



## Patient's Knowledge on Commonly Occurring Diseases - A Survey

Authors

**\*Maria Kurian<sup>1</sup>, Prabu Shankar<sup>2</sup>**

<sup>1</sup>3rd year BDS, Saveetha Dental College & Hospitals, Chennai

<sup>2</sup>Surgeon, Saveetha Medical College & Hospital, Chennai

\*Corresponding Author

**Maria Kurian**

Email: [mariaugust15@gmail.com](mailto:mariaugust15@gmail.com)

### ABSTRACT

**Aim:** The aim of this study is to assess the patient's knowledge on various commonly occurring diseases.

**Objective:** The objective of this study is to create awareness among individuals about various diseases.

**Materials and method:** Questionnaire will be prepared using the factors associated with various diseases such as Heart diseases, Hyperthyroidism, Hypothyroidism, Diabetes and Hypertension. Patients of various age groups visiting Saveetha Dental College and Hospital were selected for this study. Those who were not willing to participate in this study were excluded.

**Background:** Various changes from normal such as appearance of a small swelling or ulcer, frequent urination, dizziness goes unnoticed and later leads to several complications. Hence awareness for individuals is required for early detection.

**Reason:** Not many people are aware of the various symptoms of diseases, hence early detection and treatment of the disease is not possible. Awareness of these diseases can prove useful for the control and treatment of the disease.

**Result:** It was seen that the individuals were aware about the commonly occurring diseases but lacked adequate knowledge about these diseases.

### INTRODUCTION

The common diseases indicated in the questionnaire includes heart diseases, hyperthyroidism, hypothyroidism, diabetes and hypertension. Cardiovascular diseases (CVDs) are group of disorders that involve the heart or blood vessels or both. They include coronary heart disease (CHD), cerebrovascular disease, peripheral arterial disease, rheumatic heart disease, congenital heart disease, and deep vein thrombosis and pulmonary embolism<sup>(1)</sup>. CVDs are the leading cause of deaths in both developed and developing

countries. In 2008, 30% (17.5 million people) of global all-cause mortalities were from CVDs. Of these, 6.2 and 7.3 million were due to stroke and CHD, respectively. It is expected to increase to 23.3 million by 2030<sup>(2)</sup>. Knowledge about CVD and its modifiable risk factors is a vital pre-requisite to change the individuals' health attitudes, behaviors and lifestyle practices<sup>(3,4)</sup>. Thyroid disorders are very common in India<sup>(5)</sup>. Even then people do not have adequate knowledge about it<sup>(6)</sup>. India is considered as the diabetic capital of the world. There are approximately 3.5

crore diabetics in India, and this figure is expected to increase up to 5.2 crore by 2025. Keeping in view the alarming increase in the incidence and prevalence of diabetics in India, the World Health Organization (WHO) has declared India as the 'Diabetic Capital' of the world.<sup>(7)</sup> Studies have shown that increasing patient knowledge regarding disease and its complications has significant benefits with regard to patient compliance to treatment and to decreasing complications associated with the disease.<sup>(8)</sup>

Hypertension is an extremely common medical problem, accounting for approximately ten percent of office visits to family physicians.<sup>(9,10,11)</sup> All these diseases are seen often, thus awareness of these diseases among the people is required so as to prevent and manage these diseases.

## MATERIALS AND METHODS

A questionnaire based study was conducted to assess the the patient's knowledge on various commonly occurring diseases. Patients visiting Saveetha Dental College and Hospital, Chennai were selected for this study. Data were collected using structured, self-administered questionnaire which was designed after reviewing the recent literature and similar questionnaires. The questionnaire included data such as age, gender and general questions related to commonly occurring diseases. The questionnaire was distributed to 20 random patients whose age was within 20-50 years. The questionnaires were distributed and explained to them after obtaining their verbal consent. Questionnaires were collected after being completed. All questionnaires were anonymous, and collected data were kept confidential and not used except for the study purpose.

## RESULTS

The study results showed that only 93% of the individuals were aware about a gland called thyroid. 93% of them were also aware about hyperthyroidism and hypothyroidism. 13% of the individuals felt that hypothyroidism leads to

