The Relationship between Environmental Education and Parental Roles on the Healthy Living Behavior of Elementary School Students

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ABSTRACT

Healthy living behavior among elementary school students plays a crucial role in supporting health, academic achievement, and character development. However, the implementation of healthy living behavior is often inconsistent between school and home environments. This study aims to examine the relationship between Environmental Education and parental roles on the healthy living behavior of elementary school students, both partially and simultaneously. This study employed a quantitative approach using a descriptive correlational design. The population consisted of all fifth-grade students of class V A at SD Negeri Pondok Petir 01, Depok, along with their parents or guardians. Using a total sampling technique, 33 students and 33 parents participated as respondents. Data were collected through validated and reliable closed-ended questionnaires and analyzed using descriptive statistics and Pearson Product Moment correlation analysis after meeting the assumptions of normality and linearity. The results showed that Environmental Education (M = 31.15; SD = 9.257), parental roles (M = 29.88; SD = 8.594), and students' healthy living behavior (M = 29.64; SD = 8.135) were generally in the moderate category. There was a very strong and significant relationship between Environmental Education and healthy living behavior ($r = 0.830$; $p < 0.05$) and between parental roles and healthy living behavior ($r = 0.870$; $p < 0.05$). Environmental Education and parental roles were also strongly correlated ($r = 0.921$; $p < 0.05$), indicating a synergistic influence. The study concludes that healthy living behavior among elementary school students is strongly influenced by the integration of school-based Environmental Education and active parental involvement, highlighting the importance of collaboration between schools and families.

Keywords: Environmental Education; Parental Roles; Healthy Living Behavior; Elementary School Students

INTRODUCTION

Healthy living behavior is an essential component in the development of human resources from an early age, particularly at the elementary school level. Elementary schools do not merely function as institutions for academic development but also serve as environments for character building and habit formation, including clean and healthy living behaviors. The establishment of healthy living behavior from an early age provides a strong foundation for long-term health, academic achievement, and the development of discipline and responsibility among students [1]. Fifth-grade elementary students are at a transitional stage toward greater independence in daily decision-making, including decisions related to personal and environmental health. According to developmental psychology, children aged 10–11 years have entered the late concrete operational stage, where they are increasingly capable of logical reasoning and understanding cause-and-effect relationships related to daily experiences [2].

Despite having adequate cognitive abilities to understand the importance of healthy living behavior, students' understanding is not always reflected in consistent daily practices. At this stage, students are still in the process of habit formation, making their behavior highly influenced by routines, adult role models, and reinforcement from their surrounding environment. Without consistent habituation and reinforcement, cognitive understanding may not develop into stable healthy living behavior. Previous studies indicate that elementary school students generally possess sufficient knowledge regarding healthy living, yet their actual implementation remains at a

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moderate level [3]. This phenomenon highlights a gap between knowledge and practice, suggesting that information alone is insufficient to shape behavior.

Healthy living behavior should be viewed as the outcome of continuous interaction between knowledge, habituation, and environmental support. Social learning theory emphasizes that children learn behaviors through observation, imitation, and reinforcement from their social environment [4]. Inconsistent reinforcement between school and home environments can hinder the internalization of healthy living behavior. Studies have shown that students' hygiene-related behavior tends to decline when supervision is reduced, indicating that behavior has not yet become autonomous [5]. Therefore, consistent support from both school and family environments is necessary to foster sustainable healthy living behavior.

One of the key school-based factors influencing healthy living behavior is Environmental Education. Environmental Education is designed to develop students' knowledge, awareness, attitudes, and skills in maintaining environmental sustainability and understanding its relationship with human health. Through Environmental Education, students are not only introduced to theoretical concepts but also actively engaged in practical activities such as maintaining classroom cleanliness, managing waste, and practicing clean and healthy habits [6]. Experiential learning approaches within Environmental Education provide students with direct experiences that bridge cognitive understanding and real-life behavior.

However, the effectiveness of Environmental Education largely depends on how it is integrated into school culture. Programs that are implemented merely as theoretical instruction tend to have limited impact on behavioral change. In contrast, Environmental Education that emphasizes daily habituation, hands-on activities, and teacher role modeling has been shown to be more effective in shaping students' behavior [7]. For fifth-grade students, this approach is particularly relevant as it supports their developmental need to connect abstract concepts with concrete experiences.

