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SCHOOL HEALTH PROGRAM IMPLEMENTATION AND PERSONAL HYGIENE PRACTICES AMONG STUDENTS

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ABSTRACT

This study examined the effect of the School Health Program (Usaha Kesehatan Sekolah/UKS) on personal hygiene among fourth- and fifth-grade students. The study used a quantitative field-survey approach with 64 students as respondents. Data were collected using Likert-scale questionnaires on UKS implementation and personal hygiene, supported by school-level responses from the principal and the UKS manager. Instrument testing on 30 student items showed acceptable validity ($r = 0.425-0.895$) and very high reliability (Cronbach's $\alpha = 0.975$). The Kolmogorov-Smirnov normality test showed that the residual data were normally distributed ($p = 0.200$). Simple linear regression indicated that the UKS program had a positive and significant effect on personal hygiene ($B = 0.482$; Beta = 0.466; $t = 4.151$; $p < 0.001$). Student responses also showed strong descriptive profiles: 65.6% rated health counseling and education at the highest category, 53.1% rated UKS facilities at the highest category, 87.5% reported strong participation in UKS activities, and 79.7% reported very good hand hygiene. These findings indicate that better UKS implementation is associated with better personal hygiene practices among elementary school students.

keywords: school health program, UKS, personal hygiene, elementary students, school health promotion

INTRODUCTION

School is a strategic setting for building children's health habits because students spend a substantial part of their day in the school environment. In addition to academic learning, schools are expected to cultivate clean and healthy daily practices that protect children from preventable diseases and support their readiness to learn. Recent global monitoring shows that water, sanitation, and hygiene services in schools remain inadequate in many settings: as of 2023, 447 million children still lacked basic drinking water services at school, 427 million lacked basic sanitation services, and 646 million

lacked basic hygiene services (World Health Organization & UNICEF, 2024). These gaps make school-based health promotion programs highly relevant.

This role is also consistent with the global shift toward comprehensive school health services. The World Health Organization guideline, as summarized by Ross and colleagues, recommends a menu of school health interventions for learners aged 5-19 years and emphasizes that schools can deliver health promotion, preventive services, and supportive environments in an integrated manner (Ross et al., 2021). In this sense, UKS is not only a local administrative program but also part of a broader school-health logic that connects education, prevention, and daily behaviour formation.

One of the core Indonesian school-health strategies is Usaha Kesehatan Sekolah (UKS), which integrates health education, basic health services, and the creation of a healthy school environment. Recent Indonesian studies have shown that UKS functions more effectively when supported by adequate facilities, school commitment, and collaboration with health services (Tanjung & Gurning, 2024; Nabila & Azinar, 2025). In the broader literature, school-based hygiene programs have also been shown to improve hygiene knowledge, handwashing practices, and infection-related absenteeism, although the strength of evidence varies across outcomes (Ismail et al., 2024).

Recent Indonesian literature reinforces this interpretation. A literature review on UKS implementation found that students' knowledge and attitudes, competent human resources, and adequate facilities support sustainable UKS implementation (Nugrahani & Umaroh, 2025). In addition, a school-based UKS revitalization activity showed that personal hygiene education could improve elementary students' knowledge and encourage regular handwashing and toothbrushing habits (Agustina et al., 2023). These findings strengthen the relevance of examining UKS together with students' personal hygiene practices.

Personal hygiene is one of the most visible expected outcomes of school-health efforts. For elementary students, personal hygiene includes handwashing, bathing, oral hygiene, clean clothing, nail care, and hygienic use of the school environment. Recent evidence suggests that elementary students' hygiene behaviour is shaped not only by knowledge and attitudes but also by school inspection, facility availability, and supportive school routines (Windiyanto, 2023; Damayanti, 2023). Additional school-based evidence also highlights the importance of teachers and school staff in sustaining hand hygiene behaviour through education, reinforcement, and resource management (Ly et al., 2025). Based on this background, the present study aimed to examine whether the UKS program had a measurable effect on the personal hygiene of fourth- and fifth-grade students at SDN 2 Kalijaga.

Evidence from recent hygiene-intervention studies suggests that hygiene behaviour improves when education is combined with demonstration, instruction, environmental support, and reliable access to hygiene materials (Watson et al., 2021; Hoyle et al., 2025). School WASH and hand-hygiene intervention studies in the Philippines, Guatemala, Nigeria, and Pakistan further show that hygiene outcomes are shaped by infrastructure, teacher support, behaviour-change activities, and the availability of soap or handwashing facilities (Sangalang et al., 2022; Maani-Abuzahra et al., 2025; Pieters et al., 2025; Tunio et al., 2025). Therefore, personal hygiene should be understood as a behavioural outcome that depends on both individual awareness and the school environment.

METHOD

Research design and setting

This study used a quantitative survey design with a field-research approach. The design was selected because the study examined the statistical association between the School Health Program, or Usaha Kesehatan Sekolah (UKS), and students' personal hygiene practices. The UKS program was treated as the independent variable, while personal hygiene was treated as the dependent variable.

