



Epistemological Synthesis of Hadith Taharah and WASH Acceleration Framework in Islamic School Sanitation Education

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Article Info :	ABSTRACT
Accepted: 10-04-2026 Approved: 04-05-2026 Published: 04-07-2026	Background: The global school sanitation crisis that is far from the 2030 WASH target is driving the need for more effective alternative approaches. In a majority Muslim society such as Indonesia, the concept of taharah in the hadith of the Prophet Muhammad صلى الله عليه وسلم has the potential to become the normative foundation of school sanitation education, but it has never been studied integratively with the international WASH framework. Objective: This study is expected to fill the existing research gaps while making a significant conceptual contribution to the fields of Islamic education, environmental health, and global sanitation policy. Methods: Descriptive-analytical literature research with an integrative review approach, Primary data is sourced from the hadith books of mu'tabar (Al-Lu'lu' wal Marjan, Mukhtashar Saheeh Bukhari-Muslim, Nailul Authar). Results: Takhrij identified 38 sanitation-related sahih/hasan hadiths classified into six thematic clusters corresponding to six WASH components: safe drinking water, proper sanitation, hand hygiene, menstrual hygiene management, waste management, and changes in hygiene behavior. Implications: The T-WIF framework can be operationalized through the revision of the fiqh taharah curriculum in Islamic schools, and the development of sustainable behavior change models in the Islamic education environment to support the achievement of SDG 6 in 2030.
Keywords: taharah; hadith hygiene; sanitation of islamic schools; wash in schools; sanitation education; based on islamic values	

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INTRODUCTION

The school sanitation crisis is one of the most pressing global challenges in the framework of sustainable development. Based on the latest report of the WHO-UNICEF Joint Monitoring Programme (JMP) (2024), the world is not on track to achieve universal access to WASH services in schools by 2030. Data shows that with the current rate of progress, only 86% of schools will have basic drinking water services, 87% basic sanitation services, and most worryingly only 74% will have basic hygiene services by 2030 (WHO & UNICEF, 2024).

This means that it takes a twofold acceleration in the progress of drinking water and sanitation, as well as a quadruple in hygiene services to achieve universal coverage. This condition is particularly felt in developing countries, including Indonesia, where the deficit in school sanitation infrastructure has direct implications for children's health status, attendance levels, and academic achievement. In such a context, the urgency of research that examines the root of school sanitation problems from various perspectives including values and cultural perspectives becomes inevitable, especially in the majority Muslim community which has a rich epistemological heritage of cleanliness in the Islamic scientific tradition.

The relevance of integrating Islamic values into school sanitation programs is not just a normative discourse, but is supported by an ever-growing evidence base. A number of empirical studies have shown that culturally-grounded approaches have proven to be more effective and sustainable in changing hygiene behaviors than purely technical approaches. In the context of Indonesia, which has more than 26,975 Islamic boarding schools and millions of students in Islamic-based schools, there is a strategic potential that has not been fully utilized, namely integrating the concept of *taharah* (purification) sourced from the hadith of the Prophet Muhammad صلى الله عليه وسلم as the conceptual foundation of sanitation education. Furthermore, UNICEF's WASH in Schools Acceleration Framework 2024–2030 explicitly emphasizes the need for multisectoral partnerships including governments, NGOs, academic institutions, and various stakeholders in realizing SDGs 4 and SDG 6 (UNICEF, 2024). This acceleration framework opens up a wide space for integrative studies that bridge the Islamic scientific tradition with the global agenda of school sanitation.

From an Islamic normative perspective, the concept of *taharah* (الطهارة) is the foundation of rituals and hygiene ethics that has extraordinary epistemological depth. *Taharah* conceptually encompasses two main dimensions: first, purification of *hadas* (حَدَث) through ablution, obligatory bathing (*ghusl*), or *tayammum*; and second, purification from impurities (نَجَاسَة) through cleansing of the body, clothing, and the environment. The normative foundation of *taharah* is strengthened by the postulates of the Qur'an in QS. Al-Maidah [5]: 6 (وَاعْبُدُوا اللَّهَ وَاحْتَمِلُوا وُجُوهَكُمْ) يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا قُمْتُمْ إِلَى الصَّلَاةِ ۖ وَغَسِّلُوا وُجُوهَكُمْ), as well as a number of *sahih* hadiths that have direct implications for sanitation behavior.

Among them is a hadith narrated by Imam Muslim from Abu Malik al-Ash'ari (may Allah be pleased with him), that the Prophet صلى الله عليه وسلم said: الطُّهُورُ شَطْرُ الْإِيمَانِ ("Purification is half of faith") (HR. Muslim, no. 223). In addition, a hadith narrated by Imam Tirmidhi states: إِنَّ اللَّهَ طَيِّبٌ يُحِبُّ الطَّيِّبَ، تَطَيَّفٌ يُحِبُّ التَّطَافَ ("Indeed, Allah is good, loves goodness; clean, loves cleanliness") (HR. Tirmidhi, no. 2799). These two hadiths, along with the comprehensive

hygiene doctrine in the fiqh tradition, provide a strong theological foundation for the development of an Islamic-based model of sanitation education.

Previous studies have laid an important foundation for this integrative study. First, Mohidem & Hashim, (2023) in their study of the environment and health from an Islamic perspective identified 89 verses of the Qur'an that address topics such as water conservation, waste management, and disease prevention affirming that Islamic hygiene teachings can form the foundation of modern public health policy. Second, research by Fatimaturrohman et al., (2024) published in the Journal of Living Hadith shows that the implementation of hygiene hadith in the pesantren environment contributes significantly to the formation of clean character and discipline of students, although the research is limited to the context of non-formal education and has not yet linked it to the global WASH framework.

Third, Widyasari et al., (2020) in a mixed-method study published in PLOS ONE (indexed by Scopus) found that value-based hygiene training interventions at Yogyakarta Islamic boarding schools resulted in significant improvements in hygiene behavior, but also identified the limitations of approaches that do not systematically integrate the fiqh dimension. Collectively, these findings indicate the great potential of a taharah-based approach, while also revealing significant research gaps.

However, there is a research gap that is quite basic in the existing literature. The majority of research on taharah has so far operated in the realm of normative fiqh or religious education alone, without systematically linking it to the measurable WASH indicators used in the SDG framework and the international WASH roadmap. In contrast, empirically-based research on WASH in schools, including those published in the reputable journal Scopus, generally adopts a techno-behavioral approach that ignores the dimension of religious values as a determinant variable of sanitation behavior, especially in the context of Muslim communities.

The novelty of this research lies in three basic things. First, this study is the first integrative study that systematically maps the correspondence between the conceptual content of the sahih taharah hadith with the six main components in the WASH in Schools Acceleration Framework 2024–2030, a perspective that has never been done before. Second, this research develops a new conceptual framework that bridges Islamic epistemology (especially hadith and fiqh taharah), Third, this research provides a methodological contribution in the form of an integrative review approach that can be replicated to examine the relationship between other Islamic normative sources and global development agendas (SDGs), opening up new research paths in the field of Islamic public health education. Thus, this study responds

to UNICEF's (2024) call on the need for innovative and cross-field partnerships in accelerating WASH in schools.

Departing from the urgency, relevance, and identification of the research gap above, this study aims to: (1) analyze the conceptual content of authentic taharah hadiths and their relevance to sanitation practices in the school environment; (2) mapping the correspondence between the principles of taharah in hadith and the components of the WASH in Schools Acceleration Framework 2024–2030; (3) formulate an integrative conceptual framework that can be used as the foundation for the development of Islamic values-based school sanitation education curriculum or programs; and (4) identify policy implications for Islamic education providers in the Indonesian context to support the achievement of SDG 6 targets by 2030. This study is expected to fill the existing research gaps while making a significant conceptual contribution to the fields of Islamic education, environmental health, and global sanitation policy.

The practical benefits of this research are threefold. For Islamic education practitioners and curriculum developers, the findings provide a concrete conceptual basis for enriching the fiqh taharah curriculum with measurable sanitation applications, without requiring the replacement of existing normative content. For school administrators and institutional policymakers within the Ministry of Religious Affairs, the T-WIF framework offers a religiously grounded advocacy tool for prioritizing investment in school sanitation infrastructure particularly water-equipped toilets as a fulfillment of both health policy requirements and religious obligations.

RESEARCH METHOD

Types of Research

This research is a descriptive-analytical library research. Literature research is a type of research whose data sources come from written materials in the form of books, books, scientific journals, official documents, and normative texts, without involving data collection through *field research* (Zed, 2022). The distinctive feature of this research lies in the depth of analysis of existing literature sources as an effort to build a new knowledge construction of the phenomenon being studied. The selection of this type is based on the consideration that the main object of study is the normative text of the hadith of the Prophet Muhammad صلى الله عليه وسلم as a source of Islamic epistemology, as well as policy documents and scientific literature on school sanitation within the framework of WASH, both of which are documentary corpuses that require an in-depth and systematic literature study.

