KAP on IDD Among Two Selected Categories of Population Living in Urban Dhaka

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Abstract

KAP study on IDD among two categories of respondents from Dhaka University Staff Quarters (D. U. S. Q.) and Zikatola slum area revealed that the status of education was the significant factor in terms of KAP. About 70% and 21% respondents from D.U.S.Q and Zikatola slum had knowledge regarding consequences of iodine deficiency, and 45% D.U.S.Q respondents and 27% slum respondents of having knowledge about preventing IDD by using of iodized salt (IS). Both of this category respondents had selective attitude in terms of using specific company IS. Regarding practice, higher number of respondents from D.U.S.Q. population were using packet iodized salt (98%) as compared to slum population (80%). Furthermore, dry seafishes were consumed by 73% and 60% of D.U.S.Q. and slum population respectively. It is evident that TV was the most effective media for the dissemination of knowledge on IDD rather than other mass media including newspaper.

Key Words : Iodine Deficiency Disorders, Knowledge, Attitude, Practice, Iodized Salt.

Introduction

Iodine deficiency disorders (IDD) have been recognized as a global public health problem. This is also one of the most preventable micronutrient deficiencies of Bangladeshi population. The national IDD prevalence survey in 1993 showed that total goiter prevalence rate in our country is 47.1% (38.3% palpable and 8.8% visible) and 68.9% of the population have biochemical iodine deficiency (urinary iodine < 10 μg/dl)[1].

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In institutional level, several studies were carried out on iodine nutriture status among school children, university students and female garments workers. The results showed that 67.2% students of Dhaka University (Males 76.7%, females 58.1%)[2], 40.5% female garments workers of Dhaka City,[3] 41% school children of Dhaka University campus[4] and 63.2% school children of savar[5] were biochemically iodine deficient having urinary level less than 10 μg/dl.

It is evident that enormous benefits to the health and well being of hundreds of millions of people living in the third world countires could be provided through effective IDD control programmes[6]. Accordingly, the Government of Bangladesh has passed the law from parliament about universal salt iodization. Recent study on the evaluation of universal salt iodization (USI) in Bangladesh showed that almost all edible salts are now iodized, but most of the salts were found to contain inadequate amount of iodine[7]. Different programmes have also been taken to create awareness among mass population.

The present study thus aimed to understand knowledge, attitude and practice (KAP) of two groups of population towards various aspects of iodine as well as regarding the acceptance of iodized salt (IS) for themselves and their children as an outcome of influence of various education programmes taken by Government along with NGO's.

Materials and Methods

The study was conducted in two selected areas of Dhaka city namely Dhaka University staff quarter (D.U.S.Q) and Zikatola slum area. This study includes 200 households, amongest them 100 households were from Dhaka University staff quarter area and the remaining 100 from Zikatola slum area. In order to achieve the required sample size random sampling method was followed.

Questionnaire was designed to collect informations regarding knowledge, attitude and practice about iodized salt. Questionnaire also contained socioeconomic factors of the respondents such as name, educational qualification, occupation, family income, money spent for food and the corresponding questions related to the study.

To collect data the researchers visited the respondent's households and filled in the questionnaires using person to person interview of the respondents on each question.

After completion of data collection, necessary editing was done to correct any existing inconsistencies in data and to minimize the non-sampling error of the study. EPI INFO 6 program in AZTECH 486 PC was used for all data entry and analysis.

Results

A total of 200 households from D.U.S.Q. and Zikatola slum were surveyed. It was found that 66% respondents of D.U.S.Q. were graduates or above and 84% respondents of slum were illiterate.

Table 1 indicates that 70% respondents of D.U.S.Q. knew that iodine deficiency caused goitre where as only 21% respondents from slum area had the same knowledge. A good percent of subjects (25% from D.U.S.Q and 4% from slum) knew that iodine deficiency caused both goitre and mental retardation. According to Figure 1, 45% respondents of D.U.S.Q. and 27% respondents of slum informed that taking iodized salt regularly could prevent IDD. On the otherhand, 15% respondents of D.U.S.Q. and 1% respondents of slum answered iodine rich food is the preventive way for IDD.

Table 1. Knowledge about problems arises due to iodine deficiency

Problems	D.U.S.Q.	Slum	Total
Goiter	70 (70.0%)	21 (21.0%)	91 (45.5%)
Mental retardation	1 (1.0%)	1 (1.0%)	2 (1.0%)
Both & others	25 (25.0%)	4 (4.0%)	29 (14.5%)
Wrong answer	1 (1.0%)	2 (2.0%)	3 (1.5%)
Don't know	3 (3.0%)	72 (72.0%)	75 (37.5%)
Total	100 (100.0%)	100 (100.0%)	200 (100.0%)

73% respondents of D.U.S.Q. and 60% respondents of slum were taking dry sea fish, whereas, majority of the respondents (86% from D.U.S.Q. and 84% from slum) were aware that iodine deficiency could make social problem (data not shown in table).

