Jurnal Kesehatan Vokasional, Vol. 10 No. 4 (November 2025)
ISSN 2541-0644 (print), ISSN 2599-3275 (online)
DOI https://doi.org/10.22146/jkesvo.110920

Health Promotion on PHBS: Efforts to Change Household Strata in X District Central Java

Upaya Promosi Kesehatan tentang PHBS: Upaya Mengubah Strata PHBS Rumah Tangga di Kabupaten X Jawa Tengah

Riyana Rahayuni[1]✉; Bambang Budi Raharjo[1]; Evi Widowati[1]
[1]Public Health Sciences, Postgraduate Program, Universitas Negeri Semarang, Indonesia

ABSTRACT

Background: Clean and Healthy Living Behavior (PHBS) serves as a key indicator for improving community health status in alignment with the 2015–2030 Sustainable Development Goals (SDGs), particularly in promoting healthy lives and well-being for all segments of society.

Objective: This research aimed to determine the differences in the PHBS strata of households in Pati Regency before and after health promotion interventions.

Methods: This study employed a *quasi-experimental* design (pre-experimental design) with a pretest–posttest control group model. Sampling used *purposive sampling*, comprising 32 control group participants (Trangkil and Margoyoso Districts) and 32 experimental group participants (Margorejo and Wedarijaksa Districts).

Results: The control group showed no improvement in PHBS strata before and after the observation period ($p = 1.000 > 0.05$), while the experimental group demonstrated a significant increase following the video-based health promotion intervention ($p = 0.000 < 0.05$).

Conclusion: Health promotion delivered through drama-based educational video media is effective in improving household PHBS strata, particularly shifting households from the Madya to the Utama stratum.

Keywords: PHBS, household, health promotion

ABSTRAK

Latar Belakang: *Perilaku Hidup Bersih dan Sehat (PHBS) digunakan sebagai indikator peningkatan derajat kesehatan masyarakat yang sejalan dengan Tujuan Pembangunan Berkelanjutan (SDGs) 2015–2030, khususnya dalam upaya mewujudkan kehidupan sehat dan kesejahteraan bagi seluruh lapisan masyarakat.*

Tujuan *Penelitian bertujuan mengetahui perbedaan tingkat Strata PHBS Rumah Tangga di Kabupaten Pati sebelum dan sesudah upaya promosi kesehatan.*

Metode: : *Penelitian menggunakan desain quasi-experimental dengan model pretest–posttest kelompok kontrol. Sampel dipilih menggunakan teknik purposive sampling, terdiri dari 32 kelompok kontrol (Kecamatan Trangkil dan Margoyoso) dan 32 kelompok eksperimen (Kecamatan Margorejo dan Wedarijaksa).*

Hasil: *Kelompok kontrol tidak menunjukkan peningkatan strata PHBS ($p = 1{,}000 > 0{,}05$), sedangkan kelompok eksperimen menunjukkan peningkatan signifikan setelah intervensi promosi kesehatan melalui video ($p = 0{,}000 < 0{,}05$).*

Kesimpulan: *Promosi kesehatan melalui media video edukatif berbasis drama terbukti efektif dalam meningkatkan strata PHBS rumah tangga, khususnya pergeseran dari strata Madya ke Utama.*

Kata Kunci: *PHBS, rumah tangga, promosi kesehatan*

✉Corresponding author: riyanapati73@students.unnes.ac.id
Submitted 03 September 2025 **Revised** 17 November 2025 **Accepted** 13 January 2026

https://jurnal.ugm.ac.id/jkesvo
Published online November 30, 2025

Copyright © 2025 THE AUTHOR(S). This article distributed under a Creative Commons Attribution-ShareAlike 4.0 International license.
https://creativecommons.org/licenses/by-sa/4.0/

INTRODUCTION

Clean and Healthy Living Behavior (*Perilaku Hidup Bersih dan Sehat/PHBS*) constitutes one of the primary strategies in health development that plays an important role in supporting the achievement of the 2015–2030 Sustainable Development Goals (SDGs), particularly Goal 3, which emphasizes guaranteeing healthy lives and well-being for all segments of society (Bappenas, 2020; CDC, 2024). At the implementation level, household PHBS serves as a critical foundation, as the household represents the smallest unit that directly influences the overall health status of the community (Afiyah, 2022; Atik, 2021; Hidayah et al., 2020).

