

Effectiveness of Planned Teaching Programme on Knowledge Regarding Selected Thyroid Disorders among Women

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Abstract

Background: Early every third Indian suffers from one or the other kind of thyroid disorder, which most often causes weight gain and hormonal imbalances, and is more commonly seen in women, according to a survey. **Objectives:** To assess the pre-test knowledge regarding selected thyroid disorders among Women, and to associate the post-test knowledge score with selected demographic variable. **Methodology:** a pre experimental one group pre-test post-test design was adopted for the study. It was conducted over 60 women and was selected by using non probability convenient sampling technique. The analysis reveals that post-test mean knowledge score was higher 18.13 with SD of 1.89 when compared with the pre-test mean knowledge score value which was 8.85 with SD of 2.76. The calculated 't' value 25.41 is greater than table value 2.00 at 0.05 level of significance. Hence it is statistically interpreted that the planned teaching programme on knowledge regarding selected thyroid disorders was effective. Thus the H₁ is accepted and H₀ is rejected. **Conclusion:** The significantly association was found on knowledge score with age (in years), marital status, monthly family income and none of the other demographic variables were associated with knowledge score.

Keywords: Thyroid Disorders; Women; Planned Teaching Programme; Knowledge.

Introduction

"When you know a thing, to hold that you know it; and when you do not know a thing, to allow that you do not know it - this is knowledge"

The thyroid gland is situated in the neck in front of the larynx and trachea at the level of 5th, 6th and 7th cervical and 1st thoracic vertebrae. It is highly vascular gland that weights about 25g and is surrounded by a fibrous capsule. It is in butterfly shape, consisting two lobes, one on either side of the thyroid cartilage and upper cartilaginous rings of the trachea the lobes are joined by a narrow isthmus, lying in front of the trachea. The lobes are roughly cone-shaped, about 5cm long and 3cm wide.¹ The thyroid gland secretes three hormones, namely the two thyroid hormone (thyroxine/T₄ and triiodothyronine/T₃), and calcitonin. The thyroid hormones primarily influence the metabolic rate and protein synthesis, but they also have many other effects, including effects on development. Calcitonin plays a role in calcium homeostasis.²

The thyroid hormone, thyroxine (T₄) triiodothyronine (T₃), regulate energy metabolism and growth development. Disorder of the thyroid gland include enlargement, benign

malignant nodules, inflammation, and hyper functioning and hypofunctioning.³

Many terms describes normal and abnormal states of thyroid function. Euthyroidism means that the thyroid gland is functioning normally. Like other endocrine disorders, the two primary thyroid disorder are related to increased secretion (hyperthyroidism) and decreased secretion (hypothyroidism) of the glands Hormone.⁴

Background and Need of the Study:

The most common is hypothyroidism, when the thyroid doesn't make enough thyroid hormone. Without this hormone, metabolism slows and may gain weight, feel sluggish and tired, and get depressed. Periods may become irregular and may have dry skin and nails. About 10% of all women have an underactive thyroid; the condition affects about only 3% of men. In most women, the hyperthyroid and hypothyroid phases last several weeks. But not all women experience both phases. About 5% of women will be left with permanent hypothyroidism. It tends to recur in subsequent pregnancies and it's also more common in women with autoimmune diseases.⁵

Kumaravel Velayutham, S. Sivan Arul Selvan, A. G. Unnikrishnan (2017) have conducted a study on prevalence of thyroid dysfunction among young females in a South Indian population. Thyroid disorders are common in India but scarce data exists on its prevalence in young women. This study was conducted in female college students in seven colleges in Madurai District, Tamil Nadu. Thyroid-stimulating hormone (TSH) was used as the screening test to diagnose thyroid dysfunction. The abnormal TSH values were classified as mild TSH elevation (TSH 4.5–10 ml U/ml), significant TSH elevation (TSH > 10 ml U/ml), and low TSH (TSH < 0.4 ml U/ml). A total of 1292 subjects were screened of whom 161 subjects (12.5%) had abnormal TSH. The overall prevalence of elevated TSH was 11% out of which 9.7% had mild TSH elevation. A low TSH was seen in 1.3% of the study population. Thyroid dysfunction was common in young women in south India. One out of every eight young women had thyroid dysfunction, and mild TSH elevation was the most common abnormality.⁶

Statement of the Problem

"An experimental study to assess the Effectiveness of Planned Teaching Programme on knowledge regarding selected Thyroid Disorders among women residing in selected areas of the city".

Objectives

1. To assess the pre-test knowledge regarding selected thyroid disorders among Women.
2. To assess the post-test knowledge regarding selected thyroid disorders among Women.
3. To evaluate the effectiveness of planned teaching programme on knowledge regarding selected thyroid disorders among Women.
4. To associate the post-test knowledge score with selected demographic variables.

