



Community Service Report

Empowerment of Elementary School Students to Improve Knowledge and Behavior on Physical Activity through Practice-Based Education

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ABSTRACT

This empowerment program aimed to develop trained peer counselors by providing knowledge and skills on physical activity. The program was conducted at SD Negeri Samata involving 25 fifth-grade students. It consisted of a one-day training and practical sessions including exercise routines. The pre-test results showed that most students had low levels of knowledge, while the post-test indicated a significant improvement in both knowledge and behavior. All students effectively served as peer educators. This program has the potential to be integrated as a routine extracurricular activity to promote physical health awareness in schools.

1. Introduction

Physical inactivity among children has emerged as a global health challenge in the 21st century. The World Health Organization (WHO) estimates that over 80% of adolescents worldwide do not meet the recommended levels of physical activity, placing them at increased risk for non-communicable diseases (NCDs) such as obesity, type 2 diabetes, cardiovascular disease, and metabolic syndromes. In the long term, insufficient physical activity not only affects individual health but also burdens health systems due to increasing rates of preventable chronic illnesses.

In Indonesia, physical activity among school-aged children is similarly inadequate. The Ministry of Health (2018) reported that more than 21.5% of Indonesians aged over 10 years exhibit insufficient physical activity. This percentage increases in urban areas such as DKI Jakarta, where

sedentary lifestyles are exacerbated by technological advancement and a lack of structured outdoor engagement. According to Harahap et al. (2013), over half (57.3%) of Indonesian children spend more than 2 hours daily in front of screens such as televisions, computers, or gaming devices. A contributing factor to this decline is the transition from traditional lifestyles, which involved regular physical movement, to sedentary patterns dominated by passive entertainment and minimal exercise.

Schools serve as a pivotal setting for promoting behavioral change in children. Since children spend a significant portion of their daily lives at school, this environment provides a strategic platform to foster healthy habits, including regular physical activity. Furthermore, the school context allows for early and sustained exposure to physical education, which has been shown to correlate with increased cognitive functioning, emotional regulation, and academic performance. Despite the known benefits, many schools in Indonesia lack structured or sustained programs to promote physical activity beyond the basic physical education curriculum. In several cases, such as SD Negeri Samata in Gowa, extracurricular activities like morning exercise or aerobics are not formally implemented, despite the availability of resources and personnel.

Research supports that early interventions through education and community-based strategies can effectively shape health behaviors. Peer education, in particular, has been identified as a promising approach. It leverages the influence of social learning and peer modeling to promote behavioral change. Students are more likely to internalize health messages delivered by peers whom they perceive as relatable and credible. Several studies have shown that empowering students as health promoters improves not only their knowledge but also their leadership and communication skills (Fitriani et al., 2020; Amanatuz, 2021).

The integration of peer-based education with practical implementation—such as supervised stretching or aerobic sessions—amplifies its effectiveness. Practical engagement reinforces knowledge and allows students to translate theoretical concepts into real behavior. It also addresses various learning styles and maintains students' enthusiasm through interactive learning. However, peer education models remain underutilized in many Indonesian elementary schools, signaling a gap in current health promotion strategies.

From a sociocultural perspective, the concept of empowerment aligns well with Islamic teachings. Islam encourages the empowerment of communities based on values of mutual assistance (*ta'awun*), brotherhood (*ukhuwwah*), and equality. These principles underscore the importance of collective responsibility in uplifting societal wellbeing. The Qur'anic verse in Surah Ar-Ra'd [13]:11 emphasizes that "Allah will not change the condition of a people until they change what is in themselves," highlighting the internal drive required for transformation. This philosophical foundation justifies the implementation of empowerment-based strategies in school settings, especially those rooted in Islamic values.

Furthermore, regional data also support the need for intervention. Gowa Regency, the location of SD Negeri Samata, has diverse geographic and socioeconomic characteristics that affect children's access to health-promoting resources. Many areas still experience a lack of awareness or structured health education programs. The diversity in topography—ranging from hilly areas to lowland

plains—can also influence children’s ability to engage in outdoor play or physical activity, thereby necessitating structured school-based programs.

