

Health and Nutritional status of working slum women residing on natural levee of the River Hugli in Chandernagore Municipal Corporation, Hugli, West Bengal

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Abstract:

Slum women never reach the ultimate growth potential due to nutritional deprivation. The urban slum women, particular among the lower income group with body mass index below or above the normal level would have a higher risk. The present paper explains the interrelationship between Body Mass Index and other socio-economic as well as demographic variables of women slum dwellers residing on natural levee of the river Hugli in Chandernagore Municipal Corporation in Hugli District, West Bengal. It also scrutinizes the differences between working and non-working slum women in various aspects, such as age, income group, education level, food habits etc. A cross-sectional study was conducted between December, 2019 to February, 2020 and purposive sampling technique was applied to select the target population. The information is linkable to the 48 working and 52 non-working slum women aged between 15-49 of eleven slums. The results showed that the working women were significantly differed from the non-working women in case of education, family income and some food products consumed by them. Their BMI was significantly related their age, working hour and number of meal intake. This has direct bearing on the deficiency of protein consumption of slum women irrespective of their working pattern, in so far as women income and family income is concerned.

Key words: *Body Mass Index, dietary habits, obesity, recommended Dietary Allowances, underweight*

Introduction:

Slum is a highly populated residential area consisting mostly of closely packed, decrepit housing units in a situation of deteriorated infrastructure including inadequate safe drinking water, poor sanitation, poor drainage with open sewer, uncollected rubbish and poor street lighting and inhabited primarily by impoverished persons with informal occupation. In the United Nations

Program on Human Settlements (UN-HABITAT, 2002), 'slum' was defined as "a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum is often not recognized and addressed by the public authorities as an integral or equal part of the city". In India more than 1.3 crore urban slum households are recorded across the nation (Census of India, 2011). Large scale migration from rural to urban (towns and cities) sector for possible better life is responsible for rapid expansion of slums. The relationship among crowding, poverty and poor health is the driving mechanism of a slum in particular (Nolan, 2016). The slum dwellers are not aware about their nutritional status and thus they are deprived of good physical health. 'Nutrition' may be defined as "the sum of all processes involved in how organisms obtain nutrients, metabolize them, and use them to support all of life's processes" (Zimmerman & Snow,). It is manifested in biological, physiological and immunological aspects. The health status of a particular woman depends upon two basic concepts. The woman should consume adequate amount of food and beverage at particular interval. On the other hand, her body should absorb maximum portion of nutrients from the food she consumed. But in most of the cases, slum dwellers, especially women have poor health and nutritional status.

Slum people are engaged in various types of economic activities to sustain life. Slum dwellers, especially the women folk are not aware about their food habits and practices (Yadav & Krishnan, 2008). As they are belonged to low income group (LIG), have to earn for their children and family. In most of the cases, they are associated with marginal economic activities, such as, house maid, cook, small shop owners, casual labourers etc. Working slum women have double burden of fulfilling the family's need and also performing well in their workplace. Often, they skip their diet due to maintain the balance between the two aspects of their life. Inadequate supply of food is another reason behind their habit of skipping meal which lead them towards malnutrition. Hungers as well as malnutrition among the slum women were common scenario in almost every slum in India (Swaminathan & Mukherjee, 2012). The calories intake by them should be up to the mark as recommended by Indian Council of Medical Research (ICMR). The nutritional status of a slum women depends on '*food habits*' as well as '*food practice*'. The first one is referred as the variety of vegetables, fruits, animal protein etc that are included in their regular diet. How many times they eat in twenty four hours are also associated with the eating habits. Food practice is the preparation techniques that applied by the slum women during their cooking. It is important to be concern about cleaning properly the food items brought from market. The procedure of preparing the meal must ensure that all nutrients or food values remain in the dish.

The nutritional status of the slum women plays the key role in association with Body Mass Index (BMI), anaemic tendency, reproductive outcome (Bentley & Griffith, 2003). Normal BMI refers to the balance condition between height and weight. Obesity is a preventable risk factor for chronic diseases and underweight is associated with poor physical capacity, reduced economic productivity, increased mortality and poor reproductive outcome. In India, 52 per cent women are anaemic in nature (National Family Health Survey [NFHS], 2018). Underweight and obesity are the major public health challenges in urban slum of India. Indian urban slum women were suffering from increasing BMI due to diabetic tendency and their sedentary lifestyle (Patel & Deonanda, 2017). Being the member of low-income group, the slum women are imposed to face double obstacles of

poor socio-economic structure with little or no education (Bansode, 2007). The disparities in women's nutrition status were primarily related to women's access to resource and income, including better diets and access to health care, regardless of whether they were belonged to working or non-working group (Chatterjee, 2008).