Although PHBS policies and programs have been implemented at the national level, the achievement of their implementation has not been uniformly distributed (Aswadi, 2021; Barnighausen, 2022). Data from the 2018 Basic Health Research (Riskesdas) indicate that the percentage of households implementing PHBS nationally remained below the established targets, despite improvement compared to previous years (Kemenkes RI, 2018). This condition reveals a gap between policy achievement and behavioral change among households, suggesting that increased coverage figures do not necessarily reflect the quality of sustainable PHBS implementation (Bartram & Cairncross, 2020; Gaol, 2021).

Several prior studies have demonstrated that knowledge, attitudes, and social factors are significantly associated with PHBS implementation (Irviana, 2024; Ningsih, 2024). Other studies focused more on managerial aspects or health promotion strategies without measuring the direct impact on PHBS (Lestaluhu, 2024; Siregar, 2023). The majority of studies employed cross-sectional designs, which are limited in explaining dynamic behavioral changes or shifts in PHBS strata as outcomes of health promotion interventions (Hartini, 2022; Hasymi, 2022; Nurrahmah, 2024). This constitutes a research gap in empirical evidence regarding the effectiveness of health promotion on changes in household PHBS strata as a concrete indicator of behavioral change.

This research aimed to assess the impact of health promotion on changes in household PHBS strata, thereby providing a scientific basis for formulating more effective and sustainable health promotion strategies to support the achievement of the SDGs in the health sector. The novelty of this study lies in its use of a drama-based educational video as the health promotion intervention medium, with a pre–post experimental design to evaluate strata-level behavioral change.

MATERIALS AND METHODS

A. Research Design

This study employed a *quasi-experimental* design (pre-experimental design) implementing a pretest–posttest control group model. The experimental group received health promotion on Clean and Healthy Living Behavior (PHBS) delivered through a drama-based educational video depicting everyday scenes illustrating the implementation of each household PHBS indicator (Azwar, 2017; Sopiyudin, 2018). This video medium was selected because it captures attention, facilitates comprehension of health messages, and enhances emotional engagement through relatable situational presentation (Notoatmodjo, 2018).

B. Population and Sample

The study population comprised all households residing in Pati Regency, particularly in four sub-districts with relatively low PHBS implementation rates: Trangkil, Margoyoso, Margorejo, and Wedarijaksa. Sampling used purposive sampling. Inclusion criteria comprised

households registered within the working areas of the respective community health centers, having children under five, and willing to participate. Exclusion criteria included households that had relocated, had only one family member, or were unwilling to participate.

Based on the sample size calculation using the unpaired numerical comparative research formula, a minimum of 29 samples per group was obtained. After adding 10% to anticipate *drop out*, the final sample comprised 32 control group households (Trangkil and Margoyoso Districts) and 32 experimental group households (Margorejo and Wedarijaksa Districts), totaling 64 households.

C. Data Collection Technique

Data collection used a closed questionnaire in which all response options were pre-provided, requiring participants only to mark the appropriate answer (Sugiyono, 2017). The questionnaire was administered at the respondent's household by trained data collectors during both the pretest and posttest phases.

D. Research Instrument

The research instrument used consisted of a household PHBS questionnaire comprising 16 items corresponding to the indicators established by the (Kemenkes, 2019). Validity testing on 30 respondents yielded item-total correlation values ranging from 0.431 to 0.762 (> 0.361), confirming that all items were valid. Reliability testing produced a Cronbach's Alpha of 0.874, indicating high consistency. Each item was scored 1 for affirmative and 0 for negative response. Scores were aggregated to determine the household PHBS stratum: Pratama (1–8 indicators), Madya (9–12), Utama (13–15), and Paripurna (16 indicators). Changes in stratum constituted the basis for evaluating intervention effectiveness.