More specifically, this study is designed as an integrative review by following the methodological framework developed by (Whittemore et al., 2005). The *integrative review* method was chosen because of its ability to

accommodate heterogeneous sources including religious normative texts (hadith and fiqh), indexed empirical studies, theoretical studies, and international policy documents in a coherent and rigorous analytical framework (Oermann & Knafl, 2021; Whitemore et al., 2005). This distinguishes it from *systematic reviews* that only accommodate controlled empirical studies. This approach makes integrative studies the most appropriate methodological choice to bridge Islamic epistemology (hadith of taharah and cleanliness fiqh) with environmental health science and global WASH policies based on modern science.

Location and Research Subjects

As a library research study adopting an integrative review design, this study does not involve a specific field research location or human research subjects. There is no data collection conducted at a designated research site, and no respondents, informants, or participants were involved in any phase of data gathering. All primary data are sourced from verified mu'tabar hadith books that are physically available and directly examined, while secondary data are obtained from indexed scientific literature accessed through established academic databases (Scopus, Web of Science, PubMed, Google Scholar, DOAJ, and SINTA). This methodological characteristic is consistent with the nature of library-based integrative research as described by Whitemore et al., (2005), which does not require ethical approval for human subjects or an institutional research site.

Research Instrument

Given the nature of this library research, the researcher functions as the primary instrument (human instrument), whose capacity for analysis, interpretation, and synthesis constitutes the core research tool (Whitemore et al., 2005). Two formal research instruments are employed to systematize the data collection and analysis process: (1) the Thematic Data Card, a structured documentation template used to record each hadith or secondary source with the following fields: sequence number; complete bibliographic identity; hadith text excerpt (Arabic with translation) or theoretical proposition; main theme; relevant sanitation sub-theme; correspondence with the applicable WASH component; and initial analytical notes;

and (2) the Conceptual Correspondence Matrix, a structured analytical table that maps the systematic correspondence between each identified taharah hadith cluster and the six components of the WASH in Schools Acceleration Framework 2024–2030 (UNICEF, 2024), serving as the primary analytical output of this study. These instruments were applied consistently across all stages of data collection, coding, and interpretive synthesis to ensure methodological transparency and auditability.

Research Approach

This study uses two approaches that are complementary and mutually reinforcing to each other.

The Normative-Thematic Approach (المنهج الموضوعي / Al-Manhaj Al-Mawdhu'i)

The normative-thematic approach is a method of hadith study that works by collecting all hadiths that have the same theme or have relevant topic correlations from various mu'tabar hadith books, then analyze and synthesize the content of their meaning comprehensively and completely (Hanapi et al., 2018). In this study, the mawdhu'i approach was concretely applied to collect and study saheeh hadiths related to the themes: taharah (الطهارة), nazafah (النظافة), water use (استعمال الماء), impurity disposal (إزالة النجاسة), hand hygiene (غسل اليدين), and environmental cleanliness (نظافة البيئة) before all these findings were conceptually linked to the components of WASH.

Integrative-Conceptual Approach

This approach aims to build a systematic conceptual correspondence between two different epistemological domains: (1) Islamic epistemology sourced from the normative texts of sahih hadith and fiqh taharah; and (2) the environmental health science framework represented by the WASH in Schools Acceleration Framework 2024–2030 (UNICEF, 2024). The integrative-conceptual approach in contemporary Islamic research has been recognized as a productive methodological path to produce a meaningful synthesis of cross-disciplinary knowledge. Mohidem & Hashim, (2023) in their Scopus indexed study show that this kind of approach is able to produce an integrative model that is scientifically valid as well as normatively adhering to Islamic sources. In this study, the integrative-conceptual approach serves as an epistemological bridge that allows researchers not only to compare the two knowledge systems, but to actively formulate the points of functional correspondence and pedagogical implications of the meeting of the two.

Data Source

In accordance with the characteristics of literature research and integrative studies, the data sources of this research are divided into two categories, namely primary data sources and secondary data sources.

Primary Data Sources

Primary data sources are authoritative sources that are direct references in text analysis and conceptual construction. These sources consist of three groups.

Sahih Hadith Books That Become the Main Corpus of Research

This research directly refers to the books of mu'tabar hadith that are physically available and verified, as follows:

1. **Al-Lu'lu' wal Marjan Fima Ittafaqa 'Alaihi Ash-Shaykhan Al-Bukhari wa Muslim** (اللؤلؤ والمرجان فيما اتفق عليه الشيخان البخاري ومسلم), by Muhammad Fu'ad Abdul Baqi, published by Dar al-Hadits, Cairo. The translated version used in this study is the Collection of Sahih Bukhari-Muslim Hadiths (LUX

- Edition), translated by Arif Rahman Hakim, Lc., editor Junaidi Manik, S.Pd.I, published by Insan Kamil Solo Publisher (Print 1: December 2010). This book contains hadiths that were agreed to be authenticated by the two greatest imams of hadith, Al-Bukhari and Muslim, making it the highest source in the hierarchy of hadith.
2. **Mukhtashar Saheeh Muslim** (مختصر صحيح مسلم), by Al-Hafidz Dzaqiyuddin Abdul Adzim bin Abdul Qawi Al-Mundziri ([Al-Mundziri, 2012](#)). The translated version used is the Summary of Shahih Muslim, translated by Pipih Imran Nurtsani, Lc. & Fitri Nurhayati, Lc., editor Agus Wandu & Abu Aisyah, published by Insan Kamil Solo Publisher (Print 1: August 2012/Syawal 1433 H). This book is a summary of *the mu'tabar* of the Muslim Saheeh which contains all the important hadiths about the taharah in *the Kitab al-Thaharah*.
 3. **Mukhtashar Saheeh Bukhari** (مختصر صحيح البخاري), by Al-Imam Zainuddin Abul 'Abbas Ahmad bin 'Abdul Lathif Az-Zubaidi ([Az-Zubaidi, 2013](#)). The translated version used is Summary of Sahih Bukhari, translator Arif Rahman Hakim, Lc., editor Junaidi Manik, S.Pd.I, M.Pl & Andi Wicaksono, M.Pd., published by Insan Kamil Solo Publisher (Print 1: January 2013/Safar 1434 H; Print 2: May 2014/Rajab 1435 H). This book contains saheeh summaries from *Kitab al-Wudhu*, *Kitab al-Ghusl*, *Kitab al-Thaharah*, and other relevant chapters in Sahih Bukhari.
 4. **Saheeh wa Dha'if Nailul Authar** (صحيح وضعيف نيل الأوطار), by Imam Muhammad bin Ali Ash-Syaukani ([Ash-Syaukani, 2018](#)), with takhrij (classification of the degrees of hadith) by Shaykh Nashiruddin Al-Albani, published by Dar al-Hadith, Cairo (1426 H/2005 AD). The translated version used is Saheeh-Dha'if Nailul Authar: Sorting Saheeh and Dha'if from the Complete Collection of Hadith of the Most Selected Laws, translated by Dr. Muhammad Hambal Shafwan, Lc., M.Pd.I, editor Rahman Yurisyah, M.Pd.I, published by Al-Qowam Publishers, Sukoharjo (Print I: February 2018/Jumadil Awal 1439 H). This book is very strategic because it contains complete hadiths on fiqh law along with the classification of their degrees of authenticity by Shaykh Al-Albani, especially the hadiths in *Bab al-Thaharah wa Anwa'iha* (باب الطهارة وأنواعها).

The Qur'an and Its Interpretation

As the supreme normative source of Islam, the Qur'an is used to strengthen the basis of the evidence about the taharah, especially QS. Al-Ma'idah [5]: 6, QS. Al-Baqarah [2]: 222, QS. Al-Muddatstsir [74]: 4, and QS. Al-Taubah [9]: 108. The main references used are Syaamil Al-Qur'an Miracle The Reference (ix + 1253 pp.), Editorial Board: Indra Laksana, Muchaeroni, Syamsu Arramly, Usman Syamilly; Supervisor: Herlan Ahmad Sulaeman; Compiler of the Tafsiriyah Method Per Word: Ust. H. Muhammad Saifudin, Lc., M.Ag. (Academic Director of LSUQ Bandung); Research Council: Prof. DR. KH. Maman Abdurrahman, MA., DR. H. Engkos Kosasih, Lc., DR. Dadang Darmawan, MA., Drs. Abu Z. Maulana Akbar Khan, M.Ag., Kyai Amin Muchtar; published by Sygma Publishing, Bandung (First Printing, October 2010) ([Syaamil, 2010](#)).

The Book of Fiqh and the Ruling of Islamic Law Mu'tabar

As a reference for the interpretation and contextualization of the laws of the taharah hadiths, this study uses:

1. **The Muhammadiyah Central Executive Tarjih Decision Collection**, published by Suara Muhammadiyah Publisher, Yogyakarta (Revised Edition, Print xxviii: February 2014; Print xlix: August 2019). ISBN: 979-3708-63-8. This book contains the official fiqh legal decisions of the Muhammadiyah Tarjih Council that refer directly to the Qur'an and saheeh hadiths, including chapters on Islamic taharah, cleanliness, and health. Its relevance is very high because it represents the normative application of hadith of taharah in the context of Islamic education in Indonesia.
2. *Al-Fiqh al-Islami wa Adillatuhu* by Prof. Dr. Wahbah al-Zuhaili as a reference for comparative fiqh across sects in the theme of taharah.
3. *Fiqh al-Sunnah* by Sayyid Sabiq as a reference for practical fiqh based on hadith.

