



Association of Clean and Healthy Living Behaviour Levels with Mental Health and Nutritional Status in Elementary School Students

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Abstract

This study aims to determine the relationship between the level of clean and healthy living behavior with mental health and nutritional status in elementary school students. The population in this study were fourth grade students with a sample size of 73 students. This study used quantitative research methods and research design using correlation with a cross sectional approach. The instruments used in this study were the Clean and Healthy Living Behavior questionnaire, a mental health questionnaire using the Strength and Difficulties Questionnaire (SDQ), and measurement of nutritional status using the Body Mass Index (BMI). The data analysis used was normality test, linearity test and chi-square test with an error rate of 5% or 0.05. The results of this study indicate that there is no relationship between the level of clean and healthy living behavior and mental health with a sig value. $0.832 > 0.05$ and there is no relationship between the level of clean and healthy living behavior and nutritional status with a sig value. $0.459 > 0.05$.



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INTRODUCTION

In recent years, health is a fundamental aspect that affects the quality of human life. According to the World Health Organization (in Triyono & Herdiyanto, 2017) suggests that health is very important in human life, healthy also means a good physical condition, good mentality, and good social welfare.

In a study conducted by (Budi, 2023) emphasized that health can be obtained through education. With education, humans can live in balance, humans can grow and develop through science that can change human life to get a decent life. Education and health are closely related, in education there is a teaching and learning process to optimize the potential of children who have a religious spiritual soul, self-control ability, and good health. Especially formal education in schools, schools are the main means of carrying out teaching and learning activities and are expected to become educational institutions that can improve the health status of their school residents.

Schools as educational institutions have an important role in forming habits and maintaining health. Clean and healthy living behavior is one of the main approaches used to prevent disease and support overall health. This is in line with the opinion of (Kusumawardani et al. 2019) Clean and healthy living behavior programs should be implemented from school age so that healthy lifestyle practices can persist into adulthood. School age children are more likely to be exposed to health problems

due to behavioral, biological, and environmental risk factors. Behaviors that can affect the health of school age children include lifestyle and personal hygiene.

Clean and healthy living behavior is an effort to maintain health through habituation at home carried out by individuals, families, and surrounding communities. Clean and healthy living behavior is a series of behaviors that are carried out with full awareness, so that individuals or families can strive to maintain optimal health, otherwise if individuals or families do not apply the principles of clean and healthy living behavior, they are at risk of facing various health problems (Gunawan, 2019).

Clean and healthy living behavior can be implemented both at home, the surrounding environment or school and its application must be carried out from an early age, namely the elementary school period. The elementary school period is a golden period to instill the values of clean and healthy living behaviors and can potentially become agents of change to promote clean and healthy living behaviors both in the family, community and school environment (Diana et al. 2013).

However, the problem or challenge in implementing clean and healthy living behavior among elementary school students is still quite large because many children still do not have full awareness of the importance of

maintaining cleanliness and implementing it.

The results of a study conducted (Syafitri et al. 2021) show that there is a negative and significant relationship between compliance with clean and healthy living behaviour and depression, anxiety, and stress.

Mental health is an individual state that supports the growth of all elements of development, including physical, cognitive, and emotional development that is maximized and in line with the progress of others so that they can relate to their environment (Fakhriyani, 2019). The mental health of each individual can change influenced by two factors, namely internal and external factors. In mental health there are several aspects including emotional problems, behavioral problems, hyperactivity, peer problems, and prosocial.

Mental health problems can also be caused by nutritional status conditions. According to (Norhasanah et al., 2016) nutritional status is the state of the body as a result of food consumption and the use of nutrients. The state of health is influenced by the balance between the intake of nutrients and expenditure due to their use by the body. Nutritional needs that play a role in child growth and development broadly include the need for calories, water, carbohydrates, fats, proteins, vitamins and minerals.

The purpose of this study was to determine the relationship between the level of clean and healthy living

behaviour with mental health in elementary school students and to determine the relationship between the level of clean and healthy living behaviour with nutritional status in elementary school students.

METHODS

In this study, researchers used quantitative research methods and correlational research designs with a cross sectional approach. Cross sectional is a type of research that emphasizes the time of measurement or observation of independent variable data and data collection is carried out only once at that time.

Participants and Procedures

Participants in this study included fourth grade students at SD Negeri 1 Geyongan with an average age of 9-10 years. The procedures carried out by this research are licensing and administrative arrangements, collecting respondents, collecting data using questionnaires, and results and data analysis and then drawing conclusions based on the results of processing the data analysis.

Sampling Procedures

The sample is part of the population, with the number of subjects or objects and characteristics in a certain area. (Amin et al., 2023) also emphasized that the sample can be interpreted as part of the population which is the actual source of data in a study. In determining the sample that is

relevant to the characteristics of the research, there must be a sampling technique, sampling technique or sampling technique used in this study is the total sampling technique. The total sampling technique is a sampling technique where the number of samples is the same as the population with the reason for taking the total sampling technique because the population is less than 100. The sample in this study amounted to 73 students with details of 46 male students and 27 female students.

