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Improving personal hygiene practices through health cadre training: a case study in a boarding school

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Abstract

Purpose: To assess changes in SHCs' scabies-related knowledge after a brief training and to explore feasibility, acceptability, and implementation challenges. **Methods:** Explanatory-sequential mixed-methods study at a Yogyakarta Islamic boarding school. The quantitative strand employed a one-group pretest–posttest design with a 10-item knowledge score (0–10), and a paired t-test was used to analyze the data. The qualitative strand comprised semi-structured interviews with SHCs, and the data were analyzed thematically. **Results:** Thirty-five SHCs completed both assessments (51.4% female). Mean knowledge increased from 6.26 ± 1.46 to 7.94 ± 1.26 with Δ = 1.69 ± 2.21, $t(34) = 4.52$, $p < 0.001$, and Cohen's $dz \approx 0.76$. The proportion with good knowledge rose from 20.0% to 71.4%. The largest gains involved bathing with soap, changing clothes after sweating or dust exposure, and not sharing personal items, whereas declines were observed in mattress-airing frequency and a stigma item. Interviews indicated acceptability and feasibility, and highlighted irregular coordination and the absence of a formal SHC structure. Item-level interpretations are exploratory. **Conclusions:** A brief training for SHCs was associated with a statistically significant within-group increase in scabies-related knowledge and appeared feasible in dormitory settings. Scale-up should pair concise training with a formal SHC structure, scheduled coordination, orientation-time sessions, and simple visual prompts. Future research should evaluate retention, observable behaviors, and incidence with a comparison or cluster design to determine the preventive impact.

Keywords: community health; health education; healthy student cadres; Islamic boarding schools; scabies

INTRODUCTION

Islamic boarding schools (IBS) are the oldest Islamic educational institutions in Indonesia, established long before Europeans arrived in the 16th century. As of 2023, there were 39,167 IBSs spread across the archipelago, accommodating around 4.85 million students [1]. In the Special Region of Yogyakarta alone, 417 IBS hosts more than 50,000 students [2]. The communal and densely populated living arrangements, combined with diverse backgrounds, create conditions that facilitate the spread of communicable diseases. Among these, scabies remains one of the most common and pressing health issues [3].

Scabies is classified as a neglected tropical skin disease (NTD), particularly prevalent in low- and middle-income countries. Globally, it affects over 20 million people at any given time and accounts for more than 400 million new cases annually, with the highest prevalence among children and older people [4]. In Indonesia, scabies ranks third among the twelve most frequently reported diseases at community health centers [5]. A self-assessment conducted in June–July 2022 at Assalafiyyah II Mlangi Islamic Boarding School (IBS) in Yogyakarta identified 157 cases among 841 students, making scabies the second-most-common infectious disease at this IBS.

Transmission occurs primarily through prolonged skin-to-skin contact, although fomites such as contaminated clothing, bedding, and mattresses also contribute. Overcrowded dormitories, stacked mattresses, bed-sharing, and suboptimal hygiene practices (e.g., exchanging or re-wearing clothes stored in shared spaces) are significant risk factors [6,7]. Similar conditions have been reported in an IBS in Medan, North Sumatra, where 10–15 students typically share a room and sleep on floor mattresses that are stacked during the day, further increasing the likelihood of transmission [7]. Beyond severe nocturnal itching, scabies can lead to serious complications, including bacterial superinfections. Impetigo caused by *Streptococcus pyogenes* and *Staphylococcus aureus* may progress to abscesses, sepsis, kidney disease, and rheumatic heart disease [4,6]. Persistent itching disrupts sleep, reduces concentration, and hinders students' academic performance. The stigma attached to scabies also negatively impacts social interactions and students' self-confidence [8].

The World Health Organization has designated scabies a neglected tropical skin disease due to challenges such as delayed diagnosis, treatment failure resulting from improper use of topical agents, low treatment adherence, reinfection from inadequate environmental decontamination, and lack of simultaneous treatment for close contacts [9,10]. Limited knowledge of the causes, transmission, and management of scabies in communal settings, such as IBSs, further exacerbates the problem [11]. For example, a study in Saudi Arabia highlighted that a major scabies outbreak in Mecca in 2018 was not primarily linked to poverty or immunocompromised patients but to limited awareness about scabies itself. Similarly, research in Indonesia indicates that students have a limited understanding of scabies transmission and appropriate treatment practices [11]. A study by Hidayat et al. (2020) demonstrated that health education significantly improved students' knowledge, raising awareness from 25–90% before the intervention to 70–90% afterward, particularly regarding causes, clinical symptoms, and the importance of repeated and simultaneous treatment [12].

