

## Knowledge, Attitude, And Practices Towards Thyroid Risk Of Women: A Study In Barishal

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### ABSTRACT

**Objective:** The objective of the study is mainly focused on knowledge, attitude, and practices toward the thyroid risk of women. Here this study perceived knowledge, understand mental health condition, the effect of thyroid risk of women in her everyday activities.

**Methods:** A mixed-method approach is to achieve the objectives of the research. A survey was conducted 120 women to know the prevalence of thyroid-related terminology, attitude, and practice regarding this thyroid risk. Case study and KII used in a more descriptive view about thyroid risk situation.

**Result:** In the study, the area result shows that their knowledge level of women is poor, women's passive attitude towards thyroid risk, and the wrong lifestyle practicing that responsible for thyroid risk day by day.

**Conclusion:** So some steps should be taken by the authority with the help of professional campaigns, health education, thyroid-related nutrition, cause, treatment, and celebration of world thyroid day to make them get aware of this disease.

**KEY WORD:** Knowledge; Attitude; Practice; Thyroid; Risk; and Women.

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### I. INTRODUCTION

#### Background

Even in the 21st century, very few people 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 a profound impact on women's health and well-being (Rai, 2016). Bangladesh is one of the most densely populated countries in the world, having a population density of 1050 per km<sup>2</sup>. Bangladesh still rising the thyroid disorder risking countries in the world with the highest-burden. Women with hypothyroidism have relatively increased infertility, miscarrying rates and carry an increased risk for obstetric complications, etc. (Sharmeen, 2014). Although millions of men experience thyroid dysfunction, women are 10 times more likely to have a thyroid imbalance. The reasons are uncertain, but accordingly, to the integrative physician and gynecologist Sara Gottfried, the phenomenon is linked to female hormones, since estrogen dominance (a condition in which estrogen levels are high relative to progesterone) has been implicated as a contributing function. The interaction between the thyroid and women's reproductive hormones is significant. Hypothyroidism can lead to infertility, miscarriage, premenstrual syndrome (PMS), Osteoporosis, Low libido, and difficulty in Menopause. For many women, thyroid problems first arise during times of hormonal unrest and mental stress. According to Goffried "Women are most vulnerable after pregnancy and during prime no pause and menopause" (Grunewald, 2017). Thyroid disorder affected the quality of life among women in everyday life. Screening should be done in all women in following high-risk group for thyroid diseases are given below:

- Women with infertility.
- Women over 30 years of age.
- Women with type 1 diabetes.
- Women with a history of thyroid disease, symptoms of thyroid disease, or with a large thyroid known as a goiter, etc. (The Daily Star, May 29, 2016).

However, hypothyroidism can contribute to morbidity. Better knowledge and awareness regarding the disease in primary hypothyroidism patients can significantly improve compliance of treatment and decrease the associated morbidity. Also, this can further help even make patients spread correct facts and information regarding the disease to their relatives or friends in the society. There are a lot of factors contributing to a lack of knowledge among patients in our country. Such factors are:

- Lack of qualified physicians.
- Less time spent by doctors on patient education because of patient burden.
- Lack of awareness.
- Not using available electronic media are some of them.

A lot of awareness is still required at the local, community, and regional levels in developing countries like Bangladesh for optimum management of hypothyroidism patients especially women. Significantly caveats in knowledge and awareness about the disease. Also, a large number of people had dietary as well as treatment-related misconceptions. Public health measures are required to improve knowledge and awareness regarding the disease and primary knowledge about thyroid disorder (Tandor, 2012; Vanderpump, 1995; Davislb, 2017; Surunav, 2017; Islam, 2006).

### **Research Objectives**

The objective of the study is mainly knowledge, attitude, and practices toward the thyroid risk of women. Here this study to perceived knowledge, understanding, mental health condition, the effect of thyroid risk of women in her everyday activities.

### **Specific Objective**

1. To explore the perceived knowledge of women about terminology related to a thyroid disorder.
2. To understand the attitude of women about thyroid disorder in the study area.
3. To explore the risk behavior of women toward thyroid risk situations.
4. To measure thyroid behavior of women toward thyroid risk situation.
5. To explore thyroid risk health behavior and lifestyle of women practicing in her daily life.

