

## INTEGRATION OF ISLAMIC DIETARY PATTERNS AND LIFESTYLE IN CONTROLLING THE HEALTH OF STUDENTS IN MODERN ISLAMIC BOARDING SCHOOLS

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**Abstract:** Modern Islamic boarding schools are residential-based educational environments that play a strategic role in shaping students' dietary patterns and lifestyles. The integration of Islamic values into daily life has the potential to serve as an effective approach to controlling students' health. This study aims to analyze the integration of Islamic dietary patterns and lifestyle as a strategy for health control among students in modern Islamic boarding schools. The study employed a descriptive qualitative approach, with data collected through in-depth interviews, observation, and documentation. Research informants consisted of students and boarding school administrators selected using purposive sampling. Data were analyzed using thematic analysis to identify patterns and meanings emerging from students' daily practices. The findings indicate that Islamic dietary patterns—encompassing the principles of *halal* and *thayyib*, eating etiquette, and moderation—along with Islamic lifestyles reflected in discipline, personal hygiene, and religious routines, contribute positively to students' health control. The boarding school environment and the role-modeling of administrators play a crucial role in shaping healthy behaviors among students. However, limitations were still identified, particularly in terms of menu variety and nutritional understanding. This study concludes that the integration of Islamic dietary patterns and lifestyle has strong potential as a promotive and preventive strategy for improving students' health in modern Islamic boarding schools.

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### INTRODUCTION

Health is a fundamental component of quality of life, yet it becomes increasingly vulnerable in communities with high population density and poorly structured living systems. Densely populated environments are often characterized by limited space, suboptimal sanitation, and poorly organized daily activities, all of which increase the risk of various health problems, including both communicable and non-communicable diseases (World Health Organization [WHO], 2022). These conditions are further exacerbated when communities lack strong systems for regulating health-related behaviors, making the consistent practice of healthy living difficult to achieve.

Numerous studies indicate that densely populated communities tend to experience higher vulnerability to health disorders due to imbalanced dietary patterns, inadequate environmental hygiene, and low levels of health literacy (Marmot et al., 2020; Riley et al.,

2017). In the absence of clear social structures, shared regulations, or guiding values that shape collective behavior, health promotion and prevention efforts become less effective. Therefore, health control in densely populated communities cannot rely solely on curative approaches but requires strategies based on behavior, environment, and values that are capable of fostering sustainable healthy living habits in everyday life.

Santri, as a student community living in Islamic boarding schools (pesantren), face unique health challenges due to the dense dormitory-based lifestyle that encompasses social, cultural, and religious dimensions. The pesantren environment strongly influences students' eating habits and lifestyles through shared consumption patterns, daily activities, and collective cultural practices. Imbalanced dietary patterns among santri may negatively affect their nutritional status and overall health.

In the Islamic context, dietary patterns and lifestyles are not assessed solely from a physical perspective but are also guided by Islamic legal and ethical values, such as the concept of *halalan thayyiban*, which encourages the consumption of food that is lawful, wholesome, and beneficial both spiritually and physically. This concept has the potential to serve as a faith-based intervention for shaping healthy dietary habits among young Muslims (Zakaria et al., 2024).

Islamic boarding schools play a vital role as Islamic educational institutions in shaping students' character and behavior, including their dietary patterns and lifestyles. Structured dormitory conditions and collective activities influence students' eating habits and overall healthy living behaviors. The successful integration of Islamic values into students' daily lives has the potential to improve their health status through healthy practices that are aligned with Islamic teachings. Studies indicate that clean and healthy living behaviors in pesantren settings are an important strategy for preventing infectious diseases and maintaining students' health, although implementation remains uneven across some boarding schools (Hidayat et al., 2025).

Previous research has highlighted the relationship between nutritional aspects, dietary patterns, and the health status of santri. For example, a study conducted at Pondok Pesantren As-Sa'idiyah Tambak Beras Jombang found an association between dietary patterns and body mass index among female adolescent santri, underscoring the importance of balanced diets for students' nutritional status (Hikmah et al., 2025). Similarly, other studies conducted in different pesantren using quantitative approaches have confirmed the relationship between food consumption and students' nutritional status (Syarfaini et al., 2025).