Table 1. Household PHBS Strata Instrument

No.	Indicator	Items
1.	Delivery assisted by skilled health personnel.	1
2.	Exclusive breastfeeding for infants aged 0–6 months.	1
3.	Children under five weighed monthly or at least 8 times/year.	1
4.	Every family member consumes a variety of foods in sufficient quantities for nutritional balance.	1
5.	Performing measured physical activity for minimum 30 minutes/day.	1
6.	Family members who smoke do so outside the home or reside in smoke-free premises.	1
7.	Handwashing with soap before eating and after defecation.	1
8.	Tooth brushing at least twice daily after meals and before bedtime.	1
9.	Avoiding alcoholic beverages and refraining from drug abuse.	1
10.	Every family member enrolled in National Health Insurance (JPK).	1
11.	Mosquito nest eradication (PSN) through the 3M method.	1
12.	Family uses clean water for drinking, cooking, bathing, and washing.	1
13.	Every household member uses a hygienic latrine.	1
14.	Waste collected and disposed of daily at a standard facility.	1
15.	Floor area per family member is at least 9 m^2.	1
16.	House floor is water-resistant and kept clean at all times.	1
	Total	**16**

Source: Primary research data (2024)

E. Data Analysis Technique

Data analysis was conducted in two stages: univariate and bivariate. Univariate analysis described the characteristics of respondents and variable distribution. Normality testing used the *Shapiro–Wilk test* (n < 50 per group). Bivariate analysis comprised three steps: (1) testing pretest–posttest differences in the control group using the *Wilcoxon Signed Rank Test*; (2) testing pretest–posttest differences in the experimental group using the same method; and (3) comparing intervention effectiveness between groups via the delta value (posttest–pretest score difference) using the *Mann–Whitney U Test*, with a significance threshold of $p < 0.05$.

RESULT AND DISCUSSION

A. Univariate Analysis

1. Frequency Distribution of Respondents by Age

Table 2. Frequency Distribution of Respondents by Age (Control and Experimental Groups)

No.	Age	Control Group		Experimental Group	
		n	%	n	%
1	19–25	9	28.13	18	56.25
2	26–32	8	25.00	8	25.00
3	33–39	10	31.25	5	15.63
4	40–46	5	15.63	1	3.13
	Total	**32**	**100.00**	**32**	**100.00**

Source: Primary research data (2024)

2. Frequency Distribution of Respondents by Education Level

Table 3. Frequency Distribution of Respondents by Education Level

No	Last Education	Control Group		Experimental Group	
		n	%	n	%
1	Elementary School (SD)	1	3.13	1	3.13
2	Junior High School (SMP)	5	15.63	9	28.13
3	Senior High School (SMA)	19	59.38	20	62.50
4	Higher Education	7	21.88	2	6.25
	Total	**32**	**100.00**	**32**	**100.00**

Source: Primary research data (2024)

3. Frequency Distribution of Respondents by Occupation

Table 4. Frequency Distribution of Respondents by Occupation

No	Occupation	Control Group		Experimental Group	
		n	%	n	%
1	Homemaker (IRT)	22	68.75	26	81.25
2	Self-employed (Wiraswasta)	5	15.63	2	6.25
3	Private Sector Employee	5	15.63	4	12.50
4	Civil Servant (PNS)	0	0.00	0	0.00
	Total	**32**	**100.00**	**32**	**100.00**

Source: Primary research data (2024)

4. Frequency Distribution Based on Responses to Household PHBS Indicators

Table 5. Frequency of Respondents Answering Correctly on Household PHBS Indicators

Indicator	Control Group		Experimental Group	
	Pre-test	Post-test	Pre-test	Post-test
1	24	24	24	28
2	28	28	27	28
3	28	28	25	30
4	28	28	28	31
5	29	29	27	30
6	27	27	25	30
7	27	27	28	30
8	22	22	22	27
9	27	27	29	31
10	28	28	26	29

11	20	20	20	27
12	24	24	24	29
13	30	30	27	31
14	29	29	28	31
15	28	28	27	30
16	28	28	28	29

Source: Primary research data (2024)

1. Normality Test

Table 6. Normality Test Results (Shapiro–Wilk)

No	Class	Shapiro–Wilk		
		Statistic	df	Sig.
1	Pre control	.942	32	.083
2	Post control	.942	32	.083
3	Pre experimental	.909	32	.010
4	Post experimental	.848	32	.000

Source: Processed data (2024)

Based on Table 6, the normality analysis using the *Shapiro–Wilk* method indicates that the PHBS score variables in both groups yielded p-values < 0.05, indicating that the data do not follow a normal distribution. Therefore, non-parametric tests were employed for further analysis.

