



EVALUATING THE IMPACT OF THE GERSAH PUBLIC SERVICE ANNOUNCEMENT ON FAMILY KNOWLEDGE OF HYPERTHYROIDISM AT DR. M YUNUS HOSPITAL, BENGKULU

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Abstract

Hyperthyroidism has become one of the health disorders that can greatly affect quality of life and potentially cause serious complications if not addressed early. One of the factors contributing to this condition is the lack of family knowledge. Therefore, efforts that can be made to increase family knowledge include using engaging media, such as Public Service Announcements. The purpose of this study is to evaluate the impact of the GERSAH public service announcement on family knowledge of hyperthyroidism at Dr. M. Yunus Hospital, Bengkulu. This study uses a quantitative approach with a pre-experimental design, employing a pre-test and post-test model on a single group. This study involved 33 respondents as the sample, obtained through purposive sampling techniques. Questionnaires were used as the main instrument in this study, with data analyzed using the Wilcoxon signed-rank test. The results showed a significant increase in the average knowledge scores, rising from 7.45 before the intervention to 12.76 after the intervention. The p-value obtained was 0.000 (≤ 0.05), confirming that the intervention of GERSAH public service announcement had a significant in increasing family knowledge of hyperthyroidism. It is expected that the GERSAH public service announcement media can become an effective educational tool in enhancing family knowledge of hyperthyroidism.

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INTRODUCTION

Hyperthyroidism is a disorder caused by the thyroid gland producing excessive amounts of thyroid hormones, leading to a dramatic increase in metabolism. Symptoms include weight loss, tremors, rapid heartbeat, heat intolerance, and excessive anxiety, which can reduce quality of life. If not treated early, Hyperthyroidism may cause serious issues like heart diseases, weak bones, and possibly a thyroid emergency (Amalia et.al, 2023; Angin et.al, 2022; Braunstein G., 2022). Globally, thyroid dysfunction is a non-communicable disease (NCD) that deserves attention due to its impact. The WHO noted that the leading cause of death worldwide in 2021 was NCDs. In the United States,

around 20 million individuals are affected by thyroid issues. disorders, with a prevalence of hyperthyroidism ranging from 0.3–3.7%, while in Europe it ranges from 0.2–5.3% (Dewi R, 2020). In Indonesia, cases of hyperthyroidism are estimated to reach 13.2 million, but only 6.2% receive medical treatment (Djohari M. et.al, 2025).

Data from Dr. M. Yunus Hospital, Bengkulu recorded a significant increase in hyperthyroid cases: from 11 cases in 2022 to 44 cases in 2023, and 67 cases in 2024. In other hospitals, such as Sanglah Hospital, the 31–40 age group was the most affected, with the majority of sufferers being women (Ferraninda t.al, 2022). Research also shows that before education, public knowledge of hyperthyroidism was still low, and increased after educational interventions (Hidayati P.H, 2023; IQVIA, 2022). Atlah Hospital showed that the most cases of hyperthyroidism occurred in the young adult age group, especially those aged 31–40 years (87.6%), with the majority of sufferers being women, namely 458 people (76.8%) (Ferraninda et.al, 2022). This finding is in line with several data in Europe which show that women (5.71%) are more susceptible to hyperthyroidism than men (1.81%) (Madariaga et al., 2019). Meanwhile, other research revealed that before being given education about thyroid hormones and antithyroid drugs, students' level of knowledge was still relatively low.

Awareness of hyperthyroidism plays an important role in early detection. Increasing awareness of hyperthyroidism contributes to a better understanding of the importance of regularly taking necessary medications. Early information of hyperthyroidism can help prevent more serious risks due to delayed treatment, such as heart rhythm disorders, blood clots, stroke, heart failure, and other cardiovascular complications. Various negative impacts of hyperthyroidism have become a focus of researchers' attention. As a health promotion effort, researchers designed the GERSAH Public Service announcement with the aim of increasing family knowledge of hyperthyroidism, particularly in recognizing symptoms and properly managing hyperthyroidism.

Educational efforts are very important in preventing complications of hyperthyroidism. One medium that has been proven effective in increasing public awareness is Public Service Announcements. Public Service Announcements are a form of social communication that deliver important messages visually and persuasively. Several studies have shown that Public Service Announcements can increase public awareness and knowledge about health issues such as stunting and HIV/AIDS (Jufri M. et.al, 2022). As part of health promotion, researchers developed the GERSAH Public Service Announcement as a way to educate more families of hyperthyroidism. Through this media, it is hoped that families can recognize the symptoms of hyperthyroidism and take the most appropriate action. This situation encourages researchers to investigate "Evaluation the Impact of the GERSAH

Public Service Announcement on Family Knowledge of Hyperthyroidism at Dr. M Yunus Hospital, Bengkulu (Nainggolan E. et.al, 2024).

