ORIGINAL ARTICLE
pISSN 0976 3325 | eISSN 2229 6816
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www.njcmindia.org

ASSESSMENT OF KNOWLEDGE AND AWARENESS REGARDING THYROID DISORDERS AMONG WOMEN OF A COSMOPOLITAN CITY OF CENTRAL INDIA

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Financial Support: None declared
Conflict of interest: None declared

How to cite this article:
Rai S, Sirohi S, Khatri AK, Dixit S, Saroshe S. Assessment of Knowledge and Awareness Regarding Thyroid Disorders among Women of a Cosmopolitan City of Central India . Ntl J Community Med 2016; 7(3):219-222.

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Date of Submission: 03-03-16
Date of Acceptance: 22-03-16
Date of Publication: 31-03-16

ABSTRACT

Background: Even in 21st century, very few people really know much about the small thyroid gland located at the back of the neck and its vitally important function. Any dysfunction of the thyroid has profound impact on health and well-being.

Methods: This cross-sectional study was conducted in September 2014 in 4 different areas of Indore city of MP. 250 females of age group 18-50yrs residing in Indore, belonging to different residential areas.

Results: In the study 29.2% females do not have heard the word "THYROID", 48.8 % females had excessive sensitivity to heat or cold, 25.2 % females had constipation/diarrhoea from long time, 61.2% females had joint or muscle pain/weakness, 69.6 % females had anxiety/depression /mood swing, 39.6 % females had menstrual irregularity, 82.4 % females had problem of hair loss/skin changes, 18.67% females have trouble in getting pregnant/repeated miscarriages/stillbirth Only 49.20% females knew about hyperthyroidism and hypothyroidism, 25.2% females have undergone the thyroid screening test, 55.2% females thought that thyroid disorders could be cured by using alternative medicine.

Conclusion: In general, the females have inadequate knowledge of thyroid gland, & associated disorders and they had myths and misconception regarding thyroid disorders.

Keywords: Thyroid Disorders, Awareness, Knowledge, Hypothyroidism, Hyperthyroidism

INTRODUCTION

Thyroid disorders are amongst the most prevalent of medical conditions. Their manifestations vary considerably from area to area and are determined principally by the availability of iodine in the diet. [1]The prevalence of hypothyroidism, the most common type of thyroid dysfunction[2], in the developed world is 4-5% [3]. Forty two million people in India suffer from thyroid diseases [4]. An overall Indian prevalence ranging from 3.9-5.4% [5,6]

Some of the factors may be lack of qualified physicians treating such patients, less time spent by doctors for patient education, lack of awareness and use of available electronic media to harness information, poor knowledge about reliable sources of information .[7] Educational needs are much greater in diseased population with poor health literacy [8].

Any dysfunction of the thyroid has profound impact on health and well-being. Thyroid disorders are believed to be a common health issue in India, as it is worldwide. Globally, thyroid disorders continue to be common yet one of the most under- diagnosed and neglected chronic health conditions.[9]

There is a paucity of data on the Knowledge, Awareness and Practices (KAP) among these patients. Such studies will help the physician to concentrate on these specific issues during their interaction with the patients.[9]

Women are generally prone to develop hypothyroidism, but especially during puberty, first menstruation, pregnancy, within the first six months after giving birth, and during menopause. [10].

It is well documented that the sustainable elimination of IDD requires a strong will, wider awareness and cooperation among those who hold the key to the solution to this problem. For the effective implementation of any control programme, and for its success, it is essential that people's access to iodised salt be ensured. [11]

Survey reveals that in India, thyroid disorders are amongst the most common endocrine disorders. The prevalence and pattern of Thyroid disorders depend on sex, age, ethnic and geographical factors and especially on iodine intake. Iodine deficiency can lead to mental retardation, stillbirths, congenital anomalies and psychomotor defects.[12].

Research shows that hypothyroidism can contribute to morbidity from Osteoporosis, Hyperlipidemia, Hypercholesterolemia, Cardiovascular and Neuropsychiatry disease in the population[13].