International WASH Policy Document

1. UNICEF. (2024). *An Acceleration Framework for WASH in Schools, 2024–2030*. United Nations Children's Fund.
2. WHO & UNICEF-JMP. (2024). *Progress on Drinking Water, Sanitation and Hygiene in Schools 2015–2023: Special Focus on Menstrual Health*. Joint Monitoring Program.
3. United Nations. (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development* (SDG 4 and SDG 6).

Secondary Data Sources

Secondary data sources include contemporary scientific literature used to reinforce, contextualize, and test conceptual synthesis built from primary sources.

Scopus Indexed Scientific Journal, Web of Science, and Google Scholar (2021–2026)

Literature searches were carried out systematically on Scopus, Web of Science, PubMed, Google Scholar, DOAJ, and SINTA databases using a combination of keywords: *thaharah*, *Islamic hygiene education*, *WASH in schools*, *sanitation education Islamic values*, *hadith cleanliness*, *sanitation of Islamic schools*, and *hygiene education from an Islamic perspective*. The 2021–2026 restrictions are implemented to ensure the relevance and novelty of the study.

International Institution Reports and Data

Reports by WHO, UNICEF, and related UN agencies that contain quantitative data on global and school WASH achievements are used as a macro context that reinforces the urgency of research.

Methodological Works and Ulumul Hadith

Scientific works on hadith research methodology, 'ulumul hadith, and takhrij are used as methodological foundations in the process of analyzing hadith texts.

Data Collection Technique

Data collection in this study was carried out systematically through three complementary techniques.

Takhrij al-Hadith (تخريج الحديث)

The *takhrij al-hadith technique* is a scientific procedure for tracing, identifying, and verifying hadith from its original sources, accompanied by the assessment of the status of its authenticity by the imams of the hadith who are mu'tabar. In this study, takhrij is carried out through four operational steps. *First*, identify hadith themes that are relevant to the research, including: taharah (الطهارة), ablution (الوضوء), ghusl (الغسل), istinja (الاستنجاء), use of clean water (الماء الطاهر), hand hygiene (نظافة اليدين), and environmental cleanliness (نظافة البيئة). *Second*, the search for the hadiths in the primary sources that have been determined, mainly: the Sahih Bukhari-Muslim Hadith Group (Al-Lu'lu' wal Marjan), the Summary of Sahih Bukhari (Mukhtashar Shahih Bukhari), the Summary of Muslim Sahih (Mukhtashar Sahih Muslim), and Nailul Authar with takhrij Al-Albani plus digital search through Maktabah Syamilah and Dorar.net.

Third, the verification of sanad and the assessment of the status of the status of the hadith (saheeh, hasan, dha'if, or maudhu') based on the law of the hadith imams, especially referring to the takhrij of Shaykh Nashiruddin Al-Albani which has been contained in the saheeh-dha'if version of the book Nailul Authar. *Fourth*, compile all hadiths that meet the criteria of authenticity (at least hasan) into a thematic matrix based on relevant sanitation topics.

Documentation Study and Systematic Literature Review

The systematic literature review was carried out following a protocol adapted from *the Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA 2020) Page et al., (2021), which consisted of the following four stages. Identification Stage: search of all potentially relevant literature on a predetermined scientific database. Screening Stage: screening by title and abstract using predetermined inclusion criteria, namely: (a) published between 2021–2026; (b) indexed by Scopus, WoS, or Google Scholar; (c) is thematically relevant to taharah, Islamic hygiene, school wash, or sanitation education; and (d) available in Indonesian, English, or Arabic. Exclusion criteria include: articles without accessible abstracts, non-academic sources without a clear normative or empirical basis, and texts whose authority cannot be verified. Eligibility Stage: reading the full text to assess the quality and relevance of substance. Inclusion Stage: determination of final sources that are included in the analysis matrix.

Thematic Recording and Classification

All data collected both from the primary hadith corpus and from secondary literature are recorded systematically using a *thematic data card* that contains the following elements: (1) the sequence number of the source; (2) complete bibliographic identity; (3) excerpts of hadith texts (Arabic with translations) or theoretical propositions; (4) main themes; (5) relevant sanitation sub-themes; (6) correspondence with WASH components; and (7) initial analytical notes. The thematic classification refers to the six main components of the *WASH in Schools Acceleration Framework 2024–2030* (UNICEF, 2024), namely: (1) *safe drinking water*; (2) *adequate sanitation*; (3) *hand hygiene*; (4) *menstrual hygiene management*; (5) *solid waste management*; and (6) *hygiene behavior change*.

Data Analysis Technique

The data analysis in this study was carried out through four systematic stages that integrated the classical Islamic text analysis method with contemporary integrative study analysis techniques.

Textual Analysis of Hadith Matn

The first stage is an in-depth analysis of the matan (core text) of the hadiths that have been collected, using linguistic-semantic and hermeneutical approaches. This analysis includes three sub-procedures: (a) Linguistic-morphological study, namely the analysis of the meaning of key words in matan hadith based on the rules of Arabic morphology (*sharaf*) and syntax (*nahwu*), with special attention to technical terms such as *taharah* (طهارة), *nazafah* (نظافة), *ablution* (وضوء), *najis* (نجس), *hadats* (حدث), *istinja* (استنجاء), and *ma' mutlaq* (ماء مطلق); (b) Contextual interpretation (*syarh*), namely the reading of hadith in the context of explanations (*syarah*) of prominent hadith scholars contained in the mu'tabar sharia books referred to in this study; and (c) Mapping of praxis implications, i.e. identification of the dimensions of action (*amaliyyah*) which are explicitly and implicitly contained in the hadith and have a direct correlation with sanitation practices in the context of schools. This stage produces a list of conceptual implications of each hadith of *taharah* analyzed.

Directed Content Analysis

Content analysis was conducted on all secondary literature that had passed the inclusion stage, using a *directed content analysis* approach. The "directed" approach was chosen because the researcher used the existing theoretical framework, namely the six components of WASH and the dimensions of the *taharah* as a *priori categories* guide in the coding process. The content analysis procedure in this study includes four steps: (a) *Close reading* of all source texts; (b) *Open and axial coding* using thematic codes that refer to WASH components and *taharah* dimensions; (c) *Categorizing* code into larger categories and sub-categories; and (d) Identifying patterns and conceptual relationships among these categories. This process produces a *conceptual correspondence matrix* that maps the relationship between the

hadiths of the taharah and the components of WASH and this is the main analytical output of this study.

Interpretive *Synthesis*

Interpretive synthesis is at the core of the entire process of integrative study, which is the procedure of combining findings from various heterogeneous sources into a more comprehensive, coherent, and original conceptual understanding (Torraco, 2016; Whittemore et al., 2005). In this study, interpretive synthesis is carried out by integrating three data streams at once: (a) the conceptual content of the taharah hadiths that have been analyzed in the previous stage; (b) principles of environmental health sciences and sanitation education from the Scopus indexed empirical literature; and (c) the strategic components of *the WASH in Schools Acceleration Framework 2024–2030*. This synthesis process is interpretive-constructive, not just descriptive. This means that researchers are not only describing what is in each source, but actively building *new conceptual linkages* that have never been formulated before. The validity of the synthesis is maintained through the principle of *confirmability* (Miles et al., 2014), which is that all conclusions must be *auditable* to verified primary data sources.

Conceptual Framework Construction and Source Triangulation

The final stage is the drawing of conclusions and the construction of an integrative conceptual framework as the main output and scientific contribution of this research. Conclusions are drawn in an inductive-deductive manner: *inductively*, by building on conceptual generalizations of specific findings in the analysis of hadith texts; and *deductively*, by testing whether the general principles found in the framework of WASH are confirmed by the normative Islamic sources that have been studied.

The resulting conceptual framework is then validated through source triangulation, *which is confirming each conceptual proposition with at least three different sources that support each other including primary sources of sahih hadith (from established books), Islamic fiqh sources (including the Association of Tarjih Decisions of Muhammadiyah Central Government), as a representation of normative application in the Indonesian context), and Scopus-indexed contemporary scientific literature sources*. This triangulation of sources ensures that the resulting integrative framework is not speculative, but rather has a solid evidence base from three different scientific traditions, making the conceptual contribution of this research academically valid, normative in Islam, and politically relevant.

RESULT AND DISCUSSION

Results

Conceptual Profile of Hadith Taharah: Takhrij, Mawdu'i Classification, and Hierarchy of Righteousness

The results of takhrij al-hadith carried out systematically on the main corpus of research include *Al-Lu'lu' wal Marjan* (Fu'ad Abdul Baqi, 2010), *Mukhtashar Saheeh Bukhari* (Az-Zubaidi, 2013), *Mukhtashar Saheeh Muslim* (Al-Mundziri, 2012), and *Nailul Authar* with takhrij Al-Albani (Ash-Syaukani, 2018) succeeded in identifying 47 hadiths that have direct thematic relevance to the theme of taharah and sanitation. Of the 47 hadiths, after verifying the degree of authenticity based on the standards of takhrij of Shaykh Nashiruddin Al-Albani and the assessment of the classical hadith imams, as many as 38 hadiths were declared to meet the criteria for inclusion of the degree of sahih or hasan.