The present study concentrates on the health and nutritional status of working and non-working slum women residing on natural levee of the river Hugli in Chandernagore Municipal Corporation. Chandernagore, the former French colony, carries the legacy of French culture in its social structure, education system, cultural practice, roads pattern joining perpendicular with each other and so on. But '*pull factor*' of migration attracts the poor people from neighbourhood to settle down in this urban place. Thus, in Chandernagore Municipal Corporation, the slum population was rapidly increasing due to migration of the rural poor from villages of West Bengal, Bihar, Jharkhand, Orissa as well as from Calcutta Metropolitan region. Rural to urban and urban to semi-urban migration were eventuated in search of a possible better and affordable life. If there were any the possibilities of the impact of demographic structure upon the health condition of slum women was taken into account in this study. Chandernagore Municipal Corporation provided pure drinking water, metalled road, electricity, garbage cleaning at regular basis and other urban facilities but poverty, low literacy rate, lack of awareness, unhygienic surroundings were responsible for the unwell condition of these slum women. The river Hugli is flowing along the eastern part of CMC. The river has formed natural levee on which slums are spread over as the migrated people occupied the vacant land (*Khas Jomi*) since pre-independence era. The area up to 900 metre from the water level was inundated in 1978, 2000 and so on during monsoon. Thus, the permanent residents were not willing to build up their houses on this natural levee. People from Bangladesh came and settled down in this region during partition of Bengal (1947) and *Bhasa Andolan* (1971) and thus the slums spread over the natural levee. The women from Bihar and Jharkhand were seasonally migrated to the brick kilns in this region and engaged as marginal labourer.

The present study had tried to reveal the association of socio-economic and demographic variables with Body Mass Index of women slum dwellers. The slum women were segregated into two categories, such as, working women and non-working women. Non-working women were the house wives who are associated with house hold works and the adolescent girls who are basically continuing their studies. On the other hand, working women were mainly house maids, cooks, assistants in catering services, small business women etc. The authors tried to compare most of the possible variables associated with the health and nutritional status of working and non-working slum women.

Literature review:

Desai et Al. (1980) were associated with a collaborative study about food habit and health status of migrant workers in peri-urban (favelas) slums in Brazil. They revealed the fact that their rice and bean based traditional diet was nutritionally inadequate for pregnant and lactating slum women. Anthropometric examination indicated their poor nutritional status or malnutrition which adversely affected their capacity for physical work as well as their overall health status. Bentley and Griffiths (2003) opined that the disparities in women's nutrition status were primarily related to women's

access to resource and income, including better diets and access to health care, regardless of whether they lived in rural or urban areas. Chatterjee (2008) stated “In our society...there is a section that can’t even afford to fill their stomach with sufficient amount of bread and rice only. As a result, often they feel hungry”. A very high proportion of urban, urban slum and rural populations in Haryana reported inadequate intake of fruits and vegetables which influenced their physical activities by Yadav and Krishnan (2008). Khan & Kraemer (2008) extracted the secondary data from Bangladesh Demographic and Health Survey (BDHS) conducted in 2004 and compared the health status of slum and non-slum women. They reported that education and access to media were the key factors for poorer health status including low mean BMI among the women residing in slums as well as non-slums regions. Lizmitha Godwin (2010) stated that negative deviation was reported in case of body weight with chronic energy deficiency among half of the respondents. He explained that the low level of their nutritional profile was subjected to the variables, such as unemployment, education level up to high school, monthly family income less than Rs. 3000 and low standard of living. Swaminathan and Mukherjee (2012) have established three nutrition status models (undernutrition, normal, overnutrition) using multinomial regression framework by which they explained that living in a census slum did not affect the nutritional status. James et al. (1988) used three cut-off points (18.5, 17.0 and 16.0) of Body Mass Index to analyse the relationship between BMI and chronic energy deficiency among the groups of African adults. Arthur et Al. (2015) were associated with the research conducted by the International Network for the Demographic Evaluation of Populations and their Health (INDEPTH) over a period of time of fifteen years on malnutrition in low and middle-income countries (LMICs). They found among the rural women in Bangladesh that highest body mass index (BMI) had a higher mortality risk than the women with intermediate BMI. They addressed those women suffering from chronic energy deficiency due to insufficient food intake in Purworejo in Java, Indonesia monitoring by Health and Demographic Surveillance Systems (HDSSs). They concluded that nutrition programmes should be implemented to give knowledge about proper dietary habits comprised of healthy natural foods and provide useful nutrition advice and treatments by trained health workers. Patel & Deonanda (2017) analysed the NFHS data (2005-06), especially focused on tribal status accompanied with other variables including demographic and behavioural factors. They came into decision that frequency of watching television, wealth index, age, suffering from diabetes, residential status was positively and significantly related with increasing BMI. In slums of Nairobi, the BMI value is high among men due to more bread consumption and among women due to sedentary lifestyle (Asiki et Al. 2018)). Zenk et Al. (2018) conducted longitudinal community survey on two ethnic groups (Blacks, Hispanics) and women in Detroit, Michigan using two sets of data (2002, 2008). They examined the association between BMI and availability of retail food outlets based on GIS data. They mentioned that neighbourhood food environment, especially availability of small grocery stores was positively associated with healthier BMI maintained by the people belonging from low to moderate income group over time. Patel and Deonandan (2018) explained that age, diabetes and sedentary lifestyle are associated with increasing BMI in slum women in India. Hakizimana et Al. (2019) came to the conclusion that public health intervention should consider the anaemic risk with geographical disparities. They analysed the data from Rwanda Demographic and Health Survey

