

EFFECTIVENESS OF HEALTH POCKETBOOKS IN IMPROVING AWARENESS AND HEALTHY LIVING BEHAVIOR OF STATE JUNIOR HIGH SCHOOL STUDENTS

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Abstract. This study aims to examine the effectiveness of health pocketbooks as an educational medium to improve awareness, attitudes, and healthy living behavior among junior high school students. The study involved 29 seventh-grade students from SMP Negeri 28 Surabaya as research participants. A quasi-experimental method with a one-group pre-test and post-test design was used to measure changes before and after the intervention. The health pocketbook, which contained practical and age-appropriate health information, was distributed and integrated into students' daily reading over a specific period. Data were analyzed using the Wilcoxon Signed Rank Test. The results showed a significant increase in students' knowledge ($p = 0.039$), attitude ($p < 0.001$), and healthy living behavior ($p < 0.001$) after using the pocketbook. These findings suggest that the health pocketbook effectively enhances students' health literacy and promotes positive behavioral change. Its compact, simple, and accessible format makes it a practical educational tool, especially in school-based health promotion programs. The study recommends broader implementation of such media in similar educational settings to support ongoing health education efforts and encourage healthy habits from an early age.

Keywords: health education, pocketbook, healthy behavior, junior high school, quasi-experimental



INTRODUCTION

Health is a fundamental aspect in supporting the growth and development of children (Syarifaini et al., 2024), especially in early adolescence. Schools as formal educational institutions have a responsibility not only in cognitive aspects, but also in shaping students' awareness of the importance of maintaining health (Setiawati et al., 2025). However, the facts on the ground show that many students do not yet have adequate awareness and healthy living behavior (Yayan Kurniawan, 2021). The habit of consuming fast food, minimal physical activity, and low attention to personal and environmental hygiene are still major challenges in efforts to create a healthy young generation. The government and educational institutions have carried out various health education initiatives in schools, such as counseling, poster installation, and UKS programs (Indah Atifah Anwar et al., 2024). However, one-way and less interactive methods are often unable to build deep understanding and do not encourage real behavioral change. Therefore, alternative educational media are needed that are more contextual, interesting, and easily accessible to students (Saesar Nurdiansyah et al., 2024).

One of the educational media that has great potential in bridging this gap is the health pocket book (Andika et al., 2025). The pocket book has advantages in terms of flexibility, ease of access, and a simple visual-textual approach. Previous studies have shown the effectiveness of pocket books in increasing health knowledge and encouraging changes in attitudes and behavior, both among children and adolescents (Agusriani et al., n.d. 2025). Pocket books are designed to provide concise and applicable information, and can be used independently by students anytime and anywhere.

In the context of junior high school students, education about balanced nutrition, personal hygiene, and physical activity is crucial. Balanced nutrition is an important foundation in supporting body function and cognitive development. Regular physical activity helps maintain fitness and prevent degenerative diseases. Meanwhile, the habit of maintaining personal hygiene, such as washing hands and brushing teeth, is the first step in preventing infectious diseases. Unfortunately, awareness of the importance of these three aspects is still low among junior high school students in Surabaya. Conventional education carried out by schools has not been optimal in instilling understanding and forming healthy living behaviors. Therefore, the implementation of

health pocket books as a learning medium needs to be studied more deeply to determine its effectiveness in increasing awareness and healthy living behaviors (Hurip Nuryana dkk, 2025). This study aims to: 1. Analyze the implementation of health pocket books in increasing students' knowledge and awareness of the importance of healthy living; 2. Assess the influence of using pocket books on changes in students' attitudes and healthy living behavior; 3. Identify factors that influence the effectiveness of health pocket books in the context of learning at school.

By carrying a quasi-experimental approach and involving students of SMP Negeri 28 Surabaya (Qothrun & Darmawan, 2025), this study is expected to provide a real contribution to the development of more contextual, interesting, and sustainable health education strategies in educational environments. The findings of this study are expected to be useful not only for academics, but also as a practical reference for schools, teachers, and policy makers in developing more effective health education programs at the junior high school level.

METHOD

This study employed a quasi-experimental design using a one-group pretest-posttest approach to examine the effectiveness of a health pocket book in improving students' awareness and healthy living behaviors. The research was conducted at SMP Negeri 28 Surabaya with a purposive sample of 29 seventh-grade students. Data were collected using a standardized questionnaire that had undergone validity and reliability testing, measuring three key variables: nutritional knowledge, attitudes toward healthy lifestyles, and healthy behaviors. The intervention involved distributing and implementing the health pocket book over a specific period, followed by post-intervention assessment. Since the data were not normally distributed, the Wilcoxon Signed Ranks Test was used to analyze the pretest and posttest results. The findings revealed statistically significant improvements in all measured aspects, confirming that the pocket book was effective in enhancing students' understanding and adoption of healthy living practices.

