

EFFECT OF HEALTH TEACHING ON KNOWLEDGE REGARDING SELF-CARE PRACTICES AMONG HYPOTHYROIDISM PATIENTS ADMITTED IN SELECTED HOSPITALS.

Mrs. Jayabala Aghamkar^{1a} Dr. Sadhana Adhyapak^{2b} Dr. Khurshid Jamadar^{3c} Ms. Aishwarya Daine^{4d} Ms. Preeti Gaikwad^{5d} Ms. Gauri Kamble^{6d} Ms. Jaya Hatekar^{7d} Mr. Saurabh Hulawale^{8d} Ganesh Munde^{9d}

^aAssistant Professor, Dr. D. Y. Patil College of Nursing, Pimpri, Pune.

^bAssociate professor Dr. D. Y. Patil College of Nursing, Pimpri, Pune.

^cPrincipal, Dr. D. Y. Patil College of Nursing, Pimpri, Pune.

^dStudent PBSC Nursing, Dr. D. Y. Patil College of Nursing, Pimpri, Pune

***Corresponding Author:**

ABSTRACT

Hypothyroidism is a chronic endocrine condition characterized by deficient production of thyroid hormones, affecting physical and mental health. Effective management requires patient education on self-care practices. This study investigates the effect of health teaching on knowledge regarding self-care practices among hypothyroidism patients admitted to selected hospitals. A pre-experimental one-group pretest-posttest design was used, involving 30 patients selected via purposive sampling. Structured questionnaires assessed knowledge before and after health teaching interventions. Results showed significant improvement in knowledge, with 76.7% of participants achieving good knowledge in the posttest compared to 13.3% in the pretest. This study demonstrates the efficacy of health teaching in enhancing patient understanding of self-care practices, emphasizing its integration into routine clinical management of hypothyroidism.

Keywords: hypothyroidism, self-care practices, health education, patient knowledge, chronic disease

INTRODUCTION

Hypothyroidism, a condition marked by an underactive thyroid gland, is one of the most prevalent endocrine disorders, particularly among women. Globally, it affects 1–2% of the population, with a higher prevalence in India, where subclinical hypothyroidism is reported in 8–19.3% of individuals. Despite its high prevalence, many patients lack adequate knowledge about managing the condition. This can lead to non-compliance with treatment, poor disease management, and increased complications such as cardiovascular issues and mental health challenges.

Self-care practices, including adherence to medication, dietary modifications, and lifestyle changes, play a crucial role in managing hypothyroidism. However, patient education programs focusing on these aspects are often limited. This study evaluates the impact of structured health teaching on the knowledge of hypothyroid patients regarding self-care, aiming to bridge the knowledge gap and improve disease management outcomes.

MATERIALS AND METHODS

Study Design

Type: Pre-experimental one-group pretest-posttest design.

Setting: Dr. D. Y. Patil Hospital, Pimpri, Pune.

Sample Size

30 patients diagnosed with hypothyroidism.

Sampling Technique

Non-probability purposive sampling.

Inclusion Criteria

Patients diagnosed with hypothyroidism.

Individuals available during data collection.
 Patients able to read and understand English, Marathi, or Hindi.

Exclusion Criteria

Patients unwilling to participate.
 Patients unavailable during the study period.

Data Collection

A structured questionnaire with 20 items was used to assess knowledge levels pre- and post-intervention. Health teaching sessions included information on disease management, diet, medication adherence, and lifestyle modifications. Posttests were conducted seven days after the intervention.

Statistical Analysis

Descriptive statistics summarized demographic variables and knowledge levels. Paired t-test analyzed the difference in pretest and posttest scores, with significance set at $p < 0.05$.

RESULTS

The study assessed the impact of health teaching on self-care knowledge among hypothyroidism patients using a structured pretest-posttest approach. Data was collected from 30 patients using a validated questionnaire, and the results were analyzed to determine the effectiveness of the intervention.

