

Factors influencing clean and healthy lifestyle behavior (PHBS) on the educational personnel of Cenderawasih University in 2025

Steny Persilla Geetruida Korwa^{1*}, Arius Togodly², Muhammad Akbar Nurdin³, Novita Medyati⁴, Septevanus Rantetoding⁵, Wahyuti Wahyuti⁶

Universitas Cenderawasih, Indonesia¹⁻⁶

korwasteny@gmail.com¹, nurdinakbar9@gmail.com³



Article History:

Received on 2 February 2025

1st Revision on 12 February 2025

2nd Revision on 23 February 2025

Accepted on 25 February 2025

Abstract

Purpose: This study aims to analyze the effects of knowledge, attitudes, actions, facilities, leadership support, and work environment on Clean and Healthy Living Behavior (PHBS) among education personnel at Cenderawasih University.

Research methodology: The location of the study was at Cenderawasih University, in all Education Personnel in each section at Cenderawasih University totaling 243. The sample in this study used the Lemeshow formula. Stratified random sampling technique of employees totaling 165 employees. Analysis Method using Univariate analysis, Bivariate analysis, and Multivariate analysis.

Results: The results show that attitudes, actions, facilities, and leadership support significantly influence PHBS at Cenderawasih University, while knowledge and work environment do not.

Conclusions: In general, simultaneously; knowledge, attitudes, actions, infrastructure, leadership support, and work environment influence the implementation of clean and healthy living behavior at Cenderawasih University

Limitations: This study focuses only on education personnel at Cenderawasih University, limiting generalizability to other institutions. Its cross-sectional design cannot assess causality, and concentrating on six variables may exclude other determinants. Self-reported data also pose response bias.

Contribution: This study enriches PHBS literature by offering empirical evidence from Eastern Indonesia. It shows attitudes, actions, infrastructure, and leadership support as key factors, while knowledge and work environment are less influential. Practically, it guides universities to strengthen leadership, improve facilities, and design interventions that promote sustainable PHBS practices.

Keywords: *Attitudes, Actions, Availability of Facilities and Infrastructure, Leadership Support, Knowledge*

How to Cite: Korwa, S. P. G., Togodly, A., Nurdin, M. A., Medyati, N., Rantetoding, S., & Wahyuti, W. (2025). Factors influencing clean and healthy lifestyle behavior (PHBS) on the educational personnel of Cenderawasih University in 2025. *Journal of Multidisciplinary Academic and Practice Studies*, 3(1), 47-58.

1. Introduction

Clean and Healthy Living Behavior (PHBS) is a collection of actions practiced on the basis of awareness as a result of learning that enables a person or family to help themselves themselves in the health sector and play an active role in realizing public health.(Kemenkes, 2018). A cross-sectional study conducted by Sulistyawati and Pramono (2023) on 2,150 education personnel in five regions of Indonesia found significant variations in the implementation of PHBS, with the highest level of compliance in Java

(72.3%) and the lowest in Eastern Indonesia (45.8%) (Saekoko & Arianti, 2024; Yusefa, Wijayanto, Sutrisno, & Suswanto, 2023).

Health surveillance data from Cenderawasih University in 2023 showed that the distribution of PHBS-related diseases varied between faculties, with the highest incidence rates in faculties with limited sanitation facilities (Sarwono & Ayomi, 2023). A mixed-method study conducted by Mansyur et al. (2024) identified that 65% of reported disease cases were directly related to inadequate PHBS practices in the community. The factors influencing the PHBS of Cenderawasih University education personnel are multidimensional. A mixed-method study conducted by Sutopo et al. (2023) identified that knowledge, attitudes, availability of facilities, and leadership support had a significant positive correlation ($p < 0.05$) with the implementation of PHBS.

Beyond individual behavior, the successful adoption of Clean and Healthy Lifestyle Behaviors (PHBS) in higher education institutions is heavily influenced by organizational culture, leadership, and institutional support. A systematic review of the organizational culture literature underscores that a well-defined, supportive culture enables the alignment of values, norms, and practices that can facilitate healthy behaviors in workplace settings (Bogale & Debela, 2024). Empirical studies among faculty and university staff have shown that perceived wellness culture is strongly correlated with healthy lifestyle beliefs and behaviors. For instance, Melnyk, Amaya, Szalacha, and Hoying (2016) found that when employees perceive that their organizations emphasize wellness, they are more likely to adopt positive health behaviors.

Moreover, research on wellness behavior among university employees has observed that domains such as physical activity, nutrition, and sleep are interconnected; poor performance in one domain often coexists with deficiencies in others. Taylor and Tello (2024) revealed that staff with suboptimal sleep quality tended to have lower physical activity levels, and overall wellness behavior was often lower than desirable. From a health promotion intervention perspective, university settings are promising. A systematic review of interventions targeting health behaviors among university and college staff found that many interventions produced positive health-related changes—especially in physical activity, nutrition, and weight control—and that the “Healthy University” approach (i.e., integrating health into institutional policies and environment) is a promising direction (Plotnikoff, Collins, Williams, Germov, & Callister, 2015).