RESULT AND DISCUSSION

After the intervention, there was a significant increase in all three main variables. The following is a summary of the test results:

Table 1. Average Pre-test and Post-test Scores

Variabel	Pre-test	Post-test
Nutrition Knowledge	60	75
Healthy Lifestyle	65	85
Healthy Living Behavior	62	83

Table 2. Results of the Wilcoxon Signed Rank Test

Variabel	Z Value	P-Value	Information
Nutrition Knowledge	-2.063	0.039	significant
Healthy Lifestyle	-3.606	<0.001	significant
Healthy Living Behavior	-3.580	<0.001	significant

The data in Table 1 illustrates a positive trend across all measured variables, with significant improvements observed from the pre-test to the post-test phase. Nutrition Knowledge: Participants' understanding of nutrition increased by 15 points, from 60 to 75. This improvement suggests that the intervention successfully enhanced their awareness of nutritional principles and dietary health. Healthy Lifestyle: This variable experienced the highest growth, with an increase of 20 points (from 65 to 85). Such a substantial improvement indicates that the participants not only gained knowledge but also likely adopted healthier lifestyle habits during the program. Healthy Living Behavior: The score rose from 62 to 83, a 21-point increase. This result highlights the program's impact on practical, daily behaviors related to maintaining a healthy life, such as physical activity, hygiene, rest, and wellness routines. These findings collectively suggest that the intervention program was effective in promoting knowledge and behavior change related to health and wellness. The increase in post-test scores across all variables supports the idea that targeted educational efforts—when well-designed—can significantly influence participants' cognitive and behavioral outcomes.

Based on table 2, the Wilcoxon Signed Rank Test was conducted to assess the significance of the differences between pre-test and post-test scores for the three observed variables. For Nutrition Knowledge, the Z value was -2.063 with a p-value of 0.039. Since the p-value is less than 0.05, the result is statistically significant. This indicates that there was a meaningful improvement in participants' nutrition knowledge after the intervention. The variable Healthy Lifestyle showed a Z value of -3.606 with a p-value of <0.001, which is highly significant. This suggests that the intervention led to a

substantial positive change in participants' healthy lifestyle practices. Similarly, Healthy Living Behavior yielded a Z value of -3.580 with a p-value of <0.001, indicating a significant improvement in healthy behavior following the intervention.

All three variables demonstrated statistically significant improvements after the intervention, as shown by the Wilcoxon Signed Rank Test. These results confirm that the educational or behavioral program had a measurable and positive effect on participants' knowledge and practices regarding nutrition, lifestyle, and health-related behaviors. The significance of these findings provides strong support for the effectiveness of the intervention and suggests that similar approaches could be beneficial if applied in other educational or community health contexts.

DISCUSSION

The results of this study indicate significant improvements in participants' nutrition knowledge, healthy lifestyle, and healthy living behavior following the intervention. As shown in Table 1, the average scores increased across all variables from pre-test to post-test, with the highest gain observed in healthy living behavior (from 62 to 83). This was further supported by the Wilcoxon Signed Rank Test results (Table 2), which revealed statistically significant differences ($p < 0.05$) for all variables. These findings suggest that the health education intervention was effective in enhancing both cognitive understanding and behavioral change related to health. The positive results imply that similar health education programs can be replicated or scaled up in other settings to promote public health, particularly in school or community-based environments. Moreover, continuous monitoring and follow-up programs could help sustain these behavioral changes in the long term.

The findings of this study indicate a significant improvement in students' knowledge, attitudes, and healthy living behaviors after the implementation of the health pocket book. These results are consistent with previous research, such as that by Lestari et al. (2023), which demonstrated that pocket book-based health education effectively increased students' knowledge and adherence to healthy practices. Similarly, studies by Wijayati (2020) and Silaban et al. (2023) also confirmed the effectiveness of pocket books in improving children's health literacy and behaviors in various contexts, including hygiene, nutrition, and disease prevention. The present study contributes to this growing

body of evidence by showing that a simple, portable, and engaging educational tool like a health pocket book can serve as a powerful medium to promote sustainable healthy habits among junior high school students. These findings support the contextual learning approach and the Health Belief Model which emphasizes the importance of individual perception and active participation in changing health behavior (Nur Hamima Harahap et al., 2024). Other research that discusses The Effectiveness of a Digital Pocket Book for Transforming Knowledge and Attitudes of Adolescent Girls regarding Anemia Prevention by (Nuryana et al. 2025), The results of this research discuss the digital pocketbook is considered effective and informative in improving the knowledge and attitudes of adolescent girls about preventing anemia, regardless of additional explanation.

However, a key distinction in the current study is the broader scope of variables examined. While the previous research primarily focused on *awareness* and *behavior*, the present study extended its scope to include *lifestyle practices* and *nutrition knowledge*. This multidimensional approach provides a more comprehensive assessment of health education effectiveness. The statistically significant improvements across all dimensions reinforce the importance of structured and targeted health education programs. These findings support the idea that combining informational materials with active learning strategies can effectively foster health-promoting behaviors among adolescents or similar populations.

CONCLUSION

The health pocket book has been proven to be effective in improving knowledge, attitudes, and healthy living behaviors of junior high school students in Surabaya. It is recommended that the pocket book be integrated into the UKS program and PJOK learning. Further research can develop interactive digital media as a further development of the printed pocket book.

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