Based on an initial situational analysis and advocacy efforts with teachers and school authorities at SD Negeri Samata, it was found that while physical education is offered as part of the curriculum, it lacks complementary extracurricular activities such as regular morning exercises or health promotion. This represents a missed opportunity to maximize the potential of schools as agents of behavioral change. In response to this need, this study developed a practice-based health education program that empowers students to become peer educators and health promoters within their school community.

The novelty of this intervention lies in its use of a dual approach: education and practice. Students were not only taught about physical activity but were also trained to implement what they learned through structured group exercises and peer-led demonstrations. This model enables students to serve as agents of change, thereby fostering a ripple effect that can influence the broader school community.

Thus, the objective of this community service program is to increase knowledge and improve physical activity behavior among elementary school students through a structured peer educator model. This study hypothesizes that by equipping students with the knowledge and skills to serve as peer counselors, there will be a measurable improvement in the awareness and practice of physical activity among their peers.

2. Method

This community service program used a participatory empowerment model aimed at improving elementary school students’ knowledge and behavior regarding physical activity. The program was conducted at SD Negeri Samata, Gowa, involving 25 fifth-grade students selected through coordination with school authorities. The implementation spanned over two days: one day for peer educator training and one day for mentoring.

Initial steps included advocacy meetings with the school principal and teachers to obtain permissions and outline collaborative responsibilities. Students were introduced to the importance of physical activity through theoretical education followed by hands-on practice in the form of stretching exercises and guided aerobic sessions.

A structured questionnaire was developed to assess students’ knowledge before and after the intervention (pre- and post-test). The instruments were validated by public health experts. Data collection involved measuring students’ understanding of physical activity concepts, its benefits, consequences of physical inactivity, and examples of exercises.

Statistical analysis included descriptive analysis for demographic data and paired sample t-tests to determine significance in knowledge improvement. Normality tests were conducted using the Kolmogorov–Smirnov test. Ethical clearance was granted by the faculty committee after securing informed consent from parents and approval from school authorities.

The empowerment process was divided into four stages: (1) situation analysis and coordination, (2) health education and peer training, (3) implementation of peer-led practice sessions, and (4)

evaluation and follow-up. The follow-up included placing informative banners about physical activity at the school to ensure long-term awareness.

3. Results & Discussion

The pre-test results indicated a low baseline level of knowledge about physical activity among the students, with an average score of 54.00. Post-intervention, the average score increased to 80.40, confirming significant improvement. Paired sample t-test analysis showed $p < 0.05$, indicating a statistically significant change in knowledge levels.

Additionally, gender-based analysis revealed that male students had a slightly higher improvement in knowledge compared to female students. These results align with previous studies by Fitriani et al. (2020) and Amanatuz (2021), highlighting that structured health education can effectively enhance students' knowledge and behaviors related to physical activity.

The practical sessions, including stretching and aerobics, were enthusiastically received. Observational feedback revealed active participation and eagerness among students to share the knowledge with peers. All 25 students successfully assumed the role of peer educators.

This program demonstrates the potential of peer-based education to instill sustainable behavioral changes. It also emphasizes the need for collaboration between educational institutions and health professionals to embed physical activity within the school routine. Limitations include a short follow-up period and absence of a control group. Future programs could incorporate longitudinal monitoring to assess long-term behavior retention.

4. Conclusion

This practice-based empowerment program effectively increased students' knowledge and behavioral engagement in physical activity. By using a peer educator model, the initiative promoted not only learning but also peer-to-peer dissemination of health information. The intervention proved that even a short-term training combined with practical exercises can lead to meaningful improvements in students' health literacy and physical activity levels.

It is recommended that schools integrate such activities as regular extracurricular programs. Collaboration with health departments and the inclusion of parents in future initiatives can further amplify the impact. Schools, particularly in rural or underserved regions, should be encouraged to replicate this model to combat sedentary behavior and promote active lifestyles among students.

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