In addition to school-based efforts, the family environment plays a crucial role in shaping children's healthy living behavior. Parents are the primary agents of socialization and serve as the first role models for children. Habituation, supervision, and parental modeling at home significantly influence the consistency of healthy living behavior learned at school [8]. Empirical evidence suggests that children whose parents actively engage in promoting healthy habits demonstrate higher consistency in hygiene practices both at home and at school [9].

Despite the recognized importance of Environmental Education and parental roles, previous studies have often examined these factors separately. Research focusing on Environmental Education has primarily emphasized knowledge and environmental attitudes, while studies on parental roles have tended to focus on health behaviors in isolation. Limited empirical research has examined the simultaneous relationship between Environmental Education and parental roles on healthy living behavior, particularly among fifth-grade elementary students. This gap underscores the need for integrated research that considers the combined influence of school and family environments.

Grounded in both educational theory and Islamic values emphasizing cleanliness and responsibility, this study seeks to analyze the relationship between Environmental Education and parental roles on healthy living behavior among elementary school students. The findings are expected to contribute empirical evidence supporting collaborative strategies between schools and families in fostering sustainable healthy living behavior.

LITERATURE REVIEW

Environmental Education

Environmental Education at the elementary level aims to develop students' understanding, awareness, attitudes, and skills related to environmental preservation and health. UNESCO defines Environmental Education as a process that fosters environmental awareness and encourages responsible action toward environmental sustainability [10]. In the Indonesian context, Environmental Education is integrated into thematic learning and school culture to promote clean and healthy habits [11].

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Theoretical foundations of Environmental Education include experiential learning theory, which emphasizes learning through direct experience [12]. Students who actively participate in environmental activities are more likely to internalize hygienic behaviors compared to those who receive theoretical instruction alone. Environmental action competence theory further explains that behavior emerges when individuals possess knowledge, skills, and self-efficacy to act [13].

Empirical studies indicate that Environmental Education implemented through routine practices, such as classroom cleaning and waste management projects, significantly enhances students' hygiene behavior [14]. These findings highlight the role of Environmental Education as a practical and experiential approach to behavior formation.

Parental Roles in Healthy Living Behavior

Parental roles encompass guidance, supervision, modeling, and reinforcement provided to children. According to Epstein, family involvement is a critical factor in children's behavioral development [15]. Social learning theory suggests that children imitate behaviors observed in their parents, making parental modeling a powerful mechanism in shaping healthy habits [4].

Research demonstrates that consistent parental supervision and reinforcement contribute to children's adherence to hygiene routines [16]. Parental involvement not only reinforces school-based learning but also ensures behavioral consistency across environments.

Healthy Living Behavior

Healthy living behavior includes personal hygiene, environmental cleanliness, and healthy daily practices. The formation of such behavior requires integration of cognitive understanding, affective awareness, and psychomotor skills [17]. Habit formation theory emphasizes the importance of repetition and environmental stability in developing automatic behaviors [18].

Previous Studies and Hypotheses

Previous studies have shown positive relationships between Environmental Education and hygiene behavior [14], as well as between parental roles and children's health behavior [16]. However, limited research has examined their combined influence. Based on this review, the hypotheses proposed are:

H1: Environmental Education is significantly related to healthy living behavior.

H2: Parental roles are significantly related to healthy living behavior.

H3: Environmental Education and parental roles are simultaneously related to healthy living behavior.

METHODOLOGY

This study employed a quantitative approach using a descriptive correlational research design. The selection of this design was based on the objective of examining the degree and direction of relationships among Environmental Education (X_1), parental roles (X_2), and healthy living behavior of elementary school students (Y) without manipulating the variables. The quantitative paradigm enabled the systematic measurement of variables using numerical data and statistical analysis to generate objective and generalizable findings.

The research was conducted at SD Negeri Pondok Petir 01, Depok, West Java, during the second semester of the 2025/2026 academic year. The school was selected purposively because it consistently implements Environmental Education through daily habituation activities and involves parents in reinforcing healthy behavior at home. These contextual characteristics align closely with the focus of the study, making the research site relevant and representative.

