Skilled Cadres of Family Welfare and Empowerment (PKK) Optimal, Citizens' Digestive Health

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Abstract. The digestive system plays an important role in maintaining the immune system. Gastrointestinal problems in developing countries, including Indonesia, are generally diarrhea and gastritis due to high morbidity and mortality. Based on the data from the Yogyakarta City Health Office in 2021, the incidence of diarrhea reached 270/1,000 while the data from the Sleman District Health Office showed an increase in the incidence of diarrhea from 2017 to 2019 of 16%-17%. In Ngemplak, Donoharjo, Ngaglik, Sleman, DIY, based on the recap of the results of the Posbindu’s health checks, it was found that around 10% of the hamlet residents experienced digestive disorders including diarrhea and gastritis. Digestive problems are influenced by consumption patterns and the surrounding environment. There is still a lack of knowledge among residents about the importance of environmental hygiene and personal self being the main factor. The provision of knowledge and community counseling can be provided by groups of residents who are routinely involved in Posbindu activities, namely the cadres of Family Welfare and Empowerment (PKK). Based on this, this activity aims to provide assistance, training, and counseling regarding digestive health to the PKK groups so that they can become initial counselors for residents regarding knowledge of digestive health and its disorders. The method of activity is periodic assistance and counseling to groups of PKK both offline and online by the community service team. Assistance and counseling are provided in the form of providing material regarding digestive health, digestive health disorders, causative factors and prevention. At the beginning of the activity, a pretest was given to participants to find out the level of initial knowledge of PKK cadres on digestive health then continued with the counseling, mentoring and training process for the participants online and offline periodically. At the end of the activity, an evaluation or a posttest was carried out to find out and measure the level of knowledge of the participants after receiving the assistance. The results of the initial screening level of knowledge of 18 participants show an average of 64.45% which experienced an increase in the average score of the posttest amounted to 73.34%. From the results of the paired t-test, the increase in participants' knowledge shows no significant difference (p>0.05).

Keywords: Digestive Health, Gastrointestinal, PKK

1 Introduction

Digestive health is a very important thing in life because 80% of the body's immune system is in the digestive tract.¹ The digestive tract through which food materials pass includes the mouth, esophagus, stomach, small intestine, large intestine to the anus. Food entering through the mouth is processed in the stomach, and the remaining processing in the
stomach is excreted through the anus. Digestive diseases are all diseases that occur in the digestive tract. These diseases are a large group of diseases in the organs of the esophagus, stomach duodenum, jejunum, ileum, colon, sigmoid colon, and rectum. Damage to the digestive tract can cause many diseases, such as canker sores, diarrhea, constipation, dysentery, hemorrhoids, and so on. The main causes of digestive disorders are bad food in terms of hygiene and health. In addition to nutritional balance, improper eating patterns, infections and abnormalities in the digestive organs are other causes which will be infected with several digestive diseases such as appendicitis, ulcers, stomach ulcers, hepatitis, diarrhea and constipation. Therefore, it is very important to maintain the health of the digestive tract.

Digestive system health problems such as diarrhea and gastritis are diseases that are still a public health problem in developing countries, including in Indonesia. This is due to the high morbidity and mortality. From 2000 to 2010, a morbidity survey conducted by the Diarrhea Sub-Directorate of the Ministry of Health found that the incidence of diarrhea increased. The data from the Yogyakarta City Health Office showed that the incidence of digestive disorders in the form of diarrhea for all ages in 2021 was 270/1.000 population. Meanwhile, the data from the Sleman District Health Office showed an increase in the incidence of diarrhea from 2017 to 2019 by 16% -17%. In 2018, the incidence rate was 16.914 and increased in 2019 to 19.126 which was around 66.1% of cases.

In Ngemplak Hamlet, Donoharjo, Ngaglik, Sleman, DIY, based on the data from the recapitulation of the results of resident health checks at Posbindu (Integrated Health Post), it was shown that around 10% of the residents of Ngemplak Hamlet experienced digestive disorders including diarrhea and gastritis. The head of the PKK women's group stated that counseling and assistance regarding digestive health and its management had never been carried out to residents or PKK group women. This causes a lack of knowledge and self-awareness in society regarding digestive health and its management. Low public awareness and little public knowledge of early symptoms is one of the factors causing the disease to become severe when the patient is treated by medical personnel.