Operational Definition:

Assess: In this study assess means, the organized systematic continuous process of collecting data from the

Women residing in the selected area of the city.

Effectiveness: In this study effectiveness means, the desired changes brought about by the planned teaching programme on knowledge regarding selected thyroid disorders.

Planned teaching programme: In this study planned teaching programme means, systematically providing information regarding selected thyroid disorders among women.

Knowledge: In this study knowledge means, responses obtained from the women about selected thyroid disorders. **Thyroid disorders:** In this study thyroid disorders means hypothyroidism and hyperthyroidism.

Women: In this study women means women who are above 18 year of age.

Area: In this study area means the selected rural and urban area of the city.

Delimitation: This study is delimited to Women residing in selected areas of community.

Hypothesis: Hypothesis will be tested at 0.05 level of significance.

H₀: There is no significant difference between pre and post test level of knowledge score regarding selected thyroid disorders among women.

H₁: There is significant difference between pre and post test knowledge score regarding selected thyroid disorders among women.

Conceptual Framework

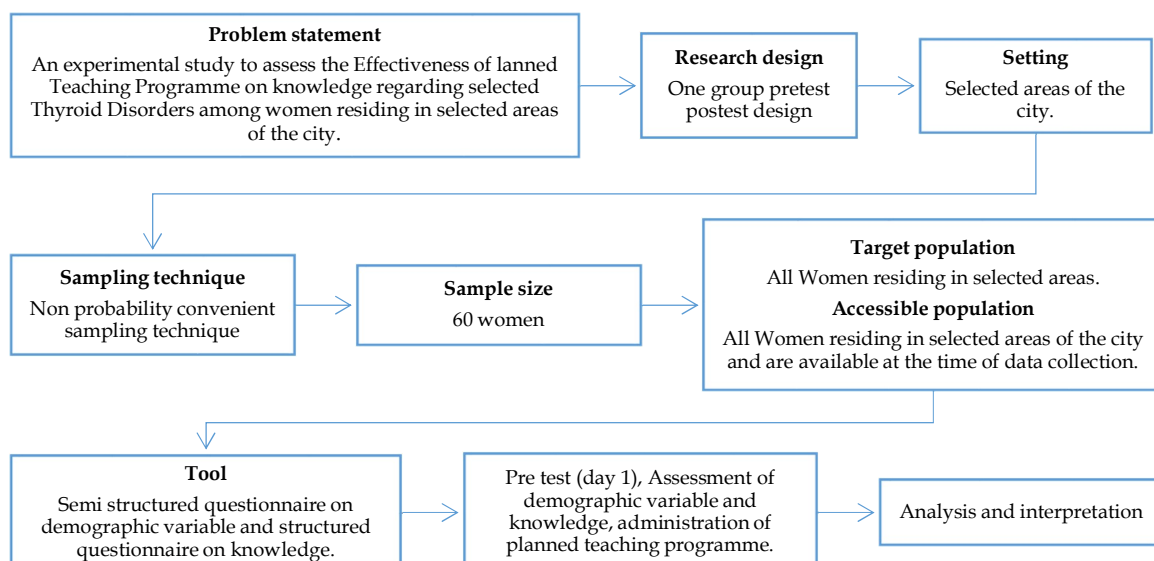
The conceptual framework selected for the study was based on Ersestine Wiedenbach's "Perspective Theory".

Review of Literature

1. Literature related to selected thyroid disorders
2. Literature related to Women knowledge
3. Literature related to effectiveness of planned teaching programme.

Methodology

Fig. no.1: Schematic Resentation of the Research Process.



Description of Tools:

Section A: Demographic variables

1. Semi structured questionnaire on demographic variable.

The investigator constructed this tool to collect the background data of the study subjects and to identify the influence of sample characteristics with the knowledge in them. It includes total 8 demographic variables like Age, Marital status, Religion, Area of residence, Education status, Occupation, Types of family, Monthly family income.

2. Semi structured questionnaire on medical data. It include total 4 variables such as awareness of thyroid disorders, source of previous information, have any thyroid disorders, if yes then specify.

Section B: Self structured knowledge questionnaires. The questionnaire consisted of 25 questions on knowledge about selected thyroid disorders. Total score was 25. Each question carries 1 marks and a zero for the wrong answer.

Section C: planned teaching programme on knowledge regarding selected thyroid disorders.

Validity: Content and construct validity of tool was determined by 24 experts including medical surgical nursing subjects experts, MD Medicine, English literature and statistician etc.

Reliability: Karl Pearson correlation coefficient formula was used. The correlation coefficient 'r' of the questionnaire was 0.9680, which is more than 0.8. Hence the questionnaire was found to be reliable.

