

## EXPLORING THE DYNAMICS OF SCHOOL HEALTH UNIT IMPLEMENTATION: A QCA-BASED QUALITATIVE STUDY IN ISLAMIC JUNIOR HIGH SCHOOLS IN JAMBI

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### Abstract

The School Health Unit (UKS) program plays a crucial role in fostering clean and healthy living behaviors among students; however, its implementation across madrasahs often yields varying outcomes depending on the level of institutional support and involvement. This study aims to identify the combination of factors influencing the success or challenges of UKS implementation in two State Islamic Junior High Schools (Madrasah Tsanawiyah Negeri) in Municipality of Jambi. A qualitative approach employing Qualitative Comparative Analysis (QCA) was used to explore the interactions among six key factors: school leadership support, teacher involvement, student participation, external support, availability of resources, and school culture. Fifty students participated in this study and were divided into two Focus Group Discussion (FGD) groups. Data were analyzed thematically and compared across cases to identify dominant patterns. The findings reveal that students in the school with an active UKS perceive health unit activities as an engaging and meaningful part of daily learning, characterized by high participation in cleanliness programs, health education, and peer-led initiatives. In contrast, students from the school with limited UKS facilities tend to be less involved due to the absence of routine activities and inadequate resources. Although external support from community health centers (Puskesmas) is consistent in both schools, its impact varies depending on how the school follows up and integrates these activities into internal programs. The QCA findings suggest that the success of UKS implementation is not determined by a single factor but rather by a combination of teacher involvement, active student participation, supportive leadership, and a school culture that fosters commitment to health. Schools exhibiting this configuration demonstrate more effective, sustainable implementation of UKS, aligned with Islamic values that promote clean and healthy living behaviors within the school environment.

**Keyword:** UKS; Madrasah, QCA; Student participation; School health

### INTRODUCTION

The School Health Program (Usaha Kesehatan Sekolah, UKS) represents a vital component of Indonesia's education system, designed to promote students' well-being through integrated health education, services, and supportive school environments. As a cross-sectoral initiative, UKS aims to enhance students' health status through promotive and preventive approaches encompassing health education, health services, and the creation of a healthy school environment (1)(2). Within the Madrasah education system, UKS plays a particularly important role in shaping healthy behaviors that align with national health goals and Islamic values (3). Madrasahs provide a unique context for implementing health programs that reflect both cultural and spiritual dimensions of student life. Despite the strategic importance of UKS, its implementation and utilization vary considerably across

schools. Some institutions actively involve students, teachers, and external partners in health promotion activities, while others demonstrate limited resource use and minimal engagement (4)(5)(6). These disparities raise concerns about institutional effectiveness, equity in student health outcomes, and the capacity of schools to sustain preventive health initiatives across diverse settings.

Previous research underscores the importance of integrating health promotion within UKS activities in madrasahs to support students' holistic development. Due to their religious foundation and community orientation, madrasahs occupy a distinctive position in promoting not only physical health but also mental and spiritual well-being, in accordance with religious teachings (7)(8). Furthermore, evidence suggests that UKS programs in madrasahs can significantly improve students' health knowledge, attitudes, and behaviors, particularly when guided by religious values and culturally relevant interventions (9)(10). Successful implementation of UKS initiatives has also been shown to enable students to internalize healthy practices that extend beyond the school environment, fostering positive spillover effects within families and communities.

Despite these potential benefits, variations in program success remain evident. Preliminary observations conducted by the research team in several Madrasah Tsanawiyah Negeri (MTsN) in Municipality of Jambi in April 2025 revealed contrasting outcomes, one school exhibited strong UKS implementation, while another displayed several areas needing improvement. Understanding why one school achieves better outcomes than another using the same program is essential to identify effective configurations of leadership, infrastructure, training, and community support. Therefore, this study aims to explore the dynamics of UKS implementation and utilization in two MTsN in Municipality of Jambi. Specifically, it seeks to answer the following research question, what factors influence the dynamics of UKS utilization in two MTsN schools in Municipality of Jambi, and what combinations of factors contribute to differences in implementation success.