The remaining nine hadiths are classified as dha'if or not strong enough to be used as a legal basis, so they are excluded from the main body of analysis. The distribution of included hadith sources shows: 14 hadiths are sourced from *Saheeh Bukhari*, 11 hadiths from *Saheeh Muslim*, 8 hadiths from Bukhari and Muslim (agreed upon by Bukhari and Muslim, contained in *Al-Lu'lu' wal Marjan*), and 5 hadiths sourced from *Nailul Authar* with sahih takhrij saheeh Al-Albani from Sunan Abu Dawud, Tirmidhi, and Nasa'i.

The mawdu'i (thematic) classification of the 38 included hadiths resulted in six clusters of main themes that structurally correspond to the WASH component. The first cluster is taharah as the foundation of faith (7 hadiths), which contains hadiths about the position of purification in the hierarchy of faith. The second cluster is water cleanliness and water source management (6 hadiths), containing hadiths about the prohibition of water pollution and holy water standards. The third cluster is adab istinja' and sanitation of disposal of hajat (8 hadiths), which are directly relevant to school toilet sanitation.

The fourth cluster is hand and limb hygiene (8 hadiths), including hadiths about ablution, hand washing, and sunnah fitrah. The fifth cluster is the cleanliness of the environment and public facilities (5 hadiths), which contains a hadith about the prohibition of throwing feces in public places. The sixth cluster is the formation of character and habituation of cleanliness (4 hadiths), including hadith about the obligation to maintain cleanliness as an expression of faith. The distribution of this cluster indicates that the hadith of taharah is not only related to worship rituals, but includes a very comprehensive dimension of sanitation and hygiene.

The hadith that occupies the highest position in the hierarchy of sahih as well as the most conceptually fundamental is the hadith narrated by Imam Muslim from Abu Malik al-Ash'ari (may Allah be pleased with him) in *Saheeh Muslim* no. 223, which reads:

الطُّهُورُ شَطْرُ الْإِيمَانِ، وَالْحَمْدُ لِلَّهِ تَمْلَأُ الْمِيزَانَ، وَسُبْحَانَ اللَّهِ وَالْحَمْدُ لِلَّهِ تَمْلَأُنِ أَوْ تَمْلَأُ مَا بَيْنَ السَّمَوَاتِ وَالْأَرْضِ، وَالصَّلَاةُ نُورٌ، وَالصَّدَقَةُ بُرْهَانٌ، وَالصَّبْرُ ضِيَاءٌ، وَالْقُرْآنُ حُجَّةٌ لَكَ أَوْ عَلَيْكَ

"Purification (taharah) is half of faith, alhamdulillah fills the scales, subhanallah and alhamdulillah both fill the space between heaven and earth, prayer is light, alms are guidance, patience is ray, and the Qur'an is an argument for you or a boomerang for you." (HR. Muslim no. 223, Saheeh)

This hadith linguistically uses a strong metaphorical construction, where the phrase "شَطْرُ الْإِيمَانِ" (*syathr al-iman*, "half of faith") confirms that thaharah is not just a physical ritual, but an inherent component of faith itself. Prominent hadith scholars, including Imam al-Nawawi in *the Muslim Sahih Sharh*, explain that this phrase means that the taharah occupies a very high position, equivalent to half of the totality of a Muslim's religious practice. From an educational perspective, the implications of this hadith are profound: cleanliness is not just a matter of physical health, but an integrated expression of spirituality, making it a much stronger motivational foundation than just factual hygienic knowledge.

The second fundamental hadith found in takhrij is the hadith narrated by Imam Tirmidhi from Sa'd bin Abi Waqqash, which is contained in *Nailul Authar* with the hasan judgment by Al-Albani:

إِنَّ اللَّهَ تَعَالَى طَيِّبٌ يُحِبُّ الطَّيِّبَ، نَظِيفٌ يُحِبُّ النَّظَافَةَ، كَرِيمٌ يُحِبُّ الْكَرَمَ، جَوَادٌ يُحِبُّ الْجُودَ
فَنَظِّفُوا أَفْنِيَّتَكُمْ

"Indeed, Allah Ta'ala is good, loving goodness; clean, loves cleanliness; noble, loving glory; benevolent, love generosity. So clean up the courtyards of your houses." (HR. Tirmidhi, considered hasan by Al-Albani).

The content of this hadith is very pedagogically relevant because it emphasizes the dimension of the physical environment (*afniyataikum*, "your pages") as the object of normatively ordered cleanliness. The instruction "*nazhzifuu afniyataikum*" (بَرِّزُوا أَفْنِيَّتَكُمْ) "clean your yard" can be directly interpreted as an order to keep the school environment clean, including toilets, play areas, and sanitation facilities, which in the framework of WASH is a measurable indicator of school sanitation. These findings suggest that the taharah hadiths have a normative scope that goes beyond individual worship rituals and includes a communal sanitation dimension that is in line with the purpose of WASH.

Conceptual Analysis of the Sanitation Dimension in the Hadith of Taharah: Clean Water, Toilet Sanitation, and Impurity Management

The results of the analysis of the second hadith cluster (water cleanliness and water source management) reveal that Islam has a very comprehensive water regulation system, far ahead of the concept of modern sanitation. The

most basic hadith in this cluster is the hadith narrated by Jabir bin Abdillah in *Saheeh Muslim* no. 281 and *Mukhtashar Saheeh Muslim*:

أَنَّهُ نَهَى أَنْ يُبَالَ فِي الْمَاءِ الرَّاكِدِ

"That the Messenger of Allah صلى الله عليه وسلم forbade urinating in stagnant water." (HR. Muslim no. 281, Saheeh; Published in *Al-Lu'lu' wal Marjan* no. 131)

From the perspective of matan analysis, the word "الرَّاكِدِ" (*al-rakid*) means water that is stagnant/stagnant and does not flow. The scholars in *Nailul Authar*, Ash-Syaukani, (2018) explain that this prohibition covers all bodies of stagnant water regardless of volume, because contamination in stagnant water unlike flowing water will damage the entire water mass without a natural purification mechanism. The correspondence of this hadith with *the safe drinking water component* in WASH is very real: it has in principle outlined the concept of protecting drinking water sources from fecal contamination, which is at the core of the WHO standard on safe drinking water. Furthermore, this hadith principle is directly relevant to the need for schools to have a source of drinking water that is protected from contamination, especially in developing countries where access to school drinking water is still a major challenge (WHO & UNICEF-JMP, 2024).

The third hadith cluster about adab istinja' and sanitation of disposal is the most directly relevant to the component of school toilet *sanitation (adequate sanitation)* in WASH. From the takhrij of *Mukhtashar Saheeh Bukhari* (Az-Zubaidi, 2013) and *Nailul Authar* (Ash-Syaukani, 2018), hadiths were found that expressly regulate the procedures for defecating and purifying uncleanness. A hadith from Ibn Abbas (may Allah be pleased with him) which is contained in *Al-Lu'lu' wal Marjan* no. 104 states:

مَرَّ النَّبِيُّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ بِقَبْرَيْنِ فَقَالَ: إِنَّهُمَا لَيُعَذَّبَانِ وَمَا يُعَذَّبَانِ فِي كَبِيرٍ، أَمَّا أَحَدُهُمَا فَكَانَ لَا يَسْتَتِرُ مِنَ الْبَوْلِ

"The Prophet صلى الله عليه وسلم passed two graves and said: 'Indeed, both of them are being tortured, and they are not being tortured for a severe case. One of them is not purified (cleansing) from his urine.'." (HR. Bukhari no. 218 and Muslim no. 292, muttafaq 'alaih).

This hadith of muttafaq 'alaih contained in *Al-Lu'lu' wal Marjan* as the hadith with the highest degree of authenticity contains very strong pedagogical implications. The phrase "*laa yastatiru min al-bawl*" (لَا يَسْتَتِرُ مِنَ الْبَوْلِ) shows that failure to maintain cleanliness from impurity is not just a matter of physical health, but has moral-spiritual consequences in the Islamic view. From the perspective of sanitation education, this hadith narrative provides a very strong *moral urgency* as a behavioral motivator of a dimension that is completely absent from the techno-behavioral approach in conventional WASH programs. This finding is very important because health

behavioral research shows that *values-based intrinsic motivation* is much more effective and sustainable than external motivation alone (Mohidem & Hashim, 2023).

An in-depth analysis was also carried out on the hadith on the prohibition of defecation in public places, which corresponds directly to the issue of *open defecation* one of the biggest challenges in WASH programs in developing schools. A hadith from Abu Hurairah (may Allah be pleased with him) in *Nailul Authar* (Ash-Shaukani, 2018) reads:

انْفُوا اللَّاعِنَيْنِ. قَالُوا: وَمَا اللَّاعِنَانِ يَا رَسُولَ اللَّهِ؟ قَالَ: الَّذِي يَتَخَلَّى فِي طَرِيقِ النَّاسِ أَوْ فِي ظِلِّهِمْ

"Beware of two things that bring curses! The Companions asked: 'What are the two things that bring curses, O Messenger of Allah?' He said: 'A person who discloses his wishes on the road where people walk or where they take shelter'." (HR. Muslim, no. 269; Considered saheeh by Al-Albani)

This hadith normatively contains a strict prohibition (*al-nahi al-jazm*) against indiscriminate desecration in public spaces, which in the language of the hadith is marked by the threatening phrase "bringing curses" (*al-la'inin*). In the context of schools, "the path that people walk" (*thariq al-nas*) and "where they take shelter" (*zhillihim*) can be conceptually analogous to the public areas of the school such as courtyards, corridors, and playgrounds. This hadith directly supports the urgency of providing adequate and affordable *sanitation facilities* in schools as a prerequisite for Muslim students to carry out this normative command. This finding reveals that the availability of school sanitation infrastructure, which is a technical component of WASH, actually has a solid normative foundation in sahih hadith.

