



Knowledge and practices about iodine deficiency disorder in females attending O.P.D. of ENT in CGAMC, Rajnandgaon (Chhatisgarh)

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ABSTRACT

Background: Awareness about Iodine Deficiency Disorders (IDD) is most important in large scale for its prevention and control in the whole population.

Objective: To study the knowledge, attitude and practices regarding IDD and the use of iodized salt in relation to IDD.

Material and Methods: A cross-sectional study was conducted in females attending ENT OPD of CGAMC, Rajnandgaon for three months. A total number of females surveyed were 100. A structured knowledge and practices questionnaire was used to collect data from every study subjects.

Results: In this study, only 38% females were aware of IDD. More than half of study subjects (64% females) knows about iodized salt, the most common source of information being a television (~60%). 85% females were using iodized salt. Significant association was found between the awareness of IDD and education.

Conclusion: Although the use of iodized salt was more than 90%, more than half of the study subjects lacked the knowledge about iodine deficiency diseases. There is huge difference between the awareness of the benefits of iodized salt and its consumption per se.

Keywords: knowledge, attitude, practices, iodized salt, cretinism, still birth and goiter.

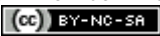
INTRODUCTION

Iodine is a very much essential and important micro-nutrient required for the production of thyroxin i.e. Thyroid hormones which are most

important for the development of brain and neurological development. Iodine deficiency affects a spectrum of disease called IDD (Iodine deficiency disorder) which can destroy the stages of life from early pregnancy to the adult. WHO

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considers iodine deficiency to be one of the main causes and should be avoided to prevent brain damage. IDD are related with many thyroid related diseases including mental and physical retardation, cretinism, spontaneous abortion, still births, congenital defects, birth defects, delayed growth and hypothyroidism, puberty, goiter, infertility.¹⁻³ Additionally, the social and economic impact of IDD is significant with iodine deficiency resulting in lower intelligence quotient, productivity and student achievement. Worldwide about 2 billion people exposed to the risk of IDD out of this 655 million people are already affected by IDD⁴.

In India about 167 million people live at a risk of IDD particular. 54 million suffer from goiter. Two million suffer from cretinism and 6.6 million children affected from neurological defects⁵. Various surveys conducted in different states in India showed that no states in the country are free from IDD⁶.

Over 20 years salt iodization has been introduced in many countries including India as safe, cheap and sustainable way to avoid IDD.

Universal Salt Iodization (USI) is accepted as the most important public health measure for the elimination of IDD. The proportion of households consuming adequately iodized salt at least 15ppm. The household level in AP has increased. Showing positive impact of USI in Andrapradesh.⁷

Although the problem of IDD exists and the globalization of the iodized salt programme has been accepted. This study was done with the objectives to assess the basic information on these aspects i.e. to explore in more detail the knowledge related to IDD and health benefits of iodine, attitudes and practices relating storage and used iodized salt in community.⁸

MATERIAL AND METHODS

Study Design and Study Area: This was a cross-sectional study conducted for three months in ENT OPD of Chhattisgarh Ayurvedic College and Hospital, Rajnandgaon (C.G.), India. 100 females attending the ENT O.P.D. for different diseases aged more than 18 years were randomly selected and interviewed for the purpose of this study. A structured knowledge and practices questionnaire was used to collect data.

DATA COLLECTION TECHNIQUES AND TOOLS

The knowledge obtained from the subjects included socio-demographic characteristics knowledge about IDD benefits of iodine, salt purchasing and consumption habits and type of salt consumed iodized salt awareness. The interviews were conducted in ENT OPD of CGAMC, Rajnandgaon. Before starting the interview each respondent was explained in brief about the need and usefulness of study in Hindi and Chhattisgarhi language. The importance for their co-operation for the success of the study and possible benefits to the community through the findings of the study were emphasized. The informed consent was obtained from each interviewee before enrollment in the study and confidentiality of the information was maintained throughout the study.

STATISTICAL ANALYSIS

Collected statistical data were entered and analyzed using SPSS software. Frequency, percentage and arithmetic mean and median were used to present data. Appropriate tests of significance (Chi-square, student's "t test" and "F tests".) were applied wherever necessary at the 5% level of significance. $p < 0.05$ was considered as statistically significant at 95% confidence level.