Other studies have also emphasized that healthy lifestyles—including proper dietary practices, personal hygiene, and physical activity—are essential for maintaining health within pesantren communities. A descriptive study at Pondok Pesantren Al Muhajirin reported that students' understanding of healthy lifestyles was relatively good, although barriers to implementation remained, such as limited facilities and dense daily schedules (Widowati & Yuliawan, 2025). In addition, research comparing determinants of healthy lifestyles between pesantren and non-boarding schools found that santri exhibit different lifestyle determinants that influence their overall well-being (Fitri et al., 2025).

Collectively, these studies provide a foundational understanding that dietary patterns and lifestyles play a significant role in determining the health status of santri. However, most existing research remains partial in nature—focusing on a single dimension, such as the relationship between diet and nutritional status or descriptive accounts of healthy living behaviors, without holistically integrating Islamic values. In fact, Islamic approaches to lifestyle encompass a strong religious dimension, such as the *halal-thayyib* principle, which not only regulates food choices but also emphasizes balance between physical and

spiritual well-being. The *halal-thayyib* concept can serve as a value-based foundation that strengthens students' motivation to consistently adopt healthy dietary patterns and lifestyles in their daily lives.

Therefore, this study is directed at examining the simultaneous integration of Islamic dietary patterns and Islamic lifestyles as a strategy for controlling students' health in modern Islamic boarding schools. Approaches that combine religious, nutritional, and behavioral aspects within a single analytical framework remain relatively scarce in previous research. This study addresses that gap and offers novelty by providing a more comprehensive understanding of how the integration of these two aspects can collectively contribute to a more effective strategy for health control among santri in modern pesantren settings.

## THEORETICAL STUDY

Health from an Islamic perspective is understood as a state of balance encompassing physical, mental, social, and spiritual dimensions. Islam views the human body as a trust (amanah) from Allah SWT that must be protected and maintained through healthy living behaviors. This concept positions health not merely as a biological objective, but also as an integral part of an individual's moral and spiritual responsibility. Various Islamic teachings encourage believers to maintain cleanliness, regulate dietary patterns, and live a balanced life in order to avoid harm (Al-Qaradawi, 2013). Accordingly, health control efforts in Islam possess a strong value-based dimension and are oriented toward the sustainability of healthy behaviors.

Islamic dietary practices constitute a crucial aspect of health control, grounded in the principles of *halal* and *thayyib* as prescribed in the Qur'an. The principle of *halal* relates to the permissibility of food according to Islamic law, while *thayyib* emphasizes food quality that is clean, safe, and beneficial to bodily health. In addition, Islam teaches proper eating manners, such as avoiding excess, maintaining regular meal times, and consuming food with mindfulness. These practices are highly relevant to the concepts of balanced nutrition and the prevention of non-communicable diseases in modern health sciences (Almatsier, 2019; Riaz & Chaudry, 2018).

Beyond dietary patterns, Islamic lifestyle practices also play a significant role in shaping healthy behaviors. An Islamic lifestyle is reflected in time discipline, personal and environmental hygiene, proportionate physical activity, and structured religious routines. The habit of maintaining cleanliness, which in Islam is regarded as part of faith, aligns with public health principles aimed at preventing environment-related diseases. Moreover, regular worship routines and a structured religious life contribute to stress management, psychological balance, and individual mental health (World Health Organization [WHO], 2022).

Modern Islamic boarding schools (*pondok pesantren*) as residential-based educational environments play a strategic role in controlling students' health. Pesantren function not only as religious educational institutions but also as social communities characterized by strong values, norms, and cultural systems. The pesantren environment facilitates the formation of healthy living behaviors through habituation, managerial role modeling, and collective regulations that bind all students. From a health promotion perspective, pesantren can be regarded as an ideal setting for promotive and preventive interventions due to their social structure, which supports sustained behavioral change (Green & Kreuter, 2005).

The integration of Islamic dietary patterns and lifestyle practices in controlling students' health represents a value-based promotive–preventive approach that aligns with

contemporary health promotion concepts. This approach emphasizes long-term behavioral change through value internalization, community participation, and sensitivity to local social and cultural contexts (WHO, 2022). Previous studies indicate that health education linked to religious values tends to be more readily accepted and practiced within religious communities, thereby enhancing the effectiveness of promotive and preventive efforts (Rahman et al., 2021).

Based on this theoretical review, it can be understood that integrating Islamic dietary and lifestyle practices within a unified value framework offers a more holistic approach to controlling students' health. This approach enables synergistic interactions among religious values, individual behaviors, the pesantren environment, and health outcomes. Therefore, the integration of Islamic values is not only theoretically relevant but also holds significant potential to be developed as a sustainable model for student health control in modern Islamic boarding schools.