The results of the analysis of the hadith about *istinja'* (purification after defecation) with water reveal another important dimension. In *Mukhtashar Saheeh Bukhari* (Az-Zubaidi, 2013) and *Mukhtashar Saheeh Muslim* (Al-Mundziri, 2012) there is a narration from Anas bin Malik (may Allah be pleased with him) which states:

كَانَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ يَدْخُلُ الْخَلَاءَ فَأَحْمِلُ أَنَا وَغُلَامٌ نَحْوِي إِدَاوَةً مِنْ مَاءٍ وَعَنْزَةً فَيَسْتَنْجِي بِالْمَاءِ

"The Messenger of Allah صلى الله عليه وسلم went into the restroom, and I and a child of my age brought him a vessel of water and a small spear; He purified (*istinja'*) with water." (HR. Bukhari, Saheeh)

This hadith has direct relevance to WASH's sanitation standards regarding the availability of water in toilets (*water availability at sanitation facilities*). The practice of *istinja'* with water, which is consistently exemplified by the Prophet صلى الله عليه وسلم, implies that good toilet facilities in an Islamic perspective must provide an adequate water supply. This explains why traditional Islamic boarding schools and madrassas in Indonesia have historically always built toilets with water supply, a practice that is in line with

WASH standards, but rooted in the example of the Prophet in the hadith. These findings imply that sanitation programs in Islamic schools that normatively integrate *istinja'* narratives will have a stronger motivational basis than purely technical approaches.

The analysis of the fifth cluster on environmental cleanliness and public facilities found a hadith about the obligation to clean mosques contained in *Mukhtashar Saheeh Bukhari* (Az-Zubaidi, 2013). The principle of maintaining the purity and cleanliness of this place of worship by scholars is *qiyaskan* (analogized) with the obligation to maintain the cleanliness of places that are shared by the Muslim community, including schools. In *the Council*, (2014), it was stated that the Islamic teachings on cleanliness are comprehensive and include the educational environment as part of the collective responsibility of Muslims. These findings conceptually strengthen the argument that the cleanliness of the school environment in an Islamic perspective is not just a managerial policy, but a normative obligation derived from the teachings of the Prophet صلى الله عليه وسلم.

Hadith of Taharah as the Normative Foundation of Hand Hygiene and Personal Hygiene in Schools

The analysis of the fourth cluster on hand and limb hygiene yielded findings that most directly correspond to the *hand hygiene* component in the WASH Acceleration Framework 2024–2030 (UNICEF, 2024). From the *takhrij* of *Al-Lu'lu' wal Marjan* (Fu'ad Abdul Baqi, 2010) and *Mukhtashar Saheeh Muslim* (Al-Mundziri, 2012), we find a hadith narrated by Abu Hurairah (may Allah be pleased with him) in *Saheeh Muslim* no. 244:

إِذَا تَوَضَّأَ الْعَبْدُ الْمُسْلِمُ أَوْ الْمُؤْمِنُ فَعَسَلَ وَجْهَهُ خَرَجَ مِنْ وَجْهِهِ كُلُّ خَطِيئَةٍ نَظَرَ إِلَيْهَا بِعَيْنَيْهِ
مَعَ الْمَاءِ أَوْ مَعَ آخِرِ قَطْرِ الْمَاءِ، فَإِذَا غَسَلَ يَدَيْهِ خَرَجَ مِنْ يَدَيْهِ كُلُّ خَطِيئَةٍ بَطَشَتْهَا يَدَاهُ مَعَ
الْمَاءِ أَوْ مَعَ آخِرِ قَطْرِ الْمَاءِ

"When a Muslim servant or believer performs ablution and washes his face, every sin he commits with his eyes with water or with the last drop of water comes out of his face. When he washes his hands, every sin committed by his hands with water or with the last drop of water shall come out of his hands." (HR. Muslim no. 244, Saheeh).

From the perspective of *matan* analysis, this hadith explicitly mentions the handwashing procedure (*ghuslu al-yadain*, غَسَلَ يَدَيْهِ) as the core component of ablution which has both spiritual and physical dimensions. Physiologically and epidemiologically, hand washing, which is a mandatory component of ablution, which is carried out at least five times a day, effectively breaks the chain of transmission of pathogens that move through the hands. The correspondence with *the hand hygiene* component in WASH is very strong: ablution is actually a much more comprehensive and structured hand hygiene protocol than the WHO recommendation on hand washing. A Muslim student who performs the five-hour prayer will wash his or her hands in a structured manner at least five times a day, a frequency that has been shown to be

epidemiologically significant in lowering the incidence of diarrheal diseases and respiratory tract infections (Mohidem & Hashim, 2023).

The hadith about the sunnah fitrah is another cluster that has a strong correspondence with the personal hygiene component in WASH. From the takhrij of *Al-Lu'lu' wal Marjan* (Fu'ad Abdul Baqi, 2010) and *Mukhtashar Saheeh Bukhari* (Az-Zubaidi, 2013) found the hadith narrated by Abu Hurairah (may Allah be pleased with him) which is contained in *Saheeh Bukhari* no. 5891 and *Saheeh Muslim* no. 257:

الْفِطْرَةُ خَمْسٌ: الْإِجْتَانُ، وَالْإِسْتِحْدَادُ، وَتَقْلِيمُ الْأَظْفَارِ، وَنَتْفُ الْإِبَاطِ، وَقَصُّ الشَّارِبِ

"There are five fitrahs: circumcision, shaving pubic hair, cutting nails, plucking underarm hair, and trimming mustaches." (HR. Bukhari no. 5891 and Muslim no. 257, muttafaq 'alaih; Published in *Al-Lu'lu' wal Marjan*)

An analysis of this hadith reveals that the concept of *fitrah* (الفطرة) in Islam is a set of personal hygiene practices that are universal and inherent in human *nature*. Of the five components of the sunnah of fitrah, cutting the nails (تَقْلِيمُ الْأَظْفَارِ) has scientifically well-documented health relevance: long nails are a reservoir of pathogens, including the eggs of *the Ascaris lumbricoides* worm and fecal bacteria, which are one of the important vectors of infection in schoolchildren in developing countries. In *the Council*, (2014), this sunnah fitrah is stipulated as a practice that must be observed by every Muslim on a regular basis, not to be abandoned for more than 40 days. These findings suggest that Islam has formulated comprehensive personal hygiene protocols, which, if integrated into the school's WASH program, will provide a much stronger value-based motivational foundation.

Another hadith that is very relevant to *hand hygiene* is the recommendation of siwak (toothbrushing/cleaning of teeth) found in *Mukhtashar Saheeh Bukhari* (Az-Zubaidi, 2013). The Prophet صلى الله عليه وسلم said in a hadith narrated by Abu Hurairah contained in *Saheeh Bukhari*:

لَوْلَا أَنِّي أَشَقُّ عَلَى أُمَّتِي لِأَمْرَتُهُمْ بِالسِّوَاكِ عِنْدَ كُلِّ صَلَاةٍ

"If it were not a burden to my people, I would indeed command them to perform siwak (cleaning their teeth) every time they want to perform prayers." (HR. Bukhari no. 887, Saheeh).

This hadith indicates the intensity of the Prophet's attention to oral and dental hygiene was so high that he almost made it mandatory. From a health perspective, poor oral hygiene in schoolchildren correlates with infections, nutritional problems, and learning quality. Oral hygiene falls within the broader spectrum of personal hygiene in the WASH component, and these findings suggest that Islam pays very serious normative attention to this dimension. The synthesis between the hadiths of sunnah fitrah and the

component of personal hygiene in WASH results in a conceptual framework in which hygiene education programs in Islamic schools can utilize the normative narrative of Islam as a "*hidden curriculum*" that consistently reinforces hygiene behavior.

From the perspective of a broader conceptual analysis, it was found that ablution as the most frequent ritual performed by every Muslim has a structure that is very parallel to the WHO-UNICEF protocol on hand *hygiene*. Proper ablution includes: washing hands (with fingers between them), gargling, cleaning the nose, washing the face, washing hands up to the elbows, rubbing the head (including the ears), and washing the feet to the ankles. With a frequency of at least 5 times a day, ablution is effectively a structured and repetitive *full-body hygiene routine* protocol. From *the Council*, (2014), it was found that ablution that is carried out correctly and perfectly is an obligation that cannot be reduced, making its implementation an automatic habituation of cleanliness. These findings strongly support the argument that prayer schedules in Islamic schools integrated with proper ablution education are the *most effective, sustainable, and cost-effective* hand hygiene promotion strategy.

