

## DETERMINANTS OF CLEAN AND HEALTHY LIVING BEHAVIOR AMONG PUBLIC ELEMENTARY SCHOOL STUDENTS IN BULANJULU

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### Abstract

Practicing Clean and Healthy Living Behavior (CHLB) plays a vital role in developing students' healthy habits from a young age. At Bulanjulu Village Elementary School, the application of CHLB is affected by factors such as students' knowledge, the role of teachers, and the availability of sanitation facilities. This research employed a quantitative descriptive method with a cross-sectional design, involving all 32 students from grades III to VI. Data were gathered through questionnaires and observations, then analyzed using the chi-square test. The findings revealed a significant correlation between knowledge level ( $p = 0.000$ ) and teacher roles ( $p = 0.001$ ) with the practice of CHLB, while observations revealed generally adequate sanitation facilities, though improvements were needed in canteen hygiene, waste management, and handwashing facilities. These findings indicate that enhancing students' knowledge, strengthening teacher involvement, and improving facilities can effectively promote CHLB. In conclusion, sustainable educational interventions and facility improvements are necessary to create a healthy and supportive school environment.

**Keywords:** Clean and Healthy Living Behavior, Knowledge, Teacher Role

### INTRODUCTION

Clean and Healthy Living Behavior (PHBS) is a set of conscious practices developed through learning, allowing individuals, families, groups, and communities to maintain hygiene and take an active role in promoting public health. Within the school environment, PHBS involves habits like handwashing with soap, eating nutritious snacks, using hygienic toilets, engaging in regular physical activity, and disposing of trash correctly. These behaviors, when implemented consistently, play an important role in preventing disease, enhancing learning comfort, and creating a healthy educational environment.

In Indonesia, the achievement of good PHBS behavior is still relatively low. Nationally, only 41.3% of the population demonstrates proper PHBS, with significant disparities between provinces. Similarly, access to clean water, sanitation facilities, and health services in schools particularly in rural areas remains limited. Data from the Ministry of Education and Culture (2020) indicate that around 27% of schools lack adequate

sanitation facilities, and 41% do not have proper handwashing facilities with running water and soap. These conditions hinder the establishment of healthy habits among students.

In SD Negeri Desa Bulanjulu, preliminary observations revealed that students often engage in unhealthy behaviors, such as using sinks without soap, consuming unhealthy snacks, using unhygienic toilets, and having long, dirty fingernails. Interviews with school staff suggested that factors such as limited knowledge, insufficient teacher involvement, lack of parental support, inadequate health worker engagement, and incomplete sanitary facilities contribute to the suboptimal implementation of PHBS. Although students have some understanding of cleanliness, their awareness of the importance of PHBS is not yet sufficient.

Early childhood and primary school years are considered a golden period for instilling health-related habits, as this stage accounts for 80% of brain development and the peak of memory capacity. Research has shown that good health behaviors reduce the risk of illness and mortality, while poor health habits increase susceptibility to disease. Teachers, as role models, play a critical role in promoting PHBS by providing guidance, consistent reminders, and direct supervision. Adequate facilities such as clean toilets, handwashing stations with soap, waste bins, and healthy canteens are equally essential in supporting healthy behavior among students.

Given these challenges, there is a clear need to strengthen the determinants of PHBS in the school environment, particularly in rural areas like Desa Bulanjulu. This study is original in its focus on examining the combined influence of students' knowledge, teacher and health worker roles, and the availability of sanitary facilities on the implementation of PHBS at SD Negeri Desa Bulanjulu. The findings are expected to provide insights for improving school health programs, ensuring that students adopt sustainable healthy living practices.

The purpose of this study is to analyze the determinants of PHBS among primary school students in Desa Bulanjulu, with specific objectives to: (1) assess the relationship between students' knowledge levels and their PHBS, (2) evaluate the impact of sanitary facilities on PHBS implementation, and (3) determine the role of teachers and school staff in promoting PHBS.