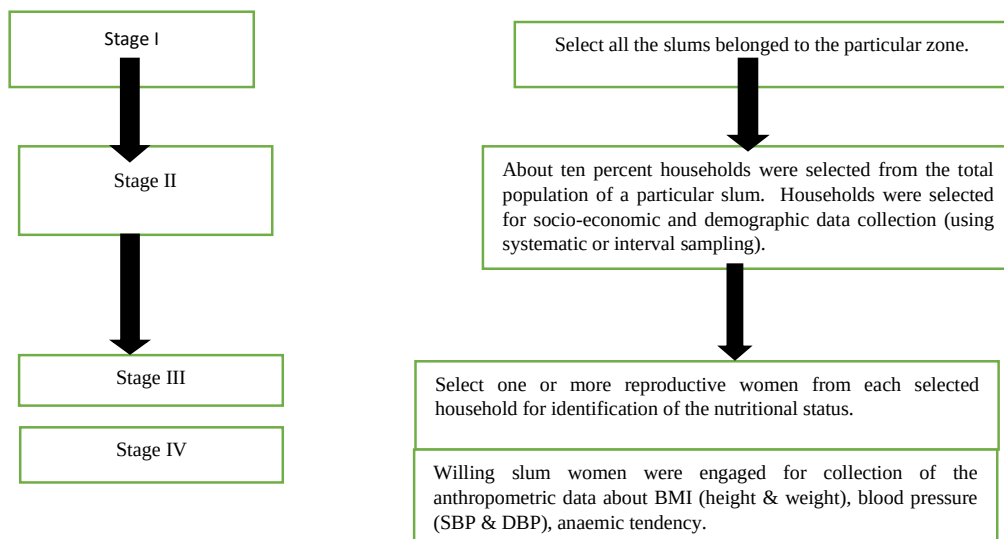
(RDHS) of the time period 2014-2015. They suggested that the economic status of women should be strengthened and iron supplementation should be regularised to reduce the risk of malaria. Joshi et Al., (2019) found that food insecurity which was caused by unemployment, low education, poverty, unstable housing, family relationship, was one of the key factors of low BMI and poor health.

Study Area:

The study concentrated on Chandernagore Municipal Corporation 22°52'12.00" N and 88° 22' 48.00" E with a total area of 19 square Km. It situated at an elevation of 9 metres above mean sea level. This is essentially a part of alluvial plain of the river Hugli. The study area was spread over the wards, no. four, five, six, eleven, twelve, seventeen which had eleven slums, namely, Kundughat, Sarkarpara Munsighat, Beltala colony, Kanai Sarkar Ghat, Surighat, Kanai Sarkar Ghat, Nichupati Dhankal Ghat, Kothi ghat, Chuna Gali, Sukhdev singh Road, Chalka Para Surki Gola [Fig no:1].

Methodology:

The slums were selected on the basis of their geographical situation of the natural lavelle of the river Hugli. Systematic or interval sampling was used to select the household. The anthropometric data presented in this report were obtained from the cross- sectional survey conducted for a study on health and nutritional status of working women of eleven slums residing on natural lavelle of the river Hugli in Chandernagore Municipal Corporation. The investigators approached one hundred and twelve working women. The sample size (more than 10%) was determined on the basis of total household of each slum. The investigators depended on the "SUDA List" (Slum and Urban Development Authority) prepared by Urban Development Department of CMC in 2016 for getting the total number of households. Primary data collection followed the following stages:



The survey included three components,

- a) Information on socio-economic and demographic parameters including age, income, occupational structure, education, religion, caste.
- b) Level of nutrition including food habits and practice.
- c) Measurement of height and weight to calculate Body Mass Index (BMI).

The digital weight machine was kept on the flat surface and the subjects were requested to step on the scale in bare feet without holding on to anything. The weight was recorded to the nearest Kg. Height was measured in cm using measure tape. Socio -economic information were collected from sample survey through a structured questionnaire. Monitoring of nutritional status of twenty-four hours of slum women through the collection of anthropometric data was a simple approach.