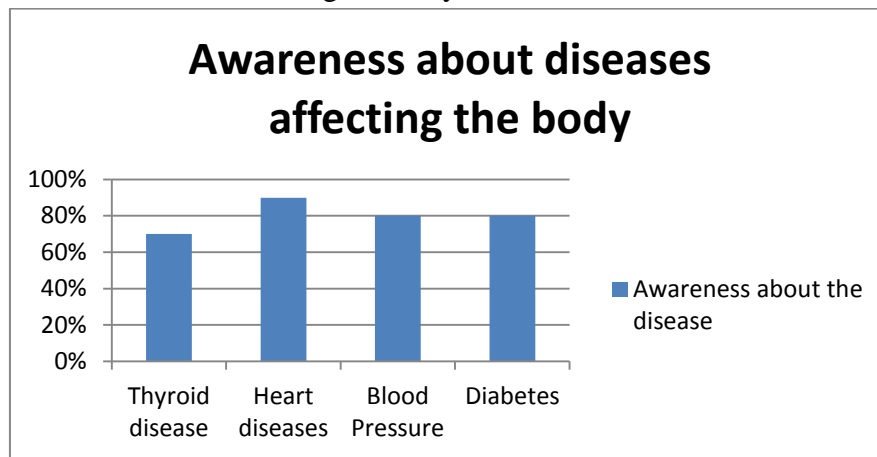
excessive weight gain whereas, 7% strongly felt that it does not and the remaining individuals did not know. 90% of the individuals felt that thyroid medications must be stopped during pregnancy. 7% suggested that medications must not be stopped and the remaining 3% did not know. 7% of the individuals felt that cabbages, cauliflower and soya should be avoided during hypothyroidism. 10% of the individuals felt that it need not be avoided and the remaining 83% did not know. 93% of the individuals felt that thyroid medications must be stopped once the thyroid tests come as normal and the remaining 7% did not know. 90% of the individuals did not know if thyroid deficiency could be corrected with iodized salt and the remaining 10% suggested that it would not work. Of all the individuals participating in the study, 93% of them were educated about thyroid diseases. All the individuals were aware about heart attack. Only 60% of the individuals were able to accurately point out to the site of pain. 73% of the individuals answered that heart attack pain is a radiating type of pain. 63% of them suggested that high cholesterol diet causes heart attack whereas, 17% of them felt it was due to obesity, 10% felt it was because of high BP, 3% felt it was due to diabetes and the remaining 3% felt it was caused due to smoking. When asked about the symptoms of a heart attack, 90% of them answered that it was pain over the chest region, 7% of them said that it is a radiating pain and 3% said that it was dizziness. When asked on how one can reduce the risk of heart attack, 80% suggested a balanced diet, 7% suggested exercise, 10% suggested reduced activities and 3% suggested bed rest. 97% answered that people with high blood pressure cannot carry out normal day to day activities, the remaining 3% suggested that they can. When asked if fatigue is a common sign of high or low BP, 93% of them said yes and the remaining 7% said no. 90% of the individuals felt that high BP is due to large intake of salt. All of the individuals feel that blood pressure is related to heart problems. 17% of the individuals felt that

headache is a common sign of high BP. All the individuals were aware about diabetes. When asked about the tests to be followed out to check diabetes, 77% suggested for a blood test and 23% suggested for kidney function test. 100% of the individuals were aware about both hyperglycemia and hypoglycemia. When asked for the signs of

diabetes, 93% suggested that it was weight gain and the remaining 7% said that it was poor wound healing. 20% of the individuals felt that diabetes is a curable disease and 50% of them strongly suggested that it cannot be cured, the remaining 30% did not know.

Table.1- Percentage results of the questionnaire.

| QUESTIONS   | YES(%)                    | NO(%)                   | DON'T KNOW(%)    |          |                       |
|---|---------------------------|-------------------------|------------------|----------|-----------------------|
| Are you aware of hypothyroidism?  | 93                        | 7                       | -                |          |                       |
| Are you aware of hyperthyroidism?   | 93                        | 7                       | -                |          |                       |
| Do you feel that hypothyroidism leads to excessive weight gain?           | 13                        | 7                       | 80               |          |                       |
| Should cabbages, cauliflower and soya be avoided in hypothyroidism?       | 7                         | 10                      | 83               |          |                       |
| Do you think that thyroid medications should be stopped during pregnancy? | 90                        | 7                       | 3                |          |                       |
| Should thyroid medications be stopped once thyroid tests are normal?      | 93                        | -                       | 7                |          |                       |
| Can thyroid deficiency be treated using iodised salt?                     | -                         | 10                      | 90               |          |                       |
| Have you been informed about thyroid disease?                             | 93                        | 7                       | -                |          |                       |
| Are you aware about heart attack?   | 100                       | -                       | -                |          |                       |
| Is it radiating pain?   | 73                        | 27                      | -                |          |                       |
| Can people with high blood pressure carry out normal activities?          | 3                         | 97                      | -                |          |                       |
| Is fatigue a common sign of BP?   | 93                        | 7                       | -                |          |                       |
| Is high blood pressure due to increase of salt intake?                    | 90                        | 10                      | -                |          |                       |
| Can high BP be related to heart problems?                                 | 100                       | -                       | -                |          |                       |
| Are headaches a common sign of high BP?                                   | 17                        | 83                      | -                |          |                       |
| Do you know about diabetes?   | 100                       | -                       | -                |          |                       |
| Are you aware about hyperglycaemia?                                       | 100                       | -                       | -                |          |                       |
| Are you aware about hypoglycaemia?  | 100                       | -                       | -                |          |                       |
| Can diabetes be cured?  | 20                        | 50                      | 30               |          |                       |
|   | Normal structure(%)       | Abnormal structure(%)   | Don't know(%)    |          |                       |
| What is a thyroid?  | 93                        | 7                       | -                |          |                       |
|   | Accurate(%)               | Inaccurate(%)           | Don't know(%)    |          |                       |
| Can you point out with your finger the site of pain for heart attack?     | 60                        | 40                      | -                |          |                       |
|   | Echo(%)                   | Kidney function test(%) | Blood test(%)    |          |                       |
| What are the tests to be carried out for diabetes?                        | -                         | 23                      | 77               |          |                       |
|   | Poor wound healing(%)     | Weight gain(%)          | Muscle spasms(%) |          |                       |
| What are the signs of diabetes?   | 7                         | 93                      | -                |          |                       |
|   | Pain over chest region(%) | Radiating pain(%)       | Dizziness(%)     |          |                       |
| What are the symptoms of heart attack ?                                   | 90                        | 7                       | 3                |          |                       |
|   | Obesity (%)               | Smoking (%)             | High BP(%)       | Diabetes | High cholesterol diet |
| What are the factors that lead to heart disease?                          | 17%                       | 3%                      | 10%              | 3%       | 67%                   |