### **Rationalization of the Research**

Thyroid disorder is now the most common disease of women in Bangladesh. It is guessed that more than 10,392,681 people having any kind of thyroid disorder (Hassan, 2008). 50 million Bangladeshis are suffering from thyroid disease, with 30 million from the total are not even aware of their condition. The information was disclosed at a press briefing organized by Bangladesh Endocrine Society (BES) to mark world Thyroid Day at the Sagor-Runi auditorium of Dhaka Report Unity, “Females are 10 times more at risk of Thyroid hormone problems than male” (Dhaka Tribune, 2018).

Only medical researches about thyroid are insufficient for realization and combating this disease toward women rather than social aid for developing thyroid health promotion. Need for social available channels for thyroid information of caveats' significance toward women in Bangladesh. To improve (KAP) in targeting people with thyroid testing approach to identifying women overt thyroid disorder and counseling health illiteracy with the educational program need to develop both clinical and community settings. Raising public publicity in local guidelines concerning adherence to nationwide to evaluate iodine nutrition during pregnancy in region-wide for combating the thyroid disorder. Need for social attention visit for thyroid testing in clinical practice for encouraging women by field working task.

## **II. RELEVANT LITERATURE REVIEW**

The worldwide prevalence of spontaneous overt hypothyroidism is between 1% and 2% where ten times more common in women than in man while approximately 8% of women and 3% of men have subclinical hypothyroidism. A large number of patients with primary hypothyroidism lack basic knowledge about the disease. Also, they have treatment-related prejudice and poor treatment adherence (Kumar, 2017). Appropriate knowledge of the public about thyroid disorders and their manifestations is essential for early detection. Good knowledge of the general population about thyroid disorders is expected to decrease the incidence of preventable disorders (Alhawiti, 2018). Thyroid disorder lack of knowledge among women. Education should take place at all levels and should include doctors, decision-makers, health workers, and citizen groups. Furthermore, messages regarding thyroid and its disorders should be included in the curriculum of primary schools, secondary schools, colleges, and universities (Desai, 1997; Kannans, 2010; Mallik, 1998; Landsonpw, 2000; Kut, 2015).

Women presenting with these symptoms are too often summarily dismissed, their symptoms discounted. Research indicates that “Physicians are more likely to interpret men’s symptoms as the result as biological and women’s symptoms are a result of mental rather than physical illness”. Women who were dismissed for years felt unheard, struggled with shame over their fatigue, memory problems, or weight which went down long roads of treatment for other conditions whose symptoms were caused by thyroid disorder (Kale, 2018). Women’s behaviors towards thyroid are dismissed overlooked, ignored by paternalism in action. Women’s medical issues, when a condition, situation, or problem uniquely facing women their caused,

perpetrated, reinforced by cultural values, stereotype's and attitudes that are harmful to women. Women treated her as subordinate, powerless, and emotional. So women are expected to be passive, dependent, and agreeable and accepting of whatever they are told. Women also express confusing arrays of symptoms that aren't validated by test results, or summed up into the tidy package of a medical condition. Many women never receive an appropriate follow-up, leaving them symptomatic on the wrong medication or possibly on the right medication but at the wrong dose for her personally. This problem affects women across all ages, socio-economic settings, and rules (Romm, 2017).

Difficult being with others, a burden to other people, conflicts with other people due to thyroid disorder. There are many psychological and social effects due to thyroid disorder. Such as people lack understanding, social life restricted impaired daily life. In this condition difficulty managing daily life, limit leisure activities, and difficulty participating in life. This disease also increases hypertension, people everything takes longer, difficulty managing life, impaired sex life. Its negative influence on sex life and decreased sexual desire. The overall quality of life is generally health perception feeling unwell. Thyroid disease caused difficulty managing jobs and difficulty getting around, for example walking, bicycling, or driving a car and other daily activities (Watt, 2007). The risk of thyroid disease in the general population is enormous, especially in females. These disorders are more common in females than in males. The actual reason is not known yet. Hypothyroidism mainly is high in this region with female vulnerability (Pandeya, 2017).