## RESEARCH METHODS

This study employed a quantitative approach with a descriptive-analytic design using a cross-sectional framework. This design was selected because it allows researchers to examine the relationships between Islamic dietary patterns and Islamic lifestyles and the health control of santri at a single point in time, making it particularly effective for community-based health research with limited time and resources (Setia, 2016; Wang & Cheng, 2020).

The study was conducted at a modern Islamic boarding school in Sidoarjo. The study population consisted of all santri residing in the dormitory of the pesantren. Sampling was carried out using a purposive sampling technique, with inclusion criteria including santri aged 12–18 years, having resided in the pesantren for at least six months, and willing to participate as research respondents. A sample size of 35 santri was considered sufficient for descriptive and simple correlational analyses in field-based research (Fraenkel et al., 2019).

The independent variables in this study included Islamic dietary patterns and Islamic lifestyles, while the dependent variable was the health control of santri. Islamic dietary patterns were defined as students' consumption habits encompassing food permissibility (*halal*), nutritional balance, regularity of meal times, and eating etiquette in accordance with Islamic teachings. Islamic lifestyles included students' healthy living behaviors such as personal hygiene, sleep patterns, physical activity, and daily habits aligned with Islamic values. Health control among santri was measured using indicators of nutritional status based on Body Mass Index as well as the presence of minor health complaints experienced by the students.

Data were collected using a structured questionnaire with a Likert scale to assess Islamic dietary patterns and Islamic lifestyles. The instrument was developed based on the *halal-thayyib* concept and principles of clean and healthy living behaviors from an Islamic perspective (Zakaria et al., 2024; Widowati & Yuliawan, 2025). In addition, anthropometric measurements of body weight and height were conducted to calculate BMI, following standards established by the World Health Organization (2022).

The data collection process began with obtaining official permission from the pesantren management and providing respondents with an explanation of the study's objectives and procedures. After informed consent was obtained, respondents were asked to complete the questionnaire independently with assistance from the researcher, followed by anthropometric measurements conducted by the researcher.

The collected data were analyzed using univariate analysis to describe respondent characteristics and the distribution of each variable. Subsequently, bivariate analysis was performed using the Chi-square test or Spearman correlation test, depending on the type and distribution of the data, to determine the relationships between Islamic dietary patterns and Islamic lifestyles and the health control of santri (Grove & Cipher, 2017).

This study was conducted in accordance with ethical principles of health research, including the confidentiality of respondents' data, voluntary participation, and the use of data solely for scientific purposes in line with established research ethics guidelines (Polit & Beck, 2021).

## DISCUSSION AND RESEARCH RESULTS

### A. Results

The research findings were obtained through in-depth interviews and participatory observation involving santri and administrators of a modern Islamic boarding school. Thematic analysis revealed an integration between Islamic values and health-related behaviors as reflected in the dietary patterns and lifestyles of the santri. The findings were categorized into four main themes: (1) santri's understanding of Islamic dietary patterns, (2) the practice of Islamic lifestyles in daily life, (3) the role of the pesantren environment in shaping healthy behaviors, and (4) santri's perceptions of the health impacts they experience.

#### 1. Santri's Understanding of Islamic Dietary Patterns

Most santri demonstrated a fairly good understanding of the concept of Islamic dietary patterns. Islamic dietary practices were not perceived merely in terms of food permissibility (*halal*), but also encompassed aspects of cleanliness (*thaharah*), moderation, eating etiquette, and regularity of meal times. This understanding was developed through religious learning processes, the role modeling of caregivers, and repeated habituation within the daily life of the pesantren.

“When it comes to eating, what matters is that the food is halal and clean, and not excessive. Here we are also taught eating etiquette, such as saying prayers and not wasting food.” (R1)

However, interview results also indicated that santri's understanding of balanced nutrition remained limited. Some santri were not yet able to associate the principles of halal and *thayyib* with the body's nutritional needs, such as adequate protein, vitamins, and menu variety. This condition was reinforced by the limited variety of food provided in the daily menu of the pesantren.

“Halal is a given, but when it comes to nutrition, it sometimes gets less attention. The menu is often the same.” (R4)

These findings indicate that the concept of Islamic dietary patterns has been understood in a normative-religious sense, but has not yet been fully integrated with comprehensive health and nutritional science perspectives.

