were highest rate that was 51.4% (n=54) and strongly agree participants were rate that was 48.6% (n=51). Ono T, 1999 explained her study agree participants were highest ratio. So that this two study were similar. Daily physical exercises for 30 min to 1 hour reduces the risk of obesity showed that strongly agree participants were uppermost rate that was 48.6% (n=51) and agree participants were rate that was 44.8% (n=47). Neither agree nor disagree were 4.8 % (n=5) and strongly disagree were 1.9% (n=2). Rooney, B.L et.al. 2001 of his study showed strongly agree participants were highest ratio. **Protective measures of obesity** Less rice Consumption participants were highest rate that was 58.2% (n=32) and Doing Yoga participants were second highest rate that was 17.1% (n=18). Intake of less fried foods were 15.2%

(n=16). Jogging participants were 10.5% (n=11). **Awareness about penalty of obesity** Showed that Leads to diseases participants were highest rate that was 15.2% (n=16) and Leads to bad figure and Causes arthritis participants were 13.3% (n=14). Van Gerwen, 2000 showed his study exercise participants were highest ratio. Showed that weight for age Z score mean -1.05, <-3SD 18.3 and >+2SD 11.5. Height for age Z score mean -1.25, <-3SD 28.6 and >+2SD 17.3. Weight-for-height Z score mean -0.34, <-3SD 8.7 and +2SD 6.8. Mid upper arm circumference Z score mean -0.23, <-3SD 7.8 and >+2SD 10.7.

Conclusion

Mostly, parents are evidence for a better awareness on nutrition and obesity. Regrettably, such a good awareness was found inadequate to construct them acquainted with the overweight predicament in their children. In toting up, this parental awareness also needs to be enhanced with regard to the food pyramid and technique of preparing low fat meals. There is a need for the upgrading of the methods and content of nutritional educational packages as well as efforts to improve parents' acknowledgment of their child weight status. These findings have significant allegations in the preclusion of obesity in Bangladesh. It has been shown that obesity can found as early as in the first half of infancy. Consequently, infancy and pre-school periods have been planned to be the most decisive era for long term interferences to prevent obesity. Despite the fact that obesity in this population is low and that children have pessimistic attitudes towards obesity, required measures need to be taken to maintain this low echelon of obesity. Impediment is the key to controlling the obesity epidemic. The different prevention approaches recommended by the WHO comprise; a universal or public health loom directed at all members of a community; a selective approach directed at high-risk individuals and groups; and a targeted approach directed at individuals with weight-related problems and those at high risk of diseases linked with overweight and obesity.

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Conflicts of interest

The authors declare no conflicts of interest.

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