MATERIALS AND METHODS

An Observational Cross sectional study was conducted in 4 different residential areas in Indore city of MP , using random sampling ,over 250 Females of age group 18-50yrs randomly selected residing in Indore, belonging to different residential areas, who agreed to give the written informed consent have been considered as respondents to collect information.

A Semi-structured questionnaire was used to collect information on the following variables Socio-demographics, Thyroid disorder knowledge- self-reported disease history, Health literacy, Health information-seeking behavior.

The data collected were analyzed through percentages and frequencies in which the data were presented in table formats, pie charts and histograms which were obtained using Excel and some using SPSS (Statistical Package for Social Science). The study was conducted during September 2014 to December 2014.

RESULTS

Total 250 female participated in the study, among them 54.8% were aware about meaning of thyroid and 49.2% were aware about 'hyperthyroidism' and 'hypothyroidism. Total 46.8 % respondent believed that thyroid disorders can be treated by the use of iodized salt, 54.4% believed that hypothyroidism causes excessive weight gain &obesity, 55.2% believed that alternative medicines can cure thyroid problems.

18 % of respondent had Family history of thyroid disorder, 0.8% had history of any thyroid operation and 2% had history of treatment with radioactive iodine.

Table 1: Knowledge of Terminologies associated with thyroid disorder

Questions	Correct Responses (%)	Incorrect Responses v	No response or Don't know (%)
"Thyroid" meaning	137 (54.8)	47 (18.8)	66 (26.4)
"Hypothyroidism" meaning	123 (49.2)	16 (6.4)	111 (44.4)
"Hyperthyroidism" meaning	123 (49.2)	16 (6.4)	111 (44.4)

Only Around 50 % females had knowledge of terminologies associated with thyroid disorder

Table 2: Knowledge and awareness regarding Symptoms Related To Thyroid Disorders

Question	Responses (%)
Sore throat, neck pain, joint pain/ muscle pain/weakness	153 (61.2)
Weight gain/ loss	126 (50.4)
Trembling in hands or palpitation or shortness of breath	95 (38)
Excessive sensitivity to heat or cold	122 (48.8)
Tiredness or restlessness even after adequate sleep	152 (60.8)
Difficulty in remembering or confusion or lack of concentration	156 (62.4)
Mood swing or anxiety or depression	174 (69.6)
Irregular menstrual cycles	99 (39.6)
Voice change/ swelling in neck	115 (46)
Hair fall or Skin problems	206 (82.4)
Repeated miscarriages or stillbirth	135 (81.33)
Constipation or diarrhoea from long time	63 (25.2)

Table 3: Common Misconceptions Regarding Thyroid Disorders

Questions	Believers	Non believers	Not sure
Thyroid disorders Can be treated by the use of iodized salt	117 (46.8)	72 (28.8)	61 (24.4)
Hypothyroidism causes excessive weight gain, obesity	136 (54.4)	45 (18)	69 (27.6)
Cabbages, cauliflowers, soya should be avoided	111 (44.8)	68 (27.2)	71 (28.4)
Thyroid medications should be stopped during pregnancy	95 (38)	87 (34.8)	68 (27.2)
Thyroid medications can be stopped once thyroid tests are normal	88 (35.2)	89 (35.6)	73 (29.2)
Alternative medicines can cure thyroid problems	138 (55.2)	50 (20)	62 (24.8)

Figure in parenthesis indicate percentage.