Materials and Apparatus

According to Suharsimi (in Makbul, 2021), the research instrument is a tool chosen and used by researchers in carrying out activities to collect data so that these activities become systematic and made easier by them. In this study, researchers used a questionnaire, for clean and healthy living behavior instruments using a clean and healthy living behavior questionnaire with five indicators contained in 33 questions, for mental health instruments using the Strength and Difficulties Questionnaire (SDQ) with 25 items consisting of emotional problems, hyperactivity, peer problems, behavioral problems, and prosocial behavior, and nutritional status instruments using body mass index (BMI) measurements using a weight scale and a stadiometer for height.

Design or Data Analysis

Quantitative data analysis is an activity after data from all respondents are collected (Sugiyono, 2018). After

collecting the data, the researchers then analyzed and managed the data using the Statistical Package for the Social Sciences (SPSS) version 25 program then to analyze the data the researchers used a normality test using Kolmogorov-Smirnov, linearity test, and chi-square test with an error rate of 5% or 0.05.

RESULT

This study aimed to investigate the relationship between clean and healthy behaviors and mental health and nutritional status, focusing on a sample of grade IV students. The current data was analyzed using the SPSS version 25 application with the aim of developing recommendations that can serve as a guide and reference for schools seeking to improve the field of health education.

In this study, researchers took a sample of 78 students with 46 (63%) males and 27 (37%) females. And based on age, there are respondents who have 9 years of age as many as 30 respondents (41%) and 10 years of age as many as 43 respondents (59%).

Table 1. Sample characteristics by age

No	Age	Total	%
1	9 years	30	41%
2	10 years	43	59%
	Total	73	100%

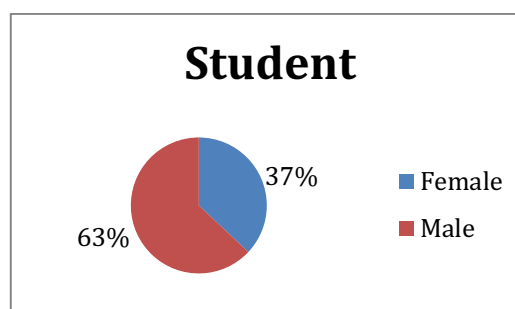


Fig 1. Gender of research subjects

The results of the frequency statistical test in clean and healthy living behavior data obtained results with a deficient category of 1 (1.4%), a sufficient category of 52 (71.2%), and a good category of 20 (27.4%). For the results of the frequency statistical test in mental health data, the abnormal category with a difficulty level of 52 (72.6%) and a strength level of 18 (24.7%), a borderline category with a difficulty level of 7 (9.6%) and a strength level of 8 (11.0%), and a normal category with a difficulty level of 13 (17.8%) and a strength level of 47 (64.3%). Then for the results of the frequency statistical test in nutritional status data, the results obtained with undernutrition as many as 16 (21.9%), good nutrition 44 (60.3%), and overnutrition 13 (17.8%).

In this study, researchers tested the variables with the Kolmogorov - Smirnov formula, because the sample used in this study was more than 30 respondents. The basis for making decisions from the Kolmogorov - Smirnov normality test if the sig value. > 0.05 that the results of the data distribution can be said to be normally distributed and if the sig value. <0.05 that the distribution of data can be said to be not normally distributed. The significance value obtained from the clean and healthy living behavior variable is $0.200 > 0.05$, so the clean and healthy living behavior data is normally distributed, the value obtained from the mental health variable is $0.062 > 0.05$, so the mental health data is normally

distributed, and the significance value obtained from the nutritional status variable is $0.064 > 0.05$, so the nutritional status data is normally distributed.

The basis for making decisions from the linearity test is if the sig value > 0.05 then there is a linear relationship between the independent variable and the dependent variable and if the sig value. <0.05 then there is no linear relationship between the independent variable and the dependent variable. From the results of the linearity test, it can be obtained that the significance value of the level of clean and healthy living behavior on mental health is 0.681 and the significance value of the level of clean and healthy living behavior on nutritional status is 0.313. From both values have a value greater than > 0.05, it can be concluded that the relationship between all independent variables and the dependent variable is declared linear.

Table 2. Chi – square test

No	Variable	Description
1	Correlation of clean and healthy living behavior level with mental health	0,832
2	Correlation of clean and healthy living behavior level with nutritional status	0,459

Researchers use the chi-square test with an error rate of 5% or 0.05. If the sig. value is less than <0.05 H_a is accepted then there is a relationship between the independent variable and the dependent variable. Meanwhile, if the sig. value is greater than > 0.05 H_o is rejected then there is no relationship

between the independent variable and the dependent variable. From the results of the chi-square test between the level of clean and healthy living behavior and mental health, the sig. value of $0.832 > 0.05$ can be concluded that there is no significant relationship between the level of clean and healthy living behavior and mental health. The results of the chi-square test between the level of clean and healthy living behavior and nutritional status obtained a sig. value of $0.459 > 0.05$, it can be concluded that there is no significant relationship between the level of clean and healthy living behavior and nutritional status.

