

Education on Adequate Body Fluids for Elementary School Students

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ABSTRACT

School-aged children need to consume a lot of fluids because of their high activity levels. The habit of not consuming enough water in children can have a very negative impact on their health and development. Mild dehydration will cause fatigue, headaches and constipation. The habit of not consuming water can be a problem, especially if children tend to prioritize consuming or drinking drinks made from soda and caffeine because it can increase health risk factors from consuming these substances. To overcome this, good anticipation is needed regarding fluid deficiency in children. Prevent dehydration in school-age children by providing education on adequate body fluids for elementary school students at SD Negeri 101827 Tuntungan so they can change unhealthy drinking habits. Methods for implementing activities include health education, lectures, and carrying out pre-test and post-test activities. The post-test results of 10 questions aimed at grade 5 students showed an increase in the percentage of correct answers almost entirely compared to the results of the pre-test. Recommendations for follow-up after this activity are that the school can collaborate with the student's parents regarding accompanying students to ensure sufficient water consumption while at home.

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INTRODUCTION

All living creatures need water as a source of life to drink, quench thirst and fulfill their fluid needs. Children are more susceptible to dehydration than adults due to their lower sensitivity to comfort and their inhibition to communicate it well. This is because the air in the body is very important for the digestive process. Dehydration in children is more likely to occur if they do not consume water regularly (Sari et al., 2020). A condition where the body lacks fluids because the amount of fluid coming out is greater than what goes in is called dehydration. There are three categories of dehydration: mild dehydration, moderate dehydration, and severe dehydration, according to the Asian Food Information Center (Hardiansyah et al., 2020).

According to research by Herawati and Mudzakkir (2022), a lack of water can cause symptoms of dehydration, impaired body balance, and even decreased consciousness to a severe level. Severe

dehydration in children can develop into a life-threatening condition, so it is important to catch and treat dehydration immediately. Therefore, drinking water is very important. A study conducted by PERSI (2020) found that drinking at least two liters of water every day has not become a habit for everyone in Indonesia, including children; One in four children in Indonesia still doesn't drink enough water for their bodies.

Based on data Directorate General Children's Education Early Age, Primary Education, and Secondary Education (2022), State Elementary School 101827 Tuntungan has 26 students in classes 5, with 16 boys and 10 girls . At SD Negeri 101827 Tuntungan area, students classes 4-6 receive lessons from at 07.00 until 12.00. The environment who busy area, especially for students classes 4-6, accompanied by with the large number of activities area, makes students vulnerable to experience dehydration . According to information from one one teacher, students SD Negeri 101827 Tuntungan are students who are active both in learning and other activities during learning hours. In several environment in the Tuntungan area, have been provided gallons of drinking water in rooms teachers and in the school environment.

Based on the situation analysis above, because gallon water is available at SD Negeri 101827 Tuntungan, the community service team from the public health science study program at the State Islamic University of North Sumatra carried out educational and health promotion activities in the form of counseling at SD Negeri 101827 Tuntungan, in order to increase students' knowledge in in the health sector, namely preventing dehydration in children in the form of health education about drinking water regularly to prevent dehydration, the benefits of drinking water and being aware of the symptoms. dehydration. The poster has a theme inviting you to drink water regularly to prevent dehydration, the benefits of drinking water and being aware of the symptoms of dehydration, and includes the slogan "let's drink at least 2 liters of water or 6 to 7 glasses per day" (PERSI, 2020). This activity aims to ensure that after providing outreach in the form of education and sticking posters, students at SD 101827 Tuntungan can understand the importance of adequate fluids for body health, so that dehydration at school can be prevented. With adequate water intake for children, it is hoped that their quality of life can improve. learning so as to produce smooth learning activities.

According to let's be healthy. The Minister of Health (Kemenkes) stated that things that can cause dehydration are common causes of dehydration in children. Children who experience diarrhea tend to experience significant loss of body fluids and electrolytes. Children who vomit repeatedly can become dehydrated because their bodies lack fluids and don't drink enough water.

A school child will experience a decline in body physiology, decreased quality of learning, and decreased concentration if they are dehydrated. Children lack fluids because of the many activities at school. Children are too busy with their work so they forget to drink. Children who know how important it is to drink will drink more, especially during the day (Sari et al., 2020). If you don't drink enough fluids every day, you may experience health problems or problems such as cognitive or motor problems.

METHOD

This service activity uses a design by providing a pre-test and post-test. The results of the two tests will be analyzed using descriptive analysis. Improved learning outcomes can be seen from the results of taking tests. The test used was a cognitive ability test in the form of a pre-test and post-test, which was carried out twice, namely before and after being given socialization.

The socialization that uses is in the form of lectures lectures that explain various topics , including meaning snacking carelessly , snacks healthy , and snacks not healthy ; the benefits of consuming healthy healthy ; characteristics and examples snacks healthy and not healthy ; danger / impact snacking carelessly ; and how to prevent snacking carelessly . Apart from lectures , sessions socialization also involve questions answers and games (games) to increase enthusiasm students.