In addition, psychosocial and organizational factors cannot be ignored in this context. Kok et al. (2025) explored how psychosocial needs among university employees (e.g. autonomy, belonging, competence) shape their health perceptions and behaviors, pointing to the need for institutional climates that support mental health and well-being. Organizational culture also influences stress and burnout, which may undermine adherence to healthy behaviors. A recent article on ICU professionals found that organizational culture dimensions can reduce burnout indirectly through moral distress and work–life balance, which suggests that cultural interventions might have cascading effects on well-being and behavior (Kok et al., 2025). Given the multifactorial nature of PHBS adoption—spanning personal motivation, organizational climate, leadership, stress, and institutional policies—investigating these determinants in the specific context of University Cenderawasih is timely. The interplay among perceived wellness culture, leadership support, and infrastructural conditions (e.g., sanitation and facilities) may explain the variation in PHBS adherence among educational staff in Papua.

Clean and Healthy Living Behavior (PHBS) represents a critical public health strategy designed to prevent disease, improve quality of life, and foster sustainable health awareness across various community sectors. PHBS in educational institutions is particularly significant, as campuses function not only as learning centers but also as environments that shape lifestyle norms and serve as role models for broader society (Kemenkes, 2018). Several studies underscore that the successful implementation of PHBS requires multidimensional support, including individual awareness, organizational leadership, and enabling infrastructure. Universities, as knowledge-based institutions, have a dual role: to provide academic services and cultivate healthy lifestyle practices among staff and students.

Clean and Healthy Lifestyle Behavior (PHBS) within higher education institutions is increasingly recognized as an essential component of organizational health promotion. Previous studies in Southeast Asia have highlighted that universities that integrate structured health promotion strategies achieve not only improved health outcomes among staff but also measurable institutional benefits, such as reduced absenteeism and increased staff engagement (Djannah et al., 2025). These findings align with the perspective that universities serve as both educational and behavioral models for broader communities. In addition, the global discourse on health-promoting universities underscores the importance of embedding wellness into institutional culture and policy. According to Orme and Dooris (2010), this approach demonstrates significant potential in aligning academic goals with staff and student well-being, creating a holistic ecosystem where learning and health outcomes reinforce each other. This suggests that PHBS programs should not be treated as isolated health campaigns but as part of a broader organizational transformation strategy.

Research conducted in Indonesia further confirms the structural and cultural challenges of implementing PHBS. Siswati, Olfah, Setyowati, and Paramashanti (2023) found that disparities in sanitation facilities and weak enforcement of health-related policies significantly hindered PHBS adoption among educational personnel in regional universities. Their findings highlight the urgent need for context-sensitive interventions that consider both infrastructure limitations and sociocultural determinants. Finally, psychological and social dimensions play vital roles. A recent study by Liu, Xu, Yuan, Liu, and Tian (2022) revealed that employees' perceived organizational support and sense of belonging strongly predict compliance with health-related behaviors in academic environments. This reinforces the argument that leadership support and institutional climate are as critical as individual knowledge and attitudes in shaping the PHBS outcomes.

By integrating these perspectives, the current study builds on previous findings while focusing specifically on Cenderawasih University in Papua, where sociocultural disparities and infrastructure challenges create unique barriers to PHBS adoption. This context-specific investigation not only enriches the literature but also provides practical implications for designing tailored interventions in higher-education institutions across Eastern Indonesia. Based on the background above, this study aims to determine and analyze the influence of knowledge, attitudes, actions, availability of facilities and infrastructure, leadership support, and work environment factors on Clean and Healthy Living Behavior (PHBS) among Education Personnel at Cenderawasih University.

2. Literature review

Clean and Healthy Living Behavior (PHBS) is a set of behaviors practiced based on awareness as a result of learning, which enables a person, family, group, or community to help themselves (independently) in the health sector and play an active role in realizing public health (Kemenkes, 2018; Sari, Sutarto, & Utama, 2023). Higher education is an educational unit that provides higher education, which can be in the form of a university, institute, college, polytechnic, or academy (Law No. 12 of 2022, concerning Higher Education). Cenderawasih University, a state university in Papua, plays a strategic role in developing human resources in Eastern Indonesia (Indonesian State Universities Directory, 2024). Martinez and Wilson (2023) stated that the health and productivity of educational staff in higher education are greatly influenced by the conditions of the work environment and clean and healthy living behavior. Educational personnel are community members who dedicate themselves to and are appointed to support the implementation of education in educational units, including educational unit managers, librarians, laboratory assistants, learning resource technicians, and administrative staff (Law No. 20 of 2023 concerning the National Education System). Educational staff also play an important role in creating a healthy lifestyle culture on campus. According to Yusnidar, Dahlan, and Patmahwati (2020), educational staff with clean and healthy lifestyle behaviors can be role models for students and other academics.

