

## **Empowerment Health Cadres in Implementation of Early Screening Thyroid Disorders in Hulontalangi Village, Gorontalo City**

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### **Abstract**

Indonesia is the highest in Southeast Asia in thyroid disorders, there are 1.7 million people (IMS Health survey, 2015). Prevalence of thyroid disease incidence in Gorontalo according to Basic Health Research (Riskesdas, 2013) Gorontalo occupies the 28th position of 33 provinces with a diagnosis of hyperthyroid disease there are 2,264 people with thyroid disease. Data from the health service in 2019 said the highest number in Gorontalo was the working area of Hulontalangi Health Center, which was as many as 50 cases. The number is expected to continue to increase due to the lack of public knowledge about recognizing the symptoms of thyroid disorder. To solve these problems, it is important to do socialization and assistance to health cadres in conducting early detection of thyroid disorders in the community. The purpose of this activity is to increase knowledge and skills for health cadres in conducting early screening of thyroid disorders. The partner village in this activity is Hulontalangi Village of Gorontalo City with the target of the activity is a health cadre of 22 people. The methods carried out in this activity are (1) health education and training of thyroid disorders, (2) early screening training of thyroid disorders (3) advocacy through cadre assistance in early screening of thyroid disorders in the community. The results of this activity showed an increase in cadre knowledge about thyroid disorders, an increase in cadre skills in early detection of thyroid disorders and we found 11 new cases of thyroid disorder. With the results of the new case findings, handling in patients can be done immediately and optimally.

**Keywords:** Early screening; thyroid disorder; health Cadres

### **INTRODUCTION**

WHO 2013, stated that the incidence of thyroid disorder is increasing in the world, estimated the world population of thyroid disorders amounted to 750 million people, which exceeds the prevalence of diabetes. Indonesia is ranked highest in Southeast Asia in thyroid disorders at 1.7 million people (STI Health survey, 2015). The prevalence of thyroid disease incidence in Gorontalo according to Basic Health Research (Riskesdas, 2013) is seen from the estimated population of  $\geq 15$  years where Gorontalo occupies the 28th position out of 33 provinces diagnosed with hyperthyroidism.

Based on data from the Gorontalo City Health Office (2019) that Gorontalo City is an area that has very high cases spread across 10 public health center (Puskesmas), and the highest is the working area of the Hulontalangi Public Health Center, which is as many as 50 cases. The incidence of thyroid disease occurs most at the age of 20-44 years and the most in women. Meanwhile, the efforts made by the Hospital or Public Health Center are limited to medical treatment after the patient comes to visit the health care facility.

To solve the problem of thyroid disorders requires early detection efforts / early screening that can be done simply periodically to find out the problem of thyroid disorders. Early detection can help to diagnose thyroid disease so that it can be treated more optimally. So the Gorontalo Poltekkes of Health Ministry through tridarma activities of the university felt it was important to carry out community service activities in providing education and assistance to health cadres under the working area of the Hulontalangi Health Center so that cadres as an extension of the health worker's hand could understand and have skills in recognizing early the emergence of thyroid disorders symptoms in the community.

## METHOD

The method used in this program are: a) Community Education, providing health counseling on thyroid disorders to health cadres, b) Cadre training on how to conduct early screening / early detection of thyroid disorders, cadres are trained to carry out early screening using interview methods and thyroid physical examination. c) Advocacy, it should be carried out initial screening assistance carried out by cadres to the community to find new cases of suspected thyroid disorders.

## RESULT

Community service is carried out in the working area of the Gorontalo hulontalangi health center. Health counseling activities about thyroid disorders with a target of 22 health cadres. Counseling activities are carried out at the village office of hulontalangi by implementing health protocols. Before counseling, cadres are first given pre-test and post-test after counseling. The results of the pre-test and post-test analysis are presented in the table 1.

**Table 1.** Knowledge Before And After Being Given Health Education

Variabel	Mean	Min	Max	s.d
Knowledge Before	6,68	3	16	1,5
Knowledge After	17,7	16	18	0,5

From table 1. It can be seen that the knowledge score before the minimum counseling is 3, a maximum of 16 and a mean of 6.68 while the knowledge score after with a minimum score of 16, a maximum of 18 and an average score of 17.7.

**Table 2.** The Effect of Health Education On Increasing Cadre's Knowledge About Thyroid Disorders in Hulontalangi Village, Gorontalo

Variabel	Normalitas data (p-value)	Wilcoxon-test (p-value dan Z)
Knowledge Before	0,282	
Knowledge After	0,000	0,000 4,134

From table 2. above, it was found that the data distributed knowledge after distribution was not normal so that different tests were carried out using alternative tests with wilcoxon tests. The results of different tests showed that the provision of health counseling can effectively increase cadres' knowledge about thyroid disorders and how to conduct early screening for thyroid disorders.