Pilot Study: Pilot study was conducted from 4th October 2019 to 10th October 2019 for a period of 7 days. The pilot study was feasible in terms of time, money, material and resources.

Data Collection

The main study data was gathered from 4 November 2019 to 23th November 2019 Permission was obtained from the Sarpanch of concerned gram panchayat. The samples were approached in small group on a daily basis. Before giving the questionnaire self-introduction was given by the investigator and the purpose of the study mentioned. Consent of the samples were taken. The pre-test questionnaire were distributed and collected back after 37 minutes. After collecting the pre-test score, the investigator administrated the treatment (planned teaching programme on selected thyroid disorders). After 7 days post test was taken on the same subjects.

Result

The analysis and interpretation is given in the following sections:

Section I: Description of women with regards to demographic variable.

Table 1: Table showing frequency and Percentage wise distribution of women according to their demographic characteristic.

N=60			
Demographic variable		Frequency (f)	Percentage (%)
Age in year	18-27 yrs	22	37.3
	28-37 yrs	22	37.3
	38-47 yrs	13	21.7
	≥48 yrs	3	5.1

Marital status	Married	43	71.7
	Unmarried	12	20.3
	Divorced	3	5.1
	Separated	2	3.4
	Widow	0	0
Religion	Hindu	47	78.3
	Muslim	1	1.7
	Buddhist	10	16.9
	Christian	1	1.7
	Others	1	1.7
Area of residence	Rural	7	11.7
	Urban Slum	20	33.3
	Urban	33	55
Educational status	Primary	8	13.3
	Secondary	33	55
	Graduation	18	30
	PG	1	1.7
	Other	0	0
Occupational status	Govt Service	2	3.3
	Private Service	16	26.7
	Homemaker	10	16.7
	Self Employed	32	53.3
	Other	0	0
Type of family	Nuclear	27	45
	Joint	26	43.3
	Extended	7	11.7
Monthly family income (Rs)	<10000	6	10
	10001-15000	15	25
	15001-20000	21	35
	≥20001	18	30
Awareness of thyroid disorders	Yes	18	30
	No	42	70
If yes ,then previous	Family	0	0
Source of information n=18	Friends	2	11.5
	Relatives	1	5.6
	Health Worker	4	22.2
	Mass Media	11	61.1
	Other	0	0
Any thyroid disorders	Yes	12	20
	No	48	80
If yes then specify (n=12)	Hypothyroid	9	75
	Hyperthyroid	3	25

Section-II Description on pretest knowledge of women regarding selected thyroid disorders.

Table No.-2: Table showing frequency and percentage wise distribution of pre test knowledge score of women regarding thyroid disorders.

n=60			
Level of knowledge score	Score range	Frequency (f)	Percentage (%)
Excellent	81-100% (21-25)	0	0
Very good	61-80% (16-20)	0	0
Good	41-60% (11-15)	16	26.67
Average	21-40% (6-10)	35	58.33
Poor	0-20% (0-5)	9	15
Minimum score		3	
Maximum score		14	
Mean knowledge score		8.85±2.76	
Mean % knowledge score		35±11.04	

Section III: Description on post test knowledge of women regarding selected thyroid disorders.

Table No. IV-3 Table showing frequency and percentage wise distribution of post test knowledge score of women regarding selected thyroid disorders.

N=60			
Level of knowledge score	Score range	Frequency (f)	Percentage (%)
Excellent	81-100% (21-25)	6	10
Very Good	61-80% (16-20)	48	80
Good	41-60% (11-15)	6	10
Average	21-40% (6-10)	0	0
Poor	0-20% (0-5)	0	0
Minimum score		14	
Maximum score		22	
Mean knowledge score		18.13±1.89	
Mean % Knowledge score		72.53±7.59	

Section-IV: Description on the effectiveness of planned teaching programme on knowledge regarding selected thyroid disorders.

Table no. 4 (I): Table showing comparison of pretest and posttest grading score.

N=60					
Level of knowledge score	Score Range	Pretest		Post test	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Excellent	81-100% (21-25)	0	0	6	10
Very Good	61-80% (16-20)	0	0	48	80
Good	41-60% (11-15)	16	26.67	6	10
Average	21-40% (6-10)	35	58.33	0	0
Poor	0-20% (0-5)	9	15	0	0
Minimum score		3		14	
Maximum score		14		22	
Mean knowledge score		8.85±2.76		18.13±1.89	
Mean % Knowledge Score		35±11.04		72.53±7.59	

Table no. 4 (II): Table showing effectiveness of planned teaching programme in knowledge score of pretest and post test of women regarding selected thyroid disorders.