The Body Mass Index (BMI) is a useful index of relative weight that can be applied to identify obesity and under-weight. It is calculated by using the following formula:

$$\text{Body Mass Index (BMI)} = \frac{\text{Weight (Kg)}}{\text{Height (metre)}^2}$$

Following to classification of World Health Organisation (WHO), the subjects were classified into the categories of thinness or overweight. Overweight is defined as

- (A) Grade 1 overweight (BMI = 25.00-29.99 Kg/m²),
- (B) Grade 2 overweight (BMI =30.00-39.00 Kg/m²),
- (C) Grade 3 overweight (BMI≥40.00 Kg/m²).

On the other hand, thinness is defined as

- (D) Grade 1 mild thinness (BMI=17.00-18.49 Kg/m²),
- (E) Grade 2 moderate thinness (BMI=16-16.99Kg/m²),
- (F) Grade 3 severe thinness (BMI=>16Kg/m²).

The normal BMI ranges from 18.50- 24.99 Kg/m². The data was analysed by using Statistical Package for Social Science (SPSS version 18.0) for Windows10. The descriptive statistics were done for the analysis of socio-economic variables and were expressed as Mean ± Standard Deviation. The researchers also applied Chi-square test to determine the influence of nine variables upon BMI.

Objectives

The study deals with the various aspects of health and nutritional condition of working women of the slums on the natural levee of the river Hugli of Chandernagore Municipal Corporation. The main objectives are as follows:

- 1.To enumerate the diversities of nutritional status of the working slum women of undocumented squatters.

2. To identify the present health status of working women slum dweller through calculating BMI.

Results and discussion

1. Socio-economic background of working and non-working slum women:

The current study was conducted to appraise the health and nutritional status of working slum women and to explore the influence of the living environment on the health parameters. The collected data was analysed and the results were discussed under the following heads:

1.1 Family size: In India, three among the five households were nuclear comprised of a married couple living with one or two children and it was found higher in urban than rural areas. CMC slums revealed the same story. About fifty-eight percent families of working women were nuclear and forty-two percent working women lived in joint families. Families coming from Bihar or Jharkhand preferred to live together because of their community togetherness. Thus, Kundughat, Sukhdev Singh Road and Chalka Para Surki Gola had more joint families than other slums on the natural levee.

1.2 Religion and community: Most working slum women (96%) were Hindus followed by Muslims (four percent). Muslim women were found mostly in Kothighat and Chuna Gali in ward no eleven. Hindus were segregated into general (forty-one per cent) and rest of them were Schedule Caste, Schedule Tribe and Other Backward Community.

1.3 Age composition: Working women below eighteen were less in number (six per cent). They were larger (thirty-nine per cent) in number within the age group of eighteen to thirty, followed by thirty-one to forty [Fig no. 2]. Close to eighteen per cent of working women aged above forty had to continue their job due to poor economic condition and they were sole earning member in their family in most cases. The mean age of working women was 30.60 and ± 9.21 SD [Table no. 1].

1.4 Marital status: Most (eighty-eight per cent) of the working women were married and most of them (seventy-nine per cent) became married before age of eighteen. Women who stayed as single, continued their study in comparison to married women.

1.5 Educational background: The portion of literate working women was twenty- three of total working women. Maximum working women had to leave their study after class eight to the tune of thirty- seven per cent. Rather non-working women got the opportunity to continue their study [Fig. no 3]. Mean education level of working women was 2.5 (class four) and ± 1.54 SD [Table no.1].

1.6 Occupational Status: All of 112 slum women were unskilled workers. Most of them (thirty - five per cent) were maidservants, followed by the cook (twenty- nine per cent). Some slum women were engaged in catering service, which was seasonal. In the bridal season, they get the job for fifteen days on average. A few working women had a small business, such as selling fish and vegetables, making puffed rice, *fuchka*, *papad*, *masala* powder etc. More than twenty-seven per cent of slum women were associated with other marginal works, such as wire making, “*Rakhi*”

making, sewing innerwear etc [Fig. no 4]. In the Kundughat slum area, some married women migrated from Bihar and Jharkhand, were associated with brick making and unmarried women were engaged with loading and unloading bricks from 'Itbhata' (TBS brickfield in ward no four and Nalini brickfield in ward number five) to the construction site. Low income was a compelling factor for the woman folk to adjust with these petty jobs in unorganised sectors.