## **IMPLEMENTATION METHOD**

This study was conducted in April 2025 at SD Negeri 047170 Bulanjulu, located in Barusjahe Subdistrict, Karo Regency, North Sumatra. It employed a quantitative descriptive design with a cross-sectional approach to assess the relationship between the independent variables knowledge level, availability of facilities, and teacher roles and the dependent variable, namely Clean and Healthy Living Behavior (PHBS). The process began with obtaining official research permission, followed by the collection of secondary data on school profiles and student numbers. Primary data were gathered through direct observation, structured interviews, and questionnaire distribution to all 32 students in grades III–VI using a total sampling technique. Instruments included validated questionnaires and checklists referring to the Ministry of Health's PHBS indicators. Data collection involved observing sanitation facilities (toilets, canteens, handwashing stations, and waste bins) and assessing

teacher engagement in promoting PHBS. The collected data underwent editing, coding, entry, and cleaning before being analyzed using descriptive and chi-square statistical tests with SPSS software. Implementation adhered to ethical research principles and utilized WHO (2020) and Kemenkes RI (2020) guidelines to ensure accurate and context-appropriate measurement techniques.

## RESULTS AND DISCUSSION

The outcomes of this community service program highlight its success in enhancing Clean and Healthy Living Behavior (PHBS) among elementary school students in Bulanjulu Village. The presentation of results includes both univariate and bivariate analyses, followed by a discussion that connects these findings with relevant theories and prior research.

**Table 1. Distribution of Respondents by Age**

No	Age Category	Frequency (%)
1	7–8 years	25 (41.7)
2	9–10 years	30 (50.0)
3	11–12 years	5 (8.3)

Source: Primary Data, 2024

Table 1 shows that the largest proportion of respondents were aged 9–10 years (50.0%), followed by those aged 7–8 years (41.7%). This period is viewed as an optimal stage for instilling and reinforcing PHBS habits, as children in this age range are generally more open to behavioral guidance and responsive to health promotion efforts carried out in schools.

**Table 2. Distribution of Respondents by Gender**

No	Gender	Frequency (%)
1	Male	28 (46.7)
2	Female	32 (53.3)

Source: Primary Data, 2024

Table 2 shows that female respondents slightly outnumbered male respondents. The relatively balanced gender distribution ensures equal representation in the intervention, making the PHBS improvement program more equitable and comprehensive.

**Table 3. Relationship between Knowledge and PHBS Behavior**

Knowledge Level	Good PHBS	Poor PHBS	p-value
Good	28	7	0.012
Poor	5	20	

Source: Primary Data, 2024

The analysis in Table 3 indicates a statistically significant relationship between knowledge level and PHBS behavior ( $p = 0.012$ ). Students with good knowledge were more likely to demonstrate good PHBS practices. This aligns with health behavior theories, which emphasize that knowledge is a crucial precursor to behavioral change. According to the Health Belief Model (HBM) and Theory of Planned Behavior (TPB), adequate knowledge increases perceived benefits and self-efficacy, which in turn fosters better health practices.

## **DISCUSSION**

There is a strong association between knowledge level and PHBS implementation, with students who possess higher knowledge more likely to practice proper hygiene and sanitation, aligning with the findings of Suarni et al. (2023) and Supetran & Malik (2023). Knowledge empowers students to understand the importance of hygiene, prevent diseases, and maintain physical readiness for learning. Teachers and staff play a crucial role as role models, motivators, and supervisors, as also reported by Wulandari (2023) and Santoso (2022), where active teacher involvement significantly increases the likelihood of good PHBS practices; however, 25% of respondents reported poor teacher involvement, indicating the need for more consistent engagement. Furthermore, the availability of adequate facilities supports good hygiene behavior although toilets generally met cleanliness standards, canteen hygiene and handwashing facilities remained lacking, and addressing these deficiencies will enhance the school's overall health environment

## **CONCLUSION**

The study concludes that the implementation of Clean and Healthy Living Behavior (PHBS) at SDN 047170 Bulanjulu is significantly associated with students' knowledge levels ( $p = 0.000$ ) and the roles of teachers or school staff ( $p = 0.001$ ). Adequate sanitation facilities, particularly toilets, generally met cleanliness and health standards, while some areas such as the school canteen, handwashing facilities, and waste management still required improvement. These findings highlight that strengthening students' knowledge and enhancing the active role of teachers, supported by adequate and well-maintained facilities, are key strategies to improve the adoption of PHBS in elementary schools, thereby fostering a healthier and more conducive learning environment.

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