Consumption patterns, daily behavior, hygiene and the use of clean water greatly affect one's digestive health. Diarrhea as an example of digestive problem is caused by factors including the risk factors for diarrhea which are divided into 3, namely individual characteristic factors, preventive behavior factors, and environmental factors. The individual characteristic factors are the age of the toddler <24 months, the nutritional status of the toddler, and the education level of the caregivers of the toddler. The factors of preventive behavior include the behavior of washing hands before eating, washing cutlery before using, washing food ingredients, washing hands with soap after defecation, and boiling drinking water, as well as the habit of feeding children outside. Meanwhile, housing density, availability of clean water facilities (SAB), utilization of SAB, and quality of clean water are the home environmental factors.

2 Methodology

In this activity which involved the participation of PKK women in Ngempak Hamlet, the assistance and counseling provided to the PKK cadres was done periodically both offline and online by the community service team. Below are the descriptions of the implementation method in this activity.
1) PKK women who were willing to participate filled out a willingness form containing identity.

2) Participants who were ready were screened for their initial level of knowledge regarding digestive health, forms of disorders, influencing factors and their management by working on pretest questions.

3) After the pretest was conducted, the process of counseling, mentoring, and training for the participants was carried out periodically online and offline. In giving the material, participants were given a module on digestive health and its management.

### 3 Results and Discussion

The community service entitled "Empowering PKK Cadres for Improving the Digestive Health of Residents in Ngemplak Hamlet, Donoharjo, Ngaglik, Sleman, DIY" was held from January to May 2023. The activity began with providing a form of willingness as a participant to PKK cadres of Ngemplak Hamlet. From the willingness form data, it was found that 18 participants participated. The activity continued with an initial screening to determine the participants' initial knowledge level by giving a pretest regarding digestive health, forms of disorders, influencing factors and their management. Knowledge is everything that is obtained from experience.\(^1\) Knowledge obtained is largely based on the process of sensing objects, especially the eyes and ears.\(^2\) In this activity, the participants' knowledge was obtained from providing material and counseling regarding digestive health.

![Figure 1. Pretest for participants](image)

The level of knowledge can be measured by conducting interviews or formulating questions by paying attention to the formulation of the questions.\(^3\) In this activity, pretest questions were given regarding digestive health and its management (Figure 1). The level of knowledge can be interpreted using a scale, namely 1) Good (answers to the questionnaire 76%-100% correct), 2) Fair (answers to the questionnaire 56%-75% correct), and 3) Poor (answers to the questionnaire less than 50% correct).\(^4\) From the pretest results, an average value of 64.45 (Figure 3) was obtained. From these results, it can be seen that the knowledge level of the participants from PKK cadres in Ngemplak Hamlet, Ngaglik, Sleman, DIY is sufficient. The level of knowledge is influenced by factors including education, employment, information or the media.\(^5\) In this activity, it can be seen that information about digestive health obtained either through the environment or information media is sufficient. The activity of providing materials and mentoring, training, and counseling regarding digestive health.
health to groups of PKK cadres can further increase the participants' knowledge about digestive health and its management (Figure 2.)

![Figure 2. Provision of materials, counseling and assistance to participants](image)

The provision of materials regarding digestive health, digestive health disorders, causative factors and prevention started from March to April 2023. This activity was carried out routinely at the end of the week along with the agenda for the meeting of PKK members in Ngemplak Hamlet. In the early of April 2022, in addition to material, participants were given training on proper hand washing skills (Figure 2). In the process, the participants received material in the form of PPTs, modules, and leaflets regarding digestive health. The evaluation results of the participants’ knowledge showed that the participants' posttest scores have an average value of 74.45 (Figures 4). Based on the knowledge level scale, it can be seen that the posttest scores indicate that the average participant knowledge level has increased.

The results of the mean difference test with the t-test showed that the results of this increase did not show a significant difference. Increased knowledge is due to the process of receiving information by participants. Information is a way to convey, disseminate, and conclude. The information obtained will provide insight and knowledge. The benefit of the knowledge gained is that it can influence a person's behavior. The knowledge gained by the participants will be conveyed to the hamlet residents so that the management and prevention of digestive health disorders among the residents will be better.

![Digestive Health Knowledge Evaluation of PKK Women Cadres](image)

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<tr>
<th>Pretes</th>
<th>Postes</th>
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<td>64.44</td>
<td>73.33</td>
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Figure 3. Pre and Posttest scores as participant's final scores for knowledge evaluation material
4 Conclusions

The counseling, mentoring and training activities given to PKK Cadres in Ngemplak Hamlet, Donoharjo, Ngaglik, Sleman, DIY show an increase in the knowledge and skills of PKK women cadres regarding digestive health and its management.

Increasing the knowledge and skills of PKK cadres in Ngemplak Hamlet, Donoharjo, Ngaglik, Sleman, DIY can benefit the residents in improving digestive health because these PKK cadres are a team that is routinely involved in health screening and Posbindu’s activities for residents.

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