Pretest Findings

In the pretest, 13.3% of participants had poor knowledge regarding self-care practices. The majority, 73.3%, demonstrated average knowledge. Only 13.3% of patients had good knowledge about hypothyroidism self-care practices. These findings highlight a significant knowledge gap among hypothyroid patients prior to the intervention, emphasizing the need for targeted health education programs.

Posttest Findings

After the health teaching intervention, knowledge levels improved significantly. None of the participants scored in the poor knowledge category. 23.3% of participants demonstrated average knowledge, while 76.7% exhibited good knowledge.

Statistical Analysis

The mean knowledge score increased from 9.5 in the pretest to 14.6 in the posttest. A paired t-test was applied to analyze the difference, yielding a t-value of 12.8 with a p-value of <0.05 , indicating that the improvement in knowledge was statistically significant.

Knowledge Component Analysis

An analysis of specific questionnaire items revealed key improvements: Awareness of the importance of iodine in the diet increased from 46.7% in the pretest to 80% in the posttest. Knowledge about the correct time to take hypothyroid medications improved from 93.3% in the pretest to 96.7% in the posttest. Recognition of foods to avoid in hypothyroidism, such as soy and cruciferous vegetables, improved from 30% in the pretest to 56.7% in the posttest. Awareness about exercise and lifestyle modifications increased from 40% in the pretest to 66.7% in the posttest.

Demographic Factors

Gender, education, age, and income did not show a statistically significant association with knowledge improvement, suggesting that health teaching was universally effective across all demographic groups.
 Visualization

Table: Knowledge Levels Pre- and Post-Intervention

SR. No.	Knowledge Level	Pretest (%)	Posttest (%)
1	Poor	13.3	0

2	Average	73.3	23.3
3	Good	13.3	76.7.

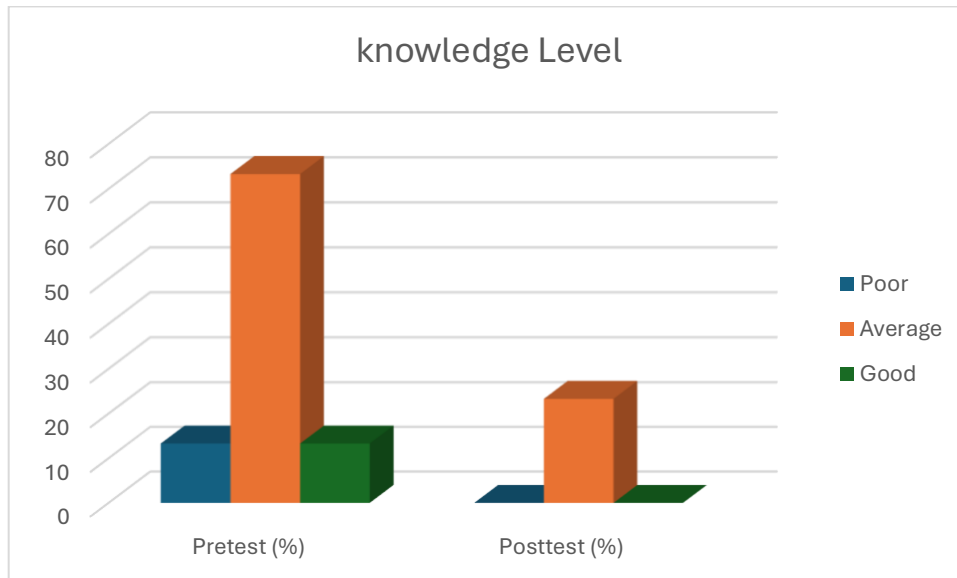


Chart: Improvement in Knowledge Levels

A bar graph of pretest and posttest results visually demonstrates the significant shift from average and poor knowledge to good knowledge after the intervention.