1.7 Income profile: As most working women (thirty-eight percent) were associated with various marginal works, they received fifty rupees to hundred rupees per day. Housemaids get Rs.2500 to Rs.3000 per month serving three to four households [Fig no. 5]. Some of them had experienced cutting salary due to their absence. In Sukhdev Singh Road slum, women helped their husbands make 'phuchka' or papad, but they didn't get any remuneration. Females of Kanai Sarkar Ghat and Surighat sold fish and vegetables to make some profit which amounts to Rs.300 and above per day on an average. Migrated women residing in Kundughat slum, used to receive Rs.10,000 from the brickfield owners for a contract of six months. This advance money was locally known as 'Gadan'. During this period, they had to satisfy their masters working in the brickfield.

In most cases, they became slaves and were compelled to work for twelve to fourteen hours per day. Mean income was 2.12, that means below Rs 100 and ± 1.04 SD whereas the CV (Coefficient of Variance) value was 49.14, which indicated that the data was heterogeneous in character. The mean family income of working women was Rs 295 and ± 172.53 SD. The mean value of family income of non-working women was Rs 154 and ± 93.85 SD [Table no. 1].

2. Nutritional and health status of working slum women:

2.1 Frequency of consumption of food:

Working slum women consumed rice, dal, green leafy and other vegetables on a daily basis. They used oil and spices to prepare their food. About seventy- nine per cent working women included roti in their diet. Only ten per cent of working women had milk regularly. In Kothi Ghat slum, Muslim women took seasonal fruits like, banana, guava, apple, papaya etc in their diet.

About eighty- five per cent working women included eggs twice or thrice per week on an average because the egg was pocket friendly to this economically weaker section. People who were associated with fishing or fish selling had fish items regularly on their thalis. They usually ate small fresh fishes of local water bodies. Otherwise, fish was a weekly menu of other families. As chicken and mutton's price was high, these proteins rich food were very rare in the diet of slum women. Only twenty per cent working women rarely had meat in a month [Fig no. 6].

2.2 Mean food intake: Every slum woman should consume a balanced diet daily to meet all her daily life requirements to sustain. ***"The Recommended Dietary Allowances (RDA) are the levels of intake of the essential nutrients that are judged to be adequate or sufficient to meet the nutrient requirement of nearly all (97 to 98 per cent) healthy individuals in a particular life stage and gender group" (ICMR 2004).***

Slum women of the natural levee in CMC did not consume a balanced diet as recommended by RDA. Inadequate representation of fruits and leafy vegetables in the daily diet was brought out in the present study. The average daily intake of food was assessed and compared with RDA. Only the intake of oil and fats exceeded RDA, but almost in all food items, slum women took an inadequate amount of food. Intake of pulses was slightly less than RDA [Table no. 2]. In the case of protein, intake was found to be meagre with respect to fish, meat and milk [Fig no. 7].

2.3 Food habits and practices: About ninety-eight families followed non-vegetarian food habits barring two families who were Brahmin migrated from Bihar and lived in Kundughat slum. Working women preferred those items which were easy to prepare rather than considering the freshness and seasonality of food items. Food selection was influenced by the number of socio-economic, cultural and spiritual factors. About fifty-six per cent working women took their meals thrice a day. It is forty-one per cent in having a meal twice a day [Table no.3]. Working women did not have their meals in due time as they were busy handling both professional and personal life.

Homemakers of most of the families used to clean the rice at least three times before cooking. But they did not wash all the vegetables properly before peeling or cutting them. As most of them belonged to poor economic condition, they had only one or two curries in their lunch or dinner. So, they tried to make the dish delicious by overcooking it using more oil and spices. About ninety-three per cent of the total household were habituated to overcook their foods. Almost forty-three per cent of households used regular salt in powder form, whereas fifty- seven per cent of families purchased packed iodised salt.

3. Body mass index:

Body mass index is considered the most suitable, objective anthropometric indicator of the adult's nutritional status and it was the most widely used method to gauge obesity (Shetty, 2011). The Body Mass Index (BMI, weight in Kg/height in square metre) is a useful index of relative weight applied to identify obesity and under-weight. According to the WHO classification, the subjects were classified into the categories of thinness or overweight. Overweight is classified into (A) Grade 1 overweight (BMI = 25.00-29.99 Kg/m²), (B) Grade 2 overweight (BMI =30.00-39.00 Kg/m²), (C) Grade 3 overweight (BMI≥40.00 Kg/m²). On the other hand, thinness is defined as (D) Grade 1 mild thinness (BMI=17.00-18.49 Kg/m²), (E) Grade 2 moderate thinness (BMI=16-16.99Kg/m²), (F) Grade 3 severe thinness (BMI=>16Kg/m²). Descriptive statistics (mean, standard deviation) were calculated for the total survey population and by age, education, income. All cases of missing data on income, education, BMI etc. were excluded. But there were three main categories, such as, underweight (<17.49 Kg/m²), normal (17.50-24.99 Kg/m²) and over-weight (>25.00 Kg/m²). 73% of working women had normal BMI. Overweight and obesity were found to increase with age.

