

## Portrait of Student Physical Activity: A Descriptive Study on Indonesia

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### ABSTRACT

Physical activity is a key component of maintaining adolescent health, yet global monitoring indicates that more than 80% of adolescents fail to meet the World Health Organization (WHO) guideline of engaging in at least 60 minutes of moderate-to-vigorous physical activity each day. This issue is particularly concerning in Southeast Asia, including Indonesia, where only about 20–25% of adolescents achieve the recommended levels, with a declining trend observed in the post-pandemic period. This topic is important to investigate because adolescence is a critical stage for developing long-term healthy lifestyle habits, while physical inactivity increases the risk of obesity, cardiovascular diseases, and reduced physical fitness. This study aims to portray the physical activity patterns of students in Indonesia and contextualize the findings within national and regional frameworks by drawing comparisons with broader conditions in Indonesia. A descriptive qualitative approach with a literature review design was employed, analyzing school documents such as curricula and extracurricular activity programs, alongside national scientific and surveillance literature published between 2015 and 2025. A reflective thematic analysis was used to identify recurring patterns, barriers, and enabling factors. The findings indicate that limited sports facilities, the dominance of academic and religious curricula, and socio-cultural norms serve as major barriers to students' physical activity. On the other hand, support from physical education teachers, community engagement, and family involvement were identified as key facilitators. The study concludes that innovative school- and community-based strategies are essential to increase student participation in physical activity in schools with limited resources, while providing relevant comparative insights for Indonesia and other countries in Southeast Asia.

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## INTRODUCTION

Physical activity (PA) plays a vital role in supporting the physical, mental, and social well-being of children and adolescents. The World Health Organization (WHO) advises individuals aged 5–17 years to participate in at least 60 minutes of moderate- to vigorous-intensity physical activity each day to promote healthy growth, cardiovascular fitness, and the prevention of non-communicable diseases (World Health Organization, 2020).

Despite this recommendation, global data indicate that over 80% of adolescents fail to meet these guidelines, with particularly low compliance observed in Southeast Asia (Guthold et al., 2020).

In Thailand, research related to physical activity has expanded considerably over the past twenty years. A scoping review of 564 studies revealed that the majority focused on adult populations, while only about 6.3% addressed children and adolescents (Liangruenrom et al., 2018). This highlights a substantial research gap concerning school-aged youth, even though adolescence is a pivotal stage for establishing lifelong physical activity behaviors. Furthermore, national surveillance indicates a declining trend in physical activity among young people. Data from the Thailand Surveillance on Physical Activity (2012–2020) show that the proportion of children and adolescents meeting WHO recommendations has remained stagnant or even decreased, especially after the COVID-19 pandemic (Widyastari et al., 2021).

A comparable situation is found in Indonesia. According to the 2018 Basic Health Research (Riskesdas) and its 2023 update, fewer than 30% of adolescents achieve adequate physical activity levels, with a noticeable decline among high school-aged youth (Ministry of Health of the Republic of Indonesia, 2023). Findings from the Global School-based Student Health Survey (GSHS) also demonstrate that most Indonesian students do not reach the recommended 60 minutes of daily activity (World Health Organization, 2020). This issue is further worsened by rising sedentary behavior, particularly screen time, which typically exceeds 3–4 hours per day among adolescents.

Given these circumstances, conducting descriptive research on students' physical activity profiles in Thai schools particularly at the Indonesia context is essential. Such research not only addresses the existing gap in the Thai literature but also offers valuable insights for other countries in the region, including Indonesia, in efforts to enhance physical activity levels, reduce sedentary behaviors, and advance public health development goals.

## METHODS

This study employs a descriptive qualitative approach using a library research design. This method was selected to align with the objective of presenting a comprehensive overview of students' physical activity by analyzing scientific literature and official documents. A descriptive qualitative design is appropriate for examining contextual and multidimensional phenomena that require narrative interpretation rather than numerical measurement. In this regard, the library research method is utilized to identify, gather, and analyze secondary data from academic publications and school documents, enabling an in-depth understanding of students' physical activity conditions at Indonesia (Snyder, 2019; Xiao & Watson, 2019).