#### 2. Practice of Islamic Lifestyles in Daily Life

Islamic lifestyles were reflected in the structured daily routines of the santri, such as waking up before dawn, performing congregational prayers, following scheduled study times, having regulated rest periods, and engaging in physical activities through pesantren programs. These routines foster a disciplined lifestyle that indirectly supports healthy living behaviors.

“Because the schedule is packed from dawn until night, life becomes more organized. There is also a set time for sleeping.” (R2)

Observations showed that habits of maintaining personal and environmental cleanliness had become part of the pesantren culture. Santri were accustomed to bathing regularly, keeping their clothes clean, and participating in communal cleaning activities. Nevertheless, the high density of santri and limited sanitation facilities remained obstacles to optimizing clean and healthy living behaviors.

“The awareness is already there, but sometimes the bathrooms are crowded, so it’s not optimal.” (R11)

These findings suggest that Islamic lifestyle practices have been well implemented behaviorally, but still require adequate facility support to enhance their effectiveness in health control.

### **3. The Role of the Pesantren Environment in Shaping Healthy Behavior**

The pesantren environment played a central role in shaping the santri’s healthy behaviors. Clear regulations, structured schedules, routine supervision, and the role modeling of caregivers functioned as effective mechanisms of social control. Santri tended to comply with established rules because they were understood as part of discipline and Islamic values.

“When there are rules from the pesantren, we follow them. For example, meal times and sleeping hours are all regulated.” (R17)

Pesantren administrators emphasized that value-based approaches grounded in religious teachings were more easily accepted and internalized by santri than purely technical or instructional health approaches.

“When health messages are linked to Islamic teachings, santri are more compliant because they feel it is part of worship.” (R7 – administrator)

This indicates that integrating religious values into health management serves as an effective strategy for shaping collective healthy living behaviors within the pesantren environment.

### **4. Santri’s Perceptions of Health Impacts**

Most santri reported experiencing positive impacts from practicing Islamic dietary patterns and lifestyles during their time in the pesantren. These impacts included improved physical fitness, reduced frequency of illness, and a more structured lifestyle compared to before becoming santri.

“I used to stay up late and snack carelessly; now my body feels better and I rarely get sick.” (R21)

Nevertheless, santri also expressed hopes for improvements in the quality of health programs in the pesantren, particularly regarding greater food menu variety and more specific and practical health education.

“If there were explanations about nutrition and health, it might be more comprehensive.” (R26)

These findings indicate that santri are not merely passive recipients of policy, but also possess critical awareness regarding the need to improve health quality within the pesantren environment.

## B. Discussion

The findings of this study indicate that the integration of Islamic dietary patterns and lifestyles in modern Islamic boarding schools (pesantren) contributes positively to the health management of students (santri). These findings affirm that Islamic values function not only as spiritual guidance but also as a normative framework that shapes healthy living behaviors collectively and sustainably. Within the pesantren context, health practices are not positioned as separate medical interventions; rather, they are internalized within the value system, institutional regulations, and religious culture that are consistently practiced in the daily lives of the santri.

This value-based approach aligns with the holistic health paradigm, which emphasizes the interconnection between physical, psychological, social, and spiritual dimensions in shaping health behaviors. This is also reflected in Islamic-based healthy diet education programs in rural communities, which demonstrate that integrating Islamic education with practical health screenings enhances community understanding of healthy food consumption and clean living behaviors (Romdloni et al., 2025).

### 1. Islamic Dietary Patterns as the Foundation of Healthy Behavior

Santri's understanding of Islamic dietary patterns—encompassing the principles of halal, *thayyib*, eating etiquette, moderation, and regular meal timing—indicates that the concept of *halalan thayyiban* has been well internalized normatively. This principle aligns with the Islamic perspective that emphasizes balance between fulfilling physical needs and nurturing spiritual awareness in food consumption. Zakaria et al. (2024) assert that value-based religious dietary approaches can enhance individual adherence to healthy eating behaviors, as they are driven by internal spiritual motivation rather than merely physical health considerations or bodily aesthetics.