Table 4 Personal and Family History related to thyroid disorders

Questions	Yes(%)	No (%)
Family history of thyroid disorder	45 (18)	205 (82)
History of any thyroid operation	2 (0.8)	248(99.2)
History of treatment with radioactive Iodine	5 (2)	245 (98)

Table 5 Awareness regarding Thyroid Screening

Content	Freq(%)
Undergone the thyroid screening test	
Yes	63 (25.2)
No	187 (74.8)
Reasons to undergone for thyroid screening test (n=63)	
On suggestion of doctor	46 (73.02)
On the basis of symptoms noticed by them	10 (15.87)
On suggestion of friends and relatives	5 (7.94)
Read in newspaper or internet	2 (3.17)
Other	0 (0)
Reasons not to undergone for thyroid screening test (n=187)	
Lack of time	21 (11.23)
Afraid of test	6 (3.21)
Have no idea about it	103(55.08)
Other	57 (30.48)

Only 25% females had undergone the thyroid screening test mostly of them on suggestion of doctor. About 55% females had no idea about the thyroid screening test.

DISCUSSION

Present study was conducted in women residing in 4 different residential areas of Indore belonging to different socioeconomic status and occupation. According to present study out of the 250 females, only 54.80% females knew that "THYROID" is normal gland in our body. Other 18.80% considered "THYROID" as disease. And remaining 26.40% did not have any idea about "THYROID". According to study conducted by Singh A et al. out of 200 patients only 120 patients (60%) had correct knowledge that thyroid is normal gland in neck.[9] Only 49.20% females out of the 250 knew about hyperthyroidism and hypothyroidism. Other 6.40% considered it as cancer. And remaining 44.40% answered don't know. According to study conducted by Singh A et al. Only 100 patients (50%) knew about hyper or hypothyroidism.[9]

In the present study 54.40% females have answered "YES" for excessive weight gain in hypothyroidism. Other 18% have answered "NO" and remaining 27.60% have answered don't know which was less in comparison to study by Singh A et al, There were 159 responses (79.5%) for excessive weight gain in case of hypothyroidism[9] and 70 % in the study conducted by S Kannan et al[7].

According to study conducted by Singh A et al.[9] About 119 patients (59.5%) had no idea about avoidance of cabbage, cauliflowers and soya in hypothyroidism which was quite high as compared to present study in which 27.20% females have answered that cabbage, cauliflower and soya could be eaten in thyroid disorders, other 44.40% females answered "NO" and remaining 28.40% females have no idea about it.

In present study around 40 % of females had irregular menstrual cycle which was also observed in the study conducted by Nimmy N.J et al[14] that Out of 18 hypothyroidism patients, 13 (72%) were found to have irregularity in menstrual periods which includes heavy menstruation and cessation of periods for 2- 3 months. Among hyperthyroid patients, only 3 (25%) were having irregular periods.

34.80% females answered that thyroid medication could be taken during pregnancy, other 38% females responded "NO", and remaining 27.20% answered don't know. According to study conducted by Singh A et al. Seventy four patients (37%) had belief that thyroid medication should be stopped during pregnancy. [9]

It was observed that 35.20% females responded that thyroid medication could be stopped once thyroid test report would be normal, other 35.60% have answered "NO" and remaining 29.20% females have answered no idea about it these findings are in line with the study conducted by Singh A et al. In which 80 patients (40%) thought that thyroid medication can be stopped once thyroid test are normal.[9] 46.80% females thought that hypothyroidism could be treated by using iodised salt other 28.80% females have answered "NO" and remaining 24.40% females have responded that

they have no idea about it. According to study conducted by Singh A et al. Large number of patients (117 i.e.58.5%) thought that thyroid deficiency could be treated by using iodized salt. [9]

55.20% females have responded that thyroid disorders could be cured by alternative medicine like Ayurveda, yoga, unani, siddha, and homeopathy. Other 20% females answered "NO" and remaining 24.80% females have no idea about it. According to study conducted by Singh A et al. seventy patients (35%) had belief in alternative medicine like yoga, unani, siddha . [9]

In general, the patients with thyroid disorder had inadequate knowledge of thyroid gland, & associated disorders. These findings are similar to those obtained by previous authors. [15-17]

CONCLUSION

In general, the females have inadequate knowledge of thyroid gland, & associated disorders. Overall females have inadequate knowledge and many misconceptions regarding thyroid disorders. Many females are showing symptoms of the thyroid disorders but still they are unaware of the disease.

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