

OVERVIEW OF THE LEVEL OF KNOWLEDGE, BEHAVIOR, AND IMPLEMENTATION OF THE CLEAN AND HEALTHY LIVING BEHAVIOR (CHLB) PROGRAM AT THE PRIMARY SCHOOL FILIAL RUMBIA 1,2,3 CAICOLI, DILI, TIMOR-LESTE

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ABSTRACT

This study was conducted to map the level of understanding, practices, and implementation of the Clean and Healthy Living Behavior (CHLB) program at Rumbia 1, 2, 3 Branch Elementary Schools in Caicoli, Dili, Timor-Leste, based on eight key indicators. The research aimed to comprehensively assess teachers' knowledge, behavioral practices, and the implementation of CHLB in school settings. The study employed a survey method involving 42 teachers selected through purposive sampling. Data were collected using questionnaires and analyzed using descriptive statistics in the form of frequency distribution. The findings revealed that teachers' understanding of CHLB remained at a low level. Although the majority (90.47%) had heard of CHLB, only 6.3% could define it correctly, and 80.95% could mention less than half of the CHLB indicators. In terms of practices, most teachers had adopted handwashing habits (97.6%) and refrained from smoking on school grounds (92.86%), though the implementation was not comprehensive, as evidenced by irregular exercise activities. Regarding supporting facilities, infrastructure such as healthy canteens, toilets, and trash bins was fully available. However, the ratio of adequate toilets remained very low (40.47%), and the availability of handwashing stations with soap had not reached 100%. The main challenges identified included limited teacher understanding, inadequate infrastructure, and low parental involvement. The study concludes that enhancing counseling programs, improving physical facilities, and establishing school policies are crucial to support the successful implementation of the CHLB program.

KEYWORDS: Teacher Understanding, CHLB, Elementary School, Program Implementation.

INTRODUCTION

Improving the quality of human resources is one of the main focuses in global health development, where health education plays a crucial role. (Organization, 2021) Schools, as formal educational institutions, are not only responsible for the transfer of knowledge but also for the formation of the healthy character and behavior of students. In this context, Clean and Healthy Living Behavior (PHBS) in the school environment is an important foundation to create a health-conscious generation. The implementation of PHBS in schools is believed to prevent disease transmission, improve the quality of life, and support the optimal teaching and learning process. However, the success of this program is highly dependent on the active role of all school residents, especially teachers who serve as role models and agents of change for students. (K. K. R. Indonesia, 2011)

Teachers hold a strategic position in instilling PHBS values in students. As a figure who is admired and imitated, the level of knowledge and behavior of teachers towards PHBS will directly affect the adoption of healthy behavior by students. Previous research has focused heavily on PHBS from a student perspective, while an in-depth understanding of teachers' capacity to support this program is still limited. In fact, teachers who have a comprehensive understanding and apply PHBS in their daily lives can create a school environment that is conducive to habituating healthy behavior. Therefore, assessing teacher knowledge and behavior is a critical first step in evaluating the effectiveness of the PHBS program in an educational institution. (Notoatmodjo, 2012)

The situation in Timor-Leste, as a developing country, faces various challenges in the areas of health and education. Access to clean water and proper sanitation is still a concern, which has a direct impact on the practice of PHBS in schools. Rumbia Filial Elementary School 1,2,3 in Caicoli, Dili, is one example of a setting where the implementation of PHBS needs to be evaluated. With its unique geographical and socio-cultural characteristics,

understanding the dynamics of PHBS in these schools can provide a representative picture of health promotion efforts in Timor-Leste's primary education environment. (INETL, Ministry of Health, & ICF, 2026)

Based on the preliminary survey, although most of the teachers in the school have been exposed to information about PHBS, an in-depth understanding and consistent application of PHBS indicators still needs to be improved. This indicates a gap between basic knowledge and conceptual understanding and practical application. This study aims to identify a comprehensive picture of the teacher's level of knowledge, daily behavior, and implementation of the PHBS program based on 8 standard indicators in Rumbia Filial Elementary School 1,2,3. The findings of this study are expected to be the basis for the development of more targeted and effective interventions. (Rampling & Sukamdi, 2026)

Thus, this study not only fills the literature gap on the role of teachers in the PHBS program in Timor-Leste, but also provides practical recommendations for schools and local governments in strengthening the implementation of PHBS. Ultimately, these efforts are expected to contribute to the creation of a healthy school environment and support the achievement of the Sustainable Development Goals (SDGs), especially in the fields of health and education.