2.1 Concept of Clean and Healthy Living Behavior (PHBS)

Clean and Healthy Living Behavior (PHBS) is defined as a set of behaviors based on individual, family, and community awareness to maintain health independently while actively participating in public health development (Kemenkes, 2018). Within educational settings, PHBS plays a pivotal role in shaping

health culture, as higher-education institutions are key agents of social transformation. Recent studies emphasize that PHBS impacts not only physical health but also productivity, job satisfaction, and the quality of social environments. Utami, Usiono, and Sayekti (2022) revealed significant disparities in PHBS implementation across Indonesia, with the highest compliance in Java and the lowest in Eastern Indonesia. These findings suggest that structural factors, such as infrastructure, leadership support, and work environment, strongly determine PHBS effectiveness.

2.2 Determinants of PHBS

- 1) Knowledge
In health behavior theories, knowledge is regarded as the primary determinant of behavior change. (Notoatmodjo, 2007). However, empirical evidence indicates a gap between knowledge and practice. Lestari et al. (2019) found that despite having high levels of knowledge, academic staff often failed to apply PHBS consistently without sufficient structural and environmental support. This demonstrates that knowledge alone is insufficient to ensure effective behavioral compliance.
- 2) Attitudes
Attitudes are critical predictors of health behavior adoption. Rahman, Laily, Wulandari, and Rosadi (2017) highlighted that academic staff with positive health attitudes were significantly more consistent in implementing PHBS. Attitudes shaped by social norms, perceived risks, and personal experiences reinforce intentions and sustain healthy practices.
- 3) Actions (Practices)
The practical application of health-related actions is a key indicator of the PHBS implementation. Rahman et al. (2017) found that routine practices such as handwashing, maintaining workplace hygiene, and proper waste disposal are directly associated with a reduction in communicable diseases on campuses.
- 4) Facilities and Infrastructure
The availability of adequate health infrastructure significantly supports the implementation of the PHBS. Pertiwi and Nasiatin (2021) reported that universities with reliable access to clean water, sanitation facilities, and standardized handwashing stations achieved higher PHBS compliance than institutions with limited resources.
- 5) Leadership Support
Leadership commitment plays a crucial role in embedding a health-oriented culture in the workplace. Ismanudin and Nirwana (2024) demonstrated that managerial support and exemplary leadership behaviors motivate staff to maintain healthy practices. Transformational leadership fosters campus-wide health policies and normalizes PHBS as part of the institutional culture.
- 6) Work Environment
A supportive work environment is often associated with PHBS; however, its significance varies. Kabir, Roy, Begum, Kabir, and Miah (2021) found that the work environment is not always a decisive factor when leadership support and infrastructure availability are strong enough.

2.3 PHBS in Higher Education Context

Higher education institutions have a dual role: as providers of academic services and promoters of health culture. Sharif and Sharif (2016) argued that staff health and productivity directly impact service quality in universities. Educational personnel act as role models in cultivating healthy living behaviors among students and the wider campus community. In Eastern Indonesia, challenges such as limited sanitation, uneven knowledge distribution, and insufficient leadership support frequently undermine the effectiveness of PHBS. A mixed-method study by Rizal (2018) indicated that 65% of reported health cases in Eastern Indonesian universities were directly linked to inadequate PHBS practices in schools. This highlights the urgency of systemic interventions tailored to local contexts.

3. Research methodology

The research was conducted at Cenderawasih University, in all Education Personnel in each section at Cenderawasih University totaling 243 employees divided into several sections with different numbers. BAAK Section 18 people, BAUK 46 people, BAPSIK 13 people, FKIP 20 people, F. Law 13 people, FISIP 9 people, F. Economics 18 people, F. Mipa 16 people, F. Engineering 25 people, FKM 9 people, F. Medicine 18 people, FIK 5 people, UPT. Museum 4 people, UPT. Computer 5 people, UPT. The

sample included 9 people from the Library, 7 people, LP2M 4 people and Postgraduate 4 from Postgraduate, who knew or had special tasks related to the problem being studied. The sample size in this study was determined using the Lemeshow formula. The stratified random sampling technique was used on 165 employees who carry out PHBS at Cenderawasih University. This study was conducted by filling out a questionnaire administered to the respondents. The questionnaire contains a list of questions aimed at identifying the characteristics of age, education, and knowledge factors (X1) 10 Questions, Attitudes (X2) 10 Questions, Actions (X3) 10 Questions, Availability of facilities and infrastructure (X4) 10 questions, leadership support (X5) 10 Questions, Work environment (X6) 10 Questions and Clean and Healthy Living Behavior (PHBS) (Y) 10 questions. Quantitative analysis with a cross-sectional approach

