

Rising Thyroid Problems Attributable to Lifestyle among Women

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ABSTRACT

“Wealth of a Nation depends on health of the people”. Women’s health in India is affected by various non-physiological aspects like, geographic, socio-economic and cultural factors. Health is the most important factor contributing to human wellbeing and economic growth, and thus improving the health of Women is the need of the hour for National development. Women comprise almost half of the national population, and, of late more and more of them are joining the work forces in both formal and informal sectors. They are eventually trusted with dual role responsibilities and face with the stress to cope up with them. Thus, women are subjected to various health problems resulting from compromising resources to balance these roles. Hyper and hypothyroidism are the major disorders associated with lifestyle and are more common among women. Measures should be taken to reach women and make them aware of thyroid disorders, their causes, symptoms, prevention and treatment. Hence this paper aims at knowing the level of knowledge and awareness about Thyroid, physical activities, food habits and self-care. Primary data was collected by the researcher for this study. The results of the study will help women to know the need to modify lifestyles to lead a healthy life.

Key- words: Women’s health, Hypothyroidism, Hyperthyroidism, awareness, lifestyle

INTRODUCTION

Women’s health in India is affected by various non-physiological aspects like, geographic, socio-economic and cultural factors. Health is the most important factor contributing to human wellbeing and economic growth, and thus improving the health of Women is the need of the hour for National development. Women comprise almost half of the national population, and, of late more and more of them are joining the work forces in both formal and informal sectors. They are eventually trusted with dual role responsibilities and face with the stress to cope up with them. Thus, women are subjected to various health problems resulting from compromising resources to balance these roles.

Due to availability and usage of modern of gadgets for household works, and the added mental work stressors, there is decrease in physical activities. These household chores were earlier done manually and a home maker was a moderate worker burning sufficient calories daily. The modern home makers are more prone to sedentary life style and stressful work culture. This results in various health problems in this cohort. Endocrine issues are on a rise with thyroid problems leading the list.

According to a projection from various studies on thyroid disease, it has been estimated that about 42 million people in India suffer from thyroid diseases.¹ Hyperthyroidism, on the contrary is a condition caused by excess production of the hormone by the gland. Hypothyroidism is twice as prevalent in women as in men and is common among women of child-bearing age. Hypothyroidism is far more rampant than hyperthyroidism. It affects 15-20% of all women over the age of 50. It results from the deficient production of thyroxine.² If untreated hypothyroidism can affect various physiological pathways leading to elevated cholesterol levels, raise in blood pressure, obesity, cardiovascular complications, decreased fertility, and depression to name a few.

Awareness about the disease and effective preventive measures is the first step to solving any health issue at grass root level. Pregnancy is a stressful state, and pregnant women are more prone to thyroid problems. It is thus necessary to ensure that their Thyroid functions are within normal limits since conception. These pose a huge challenge to the health care sector. Patient’s knowledge and awareness about the disease and its treatment is very important for good long-term outcome and compliance in any chronic disease. Studies have shown the importance

of improving patient's knowledge through education and associated benefits of improving patients with hypertension and diabetes^{3,4} Large scale awareness campaigns have to be organized to make people aware of Thyroid problems and ways to avoid or overcome them through life style modifications.

MATERIALS AND METHOD

The present study is conducted using descriptive research method. Primary data was collected by the researcher for this study. Total one hundred women who are suffering from hypothyroidism were selected using random sampling method. 50 were in the age group below 30 years and 50 were 30 and above years. The data was collected using self-constructed questionnaire.

Objectives

1. To assess the knowledge about Thyroid problem among women.
2. To find out the level of physical activities among hypothyroid patients.
3. To know the food habits of hypothyroid patients.
4. To compare all parameters between the two age groups.

Hypothesis

1. Women are not aware of Thyroid problem in general.
2. The awareness will be slightly more among below 30 years group than the older group.
3. The women will be involved in physical activities but they are not well organized and guided in doing required exercises.
4. The younger group will be more regular in doing physical exercises than the older group.
5. Due to poor awareness their diet is not good and they are consuming prohibited foods.
6. There may not be much difference between the two groups with regard to diet.
7. Older women ignore more self-care than the younger group.