METHOD

This study uses a descriptive design with a cross-sectional approach to describe the level of knowledge, behavior, and implementation of the PHBS program. Data collection was carried out through surveys using questionnaires. This design was chosen because it is in accordance with the purpose of the research to provide an objective description or description of a situation at the time the research is conducted, without intervening or manipulating variables. (Notoatmodjo, 2002)

The population in this study is all teachers who actively teach in three Rumbia Filial Elementary Schools (Filials 1, 2, and 3) in Caicoli, Dili, Timor-Leste, totaling 42 people. The sampling technique used is *purposive sampling*, where the entire population is sampled (*total sampling*) because it meets the inclusion criteria, namely being a teacher in one of the three filial elementary schools and willing to be a respondent. The sample size obtained (N=42) has been considered adequate and representative to be analyzed descriptively. (Nursalam, 2008)(Dempsey & Dempsey, 2002)

Data were collected using questionnaires adopted from previous research instruments that had measured PHBS indicators in schools. The questionnaire was divided into several parts to measure the variables of knowledge (3 essay questions), teacher behavior (10 closed questions), and the implementation of the PHBS program in the school environment (14 (Fatimah, 2012) *checklist* questions). Data collection was carried out directly at the research site on September 15-20, 2025, after the *informed consent* process and coordination with the school. The collected data is then processed through *the stages of editing, coding, tabulating, and data entry*, and is analyzed statistically descriptively using frequency distribution presented in the form of tables and narratives. The validity and reliability of the instruments were not retested because they used questionnaires that had been validated in previous studies.

RESULTS AND DISCUSSION

Results of Teachers' Knowledge about PHBS in Schools

This study reveals that the level of teachers' knowledge about Clean and Healthy Living Behavior (PHBS) in schools is still relatively low. Most of the respondents (90.47%) stated that they had heard the term PHBS at school. However, their deep understanding of the concept is very limited. Only 6.3% (2 out of 42 teachers) were able to define PHBS correctly. Furthermore, when asked to name 8 PHBS indicators in schools, the majority of teachers (80.95%) could only mention less than 50% of the indicators correctly. Only 7.15% of teachers were able to mention more than half of the indicators Table 1.

Table 1. Distribution of Frequency of Knowledge of Elementary School Filial 1,2,3 to School PHBS (n=42)

Question	Answer	n	%
Ever heard of PHBS?	Yes	38	90.47%
	Not	4	9.53%
Definition of PHBS	True	2	6.3%
	False/Not Accurate	40	93.7%
Mentioning PHBS Indicators	>50% True	3	7.15%
	<50% True	34	80.95%
	Wrong All	5	11.90%

Teacher Behavior in Implementing PHBS

Despite low knowledge, the implementation of PHBS behavior by teachers in the school environment showed quite positive results on certain indicators. A total of 97.6% of teachers reported having cultivated a culture of handwashing at school and washing hands before and after meals with soap and running water. For the non-smoking indicator, 92.86% of teachers stated that they did not smoke in the school environment. However, in terms of physical activity, only 61.90% of teachers exercise regularly every day, with the frequency of exercise

once a week dominating (88.1%). As many as 90.47% of teachers also admitted that they had received counseling about PHBS (Table 2).

Table 2. Distribution of Frequency of Behavior of Elementary School Teachers Filial 1,2,3 to School PHBS (n=42)

Yes	Behaviour	Answer	n	%
1	Handwashing culture in schools	Already	41	97.6%
2	Wash your hands with soap and running water	Yes	41	97.6%
3	Smoking Habits	No Smoking	39	92.86%
4	Smoking in the school environment	Not	39	92.86%
5	Daily exercise routine	Yes	26	61.90%
6	Frequency of exercises/week	1 time	37	88.1%

Implementation of PHBS Programs and Facilities in the School Environment

In terms of the availability of supporting facilities, the results of the study show that several PHBS infrastructure facilities have been available, but they are not fully adequate. Facilities such as school canteen (100%), latrines (100%), garbage cans (100%), and weight and height measuring equipment (100%) are available in all schools. However, the ratio of adequate latrines availability only reached 40.47%. Similarly, the availability of hand washing stations with soap has not reached 100% (95.24%). Mosquito larvae eradication programs have been implemented in 90.47% of schools, and no-smoking pamphlets are available in 92.86% of schools (Table 3).

