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Students' Knowledge Level About the Benefits of Sports at SMP Labschool UNTAD Palu

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ABSTRACT

This study aims to measure junior high school students' knowledge at Labschool UNTAD Palu regarding the health benefits of exercise. This quantitative descriptive study uses a questionnaire comprising 25 statements across five dimensions of knowledge: Basic Knowledge, Physical Benefits, Mental and Social Benefits, Exercise Habits and Frequency, and Healthy Lifestyle. The questionnaire uses a 5-point Likert scale with the following anchors: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). The determination of knowledge level categories is based on a maximum total score range of 125, where the High category is set at a score range of 100–125 (80–100%), Medium at 75–99 (60–79%), and Low at a score of <75 (<60%). The results showed that the majority of students had a knowledge level in the High category (75% of students). In general, the average total score was 102.5 out of 125, indicating a good understanding of the benefits of exercise across physical, mental, and social perspectives. However, item-by-item analysis found that consistency of behaviour, particularly in the exercise frequency indicator, had the lowest average score (3.75) among all items. The practical implication is that physical education programs need to strengthen the integration between cognitive awareness and behavioural habits, particularly by improving motivational strategies so that students can apply consistency and frequency in exercising regularly.

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1. INTRODUCTION

Junior high school is a crucial phase in the formation of sustainable, healthy living habits. In this context, the Physical Education, Sports, and Health (PJOK) program plays a central role not only in conducting physical activities but, more fundamentally, in building students' physical literacy [1], [2], [3], [4], [5]. Through PJOK, schools have an

opportunity to strengthen not only students' movement skills, but also their understanding of why being active matters for health and daily functioning [6], [7], [8], [9], [10].

Physical literacy encompasses the understanding, motivation, and competencies necessary for individuals to lead active lives throughout their lifetime. Scientifically, measuring students' knowledge of the benefits of sports is very important because strong knowledge is a major predictor of the formation of regular physical activity habits [11], [12], [13], [14], [15]. A lack of in-depth understanding of how sports affect cardiovascular, mental, and social health can lead to low intrinsic motivation among students to exercise outside school hours, an urgent issue given the high prevalence of sedentary lifestyles and physical fitness problems among adolescents. In other words, knowledge becomes a cognitive foundation that can shape attitudes and ultimately influence students' willingness to be physically active beyond scheduled lessons. Therefore, this study seeks to identify the extent to which students at SMP Labschool UNTAD Palu have internalised this knowledge, as a basis for designing more effective, behaviour-oriented school interventions and programs.

Previous studies have emphasised the importance of cognitive skills in sports. Putri [16 and Ilmi [17] highlight the challenges of the PJOK curriculum in encouraging sustained student engagement, noting a disconnect between classroom education and behavioural application. This gap is further reinforced by the findings of Masrul and Andrijayanto [18], which indicate that the majority of junior high school students are still in the very poor physical fitness category, suggesting that the knowledge taught has not been successfully translated into improved physical fitness. On a positive note, Putranto's [19] research confirms that students with good knowledge tend to have a more open attitude towards PJOK learning. Collectively, these studies suggest that cognitive understanding is necessary, yet it may not automatically translate into consistent behaviour without targeted support and strategies within the school environment.

Based on these findings, this study focuses on mapping the knowledge level of junior high school students at Labschool UNTAD Palu, specifically to identify which dimensions of the benefits of sports (basic, physical, mental/social, habits, or healthy lifestyle) reflect students' cognitive strengths and weaknesses. The aim is to provide sharp empirical data to address the gap between knowledge and behaviour. By identifying the strongest and weakest knowledge dimensions, the study can inform more precise PJOK learning designs and school programs that do not stop at awareness, but also facilitate regular practice and healthy routines.

2. METHOD

This study adopted a quantitative descriptive approach using a survey method, aiming to describe the level of knowledge of junior high school students at Labschool UNTAD Palu regarding the benefits of exercise. The research population was all students at the school. A descriptive survey design was chosen because it allows the researcher to capture students' current knowledge without manipulating variables. To select the research subjects, a limited total sampling technique (census sampling) was used in two specific classes, namely Class VII A and VIII A, resulting in a total sample of 20 students. This

sampling choice was made to ensure all students in the targeted classes were represented and to facilitate manageable data collection within the study context.

The main data were collected through a questionnaire comprising 25 statements, each measured on a 5-point Likert scale. Each item was designed to reflect students' understanding of the benefits of exercise from multiple perspectives, ranging from general concepts to daily practices. This instrument was structured into five consistent dimensions of knowledge, including Basic Knowledge, Physical Benefits, Mental and Social Benefits, Exercise Habits and Frequency, and Healthy Lifestyle. Before use, the questionnaire underwent a series of tests to ensure data quality, including Content Validity (expert judgment) and Reliability testing using Cronbach's Alpha coefficient. These procedures were conducted to ensure that the instrument was appropriate for junior high school respondents and produced consistent measurements.

In addition to the questionnaire, supplementary data were obtained through observation and documentation to provide context on school facilities and curriculum, which enriched the interpretation of the results. These supporting data helped situate students' knowledge within the real learning environment and available opportunities for physical activity at school. The collected data were analysed using descriptive statistics to determine the mean and percentage, and knowledge level categories (High, Medium, Low) were determined based on the total score percentage interval. The analysis focused on summarising the distribution of students' responses across dimensions and overall scores to identify dominant trends clearly. Ethically, this study guarantees the confidentiality of respondent data. All responses were anonymised and used solely for research purposes to minimise potential risks to participants.

The research procedure also included obtaining Institutional Approval from the school, as well as Parental Consent (Informed Consent) and Participant Consent (Assent) from participating students, given that the respondents were minors. This ethical process ensured that participation was voluntary, that students understood what the study involved in an age-appropriate way, and that guardians formally agreed to their involvement.

3. RESULTS AND DISCUSSION

3.1. RESULTS

The study involved 20 students from Labschool UNTAD Palu Junior High School, comprising grades VII A and VIII A, with a balanced gender composition. This balanced distribution was intended to provide a more proportional description of knowledge levels across gender and grade groups.

Table 1. Distribution of respondents by class and gender

Class	Boy	Girl	Total
VII A	5	5	10
VIII A	5	5	10
Total	10	10	20

Descriptive statistical analysis shows that students' knowledge level is in the high category, with an overall average score of 4.10 out of 5 (total score ±102.5 out of 125).

This finding indicates that, on average, students demonstrated a strong understanding of the benefits of exercise, as indicated by the questionnaire.

Table 2. Distribution of Student Knowledge Levels

Category	Score Range	Number of Students	Percentage (%)
High	100–125	15	75%
Medium	75–99	5	25%
Low	<75	0	0%
Total	–	20	100%

As shown in Table 2 and Figure 1, the majority of respondents were in the high category, while a smaller proportion were in the medium category, and no students were in the low category.

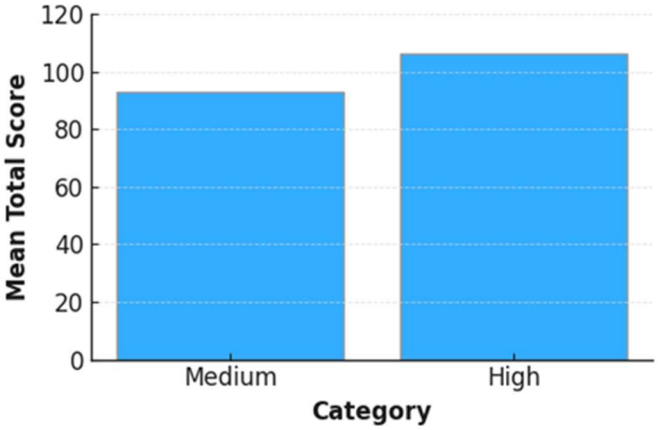

Figure 1. Distribution of Student Knowledge Levels

Table 3. Average Score Per Dimension Of Knowledge

No	Dimensions of Knowledge	Number of Items	Average
1	Basic Knowledge about Sports	5	4.40
2	Physical Benefits of Sports	5	4.04
3	Mental & Social Benefits of Sports	5	4.40
4	Exercise Habits & Frequency	5	4.40
5	Healthy Lifestyle & Sports	5	4.40

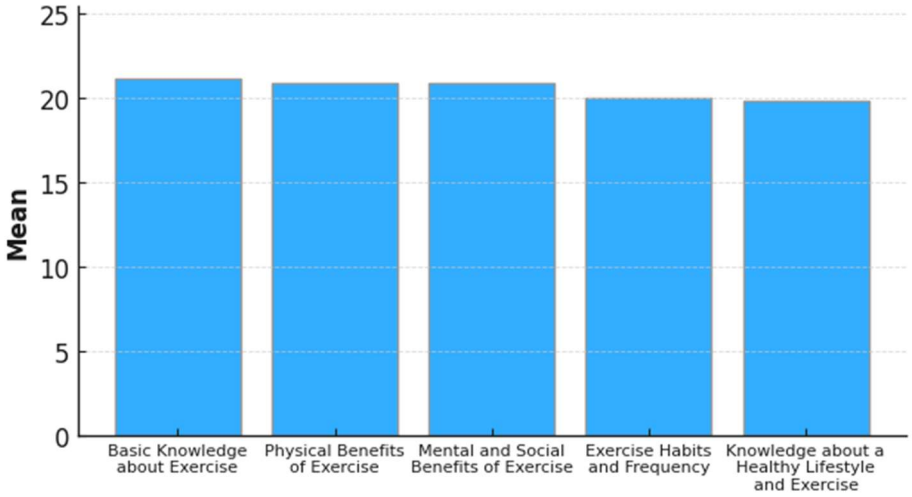

Figure 2. Average Score Chart Per Dimension

At the dimension level, the results suggest that