Adaptogenic herbs enhance long term ability to cope with physical and environmental stressors, specific nutrients, such as B vitamins and zinc, help to mitigate the effects of stress. Iodine is a crucial nutrient for thyroid function. Gender, race, and socioeconomic influence on thyroid disorder and treatment facilities, low socioeconomic status have a lower tendency of treatment for hypothyroidism (Olmos, 2015; Helfand, 2015; Roberts, 2004; Mitchell, 2009; Cooper, 2003; Benscnor, 2011).

### **III. METHODOLOGY**

#### ***Research Design***

This research is a disposition in a descriptive figure. Descriptive research occurs when a study has taken on hand with the objective either to explore bounds where little is known or to describe a systematic attitude toward thyroid disorder, health condition, effect in women their everyday activity, and also compare health status among different social classes. The study assiduity to explain the knowledge, attitude, and practice towards thyroid risk of women in urban areas. This is why a descriptive research design is appropriate for the study.

#### ***Research Method***

Both qualitative and quantitative methods have been conducted in this study. To get valid research these two methods are needed in this study. That's why mixed methods selected for its appropriateness and achieve the desired findings.

#### ***Study Area***

The study area has been selected area of Rupatali in Barishal.

#### ***Unit of Analysis***

Here a single unit of analysis has been used for this study. Thyroid disorder maximum of affected women. That's why women are units of analysis of this study who are living in Rupatali in Barishal.

#### ***The population of the Study***

The sampling populations of this study are just women. These type of respondent have been selected the main aspect of the study is closely related thyroid risk situation.

#### ***Sampling Method and Sampling Size***

This study involves a non-probability sampling technique because there has paucity knowledge about the population from which the sample size is taken. Purposive or Judgment sampling has used to select the unparalleled case.

#### ***Data Collection Method***

- a) Primary Data:
  - Survey (Semi-Structured):
  - Case study(Guide Question)
  - Key Informant Interview(Guide Question)
- b) Secondary Data: National and international journal, Published research, Article.

#### ***Survey***

For survey data, 120 women have been purposively selected. The review of the secondary literature such as journals, articles, published researches helped to identify what kinds of thyroid disorder creating the risk situation towards women and the (KAP) how to identify this current situation.

**Key informant**

After completing the survey from 120 respondents'. Three key informants have been selected accordingly to the related specialized knowledge about thyroid disorder.

**Data Collection Techniques and Tools**

Face to face interaction has been selected as a data collection technique. A semi-structured questionnaire for the survey which contains both open and close-ended questions have been used.

**Techniques of Data Analysis**

**Analyzing**

To know the effect of thyroid disorder in a women's risk situation, here have been used frequency distributions, percentage, mean, and median, Standard deviation, scaling, and indexing.

SPSS program and Microsoft Excel have been used to organize the field data.

**Graph**

The table has been used for graphical presentation of field data. These graphs displayed major research findings and analysis more attractively and easily.

**IV. RESULT AND DISCUSSION**

Table1: In this study, Thyroid disease is a common disease for women because of their biological characteristics. That's why in this study all respondents are female. Table 1 reveals that demographic, sources of information about knowledge of thyroid, thyroid disorder effect of the respondent, and thyroid knowledge needed for women by dent of data where maximum respondents are married and minimum respondents are unmarried. It is added that the age limitation of maximum respondents, participated in this study is more than 40. Table 1 also represents that, women who are informed about thyroid, get information through their neighbor but few women get informed about this disease from the doctor, media, or newspaper. Table 1 shows, most of the participants consider the physical problem on the effect of this disease but some of them said that there has no effect of thyroid and they don't have any idea about the effect of this disorder. Most participants said that they need thyroid-related knowledge for reducing thyroid risk and some other participants said that understanding about this disease is needed for the prevention and cure of this disease. Table 1 data show that the source of information about the knowledge of thyroid is insufficient.