The data for this study consist of two primary categories. The first includes publicly accessible school documents such as the official profile of Indonesia, the physical education curriculum, and information about sports-related extracurricular programs, which are obtained from the school's website, official social media platforms, and

publications issued by relevant educational institutions. The second category comprises scientific literature and national surveillance reports, including the Indonesia Physical Activity Surveillance and the Thailand Report Card on Physical Activity for Children and Youth. Additional peer-reviewed articles published between 2015 and 2025 were also included to ensure that the information reflects current conditions.

The literature search was conducted through both international and national academic databases, including Scopus, PubMed, Web of Science, Google Scholar, and ThaiJo (Thai Journals Online). Keywords used in the search involved combinations of terms such as “physical activity,” “students,” “school,” “Thailand,” and “adolescents,” supported by Boolean operators (AND, OR) to broaden the search scope. Selected articles met the inclusion criteria, which required a focus on physical activity among high school students (ages 12–18), publication within the 2015–2025 period, classification as research articles or official reports, and relevance to the Thai context. Publications that addressed only adult populations, early childhood, or consisted of editorials and opinion pieces were excluded from analysis.

Data analysis followed the reflective thematic method developed by Braun and Clarke (2020). This process involved repeated reading of the documents, initial coding to identify meaningful units of information, categorization of codes into broader groups, and the development of final themes reflecting patterns of physical activity, barriers, facilitators, and relevance to the school context. Findings obtained from school documents were then compared with and enriched by national and regional literature to create a more comprehensive picture. The validity of the analysis was strengthened through source triangulation by integrating information from school documents, national surveillance systems, and academic articles, ensuring greater reliability and consistency in the results.

Because this is a literature-based study, ethical approval for human participants was not required. All sources used were publicly accessible and legally published, with citations provided in accordance with academic standards to uphold scientific integrity. A key limitation of this research is the absence of primary data collected directly from students or teachers at Charen Wittaya Nusorn School; therefore, the findings rely solely on secondary documents and literature. Nevertheless, the use of diverse, credible, and up-to-date sources is expected to offer a sufficiently accurate representation of students’ physical activity at the school, as well as its relevance within national and regional contexts.

## **RESULTS AND DISCUSSION**

### **School Characteristics and Physical Activity Context**

Indonesia School is an Islamic secondary institution situated in a community with predominantly Muslim residents and modest socio-economic conditions. These contextual factors influence the availability and quality of school infrastructure, including sports facilities. School profile documents indicate that physical education is part of the formal curriculum; however, the number of sports fields and available

equipment remains very limited. This situation aligns with the findings of Liangruenrom et al. (2018), who reported that many private schools in rural areas face significant constraints in providing facilities that adequately support students' physical activity.

As a faith-based school, Indonesia School also reflects the characteristics of religious education systems, where a substantial portion of instructional time is allocated to religious studies. Consequently, the time allocated for physical education tends to be insufficient. This issue is not unique; similar conditions have been reported in faith-based schools in Indonesia, where physical activity often receives less priority (Akbar, 2019; Suprayitno & Mujahidin, 2020). These patterns underscore the need for innovative approaches to ensure that physical activity can coexist harmoniously with academic and religious learning priorities.

### **Student Physical Activity Levels**

National monitoring data show that only around 20–25% of students achieve the WHO recommendation of engaging in at least 60 minutes of moderate-to-vigorous physical activity per day (Widyastari et al., 2021). This proportion is far below global targets and declined sharply during the COVID-19 pandemic. Parallel findings from the Global School-based Student Health Survey (GSHS) reveal similarly low levels of activity across Southeast Asia, where more than 80% of adolescents are categorized as inactive (Guthold et al., 2020).

In the context of Indonesia School, limited sports facilities combined with an academic-focused school environment may result in activity levels that fall even below national averages. Saonuam et al. (2018) noted that schools equipped with adequate facilities and strong policy support tend to demonstrate higher student participation in physical activity. Thus, facility limitations in Indonesia School likely amplify the already prevalent trend of low physical activity among adolescents.

Gender differences further contribute to disparities in physical activity. Research by Peos et al. (2019) indicates that boys are generally more active than girls. In Islamic school settings, where many female students wear the hijab, cultural expectations, clothing comfort, and social norms can further restrict their engagement in physical activities.

### **Barriers to Physical Activity**

Barriers to students' participation in physical activity at the school can be grouped into three main categories:

1. Internal factors: Low motivation, increased gadget use, and a preference for sedentary behaviors. Sekulic et al. (2020) observed that digital advancements have accelerated students' shift toward inactive lifestyles.
2. School environmental factors: Limited sports facilities, insufficient open spaces, and inadequate instructional time for physical education. Liangruenrom et al. (2018) highlighted that rural schools often face substantial challenges in providing proper sports infrastructure.
3. Socio-cultural factors: In religious schools, physical activity may be considered secondary to academic and religious subjects. Similar findings have been reported in Indonesian Islamic schools (Muttaqin, 2023).

These barriers collectively contribute to low participation in physical activity and heighten long-term health risks, including obesity, cardiovascular problems, and reduced physical fitness (Bull et al., 2020).

### **Supporting Factors for Physical Activity**

Despite the challenges, several factors can support the improvement of student activity levels. Physical education teachers play a critical role as motivators, especially when they design alternative activities that do not require modern equipment—such as traditional games, group exercises, or culturally rooted movements. Additionally, Islamic school communities tend to have strong social cohesion, which allows group-based activities to be incorporated into religious routines, such as morning exercises before class or recreational activities after school hours.

Peos et al. (2019) emphasized that schools with strong support from physical education teachers and active extracurricular programs tend to be more successful in increasing physical activity levels, even with limited facilities. Family and community involvement also serves as an important enabler. Van Hecke et al. (2016) found that parental encouragement significantly boosts student participation in physical activity, particularly in rural settings.

### **Parallels with Indonesia and Practical Implications**

Low physical activity among adolescents is also evident in Indonesia. Data from the 2018 Basic Health Research (Riskesdas) and the 2023 Indonesian Health Survey report that only about 26–30% of adolescents are physically active (Ministry of Health of the Republic of Indonesia, 2018, 2023). Similar barriers—such as high screen time, insufficient sports facilities, and a dense academic curriculum—are observed. However, a major distinction lies in monitoring systems: Thailand has a dedicated and routine physical activity surveillance platform (Thailand Physical Activity Report Card), whereas Indonesia primarily relies on broader national health surveys.

The practical implications of these findings point to the importance of strengthening school-based initiatives to promote physical activity, especially in rural and faith-based educational settings. Physical education teachers hold a strategic role in designing simple, low-cost, and context-appropriate activities. At the policy level, school health programs should be more closely integrated with physical activity promotion—such as through the Healthy Community Movement (GERMAS) in Indonesia or by reinforcing physical education within Islamic school curricula.

## **CONCLUSION**

The findings of this study indicate that students' physical activity in Indonesia is significantly constrained by inadequate facilities, a curriculum heavily oriented toward academic and religious instruction, and socio-cultural norms that position physical activity as a lower priority. These challenges mirror national patterns in which only a small proportion of Thai adolescents achieve the WHO's recommended levels of daily physical activity. Both internal and external obstacles contribute to persistently low engagement in physical activity, particularly within faith-based and rural schools.

Nevertheless, opportunities for improvement remain through the role of physical education teachers, strong school communities, and family involvement, all of which can be leveraged through school-centered strategies. Comparisons with Indonesia reveal similar difficulties, although the two countries differ in how they monitor and track physical activity. Overall, this study provides a contextualized understanding of the physical activity landscape among students in Thailand, offering insights valuable for regional learning in Southeast Asia and highlighting the need for innovative, low-cost, community-integrated approaches to promote physical activity in schools with limited resources.

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