Nevertheless, this study also reveals that the interpretation of *thayyib* among santri remains largely limited to aspects of cleanliness and permissibility, while the dimension of nutritional balance has not yet been comprehensively understood. This finding is consistent with studies by Syarfaini et al. (2025) and Hikmah et al. (2025), which indicate that pesantren environments often face challenges in providing varied and nutritionally balanced menus due to limited resources and inadequate nutritional planning. This condition highlights the need for stronger integration between Islamic values and nutrition education grounded in health sciences, so that the concept of *thayyib* is understood not only as "clean and halal," but also as "safe, nutritious, and appropriate to bodily needs."

### 2. Islamic Lifestyle and Health Discipline among Santri

An Islamic lifestyle, as reflected in religious routines, time discipline, personal hygiene practices, and structured physical activities, functions as an indirect mechanism for controlling santri health. Congregational prayers, regulated sleeping and waking times, and restrictions on risky behaviors contribute to the formation of relatively stable and controlled lifestyle patterns. These findings are in line with Widowati and Yuliawan (2025), who state that the structured life of pesantren significantly contributes to the development of clean and healthy living behaviors, although its effectiveness is strongly influenced by the availability of supporting facilities.

Theoretically, an Islamic lifestyle can be understood as a form of value-based health-promoting behavior, namely health behaviors built upon values and beliefs. Fitri et al. (2025) explain that boarding school environments exert a strong influence on adolescent lifestyle formation due to social control, collective routines, and the internalization of shared norms. In the pesantren context, this social control is further reinforced by religious legitimacy, such that santri compliance with healthy lifestyles is not merely normative but is also perceived as part of worship and obedience to religious values.

### 3. The Role of the Pesantren Environment and Leadership Role Models

The modern pesantren environment plays a strategic role in shaping santri health behaviors through institutional regulations, supervision by caregivers, and the exemplary conduct of pesantren administrators. A clear institutional structure creates an ecosystem that supports the integration of Islamic dietary patterns and lifestyles. This aligns with the perspective of Creswell and Poth (2018), who emphasize that individual behavior within religious communities is strongly influenced by collective values, social practices, and respected authority figures.

Linking health messages with Islamic values has proven to be more effective in improving santri compliance compared to purely technical health approaches. This finding supports the study by Yulisa and Maadi (2025), which states that understanding halal and healthy lifestyles among young Muslims is more easily developed when health messages are conveyed within a religious framework that aligns with their identity and spiritual experiences. Thus, pesantren have the potential to serve as model educational institutions that simultaneously integrate health education and Islamic values.

### 4. Integration of Islamic Values as a Promotive–Preventive Strategy

Overall, the findings of this study strengthen the notion that integrating Islamic dietary patterns and lifestyles constitutes an effective promotive and preventive strategy for managing santri health. This approach is not only oriented toward disease prevention but also toward the formation of long-term healthy habits that are embedded in the awareness and daily practices of santri. This is consistent with modern health promotion concepts that emphasize value-based behavior change, community participation, and socio-cultural context (World Health Organization [WHO], 2022).

Compared to previous studies that tend to be partial—examining dietary patterns or lifestyles separately—this study demonstrates that integrating both aspects within a single Islamic framework provides a more holistic understanding of health management in pesantren settings. Consequently, this integrative approach holds not only academic implications but also practical value, serving as a foundation for developing pesantren-based health program models that are relevant to the health challenges faced by santri in the modern era.

## CONCLUSION

This study demonstrates that the integration of Islamic dietary patterns and lifestyles has been practically implemented in the daily lives of students in modern Islamic boarding schools and plays a positive role in controlling students' health. Islamic values—such as the principles of *halal* and *thayyib*, eating etiquette, time discipline, and clean and orderly living habits—shape students' healthy behaviors based not only on physical health considerations, but also on religious awareness. The pesantren environment, through institutional rules, role modeling by administrators, and collective culture, is a key factor in the internalization of these healthy living behaviors. Nevertheless, the study also finds that the implementation of Islamic dietary practices has not been fully accompanied by comprehensive nutritional understanding and adequate supporting facilities. Therefore, strengthening nutrition education grounded in Islamic values and improving health-supporting facilities in pesantren are necessary. The integration of Islamic and health-based approaches has strong potential as an effective promotive and preventive strategy for sustainably improving students' health in modern Islamic boarding schools.

## REFERENCES

Almatsier, S. (2019). *Prinsip dasar ilmu gizi*. Jakarta: Gramedia Pustaka Utama.

Al-Qaradawi, Y. (2013). *Islamic guidance on health and medicine*. Cairo: Al-Falah Foundation.