But sample analysis indicated that age had no binding on BMI status of women residing in slums of CMC. It was alarming that twenty- seven per cent of working women were facing the problems of obesity. Ten percent of working women including adolescent girls belonged to the category of underweight [Fig no. 8].

The investigators selected 18 variables to represent the socio-economic and nutritional status of working slum women residing on the river Hugli's natural levee in Chandernagore Municipal Corporation. Chi-square Test examined the association of BMI with other socio-economic and demographic variables. The correlation was significant at the 0.05 level. Age was the influencing factors in case of BMI rate of slum women ($P=0$). The working hour period was established in working women as the influencing variable ($P=0.008$) with BMI. Number of meals taken by women was significantly related to BMI as its P value was 0.004, which was lower than 0.05. The calorie intake of slum women was not significantly poorer with their BMI, but its chi square value ($p=0.099$) was very close to its significance level [Table no. 4]. It was also the same scenario in the case of family income. The working women were deprived of education as they were forced to the labour market due to poverty before becoming adult. Skipping a meal is one of the reasons of ill health. Working women had to perform all the scheduled work, both professional and house activities. Sometimes it was quite impossible to manage to have a meal properly.

Conclusions and Recommendation:

The slums spread over the river Hugli's natural levee in Chandernagore Municipal Corporation were inhabited by the people of low- income group. Almost half of the women population having only primary education were associated with marginalised economic activities. In slums, poverty dragged out the women and forced them to join the labour market to sustain their family. The working women were too poor to spend money on protein-rich food products. They were dependent on rice, dal and potato throughout the year. Those families who belonged to the fishing community had fish in their meal. The fishes that were not sold in the market came back with the fisherman to their kitchen were added in lunch. The households having income at a comparatively satisfactory level were able to afford meat once or twice per month and it helped to compensate the protein deficit of their female members. Rest of women folk got the opportunity to be educated up to the upper primary level and engaged in household activities. Significant differences were not found between working and non-working slum women in consuming carbohydrates and vegetables as the staple food with the comparatively low market price. Residing at the river Hugli's left bank, a variety of fishes were available in the local market. Still, they could not afford it due to high market price except for the fishing community. The mean calorie intake of non-working women was greater than of working women. Skipping meal was quite natural in working women due to their overloaded work schedule. In so far as BMI was concerned, obesity was found with increasing age among both working and non-working group. It is alarming that thirty -one per cent of the non-working slum women and twenty- seven per cent of working slum women did not have normal BMI.

The socio-economic development is the priority for executing various slum and urban development plans by the State Government of West Bengal and the Government of India. The disparity and imbalance of literacy and education of women slum-dwellers should be minimized through more schooling provision by Chandernagore Municipal Corporation at a cheaper rate. The slum women should be provided skilled and unskilled jobs and loans for petty business to raise the economic status. Self-employment of the slum-poor women must be encouraged by an appropriate credit-support programme. Local administration should provide them more job options, skill enhancement

training, through Self Help Group that they can be capable of earning more to spend money for primary education, medical service, and purchasing of protein-rich food products and adding them in their regular diet.

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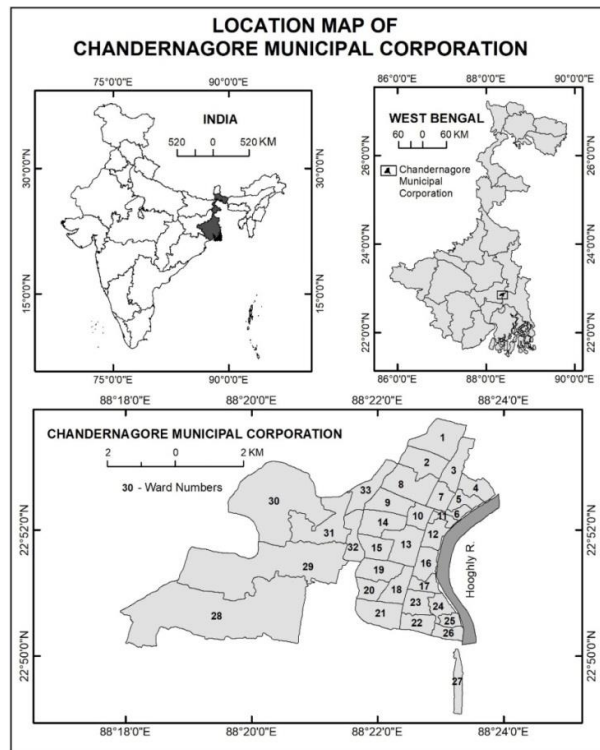


Fig. no 1: Study Area

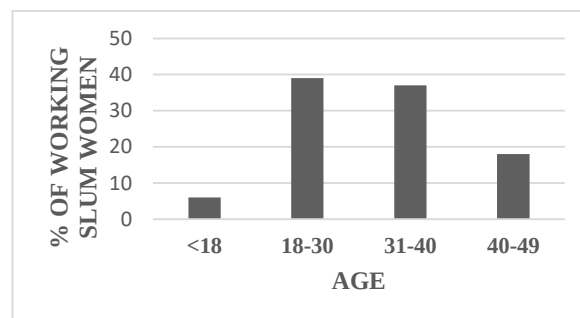


Fig. no 2: Age composition of working slum women.