In this context, peer-based health promotion through *Santri* Health Cadres (SHCs, or *Kader Santri Sehat*) offers a practical entry point for strengthening prevention efforts (Santri is an IBS student). As resident students, SHCs can serve as role models, peer counselors, and educators, encouraging healthier hygiene practices and treatment adherence. Based on this rationale, we conducted a short SHC training program adapted to the realities of dormitory life. The training emphasized practical hygiene messages and scabies management. This study aims to: (i) assess the change in SHC knowledge related to scabies after the training, and (ii) explore the feasibility, acceptability, and challenges of the cadre role in daily implementation. We employed an explanatory sequential mixed-methods design, beginning with a one-group pre–post knowledge assessment (primary outcome), followed by qualitative interviews to interpret quantitative patterns and capture implementation experiences specific to the IBS context.

METHODS

This study employed an explanatory-sequential mixed-methods design conducted at Assalafiyyah II Mlangi IBSl, Sleman, Yogyakarta [13]. The quantitative strand used a quasi-experimental one-group pre-test–post-test design to assess changes in scabies-related knowledge among SHCs. The subsequent qualitative strand explored feasibility, acceptability, role clarity, coordination routines, and practical barriers to cadre-led hygiene promotion in dormitory life [14].

The study was conducted over four months in 2024. Recruitment of the SHCs took place in June 2024. The quantitative strand commenced with a pre-test in early July 2024, followed immediately by the intervention (exposure), which lasted for two weeks. The post-test (follow-up) for knowledge assessment was administered in late July 2024. Subsequently, qualitative data collection, including Focus Group Discussions (FGDs) and in-depth interviews, was carried out from August to September 2024 to ensure a comprehensive evaluation of the program's implementation.

All active school health coordinators SHCs with no prior formal scabies training were invited to participate. Inclusion criteria were active cadre status, ability to attend the training, and completion of both tests with no missing data. Explicitly, the exclusion criteria were (1) cadres who were currently inactive or

on leave, (2) those who were absent during the intervention session, and (3) those who failed to complete either the pre-test or post-test. The sample size of 35 respondents was determined using the total sampling method, assuming that including the entire eligible population at the study site would maximize data representation and provide sufficient statistical power for this pilot intervention. For the qualitative strand, purposive sampling was used to select cadres with larger versus smaller knowledge gains and the school health coordinator (AKSA) to capture diverse implementation experiences.

Trained facilitators from FK-KMK UGM delivered a concise face-to-face training with a total duration of 240 minutes (4 hours), conducted in a single day. The duration was detailed as follows: 45 minutes for scabies etiology and transmission; 60 minutes for appropriate topical therapy and simultaneous treatment of close contacts; 60 minutes for environmental measures regarding clothing and bedding; and 75 minutes for hygiene-promotion strategies suitable for communal dorms, including guided practice. The sessions utilized short lectures, visuals, demonstrations, and hands-on practice. Session duration, materials, attendance, and a brief delivery checklist for core components were documented to ensure strict monitoring of intervention fidelity.

The primary outcome was knowledge, measured using a 10-item dichotomous questionnaire scored 0-10, administered immediately before and immediately after training in a supervised setting. Items covered include cause and transmission, recognition, treatment adherence, and environmental decontamination. Content validity was established through expert review. Internal consistency was assessed post hoc using the KR-20 on the binary response matrices and is reported in the Results section. Demographics included sex, age, and cadre tenure. Data analysis was performed using IBM SPSS Statistics version 26.0. The normality of the pre–post difference was assessed using the Shapiro–Wilk test. Depending on the distribution, a paired t-test was used for normally distributed differences, or a Wilcoxon signed-rank test otherwise. Statistical significance was set at $p<0.05$ (two-sided), with effect sizes reported using Cohen's dz and 95% confidence intervals (CI) for the mean difference. Although no missing data were observed in this study, the protocol included pairwise deletion to handle potential gaps. Due to the small sample size (N=35), subgroup or interaction analyses were not performed to maintain adequate statistical power.