Limitations

1. The study is limited to only women Thyroid patients
2. The geographical area of sample selection is limited to Jamshedpur, Jharkhand, India

RESULTS AND DISCUSSION

Table 1 General awareness about Thyroid

S. No	Do you agree that following are the symptoms of Hypothyroidism?	Below 30 years N=50		Above 30 years N=50		P Value
		Agree	Disagree	Agree	Disagree	
1	Fatigue and lethargy	30	20	22	28	0.109
2	Weight gain and loss	34	16	29	21	0.300
3	Sea weeds and sea foods are sources of Iodine	41	09	39	11	0.617
4	Dairy products are sources of Iodine	23	27	18	32	0.309
5	Maternal hypothyroidism during pregnancy can have impact on foetal growth and brain development	28	22	21	29	0.161
6	Pregnancy and lactation are high Iodine demand physiological states	23	27	18	32	0.309
7	Double fortified salt contains Iron and Folic acid	32	18	24	26	0.107

It is observed from the above table that the awareness about various symptoms of Hypothyroidism is more among women below 30 years. In this group 60% of the women are aware that fatigue and lethargy are symptoms of Hypothyroidism. Among above 30 years women only 44% are aware of these symptoms. About weight gain and loss is known to 68% of below 30 years women and 58% of above 30 years of age. 82% of younger group and 78% of higher age group are aware about sea foods and weeds as source of Iodine. There is less awareness about dairy products as source of Iodine. 46% of below 30 years group and 36% of above 30 years group are aware of this fact. The awareness about impact of maternal hypothyroidism during pregnancy on foetal growth and brain development

is not satisfactory. 56% of below 30 years group and 42% of above 30 years group are aware of this point. The two groups together only 41% are aware about increased Iodine demand during pregnancy and lactation. 59% of the entire sample do not know about this. There is good level of awareness about double fortified salt. 64% of below 30 years group and 48% of above 30 years group are aware of this.

None of the P values shown in the above table is below 0.05 and the observed differences between the two groups are not statistically significant.

Table 2 Frequency of doing physical activities (N=100)
(5point scale ranging from Always to Never)

S. No	How often do you do the following activities?	Below 30 years		Above 30 years		P Value
		Mean	SD	Mean	SD	
1	Yoga	2.95	1.75	4.6	0.98	<0.05*
2	Meditation	3.08	1.33	4.9	0.46	<0.05*
3	Morning walk	3.34	1.58	4.26	1.08	<0.05*
4	Brisk walking	1.85	1.22	1.98	1.20	>0.05
5	Cycling	1.87	1.33	1.14	0.35	<0.05*
6	Jogging	1.73	1.20	2.56	1.38	<0.05*
7	Running	1.18	0.72	2.24	1.33	<0.05*
8	Swimming	1.61	1.01	1.98	1.20	>0.05
9	Outdoor games	1.30	0.84	4.6	0.98	<0.05*
10	Gym	4.57	0.73	4.26	0.08	<0.05*

***Significant P Values**

The above table presents data regarding frequency of doing physical exercises. Yoga is more frequently done by above 30 years group than below 30 years group. Meditation is done always by higher age group and sometimes by younger group women. Morning walking is done sometimes by below 30 years group and often by above 30 years group. Both the groups are found doing brisk walk rarely. Lower age group women do cycle rarely and the older group women never do cycle. Jogging and swimming are rarely done by women belonging to below 30 years group and these are never done by women in above 30 years group. Outdoor games are often played by women in above 30 years age group and lower age group women never play these games. Women of both the groups often go to gym.

The frequency of doing physical activities by two age groups show statistically significant values for yoga, meditation, morning walk, cycling, jogging, outdoor games and gym. The frequencies of brisk walk and swimming are not significantly different.

Table 3 Food Items included in daily diet
(5point scale ranging from Always to Never)

S. No	How often do you include the following foods in the daily diet?	Below 30 years		Above 30 years		P Value
		Mean	SD	Mean	SD	
1	Sea foods	3.60	0.62	3.16	0.74	<0.05*
2	Other non veg foods	3.64	0.67	3.56	1.27	>0.05
3	Fortified salt	4.28	1.56	4.6	1.37	>0.05
4	Egg	3.95	1.64	3.8	1.35	>0.05
5	Dairy products	3.85	1.73	4.3	1.44	>0.05
6	Soya bean	3.87	1.61	3.86	1.34	>0.05
7	Cabbage as salad	2.24	1.82	3.0	1.38	<0.05*
8	Spinach	3.73	1.68	4.36	1.27	<0.05*
9	Ragi	3.12	1.45	3.0	1.38	>0.05
10	Pineapple	2.71	0.68	2.24	1.08	<0.05*
11	Dried fruits	4.65	1.05	4.92	0.63	>0.05

***Significant P Values**

Table 3 includes foods rich in Iodine (s.no. 1-5) which are recommended for patients suffering from hypothyroidism. Foods shown in s.no 6-11 are not to be consumed raw because they contain a substance called goitrogens that interfere with iodine metabolism. These substances include thiocyanate, isothiocyanate, thiourea,

thionamides, cyanogenic glycosides which inhibit iodine uptake or affect the stages of organification and coupling in the process of thyroxine synthesis. But these can be consumed in cooked form as the action of goitrogens become inactive after cooking or any heat treatment. Diet is an important aspect of prevention and control of thyroid disorders and hence it is necessary to study about food intake.