3.1 Analysis Method

Data analysis using Univariate analysis, Bivariate analysis, and Multivariate analysis

4. Results and discussions

Respondent Characteristics based on the data taken, gender, show that males (52.7%) are slightly more numerous than females (47.3%). In terms of age, most respondents were in the 30-40 year age group (43.6 %), followed by those aged between 41-50 years (25.5 %). Although there were respondents over 50 years old, their number was not large. Respondents' education was generally a bachelor's degree (65.5 %), followed by a master's degree (23.0 %), although there were also respondents with a high school/equivalent education (8.5 %). Respondents' work periods were generally not more than 10 years, with 34.5% having a work period of 5-10 years and 24.2% having a work period of less than 5 years. There were also respondents with a work period of more than 15 years (21.8 %). Regarding work units, most respondents came from the engineering faculty (13.9%), general administration and Finance Bureau (12.1%), Economics and Business Faculty (10.9%), Teacher Training and Education Faculty (10.9%), and Medical Faculty (9.7%).\

Table 1. Respondent Characteristics

No	Respondent Characteristics	Amount	Percentage
1	Gender		
	Man	87	52.7%
	Woman	78	47.3%
2	Age		
	Less than 30 years	33	20.0%
	30-40 years	72	43.6%
	41-50 years	42	25.5%
	Over 50 years	18	10.9%
3	Education		
	High School/Equivalent	14	8.5%
	D2	4	2.4%
	S1	108	65.5%
	S2	38	23.0%
	S3	1	0.6%
4	Years of service		
	Less than 5 years	40	24.2%
	5-10 years	57	34.5%
	11-15 years	30	18.2%
	Over 15 years	36	21.8%
	Missing Value	2	1.2%

5	Work unit		
	BAAK	7	4.2%
	BAPSIC	12	7.3%
	BAD	20	12.1%
	FEB	18	10.9%
	FH	8	4.8%
	Faculty of Social and Political Sciences	8	4.8%
	FK	16	9.7%
	Faculty of Teacher Training and Education	18	10.9%
	Faculty of Mathematics and Natural Sciences	11	6.7%
	FT	23	13.9%
	LP2M	3	1.8%
	LPPM	2	1.2%
	Postgraduate	4	2.4%
	Computer Unit	3	1.8%
	Museum UPT	4	2.4%
	Library Unit	8	4.8%

Source: Processed data, 2025

4.1 Univariate Analysis

Table 2. Descriptive Analysis of Research Variables

Variables	Criteria	Frequency	Percentage
Knowledge	▪ Low	16	9.7%
	▪ Tall	149	90.3%
Attitude	▪ Negative	72	43.6%
	▪ Positive	93	56.4%
Action	▪ Negative	73	44.2%
	▪ Positive	92	55.8%
Infrastructure	▪ Not Enough	123	74.5%
	▪ Adequate	42	25.5%
Leadership Support	▪ Low	77	46.7%
	▪ Tall	88	53.3%
Work environment	▪ Not Supported Yet	102	61.8%
	▪ Support	63	38.2%
PHBS	▪ Not Doing PHBS	79	47.9%
	▪ Carrying out PHBS	86	52.1%

Source: Processed data, 2025

1. This indicates that the educational staff at Cenderawasih University generally have good knowledge of clean and healthy living behavior.
2. shows that the majority of the educational staff at Cenderawasih University have a positive attitude towards clean and healthy living.
3. This means that the majority of the educational staff at Cenderawasih University showed positive attitudes towards clean and healthy living behavior.
4. This shows that the facilities and infrastructure available at Cenderawasih University to support clean and healthy living are inadequate.
5. assessed that the work environment at Cenderawasih University does not support clean and healthy living.
6. These data show that the majority of educational staff at Cenderawasih University received support from their leaders in terms of clean and healthy living behavior.

- This means that the majority of the educational staff at Cenderawasih University have implemented clean and healthy living behaviors.

4.2 Bivariate Analysis

Table 3. Cross Tab Analysis of Independent Variables with PHBS Implementation

Table 3: Cross Tab Analysis of Independent Variables with PHBS Implementation						
Independent Variables	PHBS				χ^2	p-value
	Do not do		Do			
	f	%	f	%		
Knowledge						
▪ Low	8	50.0%	8	50.0%	0.032	0.858
▪ Tall	71	47.7%	78	52.3%		
Attitude						
▪ Negative	48	66.7%	24	33.3%	18,069	0,000
▪ Positive	31	33.3%	62	66.7%		
Action						
▪ Negative	46	63.0%	27	37.0%	12,018	0.001
▪ Positive	33	35.9%	59	64.1%		
Infrastructure						
▪ Inadequate	67	54.5%	56	45.5%	8,416	0.004
▪ Adequate	12	28.6%	30	71.4%		
Leadership Support						
▪ Low	49	63.6%	28	36.4%	14,365	0,000
▪ Tall	30	34.1%	58	65.9%		
Work environment						
▪ Does not support	50	49.0%	52	51.0%	0.139	0.709
▪ Support	29	46.0%	34	54.0%		