Several measures were implemented to minimize potential bias and ensure the reliability and validity of the findings. Selection bias was mitigated by using a total sampling method that included all active cadres. Information bias was reduced by using validated, standardized questionnaires and ensuring that facilitators strictly adhered to a delivery fidelity checklist. To prevent response bias (Hawthorne effect), participants were assured of data anonymity and were informed that test results would not affect their academic standing. Furthermore, the two-week interval between intervention and follow-up was strategically chosen to minimize maturation bias while accurately capturing short-term knowledge retention.

Participants for the qualitative strand were selected through purposive sampling using an extreme-case strategy to obtain in-depth perspectives. The inclusion criteria for interviewees were SHCs who had completed both the pre-test and post-test in the quantitative phase. Specifically, respondents were selected based on their score-gain profiles, comprising 4–6 cadres with the highest knowledge gains (high gainers) and 4–6 cadres with the lowest or negative gains (low/negative gainers). Additionally, the School Health Coordinator (AKSA) was included to provide a managerial perspective. The total number of participants in the qualitative strand ranged from 9 to 13, determined by data saturation, in which data collection ceased once no new information or unique themes emerged.

The selection procedure began by analyzing individual pre-test and post-test results to identify candidates who met the specific knowledge profile criteria. This step constituted the "connecting" phase of the mixed-methods design, where quantitative signals (such as poorly understood test items or score anomalies) directly informed the recruitment list. Once candidates were identified, the researchers personally contacted them to seek consent for the semi-structured interviews. This approach ensured that the qualitative data could provide a nuanced explanation of the quantitative patterns, particularly regarding practical barriers and the effectiveness of the training materials within the dormitory setting.

To analyze the qualitative data, a manual thematic analysis was conducted in Microsoft Excel. This process involved transcribing the interviews, generating initial codes, and systematically organizing them into categories and overarching themes in a spreadsheet. The use of Excel facilitated a structured comparison between participant groups while maintaining a close, manual engagement with the data to ensure an authentic interpretation of the findings.

Ethical approval was obtained from the Ethics Committee of the Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada (KE/FK/1312/EC/2023). Written informed consent was obtained, and for minors, assent was obtained with the consent of the

school or guardian, in line with local procedures. Data were de-identified and stored on password-protected devices. Reporting follows good practice for quasi-experimental evaluations and GRAMMS guidance for mixed-methods reporting. Quantitative results include effect sizes and confidence intervals; qualitative themes are supported by anonymized quotes and integrated into inferences presented through a joint display.

RESULTS

Among 1,000 students at Assalafiyyah II Mlangi IBS, preliminary screening identified 300 students with suspected scabies. A physician's examination confirmed 100 cases. These figures provide background for the training and are not included in the pre–post analysis. Thirty-five SHCs with no prior formal education on scabies completed both assessments. There was no missing data. The sample comprised 51.4% females (18 of 35) and 48.6% males (17 of 35) (Table 1).

Table 1. Characteristics of santri health cadres included in the analysis (n = 35)

Characteristic	n	%
Sex		
Female	18	51.4
Male	17	48.6

Table 2. Distribution of scabies-related knowledge levels before and after training

Knowledge level	Pre-test (n,%)	Post-test (n,%)
Good	7 (20.0)	25 (71.4)
Adequate	15 (42.9)	10 (28.6)
Poor	13 (37.1)	0 (0)

Scabies-related knowledge levels

A total of 35 SHCs completed a 10-item questionnaire immediately before and after the training; the items covered cause and transmission, clinical recognition, treatment adherence, and basic environmental measures. Knowledge scores were summarized into pre-specified descriptive categories: Good (76–100%), Adequate (60–75%), and Poor (<60%). The distribution of knowledge levels at pre-test and post-test is presented in Table 2. Categories are intended to aid interpretation and are not competency thresholds. The proportion in Good increased from 20.0% at the pre-test to 71.4% at the post-test. Poor decreased from 37.1% to 0%.

Item-level performance

The largest increases in correct responses were observed for day-to-day hygiene items. Bathing with soap (Q6) increased by 60.0 percentage points, changing clothes or showering after sweating or dust exposure (Q3) increased by 51.4 points, and avoiding sharing personal items (Q4) increased by 34.3 points. Minimal change was observed in areas where baseline knowledge was already high, such as fomite transmission (Q5) and “dirty environments facilitate transmission” (Q9), both at +5.7 points. Two items showed lower correct-response rates at the post-test. Sun-drying mattresses once a month (Q8) decreased by 28.5 points, and a stigma-related statement (Q1) decreased by 20.0 points from an initial 100% correct. These item-level findings are exploratory and may reflect item wording, post-session interpretation, or dormitory constraints. Full item-level results are shown in Table 3.