Mapping of Conceptual Correspondence of Hadith of Taharah with WASH Components in Schools Acceleration Framework 2024–2030

The results of the interpretive synthesis between 38 hadiths of the taharah included with the six components of *the WASH in Schools Acceleration Framework 2024–2030* (UNICEF, 2024) resulted in a Conceptual Correspondence Matrix which is the main analytical output of this study. The first correspondence is between the safe *drinking water component* and the hadith cluster on water source protection. The WASH Framework 2024–2030 emphasizes that every school should have access to a source of drinking water that is safe, protected from contamination, and available around the clock (UNICEF, 2024). Its normative correspondence is found in the hadith prohibiting polluting stagnant water (HR. Muslim no. 281) and hadith on the management of wells as a communal water source in *Mukhtashar Saheeh Bukhari* (Az-Zubaidi, 2013). The Islamic principles of "tahur" (طَهُور, holy and purifying) and "mutlaq" (مُطْلَق, free from contamination) water are conceptually identical to the WHO standards on safe drinking water. The implication: the policy of providing clean water sources in Islamic schools can be strengthened with a normative narrative about the importance of water in Islam.

The second correspondence is between the components *of adequate sanitation* and the hadith cluster on the manners of defecation and the management of uncleanness. The WASH Framework 2024–2030 requires that every school must have gender-segregated toilets, be well-functioning, have a water supply for cleaning, and do not pose a health hazard (UNICEF, 2024). The normative correspondence is very strong: the hadith on the prohibition of defecation on public roads (HR. Muslim no. 269), the obligation of istinja' with water (HR. Bukhari, in *Mukhtashar Saheeh Bukhari*), and the obligation to

purify from urine (HR. Bukhari no. 218 and Muslim no. 292) together outline a *minimum standard of sanitation* that is in many respects higher than the minimum technical standard set by WASH. In particular, the obligation of *istinja'* with water which is a must in fiqh taharah as affirmed in the Council, (2014) makes toilets that have water supply a religious *necessity*, not just a hygiene preference. These findings have very significant policy implications: in Islamic schools, the provision of watery toilets can be advocated on the basis of religious arguments.

The third correspondence is between the components *of hand hygiene* and the ritual of ablution and sunnah fitrah. This correspondence has been discussed in depth under sub-heading C, but at the level of the correspondence matrix, the additional important findings are: The WASH Framework 2024–2030 identifies that the promotion of handwashing needs to be supported by infrastructure (handwashing facilities), behavior (*hand hygiene behavior*), and social norms). In the context of Islamic schools, ablution provides all three elements simultaneously: infrastructure in the form of ablution places, behavior in the form of the habit of washing hands at least 5 times a day, and social normativity in the form of religious obligations strengthened by spiritual sanctions. This means that the WASH program that is integrated with ablution education in Islamic schools theoretically has *a much higher behavior change potential* than conventional WASH interventions that only rely on knowledge and infrastructure.

The fourth correspondence is between the components *of menstrual hygiene management* (MHM) and the hadith about the taharah of menstruation. The WASH Framework 2024–2030 specifically places MHM as a component that requires special attention, as it is directly related to the attendance and learning comfort of female students in schools (WHO & UNICEF-JMP, 2024). In the takhrij of *Mukhtashar Saheeh Muslim* (Al-Mundziri, 2012), a number of hadiths are found about the taharah of menstruation, including the obligation to take a *ghusl bath* after menstruation and the ritual of purifying from menstrual blood. The hadith of 'Aisha (may Allah be pleased with him) in *Saheeh Muslim* affirms the obligation to purify from menstruation in a clean and honorable manner. From the perspective of MHM, Islamic fiqh taharah provides a very strong normative foundation to encourage the availability of adequate private toilet facilities for female students, including the availability of water, private changing rooms, and the disposal of hygienic sanitary napkins, all of which are *taklifiyah* (religious obligations) for Muslim students, not just ordinary health needs.

The fifth and sixth correspondence between *the components of solid waste management* and *hygiene behavior change* with the hadith of taharah was also found conceptually. For the waste management component, the hadith about removing disturbances from public roads (*izalat al-adza 'an al-thariq*, HR. Muslim no. 2618) provides a normative basis for the behavior of throwing garbage in its place. As for the component of changing hygiene behavior, the fundamental hadith of *Saheeh Muslim* no. 223 on "taharah as half faith" provides the most powerful motivational framing: for Muslim students,

maintaining cleanliness is not just a response to health knowledge, but an expression of faith that has a deep theological dimension. From *the Council*, (2014), it is explicitly stated that cleanliness is part of faith (*al-nazafah min al-iman*), making it the official doctrine adopted by the largest Islamic community in Indonesia. The overall mapping of this correspondence results in an integrative conceptual framework that shows that the six components of WASH all have normative equivalents in the hadith of saheeh taharah, a finding that has never been systematically presented in the literature before.

Integrative Conceptual Framework and Implications of School Sanitation Education Policy Based on Hadith Taharah

As the main output of this integrative study, the research succeeded in formulating the Integrative Conceptual Framework of the School Taharah WASH Hadith (*Taharah-WASH Integrative Conceptual Framework*, abbreviated as T-WIF). This framework is built on three conceptual layers that support each other. The first layer (foundation) is the theological-motivational dimension, which comes from the hadiths about the taharah as half faith (HR. Muslim no. 223) and Allah as the One who loves cleanliness (HR. Tirmidhi). This layer serves as the *ultimate justification* for why cleanliness should be practiced: not just for health reasons, but because it is an expression of faith and a form of obedience to Allah جل جلاله.

The second layer (operational) is the normative-behavioral dimension, which comes from hadiths that regulate specific practices such as *istinja'*, ablution, *sunnah fitrah*, and the prohibition of polluting public water. This layer provides concrete behavioral guidance that directly corresponds to the measured WASH indicators. The third layer (contextual) is the communal-environmental dimension, which comes from the hadiths about the cleanliness of the courtyard, the prohibition of throwing away wastes on public roads, and the command to keep places used clean.

From the perspective of curriculum policy implications, the T-WIF framework proposes that Fiqh subjects in Islamic schools that traditionally discuss taharah as the opening material need to be revised in orientation so as not only to convey the ritual dimension (the legal requirement for worship), but also explicitly link the content of the hadith of taharah with the concrete context of school sanitation. The findings of *the Council*, (2014) show that leading Islamic institutions in Indonesia already have a foundation for fatwas and rulings that can support this integration. Previous research by Widyasari et al., (2020) showed that value-based training interventions in Islamic boarding schools resulted in significant improvements in hygiene behaviors, but without systematic integration with the fiqh taharah framework. The T-WIF framework produced by this research fills this gap by providing a conceptual map that can be operationalized in the curriculum.

For the infrastructure and policy components of schools, the T-WIF framework also has significant implications. The WASH Framework 2024–2030 (UNICEF, 2024) emphasizes that achieving the SDG 6 targets requires strong policy advocacy at the national level, including dedicated budget

allocations for WASH facilities in schools. The T-WIF framework provides an additional *religiously-grounded argument* for this advocacy in Muslim countries: the provision of adequate watery toilets in Islamic schools is not just a health policy, but an obligation to facilitate the implementation of religious obligations (istinja' with water). In Indonesia, with more than 210,000 madrasah schools and Islamic schools, this fiqh-based argument has the potential to be more effective in encouraging the commitment of decision-makers (school leaders, school committees, religious ministries) than the technical health arguments that have dominated WASH advocacy so far.

The third implication of the T-WIF framework concerns the character education model and behavior change. One of the biggest challenges of global school WASH programs is the sustainability of post-intervention behavior change. The 2024 JMP data shows that progress towards the universal target is very slow, indicating that existing approaches are not sufficiently effective in changing behaviour in a sustainable manner (WHO & UNICEF-JMP, 2024). The T-WIF framework proposes that the integration of the value of taharah into character education in Islamic schools through the habituation of ablution rituals, the habituation of the sunnah fitrah, and the internalization of the hadith "taharah as half faith" can result in much more sustainable behavioral change because it is driven by internal faith-based motivation, rather than simply extrinsic knowledge of health risks. Behavioral psychology research shows that behaviors that are integrated with individual self-identity and core values are much more resistant to *extinction-resistance* than behaviors that are driven only by factual knowledge.

The validation of the triangulation of sources to the T-WIF framework is carried out by confirming each conceptual proposition using at least three sources from different scientific traditions: primary sources of sahih hadith, authoritative fiqh sources *Himpunan Putusan Tarjih PP Muhammadiyah*, (2014); and *Nailul Authar* Asy-Syaukani, (2018), and contemporary scientific literature sources indexed by Scopus (Mohidem & Hashim, 2023; WHO & UNICEF-JMP, 2024; UNICEF, 2024).

The results of the triangulation show that all the major conceptual propositions in the T-WIF framework are confirmed from all three source pathways. The proposition about ablution as a hand hygiene protocol is confirmed by: (1) *the hadith of Saheeh Muslim* no. 244 on the virtue of washing hands in ablution, (2) the fatwa of the Tarjih Council on the obligation of perfect ablution, and (3) the research of Mohidem & Hashim, (2023) which shows the correlation between the practice of ablution and hand hygiene behavior.

Discussion

The Epistemological Depth of the Hadith of Taharah as a Normative Source of Sanitation Education: Beyond the Ritual Dimension Towards an Environmental Health Paradigm

The findings of takhrij that identified 38 saheeh/hasan hadiths with sanitary content from the primary corpus of this study prove concretely that

the hadiths of *taharah* have a normative scope that goes far beyond the dimension of ritual worship alone. This is in line with and at the same time expands on the findings of Mohidem & Hashim, (2023) who identified 89 verses of the Qur'an related to environmental health from an Islamic perspective but this study managed to add a dimension of hadith that has so far received less attention in the integrative study of Islam-environmental health.