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The population consisted of all fifth-grade students of class V A at SD Negeri Pondok Petir 01 and their parents or guardians. A total sampling technique was applied because the population size was relatively small and accessible. Consequently, the sample comprised 33 students and 33 parents, resulting in 66 respondents. The use of total sampling minimized sampling bias and allowed a comprehensive analysis of the relationships among the variables.

Three main variables were examined: Environmental Education (X_1), parental roles (X_2), and healthy living behavior (Y). Environmental Education referred to the implementation of learning and habituation activities related to environmental awareness and hygiene practices in school. Parental roles encompassed guidance, supervision, modeling, and reinforcement of healthy behavior at home. Healthy living behavior included students' practices related to personal hygiene, environmental cleanliness, and daily health habits.

Data were collected using structured closed-ended questionnaires developed based on theoretical indicators derived from previous studies and national health education guidelines. The instruments were constructed through a rigorous process involving indicator mapping, item development, expert validation, pilot testing, and revision. Instrument validity was examined using Pearson Product Moment correlation, while reliability was tested using Cronbach's Alpha coefficient. All instruments demonstrated acceptable levels of validity and reliability, indicating their suitability for data collection.

The data collection process was conducted systematically. Questionnaires for Environmental Education and healthy living behavior were administered directly to students in the classroom with teacher assistance to ensure comprehension. Questionnaires measuring parental roles were distributed to parents through class teachers and completed at home. Additional documentation, including school profiles and photographs of Environmental Education activities, was collected to support contextual understanding.

Data analysis involved descriptive and inferential statistical techniques. Descriptive statistics were used to summarize the central tendency and dispersion of each variable. Prior to inferential analysis, prerequisite tests including normality and linearity were conducted to ensure statistical assumptions were met. Pearson Product Moment correlation analysis was then employed to determine the strength and significance of relationships among variables, both partially and simultaneously.

RESULTS AND DISCUSSION

A. Descriptive Statistics

Descriptive statistical analysis was conducted to provide a comprehensive overview of the distribution of each research variable, namely Environmental Education (X_1), parental roles (X_2), and students' healthy living behavior (Y). The analysis focused on the number of respondents, minimum and maximum scores, mean values, and standard deviations as indicators of central tendency and data dispersion.

The results showed that the Environmental Education variable (X_1) had a minimum score of 12 and a maximum score of 48, with a mean value of 31.15 and a standard deviation of 9.257. This indicates that, on average, the implementation of Environmental Education among fifth-grade students at SD Negeri Pondok Petir 01 was in the moderate category. The relatively high standard deviation suggests that students' exposure to and involvement in Environmental Education activities varied considerably, reflecting differences in individual participation and internalization of environmental habituation practices.

The parental roles variable (X_2) also demonstrated a minimum score of 12 and a maximum score of 48, with a mean of 29.88 and a standard deviation of 8.594. These results indicate that parental involvement in supporting healthy living behavior was generally moderate. The variation in scores suggests differences in the extent to which parents consistently guided, supervised, and modeled healthy behavior for their children at home.

Similarly, the healthy living behavior variable (Y) showed a minimum score of 12 and a maximum score of 48, with a mean value of 29.64 and a standard deviation of 8.135. This finding indicates that students' healthy living behavior was also in the moderate category. The dispersion of scores reflects that while some students

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consistently practiced healthy habits, others still demonstrated inconsistent behavior, particularly in situations with reduced adult supervision.

Overall, the descriptive findings indicate that none of the variables had reached an optimal level across all respondents. This suggests that both Environmental Education at school and parental roles at home still require strengthening to ensure the more uniform formation of healthy living behavior among students.

B. Inferential Analysis

Prior to hypothesis testing, prerequisite analyses were conducted to ensure that the data met the assumptions required for parametric statistical testing. Normality testing using the One-Sample Kolmogorov–Smirnov test showed that the data for Environmental Education (Asymp. Sig. = 0.192), parental roles (Asymp. Sig. = 0.200), and healthy living behavior (Asymp. Sig. = 0.178) were all normally distributed, as the significance values exceeded the 0.05 threshold. In addition, linearity testing confirmed that the relationships between Environmental Education and healthy living behavior (Deviation from Linearity Sig. = 0.110) and between parental roles and healthy living behavior (Deviation from Linearity Sig. = 0.167) were linear. These results justified the use of Pearson Product Moment correlation analysis.