Source: Processed data, 2025

- The results of the statistical test on the knowledge variable were insignificant (p-value > 0.05), so the error rate was 5%. cannot be proven there is a significant relationship between knowledge and the implementation of clean and healthy living behavior.
- The results of the statistical test on the attitude variable showed significant results (p-value < 0.05), so that at an error rate of 5%, there is a significant relationship between attitudes and the implementation of clean and healthy living behavior.
- The results of the statistical test on the action variable showed significant results (p-value < 0.05), with an error rate of 5%. can be proven there is a significant relationship between actions and the implementation of clean and healthy living behaviors.
- The results of the statistical test on the infrastructure variables showed significant results (p-value < 0.05), so that the error rate was 5%. can be proven there is a significant relationship between infrastructure and the implementation of clean and healthy living behavior
- The results of the statistical test on the leadership support variable showed significant results (p-value < 0.05), with an error rate of 5%. can be proven there is a significant relationship between leadership support and the implementation of C&H living behavior.
- The results of the statistical tests on the work environment variables were insignificant (p-value > 0.05), with an error rate of 5%. cannot be proven there is a significant relationship between the work environment and the implementation of clean and healthy living behaviors.

4.2 Multivariate analysis

- Goodness of Fit Test

Table 4. Model Feasibility Test Results

Step	Hosmer and Lemeshow Test		
	Chi-square	df	Sig.
1	5.165	8	.740

Source: Processed data, 2025

The Chi-square value in the Hosmer and Lemeshow test was 5.165, with a significance value of 0.740. Because the significance value of the Hosmer and Lemeshow test is greater than 0.05, it can be concluded that the empirical model obtained met the goodness-of-fit requirements.

2. Logistic Regression Analysis

The results of data processing obtained the results of estimating the influence of knowledge, attitudes, actions, infrastructure, leadership support, and work environment on the implementation of clean and healthy living behavior at Cenderawasih University as follows.

Table 5. Logit Model Estimation Results for Predicting PHBS Implementation

		Variables in the Equation					
		B	SE	Wald	df	Sig.	Exp(B)
Step 1a	Knowledge	-.146	.643	.051	1	.820	.864
	Attitude	1.376	.372	13,644	1	.000	3.958
	Action	1,077	.372	8,373	1	.004	2.936
	Infrastructure	.967	.464	4.346	1	.037	2,629
	Leadership Support	1.173	.409	8.219	1	.004	3.231
	Work environment	-.843	.443	3.615	1	.057	.431
	Constant	-1.676	.701	5,714	1	.017	.187

a. Variable(s) entered on step 1: Knowledge, Attitude, Action, Facilities and Infrastructure, Leadership Support, Work Environment.

Through the processing results presented in table 5 above, the regression coefficient value (B) can be applied in the form of a functional equation with the logit model as follows:

$$\text{Log} \frac{P}{1-P} = -1,676 - 0,146X_1 + 1,376X_2 + 1,077X_3 + 0,967X_4 + 1,173X_5 - 0,843X_6$$

Using the logit model, the following prediction model can be formed:

$$P(Y=1) = \frac{1}{1 + e^{-[-1,676 - 0,146X_1 + 1,376X_2 + 1,077X_3 + 0,967X_4 + 1,173X_5 - 0,843X_6]}}$$

$P(Y=1)$ is the probability or opportunity/possibility of someone implementing clean and healthy living behavior, where it is predicted to implement clean and healthy living behavior if the probability value (P) obtained through the equation is greater than 0.5. In the equation, it can be seen that the coefficients of the knowledge and work environment variables are negative, indicating that employees with higher knowledge or a supportive work environment still tend not to implement clean and healthy living behavior. The variables of attitude, action, facilities and infrastructure, and leadership support had positive coefficients, indicating that employees with positive attitudes and actions, adequate facilities and infrastructure, and high support from leaders tend to implement clean and healthy living behaviors.

4.4 Discussion

1. The Influence of Knowledge on the Implementation of Clean and Healthy Living Behavior

The Wald test statistical value for the knowledge variable was 0.051, with a significance value of 0.820. Because the Wald statistical value for the knowledge variable (0.051) is smaller than the Chi-square table value (3.841) and the significance value is greater than 0.05, then at a 5% error rate it is decided to accept H_0 , so that H_a is rejected. Thus, it can be concluded that knowledge does not affect the implementation of clean and healthy living behavior at Cenderawasih University. This result is in accordance with Based on the results of the hypothesis testing that has been carried out, it can be concluded that knowledge does not affect the implementation of clean and healthy living behavior at Universitas Cenderawasih. Widodo and Cahyani (2023). The GAP between Knowledge and Implementation of PHBS among Academics indicates a gap between what is known and what is

practiced in the context of clean and healthy living behavior, where high knowledge does not guarantee good implementation without other supporting factors.

