Knowledge and Awareness of Thyroid Disorder Among Women in Selangor 2019

Mohamed Mustafa Abdussalam Treki, Sakina Ruhi*, Khaled Saleh, Piravetha Balasubramaniam, Aminu Ishaka, Jiyauddin Khan, Shariq Baber, Salman Hasan, Mohammed Kaleemullah, Sohayla M. Attalla

1International Medical School (IMS), Management and Science University (MSU), 40100 Shah Alam, Selangor Darul Ehsan, Malaysia
2School of Pharmacy, Management and Science University (MSU), 40100 Shah Alam, Selangor Darul Ehsan, Malaysia
3Department of Forensic Medicine and Clinical Toxicology, Faculty of Medicine, Mansoura University, Egypt
4Department of Medical Biochemistry, College of Health Sciences, Usman Danfodiyo University Sokoto, Nigeria
5Sri Sai Dental Medical College, Kaloji Narayana Rao (KNR), University of Health Sciences, Telangana 506007, India

Abstract
Thyroid disorders are common among women. Some factors may be lack of qualified physicians, less time spent for patient education, lack of awareness and use of electronic media to harness information, poor knowledge about reliable sources of information. Proper knowledge regarding thyroid disorders will make women aware and help at early detection. Therefore, the aim is to focus on the study about the knowledge and awareness of thyroid disorder among women. A cross sectional study was conducted to assess the level of knowledge and awareness among women in Selangor. 288 women are selected randomly from Selangor with age range 18 to 55 years old. Primary data were collected using self-administered questionnaire consisting socio-demographic for part A, knowledge of thyroid disorder for part B and awareness of thyroid disorder for part C. Descriptive statistical analysis was performed by using SPSS version 24. 48.3% (71) women have poor knowledge and 51.7% (76) women have good knowledge in Shah Alam. Whereas in Klang, 48.2% (68) women have poor knowledge and 51.8% (73) women have good knowledge. 10.2% (15) women have poor awareness, 89.8% (132) women have good awareness in Shah Alam. Whereas in Klang, 14.9% (21) women have poor awareness and 85.1% (120) women have good awareness. The respondents living area has no significant relationship to knowledge and awareness of thyroid disorder. In general, the women’s knowledge and awareness have no significant relationship with respondents living area. Most women have good knowledge and awareness.

Keywords: Knowledge, Awareness, Respondent, Thyroid Disorder & Selangor

1 Introduction
Among women thyroid issue are common. A few components might be absence of qualified doctors, a few times spent on education of patient, lack of awareness and harness of information of electronic media usage, poor knowledge about dependable sources of data information. Appropriate knowledge about thyroid disorders will make women conscious at early discovery. Some thyroid dysfunction has great effect to health. 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 patient’s with hypertension and diabetes.

Too much thyroid hormones produced by thyroid gland which are thyroxine or triiodothyronine in hyperthyroidism which is to increase metabolism rate in body. It is also known as ‘overactive thyroid gland’. The symptoms are including loss of weight, poor memory, menstrual issues, sweating, fatigue and sleep deprivation.
The absence of thyroid hormone is delivered from thyroid gland in hypothyroidism. It is also known as ‘underactive thyroid gland’. The symptoms are including gaining of weight, constipation, dry skin and hair, depression, goiter, fatigue and weak nails.

Hashimoto’s thyroiditis is an autoimmune disease. It might take a trip from hyperthyroidism to hypothyroidism. The symptoms of hyperthyroidism in patients is temporary. Sometimes, low thyroid stimulating hormone (TSH), high free thyroxine (FT4) and free triiodothyronine (FT3) in patient of hyperthyroidism. Subsequently, from Grave’s disease no patient will suffered because hyperthyroidism is not a permanent condition and at last the patient might have hypothyroidism.

In young age hypothyroidism women is related to menstrual irregularities, polycystic ovaries and infertility.

In pregnancy, thyroid disorder is categorized as hypothyroidism, hyperthyroidism, thyroid nodules and cancer, autoimmune disease, insufficiency of iodine and postpartum thyroiditis. After the delivery or miscarriage between the first year, the effect of immunosuppressive of pregnancy will disappear. Recently, physiologic changes of knowledge in thyroid disorder during the pregnancy make the women very consent during the screening, treatment and also diagnosis of this thyroid disorder.

Therefore, this study was conducted to assess knowledge and awareness of thyroid disorder among women in Selangor.

2 Materials and Methods

This survey is done to assess the current knowledge and awareness of thyroid disorder among women in Selangor. Cross sectional study was carried out in two different areas in Selangor which are Shah Alam and Klang. This is done to 288 women in Selangor with the age range between 18 to 55 years old. The women will be randomly selected from Shah Alam and Klang.

Besides, most importantly, the women who are willing to answer the questions. Consent form will be attached in the questionnaire which will be in the first page of the questionnaire. The name of the respondents will not be recorded as it will stay anonymous and all the respondent’s personal information kept highly confidential.