Table no. 1: Socio-Demographic Characteristics and IDD Awareness of the Study Objects Characteristics

AGE	Age	N (no. of females)	Percentage
	<= 30	33	33 %
	>30	67	67 %
EDUCATION	Education	N (no. of females)	Percentage
	Completed secondary school	12	12 %
	No formal education	23	23 %
	Elementary high school	54	54 %
	Certified and above	11	11 %
MARITAL STATUS	Marital status	N (no. of females)	Percentage
	Single	23	23 %
	Married	77	77 %
OCCUPATION	Occupation	N (no. of females)	Percentage
	Single	23	23 %
	Married	77	77 %

NO. OF HOUSEHOLD MEMBERS	No. of household members	N (no. of females)	Percentage
	<=5	76	76 %
	>5	24	24 %
PER CAPITA INCOME	Per capita income	N (no. of females)	Percentage
	<=2000	20	20 %
	>2000	80	80 %
AWARENESS ABOUT IDD	IDD Awareness	N (no. of females)	Percentage
	NO	62	62 %
	YES	38	38 %
AWARENESS BENEFITS OF IODINE	Benefit of Iodine	N (no. of females)	Percentage
	NO	57	76 %
	YES	43	24 %
AWARENESS ABOUT IODIZED SALT	Awareness Iodized salt	N (no. of females)	Percentage
	NO	36	36 %
	YES	64	64 %
STORAGE OF SALT	Storage of salt	N (no. of females)	Percentage
	Container with lid	84	84 %
	Container without lid	16	16 %