Test	Mean	SD	Mean Difference	Calculated t-value	DF	Table value	P value
Pre Test	8.85	2.76					
Post Test	18.13	1.89	9.28±2.82	25.41	59	2.00	0.0001 S, p<0.05

Level of significance p<0.05

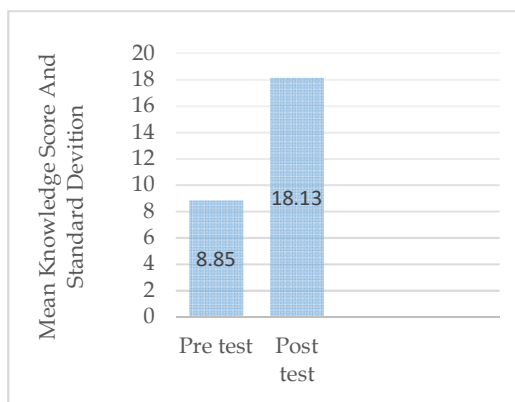


Figure IV-1: Bar diagram representing effectiveness of planned teaching programme in knowledge score of pretest and post test of women regarding selected thyroid disorders.

Section V: Description on association on knowledge score with selected demographic variables.

The analysis shows that there is association of knowledge score with age (in years), marital status, monthly income and none of the other demographic variables were associated with knowledge score.

Table no V: Table showing association of knowledge score with selected demographic variables.

Demographic variables	Calculated Value			DF	Table value	Level of significance p<0.05	Significance
	T value	F value	P value				
Age	-	2.97	0.039	3,56	2.76	<0.05	S
Marital status	-	2.93	0.041	3,56	2.76	<0.05	S
Religion	-	1.20	0.32	4,55	2.52	>0.05	NS
Area of residence	-	1.33	0.27	2,57	3.15	>0.05	NS
Educational status	-	1.08	0.36	3,56	2.76	>0.05	NS
occupation	-	2.68	0.048	3,56	2.76	>0.05	NS
Type of family	-	1.62	0.20	2,57	3.15	>0.05	NS
Monthly income	-	4.17	0.005	3,56	2.76	<0.05	S
Awareness of thyroid disorders	0.35	-	0.72	58	2.00	>0.05	NS
Source of information		0.22	0.87	3,14	3.34	>0.05	NS
History of thyroid disorders	1.80	-	0.077	58	2.00	>0.05	NS

Key: S – Significant NS: Not significant

Discussion:

A study to assess the effectiveness of structured teaching programme on knowledge regarding thyroid problem among adolescent girls in the selected school at Kollam. The objectives of the study were to assess the knowledge regarding thyroid problem among adolescent girls, to evaluate the effectiveness of structured teaching programme on knowledge regarding thyroid problems among adolescent girls, to find out the association between knowledge score regarding thyroid problems among adolescent girls and selected demographic variables. A quantitative research design was adopted for this study. The study was conducted among 60 adolescent girls in Infant Jesus Anglo Indian School, Kollam. In order to assess the knowledge of adolescent girls regarding thyroid problems, the study sample was selected by convenience sampling technique. The tool used for data collection consisted of demographic variables and structured knowledge questionnaire. The analysis of the data was based on the objectives of the study using descriptive and inferential statistics. The present study revealed that out of 60 samples 96.66% of adolescent girls had poor knowledge, 3.33% had average knowledge and no adolescent girls had good knowledge regarding thyroid problems in pretest. After a structured teaching programme 28.33% had good knowledge, 68.33% had average knowledge and 3.33% had poor knowledge. The present study shows that the mean post test score was 14.55 (± 1.92) was greater than the mean pretest score 6.72 (± 2.13). The 't' test value was 27.93. So that structured teaching programme was effective to increasing the knowledge regarding thyroid problems among adolescent girls. There was significant association between knowledge and demographic variables like monthly income.⁷

In above study it is shown that structured teaching programme on knowledge regarding thyroid problem among adolescent girls in the selected school at Kollam was effective in increasing the knowledge. In present study also planned teaching programme was effective in improving the knowledge of women regarding selected thyroid disorders as post test score was greater than pretest in the study. Above study also reveals that monthly income was associated with the level of knowledge. While in present study association was found between age, marital status and monthly family income.

Implication of the Study:

The findings of this study have implications for nursing practice, nursing education, nursing administration, and nursing research.

Limitation:

- The sample size was small to generalize the findings of the study.
- The study was limited to measure the knowledge of women residing in selected areas of the city.
- The tool for data collection was prepared by investigator herself. Standardized tool was not used.

Recommendations:

- A similar study can be replicated on a larger population for a generalization of findings.
- A Study may be conducted to evaluate the effectiveness of planned teaching program versus information booklet on selected thyroid disorders.
- A comparative study can be done to assess the knowledge of selected thyroid disorders in rural and urban areas.
- A descriptive study can be conducted on the awareness of selected thyroid disorders among women.
- A similar study can be carried out to evaluate the effectiveness of video assisted teaching program on selected thyroid disorders.

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