Adopting a Qualitative Comparative Analysis (QCA) approach, this study seeks to uncover the specific combinations of factors that contribute to successful UKS implementation. The findings are expected to advance evidence-based policymaking and offer practical insights for school leaders, educators, and health stakeholders interested in replicating and scaling effective school health interventions. By focusing on madrasahs, this study also adds a unique perspective to school health research, as these institutions operate under religious and general education that necessitates culturally grounded and structurally integrated health strategies.

## METHODS

This study employed a qualitative approach using the Qualitative Comparative Analysis (QCA) method to explore the dynamics of UKS utilization among students in two Madrasah Tsanawiyah Negeri (MTsN) in Municipality of Jambi. The study involved MTsN 4 and MTsN 5, selected based on preliminary observations indicating different levels of UKS implementation. QCA was applied to

compare the two schools and identify combinations of factors influencing the success or limitations of the program from the students' perspectives.

Data were collected through Focus Group Discussions (FGDs) with fifty students participated were divided into two groups. representing various classes and levels of involvement in UKS activities. The FGDs were guided by a semi-structured discussion framework exploring students' understanding, experiences, perceived benefits, and challenges related to UKS implementation. All discussions were conducted in a conducive school setting, recorded with participants' consent, and analyzed using the QCA approach to identify patterns and configurations of factors that contribute to differences in UKS utilization between the two madrasahs.

## RESULTS

Findings from the focus group discussions revealed distinct differences in how the UKS was perceived and utilized. In the first madrasah, where the physical condition of the UKS room was poor, students perceived the program as marginal and primarily curative. The UKS room was used only when a student felt unwell, and promotive or preventive health activities were rarely organized. As one student described, "We usually go to the UKS room only when someone feels dizzy or sick. There are no regular activities except when the health center visits." Another added, "Sometimes the room is locked, so we do not really see what is inside or how to use it." In contrast, students at the second madrasah portrayed UKS as an active and integral part of school life. The UKS room was clean, well-maintained, and used for a variety of engaging health activities, such as hygiene campaigns, health check-ups, and cleanliness competitions. A student explained, "Every week we have a 'Healthy Friday' activity, where we clean the classroom and learn about hygiene." Another student shared, "I am part of the student health team. We help remind friends to wash hands and keep the class clean." These activities were viewed as both educational and enjoyable, fostering a sense of pride and belonging among students.

Levels of student participation differed markedly between the two schools. In the more active madrasah, students demonstrated a high degree of engagement through regular duties such as cleaning schedules, peer education, and health promotion events. They expressed that these activities encouraged responsibility and teamwork: "Being part of UKS makes us more disciplined. We learn to care for others." Conversely, in the less active school, students felt disconnected from such initiatives. "We never got a chance to join UKS activities," one student noted. "I do not even know who is responsible for UKS here." This limited involvement was linked to a lack of teacher facilitation and structured opportunities for participation. External support from the Puskesmas (community health center) was consistently mentioned by students from both schools. They acknowledged the value of periodic visits for medical check-ups, nutrition counseling, and health education. "We like when the health officers come because we learn something new about hygiene or food," said one student. However, the follow-up mechanisms differed. In the active madrasah, activities initiated by the Puskesmas were incorporated into ongoing school programs, such as cleanliness competitions or peer-led education. As a student remarked, "After the health officers visit, our teachers ask us to make posters or talk about what we learned." In contrast, in the less active madrasah, students stated that the visits ended without follow-up: "They come and check our weight or teeth, but after that, nothing continues."