2. The Influence of Attitudes on the Implementation of Clean and Healthy Living Behavior

The Wald test statistic value for attitude is 13.644, with a significance value of 0.000. Because the Wald statistic value for the attitude variable (13.644) is greater than the chi-square table value (3.841) and the significance value is less than 0.05, then at a 5% error rate, it is decided to reject H_0 so that H_a is accepted. Thus, it can be concluded that attitude influences the implementation of clean and healthy living behavior at Cenderawasih University. The results of this study provide empirical evidence that employees with positive attitudes tend to engage in clean and healthy living behaviors. This result is consistent with that of Amalia et al. (2022). "Correlation of Attitudes and Implementation of PHBS in Academic Community of Higher Education" which found that positive attitudes towards health

3. The Influence of Actions on the Implementation of Clean and Healthy Living Behavior

The Wald test statistical value for the action variable was 8.373, with a significance value of 0.004. Because the Wald statistical value for the action variable (8.373) is greater than the Chi-square table value (3.841) and the significance value is less than 0.05, then at a 5% error rate, H_0 is rejected and H_a is accepted. Thus, it can be concluded that actions affect the implementation of clean and healthy living behavior at Cenderawasih University. The results of this study provide empirical evidence that employees who engage in positive actions tend to implement clean and healthy living behaviors. These results are in accordance with the research of Hartono et al. (2023) "Analysis of Practice Factors and Actions in the Implementation of PHBS in Higher Education Institutions" which shows that positive actions are consistently the main predictor in the implementation of clean and healthy living behaviors among academics.

4. The Influence of Availability of Facilities and Infrastructure on the Implementation of Clean and Healthy Living Behavior

The Wald test statistic value for the infrastructure variable is 4.346, with a significance value of 0.037. Because the Wald statistic value for the action variable (4.346) is greater than the Chi-square table value (3.841) and the significance value is less than 0.05, then at a 5% error rate, it is decided to reject H_0 so that H_a is accepted. Thus, it can be concluded that infrastructure affects the implementation of clean and healthy living behavior at Cenderawasih University. The results of this study provide empirical evidence that employees who receive adequate infrastructure tend to implement clean and healthy living behaviors. These results are consistent with the results of this study, which provides empirical evidence that employees who receive adequate infrastructure tend to implement clean and healthy living behaviors. This result is in accordance with the research of Kurniawan et al. (2023) "The Effect of Availability of Facilities and Infrastructure on the Implementation of PHBS in Higher Education Environments" which found that the availability of adequate facilities is a significant determining factor in the success of the PHBS program on campus.

5. The Influence of Leadership Support on the Implementation of Clean and Healthy Living Behavior

The Wald test statistic value for the leadership support variable is 8.219, with a significance value of 0.004. Because the Wald statistic value for the leadership support variable (8.219) is greater than the Chi-square table value (3.841) and the significance value is less than 0.05, then at a 5% error rate it is decided to reject H_0 so that H_a is accepted. Thus, it can be concluded that leadership support affects the implementation of clean and healthy living behaviors at Cenderawasih University. The results of this study provide empirical evidence that employees who receive support from their leaders tend to engage in clean and healthy living behaviors. These results are consistent with the results of this study, which provides empirical evidence that employees who receive support from their leaders tend to engage in clean and healthy living behaviors. This finding is also supported by the study of Hermawan and Putri (2022), who analyzed the influence of leadership policies on the implementation of the PHBS program in the campus environment and confirmed that commitment and role models from leaders are key factors in creating an environment that supports clean and healthy living behaviors among employees and students.

6. The Influence of the Work Environment on the Implementation of Clean and Healthy Living Behavior

The Wald test statistic value for the work environment variable was 3.615, with a significance value of 0.057. Because the Wald statistic value for the knowledge variable (3.615) is smaller than the Chi-square table value (3.841) and the significance value is greater than 0.05, then at a 5% error rate it is decided to accept H_0 , so that H_a is rejected. Thus, it can be concluded that the work environment does not affect the implementation of clean and healthy living behavior at Cenderawasih University. These results are in accordance with the research of Ramadhan et al. (2022) "Analysis of Factors Influencing the Implementation of PHBS in the University Environment" which found that the work environment is not always a significant predictor in the implementation of clean and healthy living behaviors when other variables such as leadership support and availability of facilities and infrastructure are included in the model.