**Figure.1-** Awareness about diseases affecting the body.

## DISCUSSION

In general, the patients with thyroid disorders had inadequate knowledge of thyroid gland and associated disorders. These findings are similar to those obtained by previous authors.<sup>(12,13)</sup> Patients should be educated for the various symptoms of thyroid disorders. Patients commonly attribute that any symptom like sore throat in relation to neck is due to thyroid. Screening for thyroid disorders should be a part of routine health screen in people after the age of 35 years, pre and postmenopausal women, child-bearing women, and in pregnancy and postpartum period.<sup>(14-17)</sup>

There is a common misconception of excessive weight gain and obesity with hypothyroidism. In the present study, 80% patients thought that hypothyroidism

causes excessive weight gain, while it is well known that primary hypothyroidism does not cause an increase in weight of more than 2-3 kg although a symptom of "feeling heavy" is common among patients.<sup>(18)</sup> Patients need to be educated that thyroid medication should not be stopped during pregnancy; apart from iodine deficiency there are immunological causes (Hashimoto's thyroiditis) resulting in hypothyroidism. Patients should also be educated for tests for treatment monitoring and long-term nature of treatment.

This study was also done to demonstrate the current level of public knowledge about of CVD, warning symptoms of heart attack or stroke and

CVD risk factors. 100% patients were aware of CVD. The present findings would be the first step in providing a quantitative measurement of CVD knowledge and identifying specific knowledge gaps. 100% patients could identify at least one of the symptoms of heart attack. Chest pain was the most common known symptom (90%), which is close to that found in Beijing<sup>(19)</sup> Radiating pain was recognized by 7% of the study population, which is lower than that reported in by studies from North Ireland and Nepal.<sup>(20)</sup> 'Feeling weak, light-headed, or faint' was recognized by 3% of participants, which is close to that reported in North Ireland and Nepal<sup>(20)</sup> Respondents' knowledge regarding the CVD risk factors was better than that for the warning symptoms of heart attack and stroke. The commonest risk factors identified by over four-fifths of the study participants were smoking, obesity, unhealthy diet and physical inactivity. High cholesterol diet was identified as the most common risk factor in this study, which is consistent to that reported in Pakistan.<sup>(21)</sup>

There have been several community studies about awareness of hypertension<sup>(22,23)</sup> in the general population. Awareness of hypertension among those affected by the disease tends to be generally higher than in the general population in our environment.<sup>(24)</sup> Prompt and adequate treatment of hypertension will delay onset of complications and might reverse some end organ damage.<sup>(25)</sup> The majority believed that drugs should be taken only

when they have "symptoms" or for a period of time.

Patients' knowledge regarding the treatment and complications of diabetes showed serious deficiencies, more so among women, even though most had been diabetic for years. The fact that 20% patients thought that diabetes is curable, and that only 50 % patients correctly said that the treatment continues throughout the life, may reflect a mentality of patients that once the blood sugars are controlled, they can stop taking their medicines. The fact that although 77% of the patients were aware of how often they should have their blood sugars tested, only 20% were actually aware of their target fasting and post-prandial blood sugars; this also indicates an overdependence on the physician and a lack of empowerment of the patient. This study confirms that patient knowledge about the treatment and complications of diabetes is limited, especially with regard to preventive aspects. There is a definite need to empower patients with the knowledge required to help them obtain maximum benefit from their treatment for diabetes.

## CONCLUSION

The overall results from this study shows that awareness on the commonly occurring diseases such as thyroid disease, hypertension, hypotension, diabetes is comparatively low among the patients visiting Saveetha Dental College and Hospital. Awareness on Heart disease is slightly more when compared to the other diseases. Proper awareness must be given to people so as to reduce the incidence of such diseases.

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