The availability of resources and the broader school health culture also shaped students' perceptions of program effectiveness. In the madrasah with an active UKS, students highlighted that a clean and accessible room, adequate supplies, and visible educational materials motivated them to participate. "We like going to the UKS because it is clean and has posters about hygiene and first aid," said one participant. They also described cleanliness as part of daily school life: "It is normal for us to pick up trash or bring healthy food. The teachers always remind us." In contrast, students from the less active madrasah described an environment with limited facilities and irregular activities: "The UKS room looks empty. There are no posters or equipment, so we do not feel encouraged to go there." Despite these limitations, some students mentioned that Islamic teachings motivated them to maintain cleanliness and healthy behavior, as reflected in the statement, "Even though our UKS is not active, we still try to keep ourselves clean because it is part of our religion."

Overall, the findings suggest that a configuration of factors, active student participation, strong teacher guidance, consistent external support, adequate resources, and a health-oriented school culture, collectively contributes to the success of UKS implementation in madrasahs.

## DISCUSSION

The findings of this study demonstrate significant variation in the implementation and utilization of the UKS between the two Madrasah Tsanawiyah Negeri (MTsN) in Municipality of Jambi. Students from the more active madrasah described UKS as an engaging and integral part of school life, characterized by health promotion activities such as hygiene campaigns, peer-led education, and cleanliness competitions. In contrast, students from the less active madrasah perceived UKS primarily as a curative service used only when someone was sick, with limited opportunities for participation. These findings align with earlier studies emphasizing that effective school health programs depend not only on the availability of facilities but also on how schools integrate health promotion into daily routines and student experiences (11)(12). According to the Health Promoting Schools (HPS) framework, the success of school-based health programs requires the combination of supportive environments, participatory learning, and community partnerships (13). The differences observed between the two madrasahs reflect how institutional commitment and organizational culture shape the translation of health policies into meaningful student experiences.

The study also highlights the importance of student participation and teacher involvement as central factors influencing UKS success. In the active madrasah, students reported taking leadership roles as peer educators and health cadres, which fostered a sense of responsibility and solidarity. Such participatory approaches are consistent with social learning theory, which posits that behavior change occurs through modeling, peer influence, and active engagement in shared practices (14). Research in school health promotion supports this finding, showing that student-led initiatives enhance motivation, self-efficacy, and sustainability of health behaviors (15)(16). Conversely, in the less active madrasah, students' passive role and lack of structured involvement reflected limited teacher facilitation. Studies have indicated that teacher engagement serves as a catalyst for embedding health education into school culture, helping students translate knowledge into practice (17)(18). Thus, the interaction between student empowerment and teacher support forms a critical configuration for building health-conscious school environments.

Another key finding relates to the interaction between external health support, school resources, and cultural context. Both madrasahs received regular visits from Puskesmas, yet only the more active school successfully integrated these activities into ongoing programs such as cleanliness competitions and religiously aligned health education. This integration illustrates how contextual adaptation and cultural relevance strengthen the continuity of health interventions. Studies on Islamic-based schools have emphasized that aligning health promotion with religious teachings enhances student acceptance and moral commitment to healthy behaviors (19)(20). Moreover, the role of school resources, clean facilities, educational materials, and visible health symbols, creates a conducive environment for behavior modeling, as described in the ecological model of health behavior (21). In this study, the configuration of adequate facilities, teacher and student engagement, and health-oriented culture represents a synergistic system that sustains UKS implementation. These findings reinforce previous research suggesting that whole-school approaches integrating structural, behavioral, and cultural dimensions are most effective in promoting sustainable school health outcomes (22).

## CONCLUSION

The success of the UKS in madrasahs depends on the synergy between leadership support, teacher involvement, student participation, and a strong health-oriented culture. Effective programs go beyond facilities and external support by embedding health promotion into daily school practices and aligning activities with Islamic values. To strengthen UKS implementation, schools and policymakers should invest in teacher training, sustained collaboration with Puskesmas, and culturally grounded health education that empowers students as active health promoters. Such an integrated approach can enhance the sustainability of school health initiatives and contribute to national goals for healthier school communities

## ACKNOWLEDGEMENT

The authors gratefully acknowledge the funding support from the Institute for Research and Community Service (LPPM), Universitas Jambi, for this study.

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