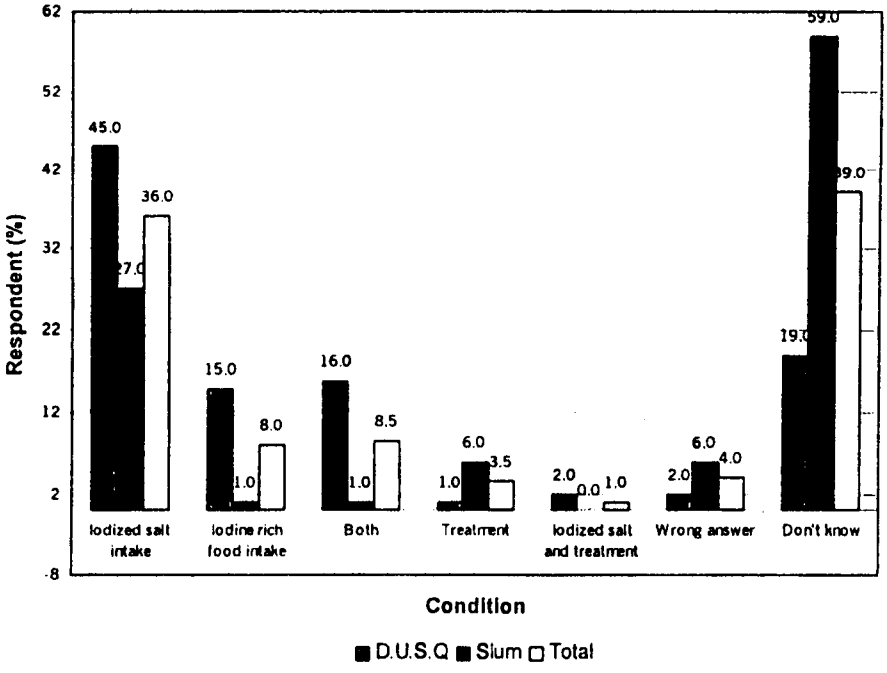

Fig. 1. Knowledge about prevention of iodine deficiency

Majority (53%) of the respondents of D.U.S.Q. had knowledge about iodized salt mainly from TV. The other sources includes radio, newspaper etc. Similarly, majority (48%) of the resopndents of the slum knew about iodized salt from TV. None of the respondents found in the slum knew about iodized salt from newspaper (data not shown in table)

The type of salts usually consumed by the householders is presented in Table 2 and it can be seen that 98% households of D.U.S,Q. used packet iodized salt. On the otherhand, 80% households of the slum used packet iodized salt. However, only 22% and 5% households of D.U.S.Q. and slum respectively used particular company salt. Rest of the respondents of both areas did not have any selective attitude about the use of specific company salt (data not presented in table).

Table 2. Types of salt use in households

Types	D.U.S.Q.	Slum	Total
Packet iodized salt	98 (98.0%)	80 (80.0%)	178 (89.0%)
Salt from big sac	1 (1.0%)	3 (3.0%)	4 (2.0%)
Both	1 (1.0%)	17 (17.0%)	18 (9.0%)
Total	100 (100.0%)	100 (100.0%)	200 (100.0%)

Majority (95.3%) of the respondents from DUSQ knew that goitre is a social problem, whereas only 35.7% respondents from slum knew this problem (table 3).

Figure 2 shows that among the 99 households using iodized salt in the D.U.S.Q. only one percent use it for the last few months, one percent for a year, 30% for 3-4 years and 66% since availability in the market. On the otherhand, 12.4% households of slum used it for last few months, 18% for a year, 23.7% for 2 to 3 years and 45% since availability in the market. Unfortunately still 64.6% respondents from D.U.S.Q. and 93.8% from slum do not know how to test the presence of iodine in salt (data not shown).