Through this effort, it is hoped that there will be changes in student behavior starting with increasing awareness through health outreach. The knowledge gained is expected to form a positive attitude, which ultimately encourages individuals to make decisions and practice or take good actions.

RESULTS

Monitoring and evaluation service is carried out by giving questionnaires to participants before and after or activities are referred to as pre test and post test The results of monitoring are presented in table at below this.

Table 1. Distribution Frequency based on knowledge

Knowledge	Pre Test	Post Test
Good	80%	100%
Enough	-	-
Not enough	20%	-

From the pre test and post test that we have carried out in activities Community service in School basic, knowledge students related Dehydration increased after the provision of material which had been carried out . Proven of pre test good knowledge as 80% and post test good knowledge as 100%, percentage answers of all questions increased, and no there the goes down.

DISCUSSION

The results of the service activities that we carried out on 11 – 27 May 2024, were that many students were able to understand what dehydration is, the causes of dehydration and the characteristics of dehydration. From the initial learning carried out directly with the teacher, many students showed a lack of concentration when studying. This shows signs of dehydration, which impacts the physiological function of the brain (Sholihah & Utami, 2022). Determining students' fluid needs and making decisions about their symptoms of dehydration is appropriate treatment and prevention (Sari & Nindya, 2018).

Children often experience dehydration, but they don't realize it because they only think of themselves as thirsty (R. Rahmawati et al., 2022). Lack of knowledge about how to treat and prevent dehydration causes the condition to get worse (Rohmaniyah, 2022). Knowledge can influence how a person consumes fluids to meet the body's hydration needs because someone who is knowledgeable will be able to consume fluids in the appropriate way. Knowledge that is not limited to the level of understanding only and is continued at the level of application will have a significant influence on behavior.

The volume of water intake combined with the volume of water released in the body can disrupt the water balance if it is not met properly. If there is an imbalance of water in the body, it can cause constipation and dehydration, which is bad for health. Individuals have varying water needs and can be influenced by physical activity, gender, age, humidity and temperature. For healthy people, determining their body's water needs can be based on body weight, age, body surface area and energy intake. This study has a significant relationship between fluid intake and the incidence of dehydration.

The study (Boulay et al., 2018) found that drinking less water can increase the risk of kidney disease and formation kidney stones. Drinks that contain sweeteners have calories that must be absorbed by the body similar to food . These calories can increase blood sugar , add fat, and even slow digestion food that has recently eaten.

Prevention can also can done with education which can be provided with approach education character , starts from knowledge (knowing), implementation (acting) and habit (habit). For some people, including children elementary school , drinking water is not important anymore . This drink is caused by new drink trends that follow current drink , which people are more used to drink this drink rather than drink water (Shinta & Ain, 2021).

Studies show a relationship between dehydration and decreased cognitive abilities in tests of attention, memory, and psychomotor function (Sudrajat et al., 2019). Cognitive functions such as short-term memory, perceptual differences, arithmetic abilities, visumotor work, and psychomotor

abilities in children are associated with mild to moderate dehydration. Currently, dehydration is still a dangerous disease for infants and children throughout the world. Children who come to the Emergency Unit (ER) usually experience dehydration problems. Hypovolemic conditions and end-organ failure can be prevented quickly through recognition and intervention.

The study (Winarsih et al., 2020) found that children who drank more mineral water had better memory function within 30 minutes after drinking 200 milliliters of water. Children's memory is also influenced by hydration status or adequacy of fluids in the body. A water deficiency of 1% of total body weight will cause disruption to brain performance and thinking ability. In addition, dehydration or lack of water will reduce concentration, which in turn will reduce memory (Sudrajat et al., 2021).

The body will not receive enough fluids every day. Lack of fluids or dehydration can cause problems such as decreased body metabolism, kidney damage, increased heart function, decreased supply of oxygen and nutrients to brain tissue, which can cause a decrease in the ability to concentrate while studying. (Yuliati et al., 2022) Male students consume 2,285 milliliters of fluid, while female students consume 2,024 milliliters of fluid. About 20% of fluid intake comes from food, or 420-490 ml, and 80% from drinks, or 1,600-1,800 ml. If they feel they have to, some kids will drink. This is not always true because a taste of home is a symptom of dehydration (Briawan et al., 2020).

CONCLUSION

1. Counseling and posters about benefits drinking white water and routine drinking white water that are used to prevent dehydration in children school age . Participants counseling health received this by well . This is proven by increasing knowledge students /I class 5 SD Negeri 101827 Benefits as target , which is proven by answers that are more accurate than ten questions.
2. Students who take part in the counseling also understand the dangers of not drinking enough fluids and the importance of ensuring that they do not drink too much water while at school. The students' commitment to outreach activities by bringing water using refillable bottles is proof of this. This habit is expected to meet students' fluid needs during school and prevent them from lacking fluids.

Suggestion

Following health education provided by UINSU's public health faculty, schools can work with their senior students to monitor their water drinking habits to prevent dehydration .

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