Table 3. Item-level correct responses (%) at pre- and post-test and absolute change (n = 35)

Item prompt (abridged)	Correct pre (%)	Correct post (%)	Δ% (Post − Pre)	Rank
Q1 Stigma statement	100.0	80.0	−20.0	9
Q2 Causative agent thrives in moisture	68.6	94.3	+25.7	4
Q3 Change clothes or shower after sweating/dust	42.9	94.3	+51.4	1
Q4 Sharing clothing items	37.1	71.4	+34.3	3
Q5 Fomite transmission	85.7	91.4	+5.7	7
Q6 Bathing without soap is sufficient	17.1	77.1	+60.0	2
Q7 Handwashing and nail trimming	85.7	94.3	+8.6	6
Q8 Sun-drying mattresses once a month	51.4	22.9	−28.5	10
Q9 Dirty environments facilitate transmission	74.3	80.0	+5.7	8
Q10 Genital hygiene after urination/defecation	62.9	88.6	+25.7	5

Notes: Δ% = absolute percentage-point change, Post − Pre.

Table 4. Statistical analysis of scabies-related knowledge scores and instrument reliability (n = 35)

Analysis Category	Metric/Statistic	Pre-test	Post-test	Δ /Comparison
Descriptive statistics	Mean±SD	6.26 ± 1.46	7.94 ± 1.26	1.69 ± 2.21
	Median (Min-Max)	6.00 (3-10)	8.00 (4-10)	2.00 (−6–6)
Paired comparison	Paired t (df)	—	—	4.52 (34)
	p-value			< 0.001
	Cohen's dz			0.76
	95 % CI for Δ			0.93 to 2.44
Instrument reliability	KR-20 Coefficient	0.20	0.26	—

Notes: Δ = Post-test minus Pre-test; CI = Confidence Interval; KR-20 = Kuder–Richardson Formula 20. KR-20 values indicate low internal consistency in this sample; item-level findings are exploratory.

Table 5. Qualitative themes, categories, sub-categories, and illustrative quotes

Theme	Category	Illustrative quote	Interpretive note
Training benefits	Increasing knowledge: Post-training knowledge gains	*"So, I feel like I know more… don't use shared bathroom equipment, you have to maintain cleanliness…" [*SHC 1, Male, 15 years old*]*	A stronger grasp of basic prevention aligns with increased use of hygiene items.
	Health skills improvement: Promotive and preventive skills	*"… better able to provide information (education) and… monitoring forms…" [*SHC 2, Female, 16 years old*]*	Feasibility to deliver brief advice and use forms
	Increasing SHCs' motivation: Confidence with peer support	*"…increasing knowledge…more self-confidence…" [*SHC 1, Male, 15 years old*];*	Motivation supported by peer norms and cues
		*"…sometimes lazy but…helping each other…" [*SHC 2, Female, 16 years old*]*	
Implementation challenges	Coordination: SHC–AKSA meetings are reactive	*"… we often meet when there are sick children…" [*AKSA 2, Female, 21 years old*]*	Need routine check-ins to sustain cadence.
	Organizational structure: Formal structure not yet in place	*"… the plan is to have male and female coordinators… for each dormitory…" [*AKSA 2, Female, 21 years old*]*	Define roles and accountability
Optimizing the role	Promotional efforts: Orientation sessions for new students	*"… counseling… when new students… can be at night…" [*AKSA 1, Female, 19 years old*]*	High-leverage timing for hygiene messages
	Curative efforts: First response under supervision	*"…help with initial handling…of course under supervision…" [*AKSA 1, Female, 19 years old*]*	Keep within scope and emphasize referral pathways

Notes: Quotes are presented in the original interview language. SHC = Santri Health Cadre. AKSA = school health coordinator. Findings reflect participants' perceptions in context and are not intended to imply measured behavioral change.

