

Assessment of Nurses' Knowledge Concerning Early Detection for Hypothyroidism/Hyperthyroidism in Baghdad Teaching Hospitals

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Abstract: Hypothyroidism and Hyperthyroidism is the most common endocrine disorders in clinical practice. Critical illness is often associated with dysfunctions of thyroid hormone. Thyroid dysfunction is a serious matter if managed inaccurately; it early detection may decrease morbidity and mortality. **Objectives:** Assessment of nurses' knowledge concerning early detection for hypothyroidism/hyperthyroidism in Baghdad Teaching Hospitals and to find out a relationship between nurses knowledge with some variables such as (age , gender, educational level, and marital statues).**Methodology:** A descriptive study was conducted in the period of December 20th 2019 up to the end of 28th May 2020. The sample consisted of (50) nurses who were systematically selected one by one. The data collected was analyzed using SPSS version 22.0. **Results:** The majority of the study were female who accounted for (72%) of the total participants while male constituted (28%). Most of the study participants (34%) were ages 26-30 years old. (44%) of the nurses were diploma graduate. Fifty percent of the nurses were married. More than half (58%) of nurses had experience years in nursing and (80%) of nurses had training course in hospitals, (66%) have number of training were 1-5 course and (80%) had location of courses in Iraq. **Conclusions:** Findings of study demonstrate that, nurses have good knowledge about early detection of Hypothyroidism/Hyperthyroidism.

Keywords: Knowledge, Early detection, Nurses, Hypothyroidism, Hyperthyroidism

Introduction

The thyroid gland is regulated by the thyroid-stimulating hormone (TSH) which is secreted by the anterior pituitary and it's very important for metabolism of the body through secretion of two hormones, thyroxine (T4) and triiodothyronine (T3) [1]. Hypothyroidism, which has affecting of 2% - 5%, is the most common form of thyroid dysfunction [2]. Hypothyroidism and hyperthyroidism are correct etiological, anatomical and functional diagnosis of the thyroid problem can be achieved by take history of patient , thorough physical examination include weight loss/weight gain, palpitation, change of bowel habits (diarrhea/constipation), sweating, sleep problems, menstrual irregularities, growth problems, delays in sexual maturation, infertility, hoarseness of voice, exophthalmos, tremors, atrial fibrillation and thyroid gland enlargement and by well-planned investigations that include serum T3,T4, and TSH [3]. Currently, neonatal early detection elevated

levels of TSH that increase in response to the reduction in thyroid hormone. This early detection identifies 90% of cases of congenital hypothyroidism. Most patients have normal development after treatment with thyroxin .Besides assay of TSH, triiodothyronine (T3) and thyroxin (T4), other diagnostic tests include thyroid scanning with radioactive iodine, thyroid echography, and assay of serum thyroglobulin. These exams can help determine the causes of the disease and differentiate permanent and transient cases [4]. Early detection of thyroid disorder depended on physical examination and laboratory test of thyroid hormone. Differential diagnosis is based on absence of exophthalmos and presence of myxedema, anti-TSH antibodies and lymphocyte infiltration of the thyroid gland [5]. Undiagnosed thyroid disorder may put patients at higher risk for certain life threatening conditions such as cardiovascular disease, osteoporosis and infertility [6].

Materials and Methods

A descriptive study: Assessment of nurses' knowledge concerning early detection for hypothyroidism/hyperthyroidism in Baghdad Teaching Hospitals. This study was conducted at Baghdad Teaching Hospitals between December 20th 2019 up to the end of 28th May 2020. A tool of knowledge questionnaire was developed and distributed to the participants in this study. The sample consisted of (50) nurses at Baghdad Teaching Hospital, AL.Kindy, AL.Yarmouk Teaching Hospital, Imamein Kadhimein Medical City. A questionnaire-interview format was designed and developed by the researcher for the purpose of the study; such development was employed through the available literature, clinical background and interview with nurses. All the items were measured on scale of (2) indicates that the know 2; don't know 1. The questionnaire consisted of (2)

parts. Part I: Demographic Information Sheet. Part II: Assessment of Nurses' Knowledge Concerning Early Detection for Hypothyroidism/Hyperthyroidism. Rating scale was used to rate the frequency and extension of the problems. The content validity of the instrument was established through a panel of (14) experts. Test- retest reliability was determined through a computation of person correlations for the scales. The data were collected by using the questionnaire structured format through interview and inspection technique. The determination was conducted during the period from 15th January 2020 to 30th February 2020. The data were analyzed through descriptive data analysis and inferential data analysis the data were analyzed through the use of Statistical Package of Social Sciences (SPSS) version (22).

Results

Table (1): Descriptive Analysis of Nurses' knowledge toward early detection of Hypothyroidism/ Hyperthyroidism Items.