**Table 1: Socio-Demographic Characteristics**

		Frequency	Percent
Age Cohort	21-30	4	3.30
	31-40	16	11.30
	41-50	88	75.40
	51-60	12	10.00
Marital status	Single	8	6.7
	Married	112	93.3
Level of education	Never go to school	8	6.7
	Primary	32	26.7
	Secondary	72	60.0
	College	8	6.7
Occupations	Student	8	6.7
	Housewife	108	90.0
Religion	Muslim	108	90.0
	Hindu	12	10.0
Number of earning member	1	108	90.0
	2	12	10.0
Monthly family income	10-20k	108	90.0
	21-30k	4	3.3
	31-40k	4	3.3
	40>	4	3.3
Source of Thyroid Related Information	Neighbor	36	30.0
	Doctor	16	13.3
	Media	16	13.3
	Newspaper	8	6.7
	None of them	44	36.7
Thyroid Disorder Effect	Mental	12	10.0

of the Respondents	problem		
	Physical problem	48	40.0
	All of them	16	13.3
	None of them	44	36.7
Thyroid Knowledge Needed for Women	Reduce risk	52	43.3
	Prevention	12	10.0
	Cure	8	6.7
	Understanding	48	40.0
Total		120	100.0
Source: Field data,2019			

In this study, Table 2 shows that some respondents have knowledge about the meaning of thyroid but some respondents even don't hear the name of this disease. But the respondents who know the meaning of thyroid, do not know about hypothyroidism, do not know about hyperthyroidism, treatment of thyroid, symptoms of thyroid, the meaning of hypothyroidism, thyroid-related nutritional diet, the position of thyroid hormone and the reasons behind this disease. Very few respondents are neutral. So, Table 2 data shows women's knowledge about thyroid disorder is inadequate.

**Table 2: Knowledge about Thyroid Risk**

	Kn1	Kn2	Kn3	Kn4	Kn5	Kn6	Kn7	Kn8
Knowledge Index	2.38	3.79	3.79	3.79	3.79	3.87	3.82	3.79
Source: Field data, 2019								
N.B: 0.1-2 indicates Good Understanding Level about Thyroid Risk 2.1-5 indicates Low Understanding Level about Thyroid Risk (KN1): Understanding level about the meaning of thyroid (KN2): Knowledge Level about the Meaning of Hypothyroidism (KN3): Understanding Knowledge Level the about Thyroid Treatment (KN4): Respondents Knowledge Level about Thyroid Symptoms (KN5): Respondents Knowledge Level about the Meaning of Hyperthyroidism (KN6): Knowledge Level about Thyroid Nutritional Diet (KN7): Knowledge Level about the Position of Thyroid Hormone (KN8): Knowledge Level about Thyroid Reason								

The attitude of women about thyroid disorder shows Table 3 where the perception of thyroid risk respondents considers thyroid as a common disease mostly. Married women are mostly at the risk of thyroid many pieces of the literature showed but mostly participants also identified teenage and elder age as the risking age of thyroid. As the thyroid is a treatable disease, informed by the researchers, many participants consider thyroid as controllable and uncontrollable. Through thyroid is a familiar disease and it is showed in many works of literature although many participants think thyroid on a young and critical disease for their low knowledge about this. Table 3 also represents that most participants emphasize only medical care rather than intake iodine. Though the treatment of this disease is not much expensive, because of improper knowledge most of the respondent's attitudes to consider that the cost of the treatment of this disease is expensive. So Table 3 showed a female's attitude towards thyroid risk is incorrect with misconception.