**Table 3.** Number of New Cases of Thyroid Disorders By Health Cadres

No	Inisial	Wilayah	Usia	Gejala
1	Ny. H	Kel. Tenda	52	Palpable lump on the neck, hoarseness
2	Ny. E	Kel. Tenda	53	large bumps on the neck, bulging eyes
3	Ny. S	Kel. Tenda	46	Palpable lump on the neck, hoarseness
4	Ny. R	Kel. Tenda	63	Bulging eyes, hoarseness
5	Ny. M	Kel. Tenda	46	Eyes strongly bulging

No	Inisial	Wilayah	Usia	Gejala
6	Tn. P	Kel. Tenda	51	Large bumps on the neck, bulging eyes
7	Tn. M	Kel. Tenda	50	Palpable lump on the neck

Table 3 above shows the number of findings of new thyroid disorders cases by cadres based on the results of early screening or early detection of thyroid disorders. The results of this finding obtained 7 new cases that are indicated to have thyroid disorders.

## DISCUSSION

From the results of this community service activity, the results of increasing the level of knowledge of health cadres after health counseling were evidenced by the p-value of the T 0.00 test results. This finding is in line with research conducted by Heny Panai, 2020 that there is a significant influence between nurse assistance and increased knowledge about thyroid disorders. In line with research conducted by Simamora, R (2019) that there is an influence of counseling with patient knowledge in the patient identification process. in line with Purwati's research, Riana D. (2014) which showed the Influence of Health Counseling on client knowledge with hypertension. In line with research conducted by Maulidta, 2016 that there was an increase in skills after cadres were given training on blood pressure measurements.

According to Azrul azwar, 2011 Health counseling is an educational activity carried out by spreading the message, instilling confidence so that the public is not only aware, know, and understand, but also wants and can do an advisory that has something to do with health. In this activity, the delivery of materials is carried out using simple sentences, a serious but relaxed delivery style so that the message conveyed is easily understood by extension participants.

In this activity, two measurements of knowledge are carried out, namely before counseling and afterwards. The results of pre-test and post-test knowledge analysis showed an increase in knowledge after counseling and training of cadres. According to Notoatmodjo, 2014, knowledge is the result of knowing from humans after sensing through sight, hearing, smell, taste and rabab of an object.

In this activity, cadre training is carried out by lecture and demonstration methods. The method was chosen so that the information conveyed was more understandable to participants because it involved all the senses of both sight, hearing and involved experience through demonstrations..

Training according to Michael J.Jucius in Mustofa Kamil (2012) is an activity used to develop talent, skills of employees' ability to complete certain jobs. This community service activity involves as many as 22 health cadres who are active in Hulontalangi Gorontalo village. Cadres are an extension of the health workers have a very important role in society. After receiving further training, assistance was carried out to cadres to manage early screening for thyroid disorders. At the time of assistance the Community Service team found 7 new suspected cases to thyroid disorders. for the next 7 residents are encouraged to conduct further examinations to health facilities so as to immediately get the right treatment..

To overcome the problem of thyroid disorders, early detection / early screening is needed that can be done simply periodically to find out the presence of thyroid problems. Early detection can help to diagnose underdiagnosed thyroid disease (Antonio, Dkk 2016). Initial screening can be done by conducting an interview that contains about the symptoms of thyroid problems and followed by a thyroid physical examination to find out whether or not thyroid gland swelling in a person (Safe, Makbul 2017) who tends to be less at risk of certain diseases. Those who may have the disease (i.e., those whose results are positive) may undergo further diagnostic examinations and seek treatment if needed.

As proof of whether a person has a thyroid disorder, it can be followed by laboratory examinations (TSH and FT4) to determine a person's health status whether experiencing hypothyroidism, or hyperthyroidism. With the results obtained, it makes it easier to handle to be more targeted.

### CONCLUSIONS AND RECOMMENDATION

Health counseling activities, health cadre training and mentoring carried out on health cadres in conducting early screening of thyroid disorders have been optimally implemented. There is an increase in the knowledge and skills of cadres in conducting early screening / early detection of thyroid disorders. With the cadre assistance program, 7 new cases of residents who are at risk of thyroid disorders were found in the village of hulontalangi gorontalo. To improve the understanding of cadres, a practical manual is given early screening for health cadres to detect thyroid disorders that exist in the community. We recommend that the puskesmas actively educate the public about the importance of early detection of thyroid disorders so that client get immediate treatment.

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## APPENDIX



**Figure 1.** Documentation Of Counseling Activities and Training of Health Cadres



**Figure 2.** Documentation of cadre mentoring activities