Table 3. Distribution of the Frequency of PHBS Implementation in the School Environment (n=3 Schools)

Yes	Facility/Program Indicators	Answer	%
1	Hand washing and soap available	Yes	95.24%
2	School canteen available	Yes	100%
3	Latrines available	Yes	100%
4	Adequate toilet ratio	Yes	40.47%
5	There is a sports program	Yes	95.24%
6	There is a larval eradication program	Yes	90.47%
7	There is a pamphlet against smoking	Yes	92.86%

DISCUSSION

The findings of this study confirm the significant gap between teacher knowledge and behavior related to PHBS, as well as challenges in program implementation at the school level. The low level of teacher knowledge, especially in terms of definition and in-depth understanding of PHBS indicators, is a major inhibiting factor. Although 90.47% of teachers have heard of PHBS and received counseling, few can understand and remember the core of the material. This is in accordance with the theory of Notoatmodjo (2003) which states that knowledge at the level of 'knowing' (realizing/remembering) is the lowest level in the cognitive domain. Without a good (Notoatmodjo, 2003) *comprehension*, it will be difficult for individuals to reach the stage of applying that knowledge in real, consistent and sustainable behavior.

On the other hand, teachers' behavior in several aspects of PHBS, such as washing hands and not smoking in school areas, showed positive results. This indicates that other factors beyond knowledge, such as social norms, school policies, and the availability of basic facilities, can encourage the formation of such behaviors. However, behaviors such as exercise routine that are still low suggest that for indicators that require higher personal commitment and initiative, adequate knowledge and awareness remain key (Pérez-Jorge et al., 2021; Angeli et al., 2024). The small number of teachers who still smoke in the school environment (7.14%) also confirms that behavior change, especially related to habits or addictions, requires an approach that goes beyond just counseling. (Depkes, 2008)

The most critical implementation challenge lies in the aspect of supporting facilities. The availability of basic facilities such as toilets and handwashing stations is indeed high, but the ratio and feasibility are inadequate. The ratio of latrines of only 40.47% is very contrary to the standards of the Minister of National Education of the Republic of Indonesia No. 24 of 2007, which can hinder the correct practice of PHBS among students and teachers. The limitations of this infrastructure, as expressed in Green's theory, are a (R. Indonesia, 2007) *very decisive enabling factor*. Even with positive knowledge and attitudes, clean and healthy living behaviors will not be optimally implemented if the supporting facilities are inadequate. (Green & Kreuter, 2005)

Overall, this study highlights the need for a comprehensive approach to strengthen PHBS programs in primary schools in Dili. Future strategies must prioritize improving the quality of counseling to ensure a deep understanding of teachers, not just the introduction of terms. In addition, the commitment of the local government and the school to provide and maintain PHBS infrastructure facilities that meet standards, especially the ratio of latrines and the availability of clean water, is absolute. Creating clear school regulations accompanied by a system of rewards and sanctions, as well as involving the role of parents, can create a supportive environment for the realization of sustainable healthy schools.

CONCLUSION

Based on all the findings, it can be concluded that efforts to implement Clean and Healthy Living Behavior (PHBS) at Rumbia Filial Elementary School 1,2,3 Caicoli, Dili, Timor-Leste, are still facing multidimensional challenges. The main challenge lies in the low level of conceptual understanding of teachers regarding PHBS, even though awareness of the term is quite high. This gap between knowledge and practice is exacerbated by the limitations of supporting infrastructure, especially the inadequate ratio of latrines and the availability of clean water and soap at handwashing stations that are not optimal. This condition indicates that the PHBS program in these schools has not been running effectively and sustainably.

Overall, this study confirms that the success of the PHBS program in the school environment cannot depend solely on counseling efforts. An integrated and systematic approach is needed that simultaneously targets increasing teacher capacity through more in-depth and applicable educational methods, improving and adding school sanitation facilities according to standards, and strengthening regulatory and policy support at the school level. This synergy between knowledge, facilities, and regulations is the main pillar to create a school environment that is truly conducive to the habituation of clean and healthy living behaviors.

Therefore, these findings recommend the need for comprehensive and sustainable interventions. The intervention must prioritize a capacity building approach for teachers, budget allocation for school sanitation infrastructure improvements, and the creation of a firm and measurable school policy regarding PHBS. Thus, schools can truly serve as effective agents of change in instilling health values, not only for students but also for all school citizens, which will ultimately contribute to improving the degree of public health in Timor-Leste.

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