These results clearly demonstrate the effectiveness of health teaching in improving self-care knowledge among hypothyroid patients. The intervention not only increased overall awareness but also enhanced specific aspects of self-care, including dietary practices, medication adherence, and lifestyle changes. This underscores the importance of integrating health education into routine care for hypothyroid patients.

DISCUSSION

This study highlights the significant role of health teaching in enhancing knowledge about self-care practices among hypothyroid patients. Pre-intervention findings revealed that most participants had average or poor knowledge, reflecting the lack of awareness about disease management. Post-intervention, there was a remarkable improvement in knowledge, emphasizing the effectiveness of structured health education.

Similar studies on chronic conditions like diabetes have shown comparable outcomes, underscoring the universal benefits of patient education. The lack of significant associations between demographic variables and knowledge levels suggests that health teaching is effective across diverse patient groups. This reinforces the need for integrating patient education programs into routine care for chronic diseases, including hypothyroidism.

CONCLUSION

From the results of study The fishers exact test done to find that health teaching are effective in improving the knowledge. However health teaching was more enjoyable and convenient for hypothyroidism patients. This health teaching is cost effective and can be included as preoperated routine for improving knowledge related to self care practices among hypothyroidism patients.

REFERENCES

1. Hypothyroidism. American Thyroid Association; 2012. Retrieved on December 10, 2013
2. Khandelwal D, Tandon N. Overt and subclinical hypothyroidism: Who to treat and how. *Drugs*. 2012;72:17–33.

