



## Awareness on usage of iodized salt and its treatment effect among dental students

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### ABSTRACT

Iodised salt is table salt mixed with minute amounts of the element iodine. The ingestion of iodine prevents iodine deficiency. Worldwide, iodine deficiency affects about two billion people and is the leading preventable cause of intellectual and development disabilities. To create awareness among dental students on the iodized salt and its treatment effect on iodine deficiency. The questionnaire was based on the observational cross-sectional type of study comprising 100 dental students from the Saveetha Dental College. A self-administered questionnaire was given to the students. It was designed to collect data on the use of iodized salt among dental students through an online survey mode containing a set of 10 questions about the use of iodized salt and is a yes or no type. The results were evaluated based on the answers given by the participants. 84% of the dental students use iodised salt, which is more than half but still, the rest of them did not use iodized salt. 26% of dental students have an iodine deficiency. 83% of the students use iodized salt for cooking. 61 % of the students think that iodised salt is healthy. 32% students have answered that sea salt and 7% Himalayan salt is healthy. 65% of the dental students were aware of average salt consumption per day. Majority of the dental students were aware of iodized salt and its treatment effect on iodine deficiency. However, more needs to create on its adverse effects and its role in dietary intake of iodine.

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### INTRODUCTION

Iodised salt is table salt mixed with minute amounts of the element iodine. The ingestion of iodine prevents iodine deficiency. Worldwide, iodine deficiency affects about two billion people and is the

leading preventable cause of intellectual and development disabilities. Iodine deficiency also causes thyroid problems, including "endemic goitre". In many countries, iodine deficiency is a major public health problem that can be cheaply addressed by purposely adding a small amount of iodine to the sodium chloride. In this study, we are going to analyse the benefits of using iodised salt and also create awareness on the use of iodised salt among dental students.

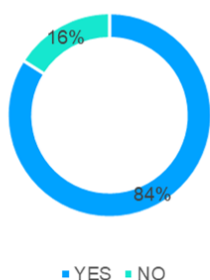
There are a few studies which are done by several other people who are closely related to this study. *Nagi et al. (2013)* did a study to create awareness among pregnant women from urban areas, and these women were explained about the brain damage to children that can be caused due to iodine deficiency. Another study about the iodine deficiency disorders among primary school children in Egypt

and confirmed that about 50% of the children suffered from some iodine deficiency, there was also an awareness programme organised in the same locality (Sayed, 1997). SM Ebrahim et al. studied the consumption of iodised salt among households in South Iraq. They have found that only 68% of the people use iodised salt without knowing the exact levels of salt which has to be used, The conclusions of this study were to monitor the local salt supplies and more education to improve the population's awareness of iodisation are needed (Ebrahim and Muhammed, 2012).

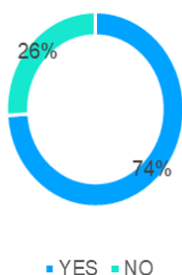
The purpose of this study is to create awareness among dental students since there are no studies done among students in this particular topic and also to make them understand the problems which will be caused due to iodine deficiency.

**MATERIALS AND METHODS**

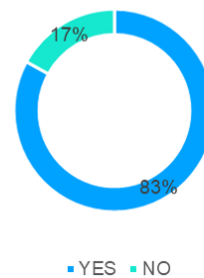
The questionnaire was based on the observational cross-sectional type of study comprising 100 dental students from the Saveetha Dental College. A self-administered questionnaire was given to the students. It was designed to collect data on the use of iodised salt among dental students through an online survey mode containing a set of 10 questions about the use of iodised salt and is a yes or no type. The results were evaluated based on the answers given by the participants.