MATERIALS AND METHODS

This study employed a quantitative research design utilizing a pretest-posttest approach involving a single group. The sample consisted of 33 participants, specifically family members of hyperthyroid patients receiving treatment at Dr. M. Yunus Bengkulu Regional Hospital. Participants were selected using purposive sampling, a non-probability sampling technique where subjects are chosen based on predetermined criteria relevant to the research objectives, ensuring that only family members directly associated with hyperthyroid patients were included in the study.

Data collection was conducted through a structured questionnaire designed to measure the variables of interest reliably and validly. The questionnaire was administered at two different time points: prior to the intervention (pretest) and following the intervention (posttest), allowing for a comparative analysis of the changes attributable to the experimental treatment.

For data analysis, the Wilcoxon signed-rank test was employed using the Statistical Package for the Social Sciences (SPSS). This non-parametric statistical test was chosen due to the paired nature of the data and the potential violation of normality assumptions, making it more appropriate than parametric alternatives. The Wilcoxon test facilitated the assessment of whether there were statistically significant differences between pre-intervention and post-intervention scores within the same group. The findings derived from this analysis provided robust evidence regarding the effectiveness of the intervention administered to the participants.

RESULTS AND DISCUSSION

Univariate Analysis

The univariate analysis aims to observe the frequency distribution of each variable Studied. The variables in this study include gender, age, work, last education level. The univariate results in this study consist of the frequency distribution data for the characteristics of 33 respondents at Dr. M. Yunus Hospital, Bengkulu, as presented in the table 1 table below

Table 1 Characteristics Respondents

| Variables | frequency (f) | percentage (%) |
|---------------------------|---------------|----------------|
| Gender | | |
| Man | 10 | 30.3 |
| Woman | 23 | 69.7 |
| Age | | |
| 10-18 Years | 2 | 6.1 |
| 19-59 Years | 30 | 90.9 |
| >60 Years | 1 | 3.0 |
| Work | | |
| Self-employed | 4 | 12.1 |
| Civil servant | 4 | 12.1 |
| Farmer | 5 | 15.2 |
| Housewife | 16 | 48.5 |
| No Work | 2 | 6.1 |
| Other | 2 | 6.1 |
| Education | | |
| Elementary School | 7 | 21.2 |
| Junior High School | 12 | 36.4 |
| Senior High School | 10 | 30.3 |
| Diploma III/SI/S2/S3 | 4 | 12.1 |
| Total | 33 | 100 |

Referring to the results of Table 1, the majority of respondents were female (69.7%). Almost all respondents were aged 19-59 years (90.9%). Most respondents worked as housewives (48.5%). Almost all respondents had a junior high school education (36.4%).

Bivariate Analysis

Table 2 Average Family Knowledge Before and After Intervention with GERSAH Public Service Announcement of Hyperthyroidism

| Knowledge | n | Mean±SD | Min-Max |
|------------------|----|-------------|---------|
| <i>Pre-test</i> | 33 | 7.45±1.716 | 5-11 |
| <i>Post test</i> | 33 | 12.76±0.902 | 12-15 |

From Table 4.2, it is known that the respondents' knowledge before the intervention through the GERSAH public service Announcement was 7.45 with an SD of 1.716, the lowest value being 5, and the highest value being 11. The average knowledge after the intervention increased to 12.76 with an SD of 0.902, the lowest value being 12 and the highest value being 15.

Table 3 Comparison of Family Knowledge Levels Before and After Providing Intervention Through GERSAH Public Service Announcements

| Variables | <i>n</i> | Mean±SD | | <i>P</i> | |
|-----------|----------|---------------|-----------------|---------------|--------------|
| | | <i>Before</i> | <i>After</i> | Δ Mean | <i>Value</i> |
| Knowledge | 33 | 7.45±1.716 | 12.76±0.90 2 | 5.31 | 0,00 |

Based on Table 3, the results of the Wilcoxon test show that the typical knowledge variation before and after the intervention is 5.31. Considering the test results with a p-value of 0.000, which is less than 0.05 at a 95% confidence level, H_0 is rejected and H_a is confirmed, indicating that the GERSAH Public Service Announcement has an effect on family knowledge of hyperthyroidism at Dr. M. Yunus Hospital, Bengkulu.