2. Levene's Test for Equality of Variances

Table 7. Results of Levene's Test for Equality of Variances

		Control Group		Exp. Group
		F	Sig.	Sig.
RESULT	Equal variances assumed	0	1.000	0.022

Source: Processed data (2024)

B. Bivariate Analysis

Table 8. Descriptive Statistics of PHBS Scores (Pre- and Post-test)

N		pre control	post control	pre exp	post exp
	Valid	32	32	32	32
	Missing	0	0	0	0
Mean		13.343	13.343	12.968	14.718
Median		14.000	14.000	13.000	15.000
Std. Deviation		17.340	17.340	15.751	10.544

Source: Processed data (2024)

The mean PHBS score in the control group showed no change between the pretest and posttest (13.34 ± 1.73), while the experimental group experienced an increase from 12.97 ± 1.58 to 14.72 ± 1.05. This indicates a meaningful improvement in scores among the group that received the intervention. To ascertain the significance of this change, a *Wilcoxon Signed Rank Test* was performed on both groups.

Table 9. Results of the Wilcoxon Signed Rank Test

	Post control – pre control	Post experimental – pre experimental
Z	.000b	–4.414c
Asymp. Sig. (2-tailed)	1.000	.000

Source: Processed data (2024)

Based on Table 9, the significance value of the pretest–posttest comparison for the control group was 1.000 (p > 0.05), indicating no statistically significant change. Conversely, the experimental group yielded a significance value of 0.000 (p < 0.05), confirming a statistically significant improvement following the intervention.

C. Discussion

The health promotion intervention was conducted through three weekly sessions, each involving viewing of a 10–15 minute drama-based educational video depicting the implementation of all 16 household PHBS indicators, followed by interactive discussion facilitated by local health cadres (Bloomfield, 2021; Degenhardt, 2022). The video content was developed based on the guidelines of the (Kemenkes RI, 2025). This approach was designed not only to enhance knowledge

but also to cultivate awareness and family commitment to sustaining PHBS practices.

Descriptive results revealed that the mean PHBS score in the control group showed no change (13.34 ± 1.73), while the experimental group showed improvement from 12.97 ± 1.58 to 14.72 ± 1.05. The shift in strata reflected in the experimental group transitioning from predominantly Madya (9–12 indicators) to Utama (13–15 indicators), with improvements concentrated in handwashing with soap, use of clean water, provision of hygienic latrines, and household waste management. These improvements support the theoretical framework of Glanz (2017), who asserts that health promotion is most effective when delivered through engaging, repetitive, and contextually relevant methods.

These findings are also consistent with Yunita (2023), who demonstrated improvements in community knowledge and behavior following a health promotion intervention in Palangka Raya. The use of drama-based educational video enhanced emotional engagement and message comprehension through relatable scenarios (Aiello, 2022; Amalia, 2018). This supports the argument that innovative audio-visual media may be more effective than conventional health education in inducing behavioral change at the household level (Hayati, 2023; Juwita, 2023).

The research findings carry practical implications for public health programs. First, drama-based educational video media may serve as an innovative communication strategy in household PHBS promotion (Drewnowski & Almiron-Roig, 2020). Second, participatory discussion sessions following video viewing reinforce families' commitment to PHBS implementation (Dutta & Mahanta, 2019; Green, 2019). Third, these findings may serve as a reference for community health centers and local health offices in designing community empowerment programs oriented toward strata-level behavioral change (Aprizah, 2021; Suprapto, 2021).

CONCLUSION

The control group exhibited no change in household PHBS strata before and after the observation period, indicating that without health promotion intervention clean and healthy living behavior tends to remain static. The experimental group demonstrated a significant improvement, particularly a shift from the Madya to the Utama stratum, supported by improvements in handwashing with soap, use of clean water, and household waste management. These findings confirm that health promotion delivered through drama-based educational video media is effective in improving household PHBS strata, and may serve as a basis for developing more effective and sustainable health promotion strategies to support the achievement of SDGs in the health sector.