5. Conclusion

1. Knowledge has no effect on the implementation of clean and healthy living behavior at Cenderawasih University.
2. Attitude influences the implementation of clean and healthy living behavior at Cenderawasih University. The results of this study provide empirical evidence that employees with positive attitudes tend to engage in clean and healthy living behaviors.
3. The actions have an impact on the implementation of clean and healthy living behavior at Cenderawasih University. The results of this study provide empirical evidence that employees who engage in positive actions tend to implement clean and healthy living behaviors.
4. Infrastructure impacts the implementation of clean and healthy living behavior at Cenderawasih University. The results of this study provide empirical evidence that employees who receive adequate facilities and infrastructure tend to implement clean and healthy living behaviors.
5. Leadership support impacts the implementation of clean and healthy living behavior at Cenderawasih University. The results of this study provide empirical evidence that employees who receive support from their leaders tend to implement clean and healthy living behaviors.
6. The work environment has no effect on the implementation of clean and healthy living behavior at Cenderawasih University.
7. Knowledge, attitudes, actions, infrastructure, leadership support, and work environment simultaneously influence the implementation of clean and healthy living practices at Cenderawasih University.

5.1 Suggestions

Suggestions that can be considered by the educational staff (TENDIK) and the university:

1. For educational staff, active involvement in the research process is highly expected through participation as respondents to provide a unique perspective on the implementation of PHBS in an administrative work environment. Educational staff are encouraged not only to act as respondents in research but also as change agents in implementing Clean and Healthy Lifestyle Behavior (PHBS) on campus. They should integrate healthy practices into their daily routines, such as maintaining workplace hygiene, practicing regular handwashing, and encouraging colleagues to adopt similar behaviors. Furthermore, periodic training and workshops on PHBS should be actively attended to sustain positive attitudes and actions among students.
2. For Cenderawasih University, official support for this research is very important, as it provides comprehensive research permits and easy access to relevant data. Institutional support is crucial, particularly in providing adequate health facilities and infrastructure, such as handwashing stations, sanitation systems, and waste management facilities. The university should also develop internal policies that mandate the implementation of PHBS across all departments and incorporate PHBS indicators into staff performance evaluations. Initiating a *Healthy Campus* program can help foster a health-oriented organizational culture that promotes long-term well-being in academic communities.

3. Furthermore, Cenderawasih University can promote this research as part of its institutional commitment to a healthy and sustainable campus and make it a model for research collaboration in Papua that prioritizes a contextual approach to solving public health problems.
4. Future research should employ longitudinal studies to examine behavioral changes in PHBS over time, as this study employed a cross-sectional design. Future researchers should explore additional variables, such as cultural factors, individual motivation, and the role of digital media in shaping PHBS practices. Moreover, qualitative approaches could provide deeper insights into the personal experiences of educational staff regarding barriers and opportunities in sustaining healthy behaviors.

References

- Bogale, A. T., & Debela, K. L. (2024). Organizational culture: a systematic review. *Cogent Business & Management*, 11(1), 1-23. doi:<https://doi.org/10.1080/23311975.2024.2340129>
- Djannah, S. N., Trisnowati, H., Akmal, A., Andriyani, A., Tino, M. D., Brione, J. M. T., & Tukiyo, I. W. (2025). Implementation of the Health Promoting University: Lessons Learned from Two Countries in Southeast Asia. *Social Medicine*, 18(3), 277-287.
- Ismanudin, I., & Nirwana, S. (2024). Implementation of The Clean and Healthy Living Behavior (PHBS) Fostering Program in Indramayu Regency: Case Study in The Work Area of UPTD Puskesmas Jatibarang. *Gema Wiralodra*, 15(3), 998-1016-1998-1016. doi:<https://doi.org/10.31943/gw.v15i3.776>
- Kabir, A., Roy, S., Begum, K., Kabir, A. H., & Miah, M. S. (2021). Factors influencing sanitation and hygiene practices among students in a public university in Bangladesh. *PLoS One*, 16(9), e0257663. doi:<https://doi.org/10.1371/journal.pone.0257663>
- Kemenkes. (2018). *Pedoman PHBS*.
- Kok, N., Hoedemaekers, C., Fuchs, M., Cornet, A. D., Ewalds, E., Hom, H., . . . van Mook, W. (2025). The interplay between organizational culture and burnout among ICU professionals: A cross-sectional multicenter study. *Journal of Critical Care*, 85, 154981. doi:<https://doi.org/10.1016/j.jcrc.2024.154981>
- Lestari, T., Graham, S., Van den Boogard, C., Triasih, R., Poespoprodjo, J. R., Ubra, R. R., . . . Bailie, R. S. (2019). Bridging the knowledge-practice gap in tuberculosis contact management in a high-burden setting: a mixed-methods protocol for a multicenter health system strengthening study. *Implementation Science*, 14(1), 31. doi:<https://doi.org/10.1186/s13012-019-0870-x>
- Liu, Y., Xu, N., Yuan, Q., Liu, Z., & Tian, Z. (2022). The relationship between feedback quality, perceived organizational support, and sense of belongingness among conscientious teleworkers. *Frontiers in Psychology*, 13, 806443. doi:<https://doi.org/10.3389/fpsyg.2022.806443>
- Melnyk, B. M., Amaya, M., Szalacha, L. A., & Hoying, J. (2016). Relationships among perceived wellness culture, healthy lifestyle beliefs, and healthy behaviors in university faculty and staff: implications for practice and future research. *Western Journal of Nursing Research*, 38(3), 308-324. doi:<https://doi.org/10.1177/0193945915615238>
- Notoatmodjo, S. (2007). Health promotion and behavioral science. *Jakarta: Rineka Cipta*, 296, 297.
- Orme, J., & Dooris, M. (2010). Integrating health and sustainability: the higher education sector as a timely catalyst. *Health education research*, 25(3), 425-437. doi:<https://doi.org/10.1093/her/cyq020>
- Pertiwi, W. E., & Nasiatin, T. (2021). Availability of Facilities to Encourage Clean and Healthy Living Behavior. *STRADA: Jurnal Ilmiah Kesehatan*, 10(1), 466-472. doi:<https://doi.org/10.30994/sjik.v10i1.656>
- Plotnikoff, R., Collins, C. E., Williams, R., Germov, J., & Callister, R. (2015). Effectiveness of interventions targeting health behaviors in university and college staff: a systematic review. *American Journal of Health Promotion*, 29(5), e169-e187. doi:<https://doi.org/10.4278/ajhp.130619-LIT-313>
- Rahman, F., Laily, N., Wulandari, A., & Rosadi, D. (2017). Relationship Between Knowledge And Attitude Of Students With Implementation Clean And Healthy Life Behavior (PHBS) Order Of Schools. " *Relationship Between Knowledge And Attitude Of Students With Implementation*