In this survey, self-administered questionnaires were used. The level of knowledge and the level of awareness are evaluate based on the questions in questionnaire. In this questionnaire, it consists three parts including part A, part B, and also part C. It is made in two languages which is English and Bahasa Malaysia for the respondents easy to understand.

In part A, contain questions on socio-demographic information of the respondents which are including age, race and social status. The age range is between 18-30 years, 31-39 years and 40-55 years old. The race that I have choose to do the survey is Malay, Indian, Chinese and others. The social status of respondents also included which are single, married and divorced. The place of respondents which are Shah Alam and Klang.

In part B, contain questions regarding the knowledge of thyroid disorder. It consists of 10 questions with the choice of ‘Yes’, ‘No’, and ‘I don’t know’ as the answer. The questions are about the general of knowledge of thyroid disorder and also regarding the disorder such as etiology and symptoms. The questions are derived from.

In part C, contain questions regarding the awareness of thyroid disorder. It consists of 5 questions with the choice of ‘Yes’, ‘No’, and ‘I don’t know’ as the answer. These questions are on how aware the respondents about this thyroid disorder. The questions are derived from.

The data which are collected will gather and analyze them through the frequencies and percentages which the data were tabulated in table form and pie chart. The data were obtained by using Statistical Package for Social Science (SPSS).

3 Results

According to the table 1, 48.3% of women have poor knowledge regarding thyroid disorder where n=139. Whereas, 51.7% women have good knowledge regarding thyroid disorder where n=149 (Fig 1).

Table 1: Chi square for Knowledge of Thyroid Disorder

<table>
<thead>
<tr>
<th>Validity</th>
<th>Frequency (N)</th>
<th>Percent(%)</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>139</td>
<td>48.3</td>
<td>48.3</td>
<td>48.3</td>
</tr>
<tr>
<td>Good</td>
<td>149</td>
<td>51.7</td>
<td>51.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>288</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

According to the table 2 (Fig 2), 12.5% of women have poor awareness regarding thyroid disorder where n=36. Whereas, 87.5% women have good awareness regarding thyroid disorder where n=252.

4 Discussions
This study was conducted among women residing in two different areas in Selangor. In this study 288 women were participated. The results that I obtained from this research study is the respondents living area has no significant relationship between knowledge and awareness of thyroid disorder. This is supported by other studies, according to the women have lack of knowledge regarding thyroid gland and also associated disorders. Most women know the clinical manifestations of thyroid disorder, but they are not aware about this disorder.

**Table 2: Chi square for Awareness of Thyroid Disorder**

<table>
<thead>
<tr>
<th>Validity</th>
<th>Frequency(N)</th>
<th>Percent(%)</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>36</td>
<td>12.5</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Good</td>
<td>252</td>
<td>87.5</td>
<td>87.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>288</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

![Fig 2: Awareness of Thyroid Disorder](image)

As per recent investigation among 288 women, only 76.4% women knew that “THYROID” is a ductless gland in the body. 10.1% women did know about this and the others 13.5% have no any idea about the “THYROID”. It has been reported out of 290, only 71.4% had good knowledge which they correctly answered thyroid is a ductless gland in the body. Thyroid hormones are important for maturation of brain. According to the recent study shows 54.2% women answered “YES” for thyroid disorder affects brain development. Whereas 32.6% women answered “NO” and the remaining 13.5% women don’t even know about it. The researchers documented out of 291 people showed 44.7% answered “YES”. Compared to the previous study done by Asma et al., in this recent study women have correct knowledge that thyroid disorder affects the brain development.

The main function of thyroid hormones is controlling body’s metabolic rate. This can affect the cholesterol level in the body. Increased thyroid stimulating hormone (TSH) level has been related with total cholesterol level which increases linearly, low density of lipoprotein cholesterol level and triglycerides just as decrease linearly in high density of lipoprotein levels. In the recent study, 63.2% women answered “YES” for thyroid disorder affects blood cholesterol level while 25.3% women answered “NO”. The remaining 11.5% women got no idea about it. According to Asma et al., 2018 out of 291 people, 54.6% answered “YES”. By comparing the recent study with the previous study, women have correct knowledge that thyroid disorder affects the blood cholesterol level.

The function of thyroid fundamentally influences cardiovascular disease risk factors too. The recent study shows 45.8% of women answered “YES” for thyroid disorder results in heart disease. While 32.6% women answered “NO” and the remaining 21.5% did not know that it can results in heart disease. In the findings of Asma et al., 2018 48.6% out of 288 have answered “YES”. By comparing these findings, the recent study has less correct knowledge that it can results in heart disease.

Thyroid disorders can also affect sports. In the recent study, 44.8% women answered “YES”. While 37.5% women answered “NO” and the remaining 17.7% women have no idea whether sport can affect thyroid disorder. According to previous study done by Asma et al., 2018 out of 291 people, 41.2% answered “YES” saying that sport can affect thyroid disorder. This shows that compared to previous study, women have correct knowledge.