Correlation analysis revealed a very strong and statistically significant positive relationship between Environmental Education (X_1) and healthy living behavior (Y), with a Pearson correlation coefficient of $r = 0.830$ and a significance value of $p = 0.000$ ($p < 0.05$). This indicates that higher levels of Environmental Education implementation were associated with better healthy living behavior among students.

A very strong and statistically significant positive relationship was also found between parental roles (X_2) and healthy living behavior (Y), with a Pearson correlation coefficient of $r = 0.870$ and a significance value of $p = 0.000$ ($p < 0.05$). This finding suggests that students whose parents demonstrated stronger involvement, supervision, and modeling of healthy behavior tended to exhibit higher levels of healthy living behavior.

Furthermore, the analysis showed a very strong correlation between Environmental Education (X_1) and parental roles (X_2), with a correlation coefficient of $r = 0.921$ and a significance value of $p = 0.000$. This result indicates a close relationship between school-based Environmental Education and parental involvement, suggesting that both factors tend to reinforce each other in shaping students' healthy living behavior.

DISCUSSION

The very strong relationship between Environmental Education and healthy living behavior confirms the theoretical assumption that experiential and habituation-based learning is effective in translating cognitive understanding into consistent behavior. Environmental Education at SD Negeri Pondok Petir 01 is implemented through daily routines such as classroom cleaning, waste management, and handwashing practices. These activities provide students with repeated opportunities to practice healthy habits, supporting experiential learning theory, which emphasizes learning through direct and continuous experience.

The findings also support previous empirical studies showing that environmental learning programs integrated into daily school activities have a significant impact on students' hygiene and health-related behavior. The strong correlation coefficient ($r = 0.830$) indicates that Environmental Education is not merely supplementary but constitutes a core mechanism for behavioral formation when implemented as part of school culture.

The very strong relationship between parental roles and healthy living behavior ($r = 0.870$) reinforces social learning theory, which posits that children acquire behavior through observation and imitation of significant adults. Parents who consistently model healthy habits, supervise daily routines, and provide reinforcement create a supportive environment that strengthens children's behavioral consistency. This finding aligns with previous research emphasizing the central role of parental involvement in shaping children's health behavior.

The strong correlation between Environmental Education and parental roles ($r = 0.921$) highlights the importance of consistency between school and home environments. When school-based habituation is supported by parental reinforcement at home, students receive coherent behavioral messages that facilitate internalization. Conversely,

discrepancies between school and home practices may weaken behavioral outcomes. This finding supports ecological systems theory, which emphasizes the interaction of multiple environmental contexts in child development.

Overall, the results indicate that healthy living behavior among elementary school students is shaped by the synergistic interaction between Environmental Education and parental roles. An integrated approach that strengthens both school-based programs and parental involvement is therefore essential for fostering sustainable healthy living behavior.

CONCLUSION

This study concludes that Environmental Education and parental roles play a significant role in shaping healthy living behavior among fifth-grade elementary school students. The findings demonstrate that the implementation of Environmental Education through habituation-based activities at school is positively associated with students' daily health practices. When environmental learning is integrated into routine activities, students are more likely to internalize hygienic behaviors and apply them consistently in their daily lives. This confirms that Environmental Education functions not only as a cognitive learning process but also as a practical mechanism for behavioral formation.

Parental roles were also found to have a significant positive relationship with students' healthy living behavior. Parental guidance, supervision, and modeling contribute to the reinforcement of health-related habits developed at school. Parents who consistently demonstrate and monitor healthy practices provide a supportive home environment that strengthens children's behavioral consistency. This finding highlights the importance of the family as a primary socialization agent in health behavior development during middle childhood.