REFERENCES

Afiyah, R. K. (2022). Parental support is important to improve clean and healthy living behavior for school-age children during the COVID-19 pandemic. *Bali Med J*, *11*(3), 1218–1222. https://www.balimedicaljournal.ejournals.ca/index.php/bmj/citationstylelanguage/get/ieee?submissionId=3544&publicationId=2923

Aiello, A. E. (2022). Effect of hand hygiene on infectious disease risk in the community setting: a meta-analysis. *American Journal of Public Health*, *98*(8), 1372–1381.

Amalia, I. (2018). *Hubungan antara Pendidikan, Pendapatan dan Perilaku Hidup Bersih dan Sehat (PHBS) pada*

Pedagang HIK di Pasar Kliwon dan Jebres Kota Surakarta. Universitas Muhammadiyah Surakarta.

Aprizah, A. (2021). Hubungan karakteristik Ibu dan Perilaku Hidup Bersih Sehat (PHBS) Tatanan Rumah Tangga dengan kejadian Stunting. *Jurnal Kesehatan Saelmakers PERDANA*, *4*(1), 115–123.

Aswadi, A., Syamsul, M., & Syahrir, S. (2021). Strategi Promosi Kesehatan dalam Peningkatan Program Perilaku Hidup Bersih dan Sehat Tatanan Rumah Tangga di Puskesmas Polombangkeng Selatan Kabupaten Takalar. *HIGIENE: Jurnal Kesehatan Lingkungan*, *6*(1), 30–36. https://doi.org/10.24252/higiene.v6i1.14090

Atik, N. S. (2021). Hubungan Tingkat Pengetahuan Dengan Perilaku Kesehatan Reproduksi Remaja Pada Siswa SMK Kabupaten Semarang. *JIKA*, *5*(2), 45–52.

Azwar, S. (2017). *Metode Penelitian*. Pustaka Belajar.

Bappenas. (2020). *Ringkasan Eksekutif Pencapaian Pelaksanaan Pencapaian Tujuan Pembangunan Berkelanjutan/ Sustainable Development Goals (TPB/SDGS) 2020*. https://sdgs.bappenas.go.id/website/wp-content/uploads/2023/11/Laporan-SDGs-tahun-2020.pdf?

Barnighausen, T. (2022). Universal health coverage: a global priority. *The Lancet*, *389*(10071), 1922–1924.

Bartram, J., & Cairncross, S. (2020). Hygiene, sanitation, and water: a review of the evidence. *International Journal of Environmental Health Research*, *20*(1), 1–10.

Bloomfield, S. F. (2021). The role of hygiene in the prevention of infectious diseases: a review. *Journal of Hospital Infection*, *81*(2), 107–112.

CDC. (2024). *Grafik Pertumbuhan: Apa yang Perlu Diketahui*. Centers for Disease Control and Prevention. https://www.cdc.gov/growthcharts/information-for-healthcare-professionals.htm

Degenhardt, L. (2022). Extent of illicit drug use and dependence, and their contribution to the global burden of disease. *Lancet*, *12*(8), 55–70. 10.1016/S0140-6736(11)61138-0

Drewnowski, A., & Almiron-Roig, E. (2020). *Human perceptions and preferences for fat-rich foods BT - Fats and Oils in Human Nutrition* (pp. 79–92).

Dutta, P., & Mahanta, J. (2019). An overview of vector control strategies in malaria control programs: Perspectives from India. *Journal of Vector Borne Diseases*, *53*(1), 1–12.

Gaol, R. H. (2021). Health Promotion Strategies For Change In Knowledge Of Healty And Clean Life Behavior(Phbs) On Household In The Parsingguran 1 Village Pollung District Year 2021. *In Journal of Healthcare Technology and Medicine*, *7*(2). https://jurnal.uui.ac.id/index.php/JHTM/article/view/1766

Glanz, K., Rimer, B. K., & Viswanath, K. (2017). *Health Behavior: Theory, Research, and Practice*. Bass.

Green, L. W. (2019). *Health Program Planning: An Educational Ecological Approach*. McGraw-Hill Companies.

Hartini, N. (2022). Improving urban environment through public commitment toward the implementation of clean and healthy living behaviors. *Psychology Research and Behavior Management*, *10*(1), 79–84.