Within this one-group sample, mean total knowledge increased from 6.26 ± 1.46 at pre-test to 7.94 ± 1.26 at post-test. The mean pre–post difference (Δ) was 1.69 ± 2.21. The distribution of Δ met the assumption of normality (Shapiro–Wilk, p = 0.326). A paired t-test indicated a statistically significant within-group difference, t(34) = 4.52, p < 0.001, with Cohen's dz ≈ 0.76 and a 95% confidence interval for Δ of 0.93 to 2.44 (Table 4). We cannot infer behavior change or clinical impact because only knowledge was measured, and there was no comparison group. Internal consistency of the ten-item instrument was assessed post hoc using the Kuder–Richardson Formula 20 (KR-20). The reliability coefficients for the pre-test and post-test are summarized in Table 4. Reliability was low in this sample; therefore, item-level interpretations should be made with caution.

Process evaluation and qualitative findings

Following the training, the Health Student Cadres (HSCs) were tasked with monitoring their peers diagnosed with scabies after a physician's physical examination. In addition to monitoring, the cadres were responsible for reminding their peers to apply scabies ointment consistently and for providing health education on the condition to promote understanding and adherence to treatment protocols.

Monitoring and role implementation

After the training, SHCs reported adopting routine peer monitoring for students diagnosed with scabies following physician examination. They also reported reminding peers about correct ointment use and providing brief health education to improve understanding and adherence. These activities are reported qualitatively as part of the process evaluation. They were not measured as behavioral outcomes in this study.

Themes and illustrative quotes

We identified three overarching themes that describe how the cadre role is enacted and what systems are required. The themes are training benefits, implementation challenges, and role optimization. Illustrative quotes are shown below and in Table 5.

Qualitative analysis

Qualitative data were gathered through in-depth interviews and focus group discussions with a total of 11 participants, comprising nine SHCs (coded as SHC-01 to SHC-09) and two school health coordinators (coded as AKSA-01 and AKSA-02). This selection was intended to provide a comprehensive overview from both the field-level implementers (cadres) and the managerial perspective (AKSA).

Training benefits

Increasing knowledge

> *"I feel like I know more about several new things, especially about scabies: how to handle it, and don't use toiletries together; you must maintain personal hygiene."* [SHC 1, Male, 15 years old]

Interpretation: Participants reported a clearer understanding of the basics of scabies and key preventive behaviors. This aligns with item-level gains on day-to-day hygiene.

Health skills improvement

> "*We felt this. After being asked to monitor friends who were sick with scabies, we felt more capable of informing and writing things down on paper in the monitoring form.*" [SHC 2, Female, 16 years old]

Interpretation: Cadres felt able to provide brief peer advice and to use the monitoring form, supporting the feasibility of the role.

Increasing SHCs' motivation

> *"Like gaining more knowledge so I become more confident."* [SHC 1, Male, 15 years old]
>
> *"A score of 7 or 8 (of 10). Sometimes we are just human, so we also tend to forget. Sometimes we feel lazy, but luckily our roommates help each other too"* [SHC 2, Female, 16 years old]

Interpretation: Motivation fluctuates but is buffered by peer support. This indicates a need for simple cues and routine check-ins.

Implementation challenges

Coordination between SHCs and AKSA

> *"The AKSA team and cadres did coordination if there were activities. We meet. But usually we meet when there are sick children and the cadres escort them to the Poskestren (boarding school health post)."* [AKSA 2, Female, 21 years old]

Interpretation: Coordination is mostly reactive. Regular brief meetings could sustain implementation.

Organizational structure

> *"Currently, the organizational structure is not yet functioning; at the very least, we plan to do so. For example, there are male and female coordinators, a coordinator for each dormitory block."* [AKSA 2, Female, 21 years old]

Interpretation: A formal organizational structure is not yet in place. Named leads and dorm-level focal points may improve coverage and accountability.

Optimizing the role of SHCs

Promotional efforts

> *"Among officers who provide health education about scabies when there are new students. For the initial adaptation, students don't yet know about the diseases at the boarding school, as I usually fill in at the very beginning. So, in the future it can be scheduled. It could even be done in the evening."* [AKSA 1, Female, 19 years old]

Interpretation: New-student orientation is a strategic window for cadre-led health education. Scheduled sessions can normalize hygiene routines early.

Curative efforts within a supervised scope

> *"In the future, we hope the cadres can help us with initial care for their friends; for instance, what to do if there's a fever, what should be given, naturally under supervision."* [AKSA 1, Female, 19 years old]

Interpretation: Stakeholders envision supervised first-response support within a defined scope. The primary cadre functions remain education, reminders, symptom monitoring, and timely referral.