Furthermore, the simultaneous influence of Environmental Education and parental roles showed a stronger relationship with healthy living behavior than each variable individually. This indicates that behavioral formation is most effective when there is consistency between school-based learning and home-based reinforcement. The synergy between these two environments creates a coherent behavioral framework that supports the internalization of healthy living practices. Therefore, isolated interventions in either the school or family context may be less effective than integrated efforts.

The findings of this study have several practical implications. Schools are encouraged to strengthen Environmental Education by emphasizing habituation, experiential learning, and routine-based activities related to hygiene and environmental care. In addition, schools should actively involve parents through structured communication, collaborative programs, and parental education initiatives to ensure alignment between school practices and home environments. For parents, the results underscore the importance of active involvement in monitoring and modeling healthy living behavior to support children's long-term health development.

Despite its contributions, this study has several limitations. The research was conducted in a single elementary school with a relatively small sample size, which may limit the generalizability of the findings. Data collection relied primarily on self-reported questionnaires, which may be subject to response bias. Future studies are recommended to involve larger and more diverse samples, employ longitudinal designs to examine behavioral sustainability, and incorporate observational methods to obtain more objective measures of healthy living behavior.

In conclusion, this study affirms that fostering healthy living behavior among elementary school students requires an integrated approach involving both Environmental Education at school and parental roles at home. Strengthening collaboration between schools and families is essential for promoting sustainable health behavior and supporting students' holistic development.

REFERENCES

1. I. Ajzen, "The theory of planned behavior: Frequently asked questions," Asian Journal of Social Psychology, vol. 23, no. 4, pp. 314–324, 2020.

2. A. Al Bahij, E. Sukmanasa, and D. Novita, “Hubungan persepsi mengenai hidup sehat dengan perilaku hidup sehat siswa sekolah dasar,” Jurnal Basicedu, vol. 4, no. 4, pp. 1146–1153, 2020.
3. S. Al et al., “Peran dukungan orang tua dalam konsistensi penerapan perilaku hidup bersih dan sehat (PHBS) pada anak usia sekolah dasar,” Jurnal Kesehatan Masyarakat dan Lingkungan, vol. 6, no. 1, pp. 15–24, 2025.
4. M. Alfioni, “Improving handwashing motivation through rhythmic hygiene dance for elementary students,” Journal of Child Health Education, vol. 12, no. 3, pp. 112–125, 2020.
5. T. Anggraini and W. Sari, “Pengaruh pola asuh terhadap kebiasaan higienis anak usia sekolah dasar,” Jurnal Pendidikan Anak, vol. 8, no. 2, pp. 145–158, 2020.
6. D. Baumrind, “Child rearing practices and the development of young children,” Psychology and Human Behavior, pp. 1–22, 2013.
7. C. Beard and J. P. Wilson, Experiential Learning: A Practical Guide for Training, Coaching and Education. London: Kogan Page, 2018.
8. M. H. Bornstein, Parenting and Child Development Across Cultures. Cham: Springer, 2022.
9. L. Chawla, “Learning to care for the natural world through environmental experiences,” Environmental Education Research, vol. 26, no. 3, pp. 315–330, 2020.
10. H. Choi, “Home–school collaboration and its impact on health behavior formation in young children,” Early Childhood Health Journal, vol. 15, no. 1, pp. 22–35, 2024.
11. R. Nasution, S. Handayani, and A. Pratama, “Peran orang tua terhadap kebiasaan hidup sehat anak sekolah dasar,” Jurnal Pendidikan Dasar, vol. 15, no. 1, pp. 45–57, 2024.
12. J. W. Santrock, Life-Span Development, 18th ed. New York: McGraw-Hill Education, 2021.
13. M. Siregar, R. Lubis, and D. Hasibuan, “Pendidikan lingkungan hidup dalam pembentukan sikap peduli lingkungan siswa sekolah dasar,” Jurnal Pendidikan Lingkungan, vol. 9, no. 2, pp. 88–101, 2023.
14. N. Surayya, A. Rahman, and L. Fitriani, “Parental supervision and healthy behavior consistency among elementary students,” Journal of Primary Education Research, vol. 7, no. 1, pp. 33–47, 2025.
15. UNESCO, Environmental Education for Sustainable Development. Paris: UNESCO Publishing, 2021.