This setting was selected because the school implemented UKS activities and provided a relevant context for examining how school-based health programs are related to students' clean and healthy behaviour. Since the study used a survey design, the findings should be interpreted as statistical associations rather than definitive causal evidence.

Informants and sampling

The respondents of this study were 64 students from grades IV and V. These students were selected as the main respondents because they were considered able to understand and complete the questionnaire items related to UKS implementation and personal hygiene practices. Additional descriptive information about UKS implementation was obtained from the school principal and the physical education teacher who served as the UKS manager.

The respondent profile consisted of 43 students from grade IV and 21 students from grade V. Based on sex distribution, 34 respondents were male and 30 respondents were female.

Table 1. Respondent Characteristics

Characteristic	Category	Frequency	Percentage
Class	Grade IV	43	67.2%
Class	Grade V	21	32.8%

Sex	Male	34	53.1 %
Sex	Female	30	46.9 %

Instruments and Scoring

Data were collected using structured Likert-scale questionnaires. The questionnaire for the UKS program measured four dimensions: health counseling and education, UKS facilities and infrastructure, health checks and services, and student participation in or attitudes toward UKS activities. These dimensions were used to describe the extent to which students experienced school health program implementation.

The personal hygiene questionnaire also consisted of four dimensions: hand hygiene, body hygiene, clothing and nail hygiene, and school-environment hygiene. These indicators were selected because they represent daily hygiene practices that are relevant for elementary school students. Higher questionnaire scores indicated stronger UKS implementation and better personal hygiene practices.

Instrument quality was tested before data analysis. The validity test showed item-total correlation coefficients ranging from 0.425 to 0.895, indicating that the questionnaire items were valid. The reliability test produced a Cronbach's alpha value of 0.975, indicating very high internal consistency.

Table 2. Research Instruments

Variable	Instrument	Indicators	Interpretation
UKS program	Likert-scale questionnaire	Health education, facilities, health services, participation and attitudes	Higher score indicates stronger UKS implementation
Personal hygiene	Likert-scale questionnaire	Hand hygiene, body hygiene, clothing and nail hygiene, school-environment hygiene	Higher score indicates better personal hygiene practices

Data Collection Procedure

Data collection was conducted in several stages. First, the researcher coordinated with the school to obtain permission and determine the schedule for questionnaire administration. Second, the researcher identified grade IV and V students who were available and eligible to participate. Third, students were given an explanation about the purpose of the study and how to complete the questionnaire.

The questionnaires were administered directly to students under researcher and teacher supervision. This supervision was intended to ensure that students understood

the statements and completed the questionnaire properly. In addition to student responses, supporting information about UKS implementation was collected from the school principal and the UKS manager to strengthen the description of the school health program context.

Data analysis and trustworthiness

Data were analyzed using IBM SPSS version 29. The analysis began with descriptive statistics to summarize respondent characteristics and student responses on UKS implementation and personal hygiene. Descriptive results were presented using frequency, percentage, and category interpretation.

Before regression analysis, a normality test was conducted using the Kolmogorov-Smirnov test. The result showed a significance value of 0.200, indicating that the residual data were normally distributed. After the assumption test was fulfilled, simple linear regression was used to examine the statistical association between the UKS program and students' personal hygiene.

The regression model reported the constant value, regression coefficient, standard error, standardized beta, t-value, and significance value. The significance level was set at 0.05. Because the study used a survey design, the regression result was interpreted carefully as a positive and significant statistical association between UKS implementation and personal hygiene, not as definitive proof of causality.

Ethical Consideration and Data Trustworthiness

The study was conducted with school permission and teacher supervision. Students' participation was managed in the school context, and their responses were presented in aggregate form to maintain confidentiality. The use of structured questionnaires, validity testing, reliability testing, and assumption testing was intended to support the trustworthiness of the research data.

RESULTS AND DISCUSSION

The descriptive data show that UKS implementation at SDN 2 Kalijaga was generally strong. Most student responses were concentrated in the highest two score categories, indicating that UKS activities were visible and regularly experienced by students. Personal hygiene responses were also favourable, especially for hand hygiene and body hygiene, although school-environment hygiene appeared relatively less strong than the personal-care indicators. The inferential analysis further indicates that this pattern was not merely descriptive: the UKS program was positively associated with student personal hygiene.