Table 3. Knowledge about social problem due to goiter

Types	D.U.S.Q.	Slum	Total
Knows social problems	82 (95.3%)	30 (35.7%)	112 (65.9%)
Knows but not specific	4 (4.7%)	35 (41.7%)	39 (22.9%)
Wrong answer	0 (0.0%)	19 (22.6%)	19 (11.2%)
Total	86 (100.0%)	84 (100.0%)	170 (100.0%)

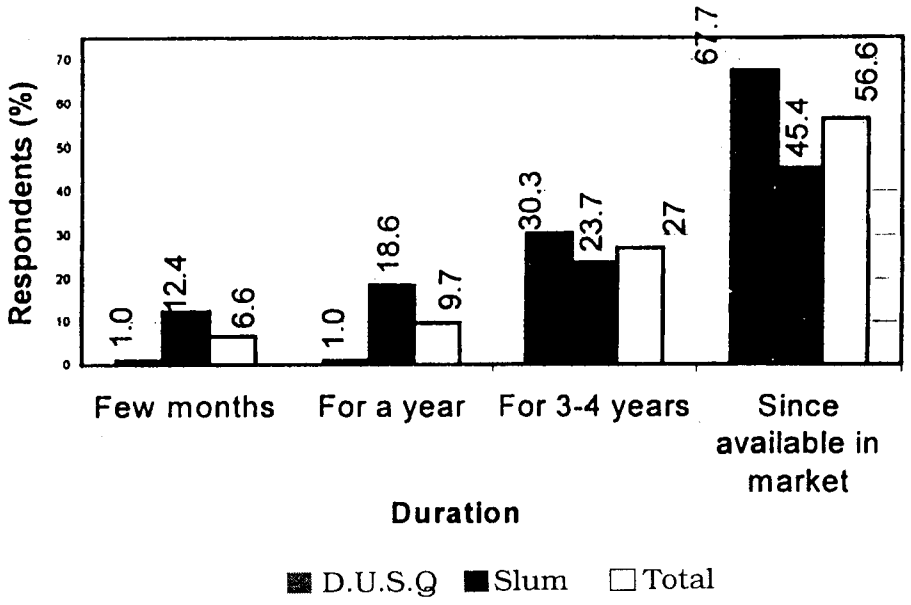

Fig. 2. Length of iodized salt used in the households

Discussion

Iodine deficiency disorders (IDD) is probably one of the major nutritional problems recognized by mankind, as iodine deficiency not only develops goitre but also causes cretinism, but at the same time its dietary treatment has been known since ancient times. Iodine deficiency is the most common cause of preventable mental retardation[8]. The 1993 National IDD Survey in Bangladesh indicated the prevalence of goitre, cretinism and biochemical iodine deficiency to be a matter of concern among Bangladeshi population[1].

Socio-economic status as well as education and nutritional status are closely related with the income. Selection of daily food items depends mostly on the education of the housewives and it was found that 99% housewives of D.U.S.Q. and only 14% housewives of slum were literate.

A distinct difference was found in knowledge of iodine in the study population of two areas. Seventy percent respondents of D.U.S.Q. knew that iodine deficiency causes goitre where as only 21% respondents had knowledge about the causative factor of goitre.

Only 3% of D.U.S.Q. respondents showed their ignorance about problems arising due to iodine deficiency. On the other hand, 72% of slum respondents informed that they did not have any idea about the deficiency problems (Table 2). According to the study by Dewier[9], only 57% of general population from all zones, and according to USI 1996 report[7] about 91% households heard about iodized salt. In the present study the percentage is higher because of media coverage of iodized salt and almost all the retail shops of their surroundings were selling packed iodized salt.

According to USI report of 1996[7], 34.4% households were using packed iodized salt. In the present study, a total 89% households were found using packed IS. The percentage of awareness regarding IS has increased considerably.

About 95% respondents of D.U.S.Q. and 36% of slum knew that IDD make social problem. They described it as shameful if goitre develops. Developments of goitre particularly cause serious difficulties for marriage of girls. Again, most of the D.U.S.Q. and slum respondents were informed about iodized salt throughy TV.

A study by Umemoto *et al*, in 1999 among Guatemalan 2nd and 5th grade school children of Vista Hermosa Village showed that after conduct of four sessions of nutrition education in a month to motivate buying of specific brands of iodized salts which has adequate levels of iodine (30-100 ppm), the consumption level increased significantly as compared to control group[10]. Thus, it can be suggested from this study that knowledge dissemination through school had positive impact in the effective practice of consumption of iodized salt.

The study also highlighted that a consideable proportion of the respondents from D.U.S.Q. and slum dwellers were using iodized salt since its availability in the market. But due to repeated exposure through different media has led to begin using iodized salt even in the last month prior to data collection. The campaign either by government channel or through commercial efforts of salt producing companies must be continued to obtain better results.

It may be emphasized here that effective and continuous dissemination about the beneficial effects of IS must be propagated using various mass media in order to change the attitude of the consumers so that the practice of using IS in the households at all levels, rich or poor, is increased further for better health of our nation.

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