3. Williams MV, Baker DW, Parker RM, Nurss JR. Relationship of functional health literacy to patients' knowledge of their chronic disease: a study of patients with hypertension and diabetes. *Arch Intern Med.* 1998;158(2):166–172.
4. Heisler M, Pietee JD, Spencer M, Kieffer E, Vijan S. The relationship between knowledge of recent HbA1c values and diabetes care understanding and self management. *Diabetes Care.* 2005;28:816–22.
5. Mateo, R., and Hennessey, J. (2019). Thyroxine and treatment of hypothyroidism: seven decades of experience. *Endocrine*, 66:10–17. doi.org/10.1007/s12020-019- 02006-8
6. Khandelwal D, Tandon N. Overt and subclinical hypothyroidism: Who to treat and how. *Drugs.* 2012;72:17–33.
7. Marwaha RK, Tandon N, Ganie MA, Kanwar R, Sastry A, Garg MK, et al. Status of thyroid function in Indian adults: Two decades after universal salt iodization. *J Assoc Physicians India.* 2012;60:32–6.
8. Williams MV, Baker DW, Parker RM, Nurss JR. Relationship of functional health literacy to patients' knowledge of their chronic disease. A study of patients with hypertension and diabetes. *Arch Intern Med.* 1998;158:166–72.
9. Medical surgical nursing book, disorder of endocrine system, February 2022.
10. Aziza Mahmoud Boughdady, Hossam Arafa Ghazi, Doaa Abd Elhameed Abd Elmawla, Sageda Magdy Ali Gerontological Nursing- Faculty of Nursing- Mansoura University- Egypt. Internal Medicine and Geriatrics, Faculty of Medicine, Mansoura University, Egypt 10.21608/NILES.2024.320452. JAN 2024.
11. Saini V, Yadav A, Arora MK, Arora S, Singh R, Bhattacharjee J. Correlation of creatinine with TSH levels in overt hypothyroidism - a requirement for monitoring of renal function in hypothyroid patients? *Clin Biochem.* 2012 Feb;45(3):212-4.
12. Jonklaas J, Bianco AC, Bauer AJ, Burman KD, Cappola AR, Celi FS, Cooper DS, Kim BW, Peeters RP, Rosenthal MS, Sawka AM., American Thyroid Association Task Force on Thyroid Hormone Replacement. Guidelines for the treatment of hypothyroidism: prepared by the american thyroid association task force on thyroid hormone replacement. *Thyroid.* 2014 Dec;24(12):1670-751.
13. Leung, A. S., Millar, L. K., Koonings, P. P., Montoro, M. & Mestman, J. H. Perinatal outcome in hypothyroid pregnancies. *Obstet. Gynecol.* 81, 349–353 (1993).
14. Allahabadia, A., Razvi, S., Abraham, P. & Franklyn, J. Diagnosis and treatment of primary hypothyroidism. *BMJ* 338, b725 (2009).
15. Azia Mohammed Jabbar Swayeh AL Aqeeli1 , Hakima Shaker Hassan2* Ph.D. (University of Baghdad – College of Nursing – Adult health nursing Department- Iraq1, feb, 2022.
16. Rehab A Mohammed, Omar A Baqais, Samaher G Basalib, Abdulaziz Z Owaidah, Abdulrahman T Mirza, and Intessar Sultan
17. Paul J, Dasgupta S. Co-morbidities in hypothyroid patients in a tertiary health care hospital in India. *Thyroid Disorders Ther.* 2012;1(2):106. doi: 10.4172/2167- 7948.10 00106.
18. Raghavendra L, Shivakumar KM, Anikethana GV. Prevalence of hypothyroidism in ischemic heart disease. *J App Sci.* Oct 2017;5(10A):3880-3.
19. Verma Indu, Sood R, Juneja S, Kaur S. Prevalence of hypothyroidism in infertile women and evaluation of response of treatment for hypothyroidism on infertility.
20. Samer Aladwani, Muteb Eid Alosaimi, Moahmmed FB Muammar, Qusai T Alwazna, Fahed H Aman, Naif K Alomar, Osamah M Alshahrani, Talal M Alnahas, Feras FB Oways International Journal of Pharmaceutical Research and Allied Sciences 8 (4-2019), 153-160, 2019
21. Gulam Muhammad Khan, & Sikshya Panta. (2020). Knowledge, Awareness and Practice of Patient with Primary Hypothyroidism Among the Patient Attending at Endocrinology Care Center: A Pharmacist Intervention. *Pharmaceutical and Biosciences Journal*, 33-40. <https://doi.org/10.20510/ukjpb/8/i4/1597498824>
22. Åsvold BO, Bjøro T, Nilsen TI, Vatten LJ. Tobacco smoking and thyroid function: a population-based study. *Arch Int Med.* (2007) 167:1428–32. doi: 10.1001/archinte.167.13.1428
23. Wajid Syed Osama A. Samarkandi Ahmed Alsadoun , Mohammad K. Al Harb
24. Rai S, Sirohi S, Khatri AK, Dixit S, Saroshe S. Assessment of knowledge and awareness regarding thyroid disorders among women of a cosmopolitan city of central India. *Natl J Community Med.* 2016;7:219–22.
25. sethi, Bipin; Khandelwal, Deepak1; Vyas, Upal *Thyroid Research and Practice* 15(1):p 15-22, Jan–Apr 2018. | DOI: 10.4103/trp.trp_25_17
26. Issa LF, Alzahrani OA, Alsharif MH, Albogami TF, Alharthi MH, Abdullah AM. Awareness of screening thyroid tumors among medical students in Saudi Arabia. *IJMDC.* (2021) 5:1411–6. doi: 10.24911/IJMDC.51-162184592

27. Hayat Saleh Alzahrani,, Rand Abdalla Alshabna, Fatmah Mamdooh Mokhta Department of Clinical Science, College of Medicine, Princess Nourah Bint Abdulrahman University, Riyadh 11671, Saudi Arabia
28. Rahul Arora, Piyush Mittal, Anurag Verma, Jyoti Trivedi, International Journal of Pharmaceutical Investigation 13 (2), 2023. Evaluation of Knowledge, Attitude and Practice towards Hypothyroidism among Population in Moradabad District:
29. Suresh k. sharma 3 rd edition nursing research and statistics page no. 336
30. Suresh k. sharma 3 rd edition nursing research and statistics page no. 337