Characteristics of Hyperthyroid Families at Dr. M. Yunus Regional Hospital, Bengkulu

The study showed that the majority of respondents were female (69.7%). This aligns with other findings that suggest hyperthyroidism is more common in women, with a ratio of 5:1 to men (Ningsih S, 2023). Women are at higher risk of hyperthyroidism due to the influence of the hormone estrogen, which triggers autoimmune reactions, one of the main causes of hyperthyroidism (Notoadmojo. S, 2010)

In terms of age, respondents were majority in the 19–59 age group (90.9%). This finding in another research by Djohari *et al.* and Srikandi *et al.*, which states that the prevalence of hyperthyroidism is higher in adults, particularly those aged 40–60 years (Paramestianti W, 2020; Ramadhanty N. et.al, 2024). Although the risk increases with age, women remain the group most susceptible to thyroid disorders (Shabita et.al, 2022).

Based on occupation, the majority of respondents were housewives (48.5%). This aligns with findings showing the highest proportion of housewives. Monotonous activities and psychological pressure at home can cause chronic stress, which affects the immune system and contributes to autoimmune thyroid disorders through hormonal responses in the adrenal glands (Shalih M. et.al, 2023).

In terms of education, nearly a half respondent are junior high school education (36.4%). Educational attainment influences knowledge, including understanding the risks and prevention of hyperthyroidism. Other research shows that the lower the educational attainment, the lower the knowledge of health issues, including hyperthyroidism (Shalih M. et.al, 2023). Overall, gender, age,

occupation, and education factors have a relevant relationship to the level of risk and knowledge of hyperthyroidism, which needs to be taken into account in health education and promotion efforts.

Hyperthyroidism Family Knowledge at Dr. M. Yunus Regional Hospital, Bengkulu

This study shows an increase on family knowledge of hyperthyroidism after being given interventions through the GERSAH Public Service Announcement. The study was conducted on 33 respondents at Dr. M. Yunus Hospital, Bengkulu using 15 questions. The study results showed that the respondents' knowledge scores increased significantly from an average of 7.45 before the intervention to 12.76 after the intervention. The most notable increase occurred in question 3 regarding the importance of recognizing hyperthyroidism symptoms early, with an increase of 57.6%.

These findings support research indicating that the GERSAH Public Service Announcement effectively increases participants' knowledge. This improvement is attributed to the media's engaging and easily understandable characteristics, as well as the message's relevance to the respondents' needs (Hidayati P.H, 2023). The effectiveness of information delivery is greatly influenced by the selection of the appropriate media.

Knowledge plays a crucial role in shaping thought patterns and behavior. Knowledge-based behavioral changes tend to be more lasting. Age also influences the development of understanding; older individuals have more mature cognitive abilities in absorbing information. ⁽¹⁴⁾ Knowledge develops through stages of recognition, understanding, and evaluation (Srikandi N.M. et.al, 2020).

Thus, the use of GERSAH Public Service Announcements as an educational intervention medium has been proven effective on increasing family knowledge of hyperthyroidism, and can be used as a strategy in more interactive health promotion with long-term impact.

Evaluating the Impact of the GERSAH Public Service Announcement on Family Knowledge of Hyperthyroidism

The statistical analysis yielded a p-value of 0.000, indicating that the increase on knowledge was statistically significant. These findings demonstrate the effectiveness of the GERSAH Public Service Announcement on family knowledge of hyperthyroidism. This result is consistent with previous studies (Jufri M. et.al, 2022; Merck, 2023), which showed that visual and educational media can significantly improve individuals' understanding of health issues. The visual presentation used in the

GERSAH Public Service Announcement makes health messages easier to understand and remember, particularly in recognizing the symptoms and treatment of hyperthyroidism.

Educational media such as GERSAH Public Service Announcements are very relevant for reaching a wider audience through engaging and meaningful messages. In the context of health promotion, this type of media can effectively raise awareness and understanding among families in detecting early symptoms of hyperthyroidism and supporting patients throughout their treatment process.

CONCLUSION

Referring to the results of a study with 33 respondents who were family members of hyperthyroid patients at Dr. M. Yunus General Hospital, Bengkulu, it was concluded that there was a significant increase in the respondents' knowledge after being given an intervention in the form of the GERSAH Public Service Announcements. This increase is indicated by the rise in the average knowledge score from 7.45 to 12.76. The GERSAH Public Service Announcements has been proven effective as an educational tool on enhancing families' understanding of hyperthyroidism and has made a significant contribution to health promotion efforts, particularly in early detection and more appropriate care.

With this research, it is expected that hospitals can develop and implement educational programs such as the GERSAH Public Service Announcements regularly to increase patients' families' understanding of hyperthyroidism. The GERSAH Public Service Announcements media can be used by healthcare workers as a socialization tool, making the delivery of information more engaging and easier to understand. Furthermore, to evaluate the long-term impact of using educational media in increasing public knowledge, researchers need to conduct studies with more subjects and respondents.

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