Creswell, J. W., & Poth, C. N. (2018).

Fitri, R., Asniar, A., & Rauzatul Jannah, S. (2025). *Determinants of healthy lifestyle among boarding and non-boarding school adolescents*. Jurnal Keperawatan Silampari, 5(1). <https://doi.org/10.31539/jks.v5i1.2949>

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2019). *How to design and evaluate research in education* (10th ed.). McGraw-Hill Education.

Green, L. W., & Kreuter, M. W. (2005). *Health program planning: An educational and ecological approach* (4th ed.). New York, NY: McGraw-Hill.

Grove, S. K., & Cipher, D. J. (2017). *Statistics for nursing research: A workbook for evidence-based practice* (2nd ed.). Elsevier.

Hidayat, C. T., Wahyuningasih, S., & Mananda, A. B. (202X). *Gerakan clean and healthy living behavior sebagai upaya menuju santri sehat dan mandiri di Pondok Modern Muhammadiyah Pakusari, Jember*. Jurnal Pengabdian Masyarakat IPTEKS, 11(1). <https://doi.org/10.32528/jpmi.v11i1.3834>

Hikmah, D., Wijaya, A., Roni, F., Pratiwi, T. F., & Camelia, D. (2025). *Hubungan pola makan dengan indeks massa tubuh pada remaja putri usia 12–16 di Pondok Pesantren As-Sa'idiyah Tambak Beras Jombang*. Jurnal Kesehatan Islam: Islamic Health Journal, 14(1). <https://doi.org/10.33474/jki.v14i1.24376>

Marmot, M., Allen, J., Boyce, T., Goldblatt, P., & Morrison, J. (2020). *Health equity in England: The Marmot review 10 years on*. Institute of Health Equity.

Polit, D. F., & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.

Rahman, F., Sulaiman, E., & Nugroho, H. S. W. (2021). Religious-based health promotion and its impact on healthy behavior: A systematic review. *Journal of Religion and Health*, 60(3), 1892–1906. <https://doi.org/10.1007/s10943-020-01121->

Riley, L. W., Ko, A. I., Unger, A., & Reis, M. G. (2017). Slum health: Diseases of neglected populations. *BMC International Health and Human Rights*, 17(2), 1–8. <https://doi.org/10.1186/s12914-017-0114-7>

Romdloni, M. A., Lukiyono, Y. T., Hidayat, M. T., Jamilah, H. A., Asbachah, N. S., Kamiliah, N. M., & Ajrullah, A. D. (2025). *Edukasi pola makan sehat dalam perspektif Islam dan pemeriksaan kesehatan dengan metode POCT Desa Sumbersono Mojokerto*. *Journal of Community Development Diversity*, 1(2), 48–58. <https://doi.org/10.64595/jcdd.308>

Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 61(3), 261–264. <https://doi.org/10.4103/0019-5154.182410>

Syarfaini, S., Humaidah, U., & Ibrahim, I. A. (2025). *Relation of food intake to nutritional status of students in Islamic boarding schools*. Al-Sihah: The Public Health Science Journal, 12(1), 59-69. <https://doi.org/10.24252/as.v12i1.14359>

Wang, X., & Cheng, Z. (2020). Cross-sectional studies: Strengths, weaknesses, and recommendations. *Chest*, 158(1S), S65–S71. <https://doi.org/10.1016/j.chest.2020.03.012>

Widowati, A., & Yuliawan, E. (2025). *Penerapan gaya hidup sehat bagi santri di Pondok Pesantren Al Muhajirin*. SCORE, 4(2). <https://doi.org/10.22437/sc.v4i2.43674>

World Health Organization. (2022). *WHO guideline on anthropometric assessment*. WHO Press.

Yulisa, N. K., & Maadi, A. S. (2025). *Halal lifestyle understanding among students in the digital era*. Indonesian Journal of Law and Economics Review, 20(4). <https://doi.org/10.21070/ijler.v20i4.1355>

Zakaria, R., Ahmad, A. N., Nordin, N. F. H. ., Samsudin, N., A M Elgarbawy, A. ., & Pengiran Hashim, P. N. . (2024). Halalan Toyyiban Concept as Religious-Based Intervention for Healthy Diet among Youth. *Halalsphere*, 4(1), 59–71. <https://doi.org/10.31436/hs.v4i1.88>