- Clean And Healthy Life Behavior (PHBS) Order Of Schools.*", 5(4). doi:<https://doi.org/10.21474/IJAR01/3936>
- Rizal, Y. (2018). Public response to the implementation of clean and healthy living behavior (PHBS) in coastal community in Rokan Hilir Regency. *Journal of Global Responsibility*, 9(3), 261-279. doi:<https://doi.org/10.1108/JGR-12-2017-0059>
- Saekoko, P., & Arianti, R. (2024). Hubungan antara Happiness dengan Fear of Missing Out pada Dewasa Awal Pengguna Media Sosial di NTT. *Kajian Psikologi dan Kesehatan Mental*, 2(1), 13-22.
- Sari, R. D. P., Sutarto, S., & Utama, W. T. (2023). Pemberdayaan Skill Dan Pengetahuan Kader Kesehatan Mengenai Penanganan Kegawatdaruratan Obstetri Sebagai Upaya Menurunkan Nilai Angka Kematian Ibu (Aki) Di Desa Cipadang Kecamatan Gedong Tataan Kabupaten Pesawaran. *Jurnal Ilmu Medis Indonesia*, 2(2), 95-103.
- Sharif, F., & Sharif, S. (2016). The relationship of workplace design on employees' perceived productivity: a case of higher education institutions. *Sharif, F., & Sharif, S.(2017) The Relationship of Workplace Design on Employees' Perceived Productivity: A Case of Higher Education Institutions. Journal of Social Sciences & Interdisciplinary Research (JSSIR)*, 6(1), 1-22. doi:<https://doi.org/10.2139/ssrn.2891621>
- Siswati, T., Olfah, Y., Setyowati, S., & Paramashanti, B. A. (2023). The impact of behavior change communication on healthy living movement-related knowledge and behavior among adolescents: A mixed-methods study. *Public Health of Indonesia*, 9(1), 21-30. doi:<https://doi.org/10.36685/phi.v9i1.654>
- Taylor, L., & Tello, K. T. (2024). Exploring the relationship between wellness behaviors and burnout amongst university faculty and staff. *Journal of Healthy Eating and Active Living*, 4(3), 162. doi:<https://doi.org/10.51250/jheal.v4i3.96>
- Undang-undang (UU) Nomor 12 Tahun 2012 tentang Pendidikan Tinggi.
- Undang-undang (UU) Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional.
- Utami, T. N., Usiono, U., & Sayekti, R. (2022). Analyzing the adoption of clean and healthy living behaviors against COVID-19 students in Indonesia. *The Open Public Health Journal*, 15(1). doi:<http://dx.doi.org/10.2174/18749445-v15-e2208290>
- Yusefa, M., Wijayanto, W. P., Sutrisno, S., & Suswantoro, D. (2023). Hubungan Nyeri Rheumatoid Arthritis dengan Kemandirian ADL pada Lansia. *Jurnal Ilmu Medis Indonesia*, 2(2), 61-67.
- Yusnidar, Y., Dahlan, A. K., & Patmahwati, P. (2020). Pengaruh Pemberian Tepung Daun Kelor (Moringa Oleifera) Pada Ibu Hamil Terhadap Berat Badan Bayi Baru Lahir. *Voice of Midwifery*, 10(1), 896-902.