Hasymi, L. F. (2022). Hubungan Pengetahuan Dan Motivasi Kerja Dengan Perilaku Tenaga Kesehatan Dalam Penatalaksanaan Promosi

Kesehatan Di Puskesmas Kota Banjarbaru. *Healthy Tadulako Journal*, *8*(2).

Hayati, M. (2023). Hubungan Strategi Promosi Kesehatan Dengan Tingkat PHBS Pada Tatanan Rumah Tangga Di Kecamatan Silih Nara Kabupaten Aceh Tengah. *PREPOTIF: Jurnal Kesehatan Masyarakat*, *7*(1), 383–392.

Hidayah, N., Marwan, M., & Rahmawati, D. L. (2020). Pemberdayaan Masyarakat Melalui Gerakan Serentak PHBS Pada Tatanan Rumah Tangga. *Journal of Community Engagement in Health*, *3*(2), 123–128.

Irviana, F. (2024). Analysis of knowledge, attitude, and environmental support factors on clean and healthy living behavior (PHBS) among students. *Jurnal Kesehatan Dan Kedokteran*, *4*(2). https://doi.org/10.56127/jukeke.v4i2.2196

Juwita, T. S. (2023). The Effect of Health Promotion With Animated Videos on Knowledge About Clean and Healthy Life Behavior in Residents of RT 05 RW 01 Cipulir Village, South Jakarta. *Journal of Nursing and Health Science*, *2*(2), 54–60.

Kemenkes. (2019). *Buku panduan pembinaan dan penilaian PHBS di rumah tangga*. Kementrian Kesehatan.

Kemenkes RI. (2018). *Laporan Nasional Riskesdas 2018*. https://repository.badankebijakan.kemkes.go.id/id/eprint/3514

Kemenkes RI. (2025). *Profil Kesehatan Indonesia Tahun 2024*.

Lestaluhu, S. A. (2024). Pelaksanaan Program Promosi Kesehatan Dalam Pencegahan Stunting Di Puskesmas. *Ensiklopedia of Journal*, *6*(3). https://doi.org/10.33559/eoj.v6i3.2306

Ningsih, K. Z., Denny, H. M., & Jayanti, S. (2024). Studi Perilaku Hidup Bersih dan Sehat (PHBS) pada pekerja industri tahu Bandungan. *Media Kesehatan Masyarakat Indonesia*, *23*(1), 35–42. https://doi.org/10.14710/mkmi.23.1.35-42

Notoatmodjo, S. (2018). *Promosi Kesehatan dan Ilmu Perilaku*. Rineka Cipta.

Nurrahmah, N. (2024). Perilaku Hidup Bersih Dan Sehat (Phbs) Tentang Kebersihan Lingkungan Di Desa Belee Busu Dusun Meunasah Dayah Kecamatan Mutiara Barat Kabupaten Pidie. *Community Development Journal : Jurnal Pengabdian Masyarakat*, *1*(3), 341–349. https://doi.org/10.31004/cdj.v1i3.1042

Siregar, F. N. (2023). Pengembangan Dan Pemberdayaan Masyarakat Melalui Gerakan Serentak Perilaku Hidup Bersih Dan Sehat (Phbs) Pada Tatanan Rumah Tangga. *Jurnal Ventilator*, *1*(2), 190–210. https://doi.org/10.59680/ventilator.v1i2.321

Sopiyudin, D. M. (2018). *Statistik untuk kedokteran dan kesehatan: Deskriptif, bivariat, dan multivariat*. Epidemiologi Indonesia.

Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.

Suprapto. (2021). Pemberdayaan Masyarakat Melalui Penyuluhan PHBS dalam Meningkatkan Derajat Kesehatan Masyarakat Wilayah Kerja Puskesmas Barombong. *Journal of Community Health Service*, *1*(2), 77–87.

Yunita, S. (2023). Pengaruh Promosi Kesehatan Tentang PHBS Rumah Tangga Terhadap Tingkat Pengetahuan Masyarakat di Wilayah Puskesmas Kereng Bangkirai Palangka Raya. *Jurnal Surya Medika (JSM)*, *9*(1), 195–203.