Epistemologically, the hadiths of the *taharah* operate in two domains at once: the realm of *'ubudiyyah* (rituals of worship that must be fulfilled) and the realm of *mu'amalah bi'yyah* (environmental governance with a collective dimension). This epistemological distinction is important because it proves that Islamic normative resources for sanitation education are much richer and more comprehensive than what has been assumed in the WASH literature. A recent study by Kurbiyanto et al., (2024) published in the Springer proceedings corroborates this argument by showing that Islamic environmental ethical principles, including the dimension of *taharah*, are practically relevant to contemporary sustainability challenges, not just historical textual legacies.

The findings about the hierarchy of authenticity of the hadith of the *taharah* mapped in this study also have important epistemological significance. The hadith that occupies the highest position (*muttafaq 'alaih*), namely the hadith from *Al-Lu'lu' wal Marjan* (Fu'ad Abdul Baqi, 2010) are the hadiths about the prohibition of polluting public water (HR. Muslim no. 281) and the obligation to purify from impurity (HR. Bukhari no. 218 and Muslim no. 292). The fact that the two hadiths are the hadiths with the highest degree of authenticity (agreed upon by Bukhari and Muslim) has a very strong implication of Islamic law: the sanitation behaviors are not *naflah* (optional sunnah), but are *obligatory* or at least *sunnah mu'akkadah* (highly recommended).

From an educational perspective, this high normative status provides much stronger *moral authority* as the basis for sanitation habits in schools than just extrinsic health recommendations. This is consistent with the argument of Caruso et al., (2025) in *BMJ Global Health* who found that "motivation" including motivation based on moral values and self-identity is the strongest determinant of sustainable hand hygiene behavior within the COM-B (*Capability, Opportunity, Motivation and Behaviour*) framework, beyond the factors of knowledge and the availability of infrastructure alone.

The discussion of the *mawdhu'i* method applied in this study also needs to be contextualized in the development of contemporary Islamic research methodologies. The use of the *mawdhu'i* method to study the hadiths of the *taharah* in the context of school sanitation represents a methodological innovation that is very rarely done in the literature. As found in a bibliometric study by Nirwana et al., (2024) published in *the Pakistan Journal of Life and Social Sciences*, a cross-disciplinary approach to Islamic education based on the Qur'an and hadith is increasingly dominating academic discourse, but

there are still very few that systematically link it to measurable global health agendas such as WASH.

The findings of this study methodologically fill in this gap while demonstrating that the *mawdhu'i* method when combined with the *framework of directed content analysis* is able to produce a conceptual correspondence matrix that is academically rigorous and practically operational. This proves that the methodological richness of the classical Islamic scientific tradition has an enduring relevance to answer the challenges of contemporary interdisciplinary research.

No less important is the implication of the finding that *the Council*, (2014) explicitly stipulates cleanliness as part of faith. This designation by Indonesia's second-largest Islamic institution has a far-reaching socio-educational impact: it has the potential to reach tens of millions of students in Muhammadiyah schools (more than 4,500 primary, secondary, and high schools throughout Indonesia). In the context of this study, the findings show that the conceptual framework of T-WIF does not start from scratch but has a strong institutional foundation through this *tarjih* decision.

Conceptual Correspondence of Hadith of Taharah with Clean Water and School Toilet Sanitation Standards in the WASH Roadmap 2024–2030

The discussion of the correspondence between the hadith of taharah and the components of clean water and toilet sanitation in WASH 2024–2030 needs to start from the context of the crisis that underlies it. The latest data from the SDG Report 2025 shows that by 2023 there will be 447 million school children without access to basic drinking water services, 427 million children without basic sanitation, and 646 million children without basic sanitation services in schools with the need to accelerate four times the current rate of progress just to achieve the basic hygiene target by 2030 (UN, 2025).

In the midst of the failure of conventional techno-behavioral approaches to produce the needed acceleration, the findings of this study that the hadith of taharah provide a strong normative foundation for the components of clean water and sanitation provide a new perspective that has the potential to be transformative. A study by Alsyouf, L., et.al, (2025) in *the Journal of Islamic Thought and Civilization* that systematically analyzed 27 authentic hadiths on water and linked them to SDG 6 corroborates these findings, concluding that "placing SDG 6 in the ethics of the Prophet increases its legitimacy and mobilizes religious institutions" as implementation partners.

More specifically, the findings of this study about the correspondence between the hadith prohibiting polluting water (HR. Muslim no. 281 in *Al-Lu'lu' wal Marjan*, Fu'ad Abdul Baqi, 2010) with the standard *of safe drinking water* WASH needs to be understood in the dimension of its normative depth. The prohibition of the Prophet صلى الله عليه وسلم against urinating in stagnant water has been interpreted by fiqh scholars including in *Nailul Authar*, Ash-Syaukani, (2018) as a prohibition against all forms of pollution of water sources that are used together.

From the perspective of environmental health science, this principle is synonymous with the concept of *source protection* which is a key element in the WHO drinking water standard. This correspondence is not merely analogous but functional: both aim to ensure that the water consumed is free from fecal contamination. Its relevance to the context of Islamic schools is very real: drinking water sources in schools, whether in the form of wells, reservoirs, or PAMs, must be protected from all forms of pollution, and the normative narrative of this hadith provides a strong religious justification for the policy of protecting these water sources.

The strongest and most direct correspondence found in this study is between the hadith about the obligation of *istinja'* and water (HR. Bukhari in *Mukhtashar Saheeh Bukhari*, Az-Zubaidi, (2013) with the component of *adequate sanitation* in WASH. This hadith, combined with the hadith about the prohibition of defecation on public roads (HR. Muslim no. 269 in *Nailul Authar*, Ash-Syaukani, (2018) and the obligation to purify from urine (HR. Bukhari-Muslim no. 104 in *Al-Lu'lu' wal Marjan*, Fu'ad Abdul Baqi, 2010), together form a very comprehensive standard of *Islamic sanitation*.

In the context of Islamic schools, this normative combination expressly requires: (1) the availability of closed and private toilets, (2) an adequate supply of water for *istinja'*, and (3) a strict prohibition of defecation in public areas. All three of these requirements are exactly in line with the minimum indicators of school sanitation in the WASH Acceleration Framework 2024–2030 (UNICEF, 2024). The implication is that in Islamic schools, compliance with WASH standards is not just a health policy, but a requirement for carrying out religious obligations (*taklifiyah*) a much stronger advocacy framing.

Research by Widyasari et al., (2020) in *PLOS ONE* that examined hygiene interventions in Yogyakarta Islamic boarding schools found that although a conceptual understanding of hygiene already exists among students, its implementation is still hampered by the incompatibility of the available sanitation infrastructure. The findings are directly relevant to this discussion: the normative correspondence between the hadith of *taharah* and the WASH standards successfully mapped by this study provides a *religious imperative* to prioritize the improvement of sanitation infrastructure in Islamic schools.

In other words, the provision of proper watery toilets in madrassas and Islamic schools is no longer just a health policy option but an obligation that can be advocated with religious arguments derived directly from *saheeh* hadith. This is a significant strategic contribution of this research to WASH policy advocacy in Indonesia, especially considering that the Ministry of Religious Affairs has direct authority over more than 84,000 madrassas throughout Indonesia (Ministry of Religion of the Republic of Indonesia, 2023).

Ablution and Sunnah Fitrah as Sustainable Hand Hygiene Protocols: A Synthesis of Hadith and Health Science Perspectives

The findings of this study about the correspondence between ablution rituals and sunnah fitrah with *the hand hygiene* component in WASH 2024–2030 is one of the most original conceptual contributions of this study. At the most basic level, ablution as a ritual of *taharah* performed at least five times a day by every Muslim physiologically includes all procedures recommended by the WHO as the *gold standard* of hand hygiene: wetting hands, rubbing in circular motions covering the backs of the hands, between the fingers, and wrists (up to the elbows), and rinsing with running water.

A study by Caruso et al., (2025) in *BMJ Global Health* on behavioral factors that affect hand hygiene found that "*physical opportunity*" and "*reflective motivation*" (i.e. beliefs and values that drive action) are the two strongest determinants of hand hygiene behavior. Interestingly, ablution provides these two determinants simultaneously: the place of ablution as physical infrastructure, and the obligation to pray as a faith-based reflective motivation make ablution a theoretically optimal system for promoting hand hygiene.

Findings from *Mukhtashar Saheeh Muslim*, Al-Mundziri, (2012) about the hadith on washing hands in ablution (HR. Muslim no. 244) and from *Al-Lu'lu' wal Marjan* (Fu'ad Abdul Baqi, 2010) on the hadith of the sunnah fitrah five points (HR. Bukhari no. 5891 and Muslim no. 257) give an idea of how comprehensive the system of personal hygiene taught by the Prophet صلى الله عليه وسلم is. From a public health perspective, cutting the nails (*taqlimu al-azfar*) one of the five sunnah of fitrah has significant epidemiological implications: long nails are a habitat for pathogenic bacteria and the eggs of *the Ascaris lumbricoides* worm.

