

Knowledge, Attitude and Behavior Towards Dietary Salt Intake Among Bangladeshi Population

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Abstract

Dietary salt intake behavior is higher among Bangladeshi population than the global perspective with also higher prevalence of extra salt intake during meal. Salt intake practices depend on the level of knowledge and attitude of the people. The objective of this study was to assess the knowledge, attitude and practice towards dietary salt intake among the Bangladeshi population. It was a descriptive cross-sectional study conducted among 466 adult respondents (age \geq 18 years) from all of the seven divisional districts of Bangladesh. Data were collected from the government declared public places following convenient sampling technique; Face-to-face interviews were conducted using WHO Modified Salt Module of STEPS Questionnaire. Men respondents were more (74.7%), mean age was 34.2 \pm 12.9 years. More than two in every five respondents (44.4%) believed that they were used to consume just right amount of salt, whereas 60.7% believed that too much salt could

cause serious health problems, and it was very important to lower salt intake among 38.8% respondents. More than two third (72.5%) of respondents were used to add extra salt during their meals, noticeable proportion was regular user (25.1%). Most of them were used to practice high salt content processed food in sometimes basis (29.8%). In a conclusion, it was noticed little gap between level of knowledge as well as attitude and level of salt and salty foods practices among the Bangladeshi population.

Key words: Knowledge, Attitude, Behavior, Dietary Salt.

Introduction

Salt (sodium chloride) is essential for harmonious function of human body, but excessive intake may lead to develop hypertension like complication. Extra salt intake (>5gm/day) regularly associated with hypertension related heart diseases and stroke [1-2]. Globally, extra salt intake is responsible for 17-30% of hypertension and which substantially increases the risk of cardiovascular disease (CVD) among healthy people [3-4]. Evidences reported that extra dietary salt intake also is a significant risk factor for certain types of cancers like stomach cancer [5], gastric cancer [6], and chronic bronchitis also [7].

However, salt intake practice is noticeably higher than the recommended level among the global population. People consume on average 9-12 gm salt per day [8], whereas this quantity is more alarming among the Bangladeshi population (17 gm/day) [9]. This larger consumption of salt is significantly attributed to the addition of extra salt during meal along with cooking, whereas 69% people (94% in rural and 44% in urban areas) are habituated to use extra salt during their meal [9-10]. But the clear reason is still unknown why they are using more extra salt. It is very important to identify the reasons for any interventions. Therefore the objective of this study was to assess the knowledge, attitude and practice towards the dietary salt intake among the Bangladeshi population in order to conceptualize the snapshot regarding dietary salt practice.

Methodology

A descriptive cross-sectional study was conducted in 2016 among 466 adult respondents (age \geq 18 years) from all of the seven divisional (large administrative area) districts of Bangladesh. Data were collected from the respondents who were present at government declared public places during data collection. Respondents were selected based

on convenient sampling technique according to the availability and consent. face-to-face interviews were conducted using interviewer administered semi-structured pretested questionnaire which was developed using WHO Modified Salt Module of STEPS Questionnaire. The complete and consistent data were entered into and analyzed by SPSS-20. Only descriptive (percentage, mean, SD) analysis has been done. All the ethical issues were maintained according to the guideline of Bangladesh Medical and Research Council and the written informed consent was taken before data collection.

Results

Majority of the respondents were men (74.7%) (**Table 1**), and the mean age of all respondents was 34.2 ± 12.9 years (data was not shown in the table). Almost one-third of them were completed their graduation and above (32.4%), most of them were from urban areas (61.6%) (**Table 1**). The mean monthly income was BDT 34463 ± 22329 for the respondents (data was not shown in the table).

More than two in every five respondents (44.4%) believed that they were used to consume just right amount of salt, whereas almost one in every five (19.7%) believed that they used salt as too much to far too much (**Table 2**). Too much (68.0%) and far too much (82.4%) salt practice was higher among men; beside this it was reported among the respondents of 20-29 years aged group (34.7% and 35.3% respectively); who completed their graduation or above and completed primary school level (29.3% and 35.3% respectively) (data were not shown in the table). Furthermore, three in every five of them (60.7%) believed that too much salt could cause serious problems to their health, whereas a noticeable proportion (26.8%) mentioned that they didn't know this relationship (**Table 2**). This belief was more among men (72.4%); the 20-29 years aged group (39.6%); among the educated group (increasing proportion according to the level education), most among graduate or more (38.5%); among urban population (61.5%); and among the employed respondents (30.0%) (Data were not shown in the table).