Table 1. Characteristics of Student Respondents (n = 64)

Characteristic	Category	Frequency	Percentage
Class	Grade IV	43	67.2%
Class	Grade V	21	32.8%
Sex	Male	34	53.1%
Sex	Female	30	46.9%

Table 2. Student Responses on UKS Program Implementation

Indicator	Score 3 n (%)	Score 4 n (%)	Interpretation
Health counseling and education	22 (34.4%)	42 (65.6%)	High
UKS facilities and infrastructure	30 (46.9%)	34 (53.1%)	High
Health checks and services	64 (100.0%)	0 (0.0%)	Good
Participation in and attitudes toward UKS	8 (12.5%)	56 (87.5%)	Very high

Table 3. Student Responses on Personal Hygiene

Indicator	Score 3 n (%)	Score 4 n (%)	Interpretation
Hand hygiene	13 (20.3%)	51 (79.7%)	Very good
Body hygiene	16 (25.0%)	48 (75.0%)	Very good
Clothing and nail hygiene	18 (28.1%)	46 (71.9%)	Good
School-environment hygiene	55 (85.9%)	9 (14.1%)	Moderate to good

Table 4. Instrument Testing and Assumption Test Results

Test	Indicator	Value	Interpretation
Validity	Item-total correlation range	0.425-0.895	All items valid
Reliability	Cronbach's alpha	0.975	Very reliable
Normality	Kolmogorov-Smirnov p-value	0.200	Normally distributed

Table 5. Simple Linear Regression of UKS Program on Personal Hygiene

Predictor	B	Std. Error	Beta	t	p-value
Constant	26.950	6.122	-	4.402	<0.001
UKS program	0.482	0.116	0.466	4.151	<0.001

The regression analysis indicates a positive and statistically significant association between the UKS program and student personal hygiene. The positive coefficient (B = 0.482) means that a higher UKS score was associated with a higher personal hygiene score. In practical terms, this suggests that better implementation of school health education, facilities, health checks, and student participation is linked to cleaner daily

habits among students. This result is consistent with recent literature showing that school-based hygiene interventions can improve hygiene behaviour and related health outcomes when implemented consistently (Ismail et al., 2024).

This finding is theoretically plausible because school-health programs can operate through multiple behaviour-change channels. Reviews of hand-hygiene interventions indicate that effective programs usually combine knowledge transfer with practical demonstration, clear instructions, social support, and enabling objects such as soap or handwashing facilities (Watson et al., 2021; Hoyle et al., 2025). Thus, the positive regression coefficient in the present study may reflect the combined role of health education, school routines, facilities, and reinforcement rather than a single program component.

The descriptive pattern also helps explain why this relationship emerged. Students reported strong exposure to health counseling and strong participation in UKS activities, which means the program was visible in everyday school life. This supports recent Indonesian findings that UKS can function effectively when schools provide human resources, facilities, and collaboration with health services (Tanjung & Gurning, 2024; Nabila & Azinar, 2025). The current findings therefore suggest that UKS at SDN 2 Kalijaga was not merely administrative but had practical relevance for student behaviour.

The importance of facilities and school commitment is also consistent with recent Indonesian evidence. Nugrahani and Umaroh identified human resources, facilities, attitudes, and cross-sector collaboration as key factors in UKS implementation, while Agustina and colleagues reported that personal hygiene education as part of UKS revitalization improved students' hygiene-related knowledge and practices (Agustina et al., 2023; Nugrahani & Umaroh, 2025). These studies support the interpretation that UKS becomes meaningful when it is translated into repeated educational activities and visible school-health routines.

Personal hygiene outcomes were strongest for hand hygiene and body hygiene, while environmental hygiene was relatively lower. This pattern aligns with current evidence that personal hygiene among elementary students is influenced by knowledge, school inspection, and supportive facilities, but remains constrained when school sanitation conditions and resources are less than ideal (Windiyanto, 2023; Damayanti, 2023). It also echoes recent qualitative findings that school staff play a central role in sustaining hygiene behaviour through reinforcement and resource management (Ly et al., 2025). Thus, the present study strengthens the argument that UKS should be maintained as an active school-health platform rather than treated as a symbolic program.

The lower profile of school-environment hygiene is important because international evidence shows that hygiene behaviour is constrained when school infrastructure is incomplete or when materials are not consistently available. Baseline data from primary schools in Nigeria showed low observed handwashing and limited handwashing stations, while a school WASH trial in the Philippines and hand-hygiene interventions in Guatemala and Pakistan highlighted the need for sustained resources, teacher involvement, and behavioural reinforcement (Sangalang et al., 2022; Maani-Abuzahra et al., 2025; Pieters et al., 2025; Tunio et al., 2025). Therefore, SDN 2 Kalijaga should strengthen not only students' personal-care routines but also the environmental and facility components of UKS.

CONCLUSIONS AND SUGGESTIONS

The study concludes that the School Health Program (UKS) showed a positive and significant regression association with the personal hygiene of fourth- and fifth-grade students at SDN 2 Kalijaga. Student responses indicated that UKS implementation was generally strong, and personal hygiene behaviour was mostly good to very good, particularly in hand and body hygiene. These findings suggest that school-based health promotion is meaningfully related to elementary students' clean and healthy behaviour, although the survey design should not be interpreted as definitive causal evidence.

Schools should strengthen regular UKS education, maintain hygiene facilities, and improve supervision of environmental hygiene. Teachers should continue to model clean behaviour and reinforce UKS routines during daily school activities. Future studies may include parental involvement, home hygiene practices, or school sanitation quality as additional predictors of student personal hygiene.

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