Epidemiological studies consistently demonstrate that long and unkempt nails significantly elevate the risk of parasitic infection, including *Ascaris lumbricoides*, in schoolchildren in developing countries, thereby directly validating the health significance of this prophetic sunnah (Mohidem & Hashim, 2023). These findings strengthen the argument in this study that the internalization of sunnah fitrah in Islamic school character education programs directly contributes to reducing the *disease burden* that has been overcome through the WASH program.

In a broader context, the findings of this study are in line with and at the same time strengthen the study of Widyasari et al., (2020) but by providing a deeper normative dimension. Widyasari et al., (2020) found that training-based interventions in Islamic boarding schools succeeded in significantly improving hygiene behavior, but without explicitly integrating the narrative of fiqh ablution and sunnah fitrah into the intervention. The T-WIF framework developed in this study fills this gap by providing a "normative connection" between existing religious rituals (ablution, sunnah fitrah) and the hand hygiene behavior promoted by WASH.

This integration will theoretically produce a "*mutual reinforcement*" effect: compliance with religious obligations automatically practices WHO

hand hygiene protocols, while understanding the health benefits of religious rituals strengthens the motivation to maintain compliance. This mechanism of mutual reinforcement is theoretically in accordance with the *Health Action Process Approach* (HAPA) model which places "self-efficacy" and "intention" as the main mediators between knowledge and behavior (Gaubé et al., 2021).

The fact that ablution requires washing hands at least five times a day also has very concrete curricular implications for WASH programs in Islamic schools. Conventional WASH programs generally target two "critical times" of hand washing: before eating and after defecation. Meanwhile, devout Muslim students perform ablution for zuhr and ashar prayers while at school have washed their hands at least twice to a stricter standard, without the need for additional intervention.

This means that the prayer schedule in Islamic schools is already an integrated "hand hygiene program" that only needs to be optimized through education on correct ablution techniques and the provision of adequate facilities. These findings strategically show that the largest investment in the *hand hygiene component* in the WASH program in Islamic schools should be directed to: (1) improving the quality and capacity of ablution facilities, and (2) education on the correct ablution techniques according to the sunnah rather than on the construction of separate and parallel handwashing facilities.

Thaharah as the Foundation for Sustainable Behavior Change: Comparing the Effectiveness of Islamic Value-Based Motivation with Conventional WASH Approaches

One of the most important contributions of this research is the conceptual framework that explains *why* the integration of thaharah into school sanitation education has the potential to result in more sustainable behavioural change than conventional WASH approaches. A systematic study conducted by the Emory University team published in *BMJ Global Health* (2025) found that of 223 community hand hygiene intervention studies with 247,398 participants, only 28% used behavioral theory as the basis for intervention design, while the majority relied only on factual education about health risks.

This factual knowledge-based approach has been shown to result in short-term but non-durable behavioral changes. On the contrary, the T-WIF framework formulated in this study integrates *faith-based intrinsic motivation* which comes from the understanding that cleanliness is an expression of faith with the physical infrastructure of ritual worship (ablution places) and the social norms of the Muslim community that considers cleanliness as a collective identity. The combination of these three elements theoretically makes the taharah-based sanitation program more likely to produce sustainable behavioral change.

This discussion needs to be contextualized with the findings of research on the integration of Islamic values and sanitation in Islamic boarding schools, which shows that although the concept of taharah is recognized as the foundation of cleanliness in Islamic boarding schools, there is still a gap

between normative understanding and the implementation of actual behavior. This gap, identified as a result of insufficient management systems and supporting infrastructure, actually reinforces the relevance of the T-WIF framework.

The framework not only formulates the normative (hadith of *taharah*) and technical (WASH standard) dimensions, but also explicitly identifies the need to bridge the two through an integrated curriculum, adequate infrastructure, and a systematic management system. In other words, T-WIF does not stop at the level of normative discourse, but offers an operational framework that can be applied practically in Islamic schools. This observation aligns with the findings of Kurbiyanto et al., (2024), who demonstrate that Islamic institutions that successfully operationalize normative ethical values through structured institutional systems achieve more meaningful and measurable sustainability outcomes.

This implies that sanitation education that successfully connects WASH practices with students' Islamic identities will result in much deeper and more sustainable behavioral changes. Comparisons between the effectiveness of Islamic values-based approaches and conventional WASH approaches should also consider the cost and long-term sustainability dimensions. Conventional WASH programs generally require repetitive external interventions (handwashing campaigns, educational programs, soap distribution) to maintain behaviors. In contrast, ablution rituals that are already embedded in daily worship routines do not require additional intervention to "activate" handwashing behavior because intrinsic faith-based motivation is already the driving force.

The UNICEF report (2024) explicitly emphasizes the importance of finding "*cultural and social accelerators*" that can accelerate the achievement of the 2030 WASH targets. The T-WIF framework formulated in this study aptly answers this need: *taharah* as an Islamic value system is an existing cultural-social accelerator, already known, and practiced by hundreds of millions of Muslims which only needs to be *reframed* so that its correspondence with the purpose of WASH becomes explicit and can be taught systematically.

Strategic Implications of the T-WIF Framework for Islamic Education Policy, Fiqh Curriculum, and Acceleration of SDG 6 in Indonesia

Discussion of the strategic implications of the T-WIF framework needs to start from mapping the relevant Islamic education policy landscape in Indonesia. Indonesia is the country with the largest number of Islamic-based schools in the world with more than 84,000 *madrasas*, 26,975 Islamic boarding schools (Ministry of Religion of the Republic of Indonesia, 2023), and thousands of private Islamic schools all under the supervision of the Ministry of Religious Affairs. Collectively, these institutions serve tens of millions of Muslim students who daily study *fiqh*, worship, including *taharah* as part of the core curriculum. However, as identified in this research gap, the learning

of taharah in these schools has been limited to the normative-ritual dimension with no explicit connection to the goal of measurable sanitation.

The *WASH in Schools Acceleration Framework* (UNICEF, 2024) study explicitly calls for partnerships with the ministry of education and relevant institutions to integrate WASH into school curricula. The T-WIF framework provides a very concrete conceptual bridge to realize such partnerships in the Indonesian context: the existing fiqh taharah curriculum can be revised to systematically link the content of hadith with measurable components of WASH.

The most urgent curricular implications of the T-WIF framework are the need to revise the orientation of fiqh taharah teaching in Islamic schools. A bibliometric study by Nirwana et al., (2024) identified that Islamic religious education has historically focused on the transmission of normative knowledge, but is increasingly moving towards an approach that integrates practical and contextual dimensions. This is exactly in line with what the T-WIF framework proposes: not to replace the existing fiqh taharah curriculum, but to enrich it with the dimensions of school sanitation applications.

At a higher policy level, the findings of this study have direct relevance to Indonesia's national policy framework. Regulation of the Minister of Health Number 2 of 2023 concerning the Implementation Regulation of Government Regulation Number 66 of 2014 concerning Environmental Health requires certain sanitation standards for educational institutions including Islamic boarding schools and madrasas. However, its implementation is still very limited because there is no mechanism of "religious motivation" that drives compliance from the bottom (*bottom-up compliance*).

The T-WIF framework offers such a mechanism: by showing that the sanitation standards required by the regulation are actually in line with the obligations of fiqh taharah derived from saheeh hadith, then compliance with regulations can be constructed as part of religious observance and not just an administrative obligation. A study by Alsyouf, L., et.al, (2025) in the *Journal of Islamic Thought and Civilization* reinforces this argument by stating that "the integration of SDG 6 in prophetic ethics increases its legitimacy [in Muslim societies] and opens up practical entry points for culturally nuanced policy instruments."

Finally, this research also has important implications for the future research agenda. The T-WIF framework resulting from this integrative study requires empirical validation through field studies that measure its effectiveness in improving student sanitation behavior and the achievement of WASH indicators in Islamic schools. Moreover, this framework has the potential to be replicated in the context of other Muslim-majority countries facing similar WASH challenges such as Bangladesh, Pakistan, Egypt, and Muslim-majority sub-Saharan African countries.

A recent study in *BMJ Global Health* (2025) on the determinants of hand hygiene behavior explicitly identifies the need for "cross-contextual studies that consider cultural factors and local values" as an urgent research direction.

This research responds to this need by providing the first conceptual framework that systematically links Islamic normative wisdom (hadith thaharah) with the global sanitation framework (WASH 2024–2030) paving the way for a series of follow-up research that is more empirical, participatory, and policy-impacting in the Islamic world.

CONCLUSION

The sahih hadiths of the sahih taharah have a rich conceptual content and are directly relevant to sanitation practices in the school environment, as evidenced by the results of takhrij which succeeded in identifying 38 sahih/hasan hadiths which include the dimensions of water source protection, waste management, hand hygiene, personal hygiene, environmental cleanliness, and the formation of clean character.

The mapping of the correspondence between the principles of thaharah and the six components of WASH in Schools Acceleration Framework 2024–2030 shows that each component of WASH ranging from safe drinking water, proper sanitation, hand hygiene, menstrual hygiene management, waste management, to changes in hygiene behavior has a solid normative equivalent in the hadith of sahih taharah, a finding that has never been systematically formulated in the literature before.

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