Very important and somewhat important perceptions were reported more by men (73.9% and 76.4% respectively); among the 20-29 years aged group (44.3% and 43.3% respectively); most among graduate or more (44.4% and 28.2% respectively); among urban

Table-1: Demographic Distribution of the Respondents (n=466)

Variables	Percentages (%)
Sex	
Men	74.7
Women	25.3
Age (in years)	
Less than 20	5.4
20 – 29	44.0
30 – 39	21.5
40 – 49	15.0
50 – 59	7.7
60 or more	6.4
Education	
Illiterate	5.4
Primary school passed	17.4
Secondary school passed	17.0
Higher secondary school passed	27.9
Graduate or more	32.4
Area of Living	
Urban	61.6
Rural	38.4
Occupation	
Employed	25.3
Businessmen	22.3
Student	21.0
Housewife	14.4
Agriculture	4.3
Day labor	3.0
Unemployed	9.7

Table-2: Respondent's Knowledge and Attitudes towards Salt Intake (n=466)

Variables	Percentages
Perception towards amount of consuming salt	
Far too much	3.6
Too much	16.1
Just the right amount	44.4
Too little	10.9
Far too little	8.6
Don't know	13.3
Perception towards too much salt could cause serious health problem	
Yes	60.7
No	12.4
Don't know	26.8
How important lowering the salt	
Very important	38.8
Somewhat important	37.5
Not at all important	4.5
Don't know	19.2

population (59.4% and 66.1% respectively); and among the employed respondents (30.0% and 31.6% respectively) (data were not shown in table).

Study also revealed that total 72.5% respondents (**Table 3**) (in men 72.4%; in women 72.9%) were used to add extra salt during their meals, whereas this proportion was more among the 20-29 years aged group; among higher secondary and above (28.1% for both group); among urban population (58.0%); and among businessmen (24.6%). Always users and sometimes users were 25.1% and 23.8% respectively among the overall population. Always users were more among men (76.9%); among the 20-29 years aged group (35.0%); among the primary school passed (37.6%); among urban population (51.3%); and among the businessmen (29.1%). Salt were used as always during cooking their foods (100%). Most of them were used to practice high salt content processed food in sometimes basis (29.8%) (Data were not shown).

Almost half of the respondents (46.8%) mentioned that they were used to avoid or minimize consumption of high salt processed food in order to lower their salt intake, very negligible people were used to use spices rather than salt during cooking, and one-third of them were used to avoid eating out (**Table 4**).

Table-3: Salt Intake Practice among the Respondents (n=466)

Variables	Salt Intake Frequencies (%)					Don't Know
	Always	Often	Sometimes	Rarely	Never	
Practice of added salt during meal	25.1	10.5	23.8	13.1	27.5	0
Use of salt during cooking	100					
Practice of high salt processed foods	14.2	21.9	29.8	23.4	9.2	1.5

Table-4: Respondent's Regular Activities to Control Salt Intake (n=466)

Variables	Yes (%)
Avoid/minimize consumption of processed foods	46.8
Use spices other than salt when cooking	3.6
Avoid eating out	35.6
Any other actions	12.9

Discussion

Current study found comparatively higher proportions of perceptions towards salt intake as for both just right amount (44.4%) and too much (16.1%) than another domestic study conducted among the university faculty members and doctors whereas these proportions were 29.3% and 10.9% respectively [11] the possible difference between the respondents answers could be, doctors and faculty members answer can be considered more accurate than the general population answer as overrepresentation might be happened; whereas another unpublished study among the medical and nonmedical undergraduate students found less and higher proportions of perceptions for just right amount (55.8%) and too much (6.9%) respectively [12] which is also shows clear difference that means it could be said that perception of different group is different regarding salt intake; again higher proportions for both of these perceptions than the Greek adults [13]; and also higher for too much consumption than the American population (12.9%) [14]; but less proportion for too much consumption than Chinese people [15]. Study found a noticeably less proportion (60.7%) of belief that too much salt can cause serious health problems than the faculties and doctors (93.5%) [11]; than the medical and nonmedical undergraduate students (83.9%) [12]; than the Greek adults [13]; than the American population (88.5%) [14]; and also than

Lebanese adults (77.6%) [16]. There was also remarkable less proportion (38.8%) of respondents who perceived lowering salt intake is very important than the faculties and doctors (72.8%) [11]; than the medical and nonmedical undergraduate students (54.4%) [12]; than the Greek adults [13]; and also than Lebanese adults (77.8%) [16].

On the other hand, study explored little higher proportion of salt users (72.5%) than another domestic study (69%) conducted among general population of selected one urban and one rural community [10]; also remarkably higher than the faculties and doctors (28.3%) [11]; than the medical and nonmedical undergraduate students (64.9%) [12]; than the Greek adults [13]; and also than Lebanese adults [16]. Current study found salt users were more in urban area whereas this finding was dissimilar from other study [10]. Always added salt users were more in this study (25.1%) than study among the faculties and doctors (6.5%) [11]; among the medical and nonmedical undergraduate students (11.7%) [12], and also study from Lebanon (8.3%) [13]. Moreover, always users of high salt processed food were also more in this study (14.2%) than study among the faculties and doctors (3.8%) [11]; among the medical and nonmedical undergraduate students (6.6%) [12].

Finally it can be said that the findings of this study cannot be generalized in spite of data collected from seven divisions, as representation of other sub-groups were absent as well as data was not collected following random sampling technique. A large scale country wide study can solve this issue.

Conclusion

There was a substantial gap followed between knowledge along with attitude and the salt intake among the population of Bangladesh. They know the health effect of extra salt intake but still they are taking high amount of extra salt and high salt content processed food.

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