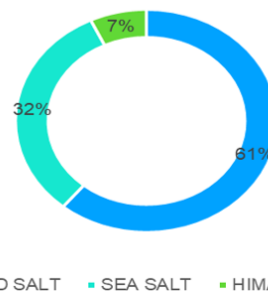
**Figure 1: Use of iodized salt**



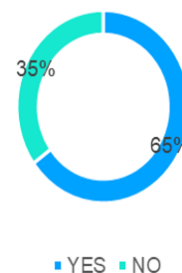
**Figure 2: Dental students having iodine deficiency**



**Figure 3: Usage of iodised salt for cooking**



**Figure 4: Health perception of iodized salt**



**Figure 5: Awareness on salt consumption per day**

**RESULTS**

84% of the dental students use iodised salt, which is more than half but still, the rest of them did not use iodised salt. 26% of dental students have an iodine deficiency. 83% of the students use iodised salt for cooking. 61 % of the students think that iodised salt is healthy. 32% students have answered that sea salt and 7% Himalayan salt is healthy. 65% of the dental students were aware of average salt consumption per day (Figure 1, Figure 2, Figure 3, Figure 4, Figure 5).

The results were evaluated based on the answers given by the participants, and percentage calculations were done.

## DISCUSSION

This study is about analysing the benefits of iodised salt and also to create awareness about iodine deficiency among dental students. The use of this study is that the students come to know about the richness of iodised salt and also in-depth information about it. 84% of the dental students were aware of iodised salt and its treatment effect on iodine deficiency. However, greater awareness needs to create on its adverse effects and its role in dietary intake of iodine.

Most of the studies done in this topic take households as their study population, so results of some studies have come out like only 25. 7% of the people use iodised salt in the northwest of Ethiopia, which is remarkably very less (Tariku and Mazengia, 2019). Another study from Telangana concluded that 83% of the people are using iodised salt and seem to be healthy (Malhotra et al., 2015). A study done in Nigeria has come out with a 100% use of iodised salt in households which proves these people have been properly educated about the uses of iodised salt (Adejo and Enemali, 2013). On comparing all the studies with our study, the dental students are fairly aware of the uses of iodised salt and only some students use other kinds of salts, and also some students have an iodine deficiency.

The limitations in this study are that the results we screened a small study population; therefore, we would not be able to extrapolate results for the general population. Further research in the future using a larger study population would be given a better outline and improved awareness also can be created among a larger population.

## CONCLUSION

Majority of the dental students were aware of iodised salt and its treatment effect on iodine deficiency. However, more needs to create on its adverse effects and its role in dietary intake of iodine. Robust education programs and awareness campaigns need to be initiated to enhance and empower the students with more knowledge and awareness regarding all the aspects of iodized salt and its treatment effect.

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The authors declare that they have no funding support for this study.

### Conflict of Interest

The authors declare that they have no conflict of interest for this study.

## REFERENCES

- Adejo, G., Enemali, M. 2013. 100% salt iodization in Nigeria: the lopsided figure. *Transnational Journal of Science and Technology*, 3:85–91.
- Ebrahim, S. M., Muhammed, N. K. 2012. Consumption of iodized salt among households of Basra city, south Iraq. *Eastern Mediterranean Health Journal*, 18(9):980–984.
- Malhotra, V., Thompson, S., Nagaraj, K. 2015. A study of utilization of iodized salt in rural population of Nalgonda district of Telangana (India). *Int J Sci Res*, 4(5):3–5.
- Nagi, M. L., Leghari, T. S., Naz, S. 2013. Assessment of awareness, attitude and practices regarding dietary iodine in pregnant women: a cross sectional survey. *Journal of Fatima Jinnah Medical University*, 7(3):54–56.
- Sayed, E. 1997. A Iodine deficiency disorders among primary-school children in Kafr El-Sheikh. *Egypt. Eastern Mediterranean Health Journal*, 3(1):29–37.
- Tariku, W. B., Mazengia, A. L. 2019. Knowledge and Utilization of Iodized Salt and Its Associated Factors at Household Level in Mecha District, Northwest Ethiopia. *Journal of Nutrition and Metabolism*, 2:1–8.