Thyroid disorders are hereditary. Hereditary qualities assume a noticeable role in both assurance of thyroid hormone and thyrotropin concentrations and defenseless to thyroid disease of autoimmune system. According to recent investigation, 38.2% of women answered “YES” saying thyroid disorders are hereditary. 28.8% women answered “NO” and the other 33% of women did not know that thyroid disorders are hereditary. From the previous finding Asma et al., 2018 shows 33.6% answered “YES” out of 289 respondents. Compared to previous study, women have correct knowledge that thyroid disorders are actually hereditary.

In the recent study, just half of women have sufficient knowledge on the common symptoms of hyperthyroidism and hypothyroidism. For hyperthyroidism the symptoms including insomnia and lack of sleep, only 60.1% women have answered “YES”. 20.5% women answered “NO” and the others answered 19.4% women answered, “DON’T KNOW”. The symptoms of loss of weight despite good appetite in hyperthyroidism. 58.7% women answered “YES”. 20.8% women answered “NO” and the remaining 20.5% women answered, “DON’T KNOW”. For hypothyroidism the symptoms of skin and hair dryness, only 57.3% women answered “YES”. 19.4% women answered “NO” and the remaining 23.3% “DON’T KNOW” about the hypothyroidism symptoms. In hypothyroidism, skin dryness results from consolidated impacts in vasoconstriction of peripheral cutaneous, secretion of sebaceous gland decreased and hypohidrosis. According to Asma et al., 2018 shows out of 271 people, 59.8% of people answered “YES” for insomnia and lack of sleep are symptoms of hyperthyroidism. 58.8% of people answered “YES” for insomnia and lack of sleep are symptoms of hypothyroidism. 58.8% of people answered “YES” for insomnia and lack of sleep are symptoms of hypothyroidism.
out of 267 answered “YES” for loss of weight despite good appetite is a symptom of hyperthyroidism. In hypothyroidism symptoms, 64.2% out of 274 people answered “YES”.

In the recent study, 55.6% women answered “YES” for sudden increase in weight is a symptom of hypothyroidism, while 20.8% women answered “NO”. The remaining 23.6% has answered “DON’T KNOW”. The findings of Shailesh et al., 2016 54.4% women answered “YES”, 18% women answered “NO” and 27.60% women answered, “DON’T KNOW”. By comparing this study, in the recent study the women have correct knowledge about hypothyroidism which is gaining weight is the symptom of hypothyroidism compared to last time.

As per recent study, 17% of women answered “YES” when asked the family history of thyroid troubles. 66.3% women answered “NO” and remaining 16.7% women answered, “DON’T KNOW”. Only 12.2% women answered “YES” when asked whether they have done thyroid screening test. 85.7% women answered “NO” and remaining 2.1% answered “DON’T KNOW”. According to findings of Shailesh et al., 2016 out of 250 women, only 18% of women answered “YES” when asked the family history of thyroid troubles and remaining 82% women answered “NO”. Only 25.2% women answered “YES” when asked whether they done thyroid screening test and remaining 74.8% women answered “NO”.

In general, the women has good knowledge and awareness regarding thyroid disorder compared to previous findings.

5 Conclusion

5.1 Summary

This study was conducted to assess the knowledge and awareness of thyroid disorder among women in Selangor. Two areas were selected in Selangor to do this survey which are at Shah Alam and Klang. From this finding, it tends to be presumed that most women in Selangor have good knowledge and awareness regarding thyroid disorder. The findings of the study showed that some of socio-demographic factors has a significant association value to level of knowledge and awareness of thyroid disorder such as age group and social status and for race and place has no significant association value. The study uncovered that women’s knowledge and awareness has no significant relationship to living area. The null hypothesis was rejected, and the alternative hypothesis was accepted.

5.2 Limitations of study

Based on the study, there are a few limitation factors that can influence the finding and the accuracy of result. One of the study limitations is the sample size which did not cover the entire population. In addition, discovered difficulty in approaching the study population where some women refuse to participate were also one of the limitations of study.

6 Acknowledgement

Foremost, the authors would like to express their sincere gratitude to Almighty God for giving the strength and patience to complete this research project.

The authors are gratefully acknowledged to the International Medical School, Management & Science University, Shah Alam, Selangor Darul Ehsan, Malaysia for providing the necessary facilities to carry out the research project successfully.

Furthermore, the authors would like to extend their special thanks to the respondents who made the research possible.

7 Conflict of Interest

The authors declare that they have no competing interests.

8 Funding

Nil

9 Author’s contributions

All authors imparted equally contribution for the completion of the present study, and approved for final publication of manuscript.

10 Ethical Consideration

Since this research needs the involvement of respondent, thus the ethical consideration must be applied. Ethical consideration form was given to all respondents along with questionnaires. Firstly, the consent form will be disseminated to the respondents. Once they are completing the forms, they should answer all the questions stated in the questionnaire that will be given. All information by participants kept confidential and it is only used for research only. The participants have the choice to be a part of study or not and they have rights to withdraw from the study anytime.

11 References