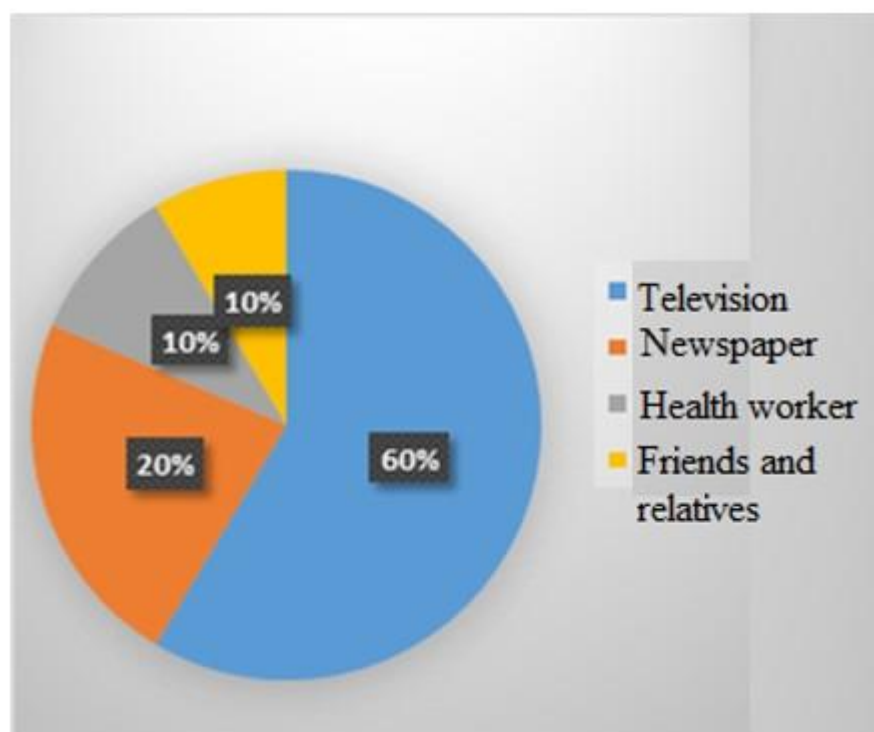


Figure 1: Sources of information regarding iodized salt among the study subjects

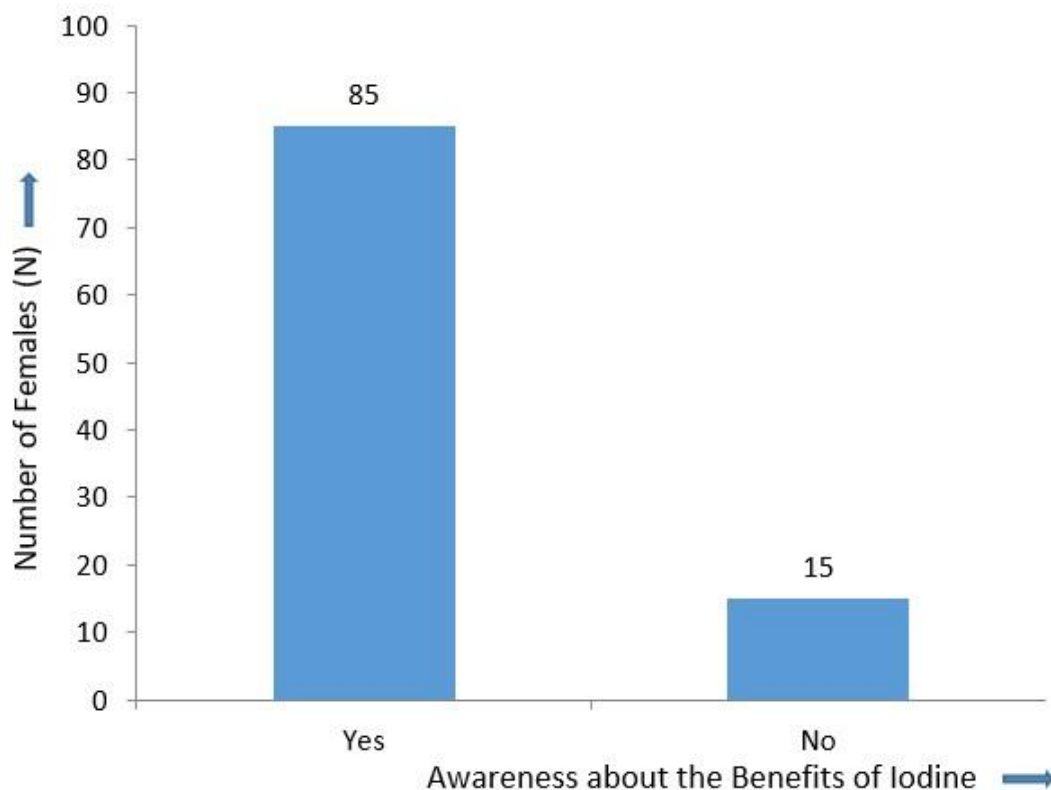


Fig.No.2: Iodized salt use among study subjects in relation to awareness about the benefits of iodized salt

RESULTS

Of the 100 respondents, 33% females were age less than 30 or equal whereas 67% females were aged more than 30 years. 12% females had no formal education, 23% had elementary education, 54% females had high school education and 11% females had above high school education. 77% females were married and 16% were employed. The socio-demographic characteristics of respondents are shown in table 1.

Among the 100 females attending the ENT OPD surveyed for the study, only 38% females were aware about IDD. The awareness rates of benefits of iodine help for the growth and development and for brain development and prevents goiter were low 43%. 64% females knows about iodized salt i.e. they are aware about use of iodized salt and 84% females used container with lid for the storage of salt.

The most common source of information is television at 60% followed by a newspaper (20%). Around 10% females came to know about iodized salt from health workers as shown in fig. 1.

The association between the awareness of IDD and education status of the females was statistically significant ($p < 0.001$). The type of salt used was significantly affected by the knowledge about benefits of iodized salt ($p < 0.01$) as shown in fig. 2.

DISCUSSION

This study was conducted to assess the knowledge Of IDD and utilization of iodized salt in community to monitor the progress of national IDD control program. In this study, it was observed that though the iodized salt was used by nearly all study subjects, more than half of the subjects (female attending the ENT OPD) lacked the knowledge about IDD. There is a big gap between awareness of the benefits of iodized salt and its consumption. This study revealed that very few (38%) females were aware about IDD and only 43% of females were aware about the benefits of iodine.

Our study found that 85% females were using iodized salt. The coverage is above what is recommended by international organizations, that is 90% or more households should consumed adequately iodized salt for maximum iodine nutrition in community. So it is confirmed that the iodine status in a females attending ENT OPD of CGAMC, Rajnandgaon is generally adequate according to the WHO criteria.

Our results are nearly about similar to already published reports which revealed that 90% population was using iodized salt. Although the awareness rate of the households in relation to the benefits of iodine were very less, a higher percentage of them were found used iodized salt

indicating that many use iodized salt without knowing its usefulness. This study shows the reasons behind not using iodized salt were mainly habit, elder's decision and for taste change.

In this study the common source of information in relation to iodized salt was television (60%) followed by a newspaper (20%). Other study Sen *et al.*, also shows same television (66.7%) was the principal source of information .

Our study revealed that 32% of the females knew that iodine deficiency results in goiter similarly. Strange *et al.*, study shows 39.7% people know that iodine deficiency results in goiter. We observed two limitations first we lack information about the amount and sources of intake which would have given a more completely picture of iodine nutrition in study group and selection of small group for study limits the generalization of results to the whole population.

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CONCLUSION

We concluded that, this study showed that though the iodized salt was used by maximum females, more than half of the subjects lacked the knowledge about IDD. There is big gap between the awareness of the benefits of iodized salt and its consumption. This can be improved by generating awareness among the households about the health benefits of consuming adequately iodized salt and its role in the prevention of IDD. These community level awareness programs should be according to the socio-demographic characteristics of the females.

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