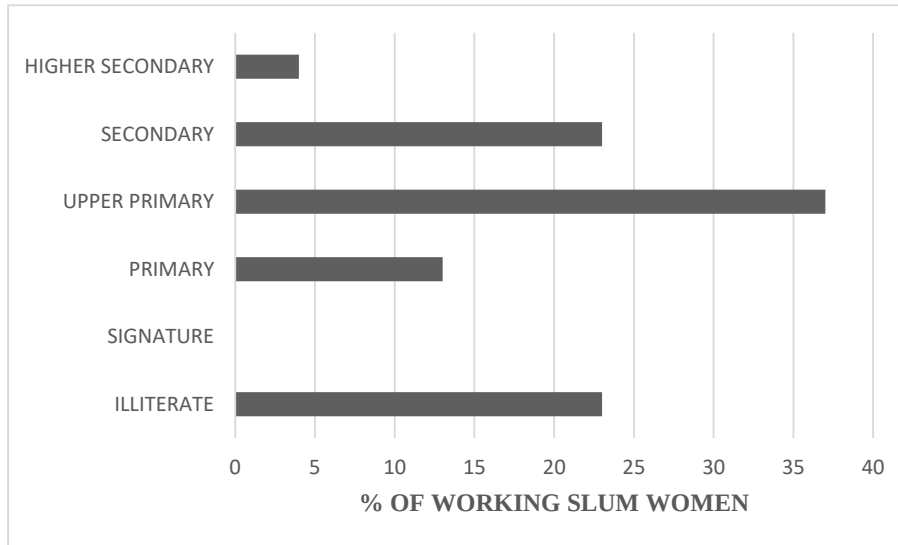


Fig no 3: Level of education of working slum women.

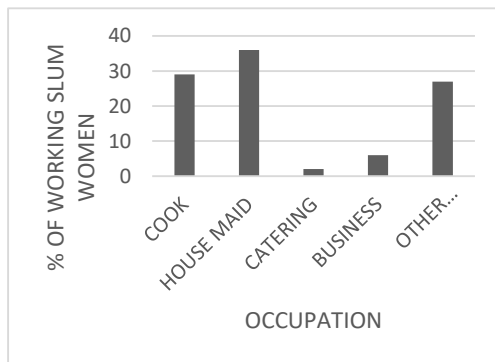


Fig no 4: Occupational Status.

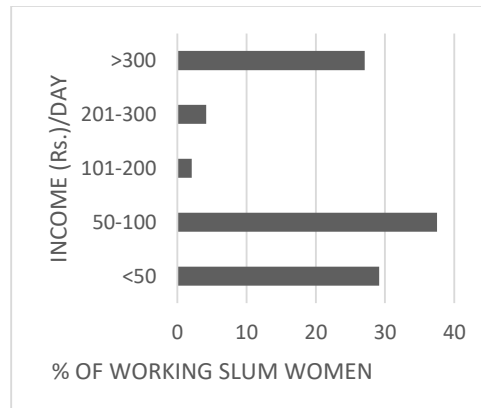


Fig no 5: Income (Rs.)/day of working slum women

Health and Nutritional status of working slum women residing on natural lavee of the River Hugli in Chandernagore
Municipal Corporation, Hugli, West Bengal