Items	frequency	Percent	Valid Percent	Cumulative Percent
Poor	2	4.0	4.0	4.0
Fair	23	46.0	46.0	50.0
Good	25	50.0	50.0	100.0
Total	50	100.0	100.0	

This table shows that high percentage (50.0%) were good knowledge, (46.0%) had fair knowledge and only (4.0%) poor knowledge toward early detection Hypothyroidism/Hyperthyroidism.

Table (2): Association between (age, gender Level of Education, and martial statues) and Nurses Knowledge.

Variables#		Sum of Squares#	Df#	Mean Square#	F#	Sig.#
Age#	Between Groups#	8.662#	2#	4.331#	2.128#	.130#
	Within Groups#	95.658#	47#	2.035#	#	#
	Total#	104.320#	49#	#	#	#
Gender#	Between Groups#	.081#	2#	.040#	.189#	.828#
	Within Groups#	9.999#	47#	.213#	#	#
	Total#	10.080#	49#	#	#	#

Cont... Table (2): Association between (age, gender Level of Education, and martial statues) and Nurses Knowledge.

Education#	Between Groups#	.267#	2#	.134#	.264#	.769#
	Within Groups#	23.813#	47#	.507#	#	#
	Total#	24.080#	49#	#	#	#
Martial statues #	Between Groups#	2.165#	2#	1.083#	2.084#	.136#
	Within Groups#	24.415#	47#	.519#	#	#
	Total#	26.580#	49#	#	#	#

: $P \leq 0.05$; *: $P \leq 0.01$ **

This table indicates that there is no significant association between age, gender, level of education, and martial statues with nurse's knowledge.

Discussion:

Through the course of the data analysis of the present study the finding showed that the majority (72%) of the study were female while the remaining was male. The highest percentage of age group in present study (34%) were 26-30 years old and lowest percentage(10%) were (31- 35,36-40) years old .Concerning marital status and level of education, (50%) of the sample were married, most of them are (44%) nursing had diploma graduate.

These results are agreement with the findings obtained from other study, who shows 69% of the study sample were females within ,age group that (23-27) years old from Iraqi Center, high percent of the three hospitals were married and divorced, (40%) of the sample nursing institute^[6].

Regarding experience years, majority (58%) of the study was experience years in nursing and (80%) of nurses had training course in hospitals, (66%) have number of training were 1-5 course and (80%) had location of courses in Iraq. These results are accordance with findings obtained from other study, shows that after the training course, high percent of nurses had (1 - 5) years of experiences in hospital,(73.3%) of nurses have theoretical training course in Iraq^[7]. This study similarity with other researcher show that number of years in the

health field, the majority of both groups of nurses have (1-5 years) of experience years in nursing field^[8]. The result of accurate study that show early detection of hypothyroidism/hyperthyroidism domain in table (1) for nurses knowledge is fifty percentage were good knowledge, forty six percentage had fair knowledge and only four percentage poor knowledge toward early detection Hypothyroidism/Hyperthyroidism. A finding suggest the large number of patients to enter to medical word ,critical care unit ,and surgical word that suffering sings and symptom of thyroid disorder leads to frequent nurses cope with these problem to provide nursing care and to increase knowledge about these health problem concerning hypothyroidism and hyperthyroidism. The findings of the study disagree with result obtained from other study who reported that the most of the nurses had a fair level of knowledge (54%) and the lowest percentage (12%) of nurses' knowledge in good knowledge^[9]. This finding difference to a study conducted by other researcher who stated that the not acceptable of nurses' knowledge (43.3%), acceptable level (23. %), fail level (25.0%), and no excellent level toward thyroid disorder management^[10]. This finding are good agreement done which other researchers showed that the study finding total post knowledge means of score was higher than total pre knowledge mean of score^[11]. Level of education ,experience of nursing in hospitals in comparison of the respondent's total Nurses knowledge domain in table (2) ,there is non-significant association between age ,gender ,level of education , and

martail statues with nurses knowledge domains. This result of study are disagreements with other studies done by other researchers whose reported that the association between knowledge and education level shows there was high significant relationship between nurses level of knowledge and age of nurses at $P = P \leq 0.05$ level [7]. These result were similar to those result obtained from other researcher who reported that no significant difference between study and control groups related to age group ,gender, level of educational, current work place with knowledge domain ($P < 0.0001$) [8]. Other study show that no statistical significant relationships between nurses' gender and nurse's knowledge [9].

Conclusions

This study demonstrates that, despite good nurses' knowledge regarding early detection of hypothyroidism and hyperthyroidism.

Recommendations:

1. The study suggested opening endocrine centre in Bagdad city to early detection hypothyroidism and hyperthyroidism.

2. Increases training course for nurses outside in Iraq that contributed to enhance nurses' knowledge and practice about early detection hypothyroidism and hyperthyroidism.

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