Sea foods are often eaten by women in less than 30 years age group and sometimes by above 30 years age group. Cabbage as a salad is eaten rarely by lower age group women and sometimes by higher age group women. Spinach is consumed sometimes by less than 30 years age group and often by above 30 years group. Fortified salt is consumed always by the higher age group women and often by lower age group women. Pineapple is sometimes included in the diet of women belonging to below 30 years group and rarely by those belonging to above 30 years group. Egg, soyabean and dairy products, are often included in the diet of all women while ragi is sometimes included in the diet. Both the groups always consume dried fruits.

The P value calculated to find out the statistical significance in the observed difference in means of both the groups reveal that there is significance in case of sea foods, cabbage as salad, spinach and pineapple.

MAJOR FINDINGS

60 to 70 percent of women are aware of symptoms of hypothyroidism. Nearly 80 percent are aware of sea foods as source of iodine. But there is lesser awareness about dairy products. 50 to 60 percent are aware of benefits of fortified salt. There is poor awareness about high iodine demand during pregnancy and lactation. Only 42 to 48 percent know about ill effects of thyroid disorder on foetal development. Alhawiti A M et al⁵ in her study found that women knew about the connection between hypothyroidism during and brain development. Study conducted by Kumar P. et al⁶ revealed that 11.6% of patients are aware of weight gain less than or equal to 15 kgs during hypothyroidism 18.88% believed that weight gain can be between 11-15 kgs. Studies conducted by Kannan et al⁷ and Singh et al³ found that significant number of respondents knew that excessive weight gain and obesity may be due to hypothyroidism but the percentage of awareness it found to be more in the present study. 51.7% of women have knowledge about thyroid disorder as per the study done by the Kumar P. et al⁶.

There is no significant difference between the two age groups with regard to awareness about symptoms of hypothyroidism. It is contrary to the findings of the study Kumar. P. et al⁶ and Mohamed Mustafa et al⁸.

Women belonging to the two different age groups differ significantly in physical activities in which they are involved. Brisk walking and swimming are not the choice of both categories. Women above 30 years are more involved in physical activities to keep them healthy. The women of lower age group are in child bearing and rearing stage. These may interfere with their fitness schedule. In a study conducted by Lankhaar JAC et al⁹ women patients suffering from hypothyroidism were found to be actively involved in brisk walking, cycling and yoga also they were active involved in all sports except swimming. In the present studies women were not found involved in brisk walking and swimming.

There is significant difference in mean values for yoga, meditation, morning walk, cycling, jogging, outdoor games and gym.

It is observed that there is a need to educate women suffering from hypothyroidism about iodine rich foods and the method of adding some foods in the diet. Egg, soyabean and dairy products, are often included in the diet of all women. Few food items are consumed raw. They should be made aware of the need to cook them to be included in the diet. Kumar P. et al⁶ study found that 40.8% of respondent believed in avoiding cabbage, cauliflower and soya products in a study conducted by Kanan et al⁷ 38.23% respondent believed in dietary restriction of cabbage, cauliflower and soya products. These findings are similar to the findings of the present study.

CONCLUSION

It is found that women suffering from hypothyroidism are not aware of all symptoms. Awareness is more on some common symptoms and less on detailed physiological problems. It is necessary to educate women about symptoms of thyroid disorders as they are responsible for giving birth to healthy children, Healthy persons make healthy nation. It is necessary for patients suffering from all types of thyroid disorders to be actively involved in physical activities. Choosing the right activity and following a strict routine will help in controlling the disease. Eating the right type of foods goes a long way in controlling thyroid disorders. Women should be educated about right choice of food and right method of including it in daily diet. Care should be taken to remove goitrogens from food items. Hence it is recommended that patient education is very important to overcome thyroid disorders. Following fitness schedule, eating right food and consulting doctor on first appearance of symptoms will help women to be healthy and prevent thyroid disorders.

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