DISCUSSION

This explanatory-sequential mixed-methods study shows that a brief training for SHCs in an IBS was associated with a statistically significant, moderate-to-large within-group increase in scabies-related knowledge. The qualitative strand indicated that the approach is acceptable and feasible and also revealed system gaps, particularly irregular coordination and the absence of a formal SHC structure, that shape day-to-day implementation.

Knowledge gains were substantial in this sample, with the largest improvements in everyday hygiene practices, such as bathing with soap, changing clothes after sweating or dust exposure, and avoiding sharing personal items. These are high-salience and actionable messages that cadres can model and reinforce among peers. By contrast, environmental procedures, such as how often to air mattresses and anti-stigma messaging, showed weaker or negative effects. Interviews suggested pragmatic constraints, including limited sun-exposed space, stacked mattresses, and a need for simplified, consistent language on stigma reduction. Together, these findings indicate that reinforcement should be targeted rather than uniform across topics. Item-level interpretations remain exploratory given the instrument's low internal consistency in this sample (KR-20 pre 0.20, post 0.26).

Dormitory density, shared bedding or clothing, and suboptimal routines are well-recognized drivers of scabies transmission in communal residences [15–17]. Beyond causing itching and increasing the risk of secondary infection, which can affect daily functioning [18,19], scabies can undermine academic performance and social participation. Low knowledge regarding causes, transmission, and appropriate treatment has been linked to reinfection cycles in similar settings [20,21]. Within these constraints, peer-led education is a pragmatic lever for shifting proximal determinants, such as knowledge, role clarity, and cues to action, particularly where formal health staffing is limited. Importantly, this study assessed knowledge rather than behaviors or incidence, so clinical impact should not be inferred from these data alone.

Three priorities emerged from cadre and stakeholder interviews: 1) Coordination routines: Interactions between SHCs and the school health coordinator (AKSA) were often reactive. A brief monthly check-in can sustain momentum, troubleshoot barriers, and align messages; 2) Organizational structure: A formal SHC structure with male and female leads, dormitory-level focal points, and simple role descriptions can improve coverage, accountability, and continuity; and 3) High-leverage delivery moments: New-student orientation is a strategic window for SHC-led hygiene sessions, supported by low-cost visual prompts such as posters, checklists, and reminder charts near bathrooms and dorm entries [22–24].

Although program activities included peer reminders and supervised basic support, this study did not measure behavior change, treatment adherence, or scabies incidence. Knowledge improvement is, therefore, necessary but not sufficient for prevention. Future studies should include delayed post-tests to assess retention, observable behavioral indicators (e.g., soap availability and sharing practices), and clinical outcomes (e.g., incident cases), ideally with a comparison group or a cluster-randomized design [25,26].

Strengths include explicit mixed-methods integration that explains item-level patterns with contextual insights and tailoring of content to dormitory realities. Limitations include a one-group pretest–post-test design without a control group, a small sample size, potential testing effects, and the absence of validated behavioral or clinical endpoints. While the instrument had content validity, internal consistency was low in this sample, warranting caution in item-level interpretations and suggesting that future applications should refine wording, expand items within coherent subdomains, and pre-specify reliability checks.

A feasible package for IBS comprises concise SHC training focused on actionable hygiene and treatment messages; a formal SHC structure with named coordinators; scheduled monthly coordination with AKSA; SHC-led sessions during new-student orientation; and low-cost visual cues near hygiene facilities. Scale-up should be accompanied by evaluation of knowledge retention, hygiene behaviors, and scabies incidence to determine preventive impact. This cadre-based model aligns with WHO guidance on community health workers in health promotion and disease prevention [27,28] and with Indonesian Ministry of Health priorities for promoting Perilaku Hidup Bersih dan Sehat in faith-based educational institutions [29,30].

CONCLUSION

In conclusion, the findings of this study provide important implications for public health strategies in communal environments. A brief training for SHCs was associated with a statistically significant within-group increase in scabies-related knowledge and appeared feasible in dormitory settings. Scale-up should pair concise training with a formal SHC structure, scheduled

coordination, orientation-time sessions, and simple visual prompts. Future research should evaluate retention, observable behaviors, and incidence with a comparison or cluster design to determine the preventive impact.

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