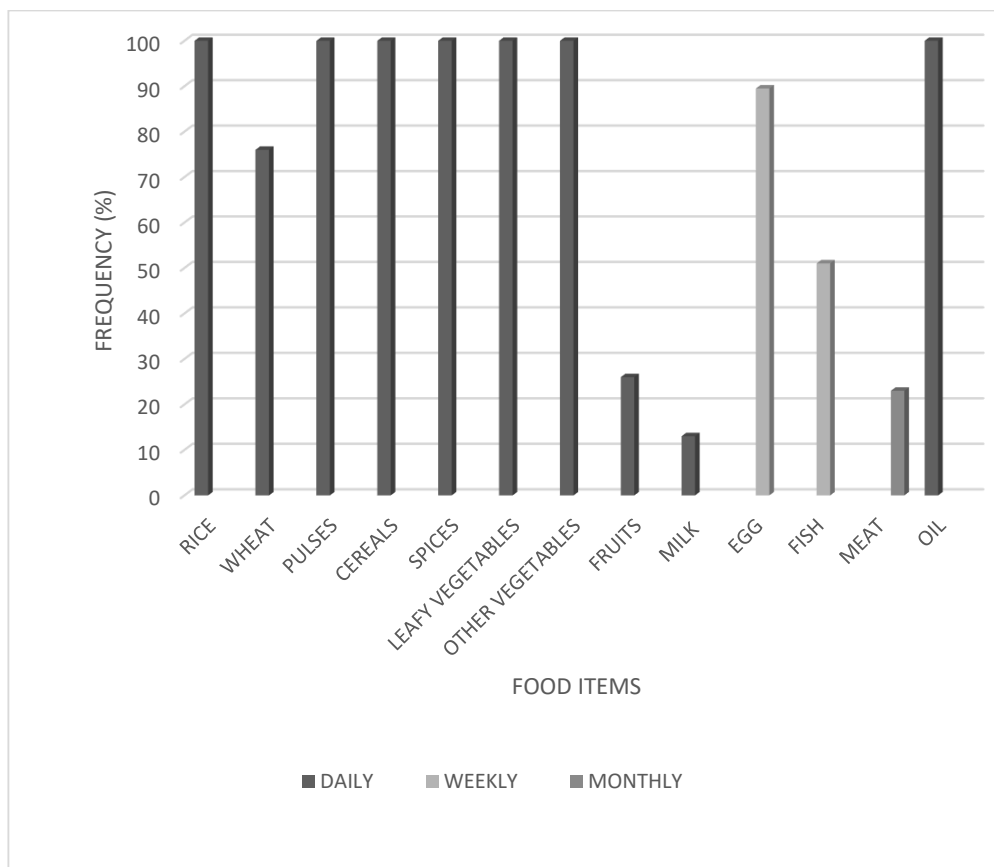


Fig no 6: Frequency of consumption of food

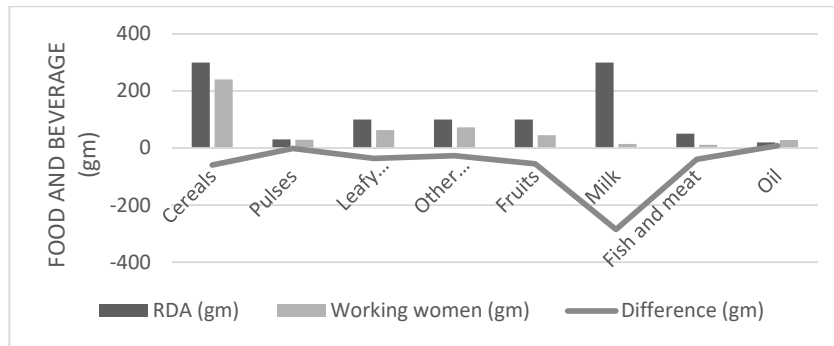


Fig no 7: Comparison of Mean Food Intake of working and non-working slum women with RDA.

Table no1: Socio-economic status of working slum women.

Variables	Mean	Standard Deviation	Coefficient of Variation
Age	30.6	9.21	30.1
Education	2.5	1.54	61.74
Income of women (Rs.)/day	2.12	1.04	49.14
Income of family (Rs.)/day	295.83	172.53	58.32

Source: Computed by Authors, 2019.

Table no 2: Comparison of Mean food intake with RDA (ICMR,2010)

Food items	RDA (gm)	Working women (gm)	Difference (gm)
Cereals	300	240.93	-59.07
Pulses	30	28.95	-1.05
Leafy vegetables	100	63.33	-36.67
Other vegetables	100	73.02	-26.98
Fruits	100	45.2	-54.8
Milk	300	14.58	-285.42
Fish and meat	50	11.1	-38.9
Oil	20	28.43	8.43

Source: Computed by Authors, 2019.

Table no 3: Food habits and practices

Variables	Sub Groups	Working women (%)	Mean
No of meal taken	One	2	2.60
	Two	1	
	Three	41	
	Four	56	
Nature of skipping meal	Always	4	0.81
	Sometimes	73	
	Never	23	

Source: Computed by Authors, 2019

Table 4: The Test result of Chi-square of association between body mass index category and other variables.

Variables	X ²	P
Age category	2.535	0*
Education	5.336	0.388
Age of marriage	3.907	0.278
Family Income/ Day	6.491	0.081
Working Status	90.785	0.104
Income of women/Day	4.113	0.095
Working hour/day	4.447	0.008*
No of meal	2.862	0.004*
Calorie intake/Day	1.726	0.099

*significance at 0.05

Source: Computed by Authors.

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