DISCUSSION

Clean and healthy living behavior includes all health actions that are carried out with full awareness, so that individuals in the family can support their own health and be actively involved in health initiatives both in society and in their community. Implementing clean and healthy living behavior is not only good knowledge, attitudes, and actions, as well as supporting infrastructure, but requires role models and support from parents and teachers.

1. Correlation of Clean and Healthy Living Behavior Level with Mental Health

Based on the results of the study, it can be concluded that the sig value. $0.832 > 0.05$, indicating that there is no significant relationship between the level

of clean and healthy living behavior and mental health. This is because many factors influence between clean and healthy living behavior and mental health.

Mental health is also influenced by various factors, not just clean and healthy living behavior. Other factors such as heredity, environment, school environment, parenting, and psychological aspects also play a crucial role in determining an individual's mental health. This results in a high mental health score or value. That is, the more individuals maintain clean and healthy living behaviors, the less likely their mental health score. This researcher's assumption is supported by research from Bornet et al (in Syafitri et al., 2021), that a healthy lifestyle has a negative relationship with mental health problems, while an unhealthy lifestyle is positively related to mental health.

Researchers assume that the mental health of elementary school students there are 53 children who experience abnormalities due to several things, namely environmental factors and parenting, such as being angry, disobedient to teachers or parents, and always arguing. This is in line with the research of (Monit et al., 2019), which states that children who experience abnormal mental health where children tend to look difficult to control themselves, sometimes experience anger, children are disobedient to teachers or parents, and speak harshly to teachers or friends.

This educational institution needs to get a special focus as a target for clean and healthy living behavior in the education area, because at school age 6 - 10 years is a period that is sensitive to various diseases and mental health problems. Through this research, it is hoped that the knowledge of primary school students will continue to increase which allows them to analyze and understand the situation they face and make them skilled in communicating and applying this knowledge in their daily activities.

2. Correlation of Clean and Healthy Living Behavior Level with Nutritional Status

Based on the results of the study, it can be concluded that the sig value. $0.459 > 0.05$, indicating that there is no significant relationship between the level of clean and healthy living behavior and nutritional status. This is in line with research conducted by Pramadewi (2019) that there is no relationship between clean and healthy living behavior and nutritional status in students of SD Negeri 5 Sanur Denpasar.

In another study conducted by (Zulhika., 2023), stated that there was no relationship between clean and healthy living behavior and the nutritional status of school-age children at SD Negeri Nogosaren. Recent research conducted by (Agiesna et al., 2024) states that there is no relationship between clean and healthy living behavior and the nutritional status of grade IV students of SDN Telukjambe II. However, the results of this study are inversely

proportional to the results of research conducted by Rochaeni (2017) that there is a positive and significant relationship between clean and healthy living behavior and the nutritional status of grade IV and V students in the 2016/2017 school year of SD Negeri Kembaran Candimulyo.

Researchers assume that the absence of a relationship between clean and healthy living behavior and nutritional status can be caused by other factors not analyzed in this study, which may affect nutritional status, such as factors that are direct and indirect. Direct factors of nutritional status problems are food consumption and infectious diseases, according to Damaiyanti (in Nasution et al., 2016) revealed that diet is a factor directly related to nutritional status so that food intake with low nutritional value can result in conditions or nutritional problems that cause malnutrition. In addition, consumption of low-nutrient foods can lead to a decrease in the immune system, making children more susceptible to infections. Meanwhile, indirect factors include the availability of food at the household level. Food security focuses on family welfare, where one of the main aspects is the adequacy of food as a means to achieve family welfare. Food stability aims to ensure that the average household's food consumption does not fall below the necessary level. Food security at the family level is closely related to the availability of foodstuffs, which is one of the factors or indirect

causes that affect children's nutritional status (Arlius et al., 2017).

Another indirect factor is parenting because parenting can be one of the factors that have an impact on children's nutritional status. This is evidenced by research from Abdullah and Sari (2016) that there is a relationship between parenting and the nutritional status of elementary school children. (Rahayu, 2021) parenting can be influenced by the level of education of the parents; the higher the level of education the parents have, the better the parenting patterns applied to the child so that the child's development will experience a positive impact. Conversely, if the education of parents is lower, then the way of parenting tends to be less than optimal which has a negative impact on child development.

Even so, this research has been done as well as possible, but this research cannot be separated from limitations, including the researcher being unable to control the seriousness and correctness of the respondents in filling out the questionnaire and there is a possibility that the respondents will cooperate and discuss to answer the statements in the questionnaire.

CONCLUSION

Based on the results of research and discussion, it can be concluded from this study that there is no significant relationship between clean and healthy living behavior and mental health. This

is because clean and healthy living behavior is not the only factor that affects mental health, so other factors are needed such as the surrounding environment either home or school, parenting patterns from parents that are directly related to mental health that allows children to have normal or good mental health.

While the results of research and discussion about clean and healthy living behavior with nutritional status there is no significant relationship. This is because there are several other factors that may affect nutritional status, such as direct and indirect factors. Examples of direct factors include food consumption and infectious diseases, while indirect factors include parenting, availability of food at home.

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