**Table 3: Female Attitude towards Thyroid Risk**

		Frequency	Percent
Perceptions of thyroid risk	A common disease	36	30.0
	A Gender base disease	12	10.0
	A Pregnancy contagious disease	16	13.3
	All of them	12	10.0
	None of them	44	36.7
Age mostly thyroid risk	Teenager age	4	3.3
	Married age	56	46.7
	Elder age	16	13.3
	None of them	44	36.7
Outlook thyroid risk	Treatable	60	50.0

	Controlling	16	13.3
	None of them	44	36.7
Attitudinal factor thyroid risk	Young disease	40	33.3
	Familiar disease	16	13.3
	Critical disease	64	53.3
Menstrual disturbances thyroid risk	Positive	100	83.3
	Negative	12	10.0
	Both of them	8	6.7
Thyroid treatment	Medicine care	104	86.7
	All of them	12	10.0
	None of them	4	3.3
Attitude towards thyroid treatment	Expensive	76	63.3
	Other	4	3.3
	None of them	40	33.3
Total		120	100.0
Source: Field data,2019			

Here, Table 4 shows the risk behavior of women toward thyroid risk situations and this study maximum participants said that sometimes they don't want to talk with others, face difficulty in movement, get highly emotional and depressed, face insomnia, anxiety, etc. In this data participants of the respondent, behavior shows that depression, agitation, an emotion so much high avoiding talk, memory loss, concentration, withdrawal, excitability, tendency to get easily disorder are moderate situations. Participant's behavior maximum matching with thyroid risk behavior.

**4 Table: Risk Behavior of Women**

Risk Behavior of Women	Average Risk behavior
Avoiding talk	3.36
Memory loss	3.89
Concentration	3
Withdrawal	3.22
Movement slowing	3.07
Depression	4.93
Excitability	3.5
Agitation	4.03
Insomnia	2.63
Emotional	4.36
Anxiety	2.24
The tendency to get easily disorder	3.2
Source: Field data, 2019	
N.B:	
+5 indicate = very high-risk behavior	
+4 indicate= High-risk behavior	
+3 indicate= Highly moderate risk behavior	
+2 indicate= Moderate risk behavior	
+1 indicate= Low moderate risk behavior	
0 indicate= Neutral	
-5 indicate= Very normal behavior	
-4 indicate= Normal behavior	
-3 indicate= Moderately normal behavior	
-2 indicate= Highly normal behavior	
-1 indicate= Very high normal behavior	

Thyroid risk Health Behavior and lifestyle of Women practicing in their daily life denote the Table 5, here Most of the participants said that sometimes they face difficulty to adjust with other even with their family member, their social life is impaired. In this study respondents said that capacity in decision making, feeling working surrounding the working condition, long time working condition, concentration capacity, performance status are impaired for risk behavior and lifestyle practicing in her everyday activities. This table also shows that respondent manages daily life, participation, takes every issue, feel getting around, managing capacity in

different respondent's leisure activity limited day by day. Respondent's also sexual interest and conceives capacity impaired for health risk and lifestyle practicing in their daily life. Thyroid risk health behavior impaired social, professionals, daily life, and conjugal life. This Table 5 where data maximum of the participants impaired social, professional, daily, and conjugal life for unconsciously and inadequate knowledge about thyroid risk that practicing their wrong lifestyle.

**5 Table: Thyroid Risk Health Behavior and Lifestyle of Women Practicing in their Everyday Activities**

			Frequency	Percent
Social Life Thyroid Risk Health Behavior	Adjust capacity	Difficulty	64	53.3
		Easy	16	13.3
		Moderate	40	33.3
	Treated by other	Burden	28	23.3
		Unburden	92	76.7
	React to Rejects decision	Conflict	56	46.7
		Agree	48	40.0
		Other	16	13.3
	Understanding capacity	Lack	60	50.0
		Have	20	16.7
		Moderate	40	33.3
	Social Life Condition	Restricted	4	3.3
		Moderate	116	96.7
	Capacity to Cope Up with Family Member	Difficult	28	23.3
		Easy	56	46.7
Moderate		36	30.0	
Professional Activities Thyroid Risk Health Behavior	Capacity to decision making	Difficult	48	40.0
		Easy	16	13.3
		Moderate	56	46.7
	Filling in Working Surrounding	Suffering stress	52	43.3
		Tiredness	36	30.0
		Depressed	32	26.7
	Long Time Working Condition	Impaired	88	73.3
		Smooth	4	3.3
		Moderate	28	23.3
	Concentration capacity in work	Unable	8	6.7
		Able	80	66.7
		None	32	26.7
	Performance Status	Difficult	4	3.3
		Easy	13	10.8
		Moderate	100	83.3
None		3	2.5	
Daily Life Thyroid Risk Health Behavior	Manage her daily life	Difficult	8	6.7
		Moderate	112	93.3
	Leisure activity	Limited	120	100.0
	Participation in daily work	Difficult	8	6.7
		Easy	8	6.7
		Moderate	104	86.7
	Take every issue	Longer	88	73.3
		Limited	12	10.0
		None	20	16.7
	Feel getting around	Difficult	96	80.0
		Easy	8	6.7
		Moderate	16	13.3
	Managing capacity in different task	Difficult	112	93.3
		Easy	4	3.3
		Moderate	4	3.3
Conjugal Life Thyroid Risk Health Behavior	Sexual life	Interested	8	6.7
		Disinterested	36	30.0

	Capacity in conceive	Moderate	76	63.3
		Complicacy	48	40.0
		Without complicacy	36	30.0
		None	36	30.0
Total			120	100.0
Source: Field data, 2019				

**Qualitative Result Discussion**

In this study, qualitative synthesis findings are the knowledge about thyroid disorder all of the respondents know about thyroid disorder when they finally affected this disorder. An attitude of their thyroid situation explains it is critical, contagious, and other negative effects in the family atmosphere. In this study risk behavior toward thyroid risk situations are similar maximum women faced voice change problem, menstrual disturbance, difficulty movement, and also physical disturbance. Thyroid risk health behavior and lifestyle of the practicing in their daily life share that difficulty in cope up with difficulty for sharing issues, feeling insecurity anxious, something obesity, psychological and physical performance-related difficulty, etc.

**Key informant interview**

In this research paper where Shere-E-Bangle Medical college, Barishal Doctors perception synthesis findings of thyroid-related knowledge of patients that are patients don't have any particular knowledge about thyroid. Most of the time, they consult with the doctor for their other physical problem such as pain in the throat , vocal problem, protuberance of the throat, and at first, they consider those symptoms of a tumor , after checking up then it gets confirmed they are mainly suffering from thyroid. Doctors claim that females are mostly at thyroid risk because females have estrogen receptors, lack of nutritional knowledge, misconception about the thyroid gland, ignorance, and lack of iodine.

**V. CONCLUSION**

In biological perspective thyroid disorder common for their physical characteristics, ignorance about health and illness, ignorance also complicacy in their lifestyle. It's now normal practicing always. In general, the female has inadequate knowledge of thyroid and its associated disorder. Overall females in the study have inadequate knowledge and misconceptions regarding thyroid disorder. Many females are showing risk health symptoms of thyroid disorder but still, they are unaware of disease female decision making and education level with nutritional diet concept so much low. There is a significant deficit regarding adherence to female health measure is required to improve knowledge about it.

**VI. LIMITATION OF THE STUDY**

One of the major limitations of the work was the study covers only a small area of Rupertoli in Barishal. The research had to depend on the perception of the female only. The case study was of limited scale and scope, such that the survey results may not be a full representative of the view of the whole population.

**VII. RECOMMENDATIONS**

1. The aim of the research should map the psychosocial aspect of thyroid risk. That especially focused on women's quality of life, the role of stress, and coping with it, including protective factors (resilience and social support).
2. Applied for social awareness about knowledge into the sphere of health, diseases, and the health care system.
3. Close observation at local and national levels in campaign, posturing, and advertisement for awareness, Behavior understanding, identify risk situation, and reliability of symptom about thyroid risk.
4. Celebration of thyroid day in a national context for awareness about it.

**ETHICAL CONSIDERATION**

The study was conducted by following specific ethical and safety recommendations for research on thyroid risk-related knowledge of women. Respondent has a right to privacy. It is up to them to disclose personal information. Social research must uphold and defend this right. While collecting information, the respondents of the study were informed clearly that the information. They were provided during the survey would be kept in strict confidence.

**CONFLICT OF INTERESTS**

The author declares that there is no conflict of interest regarding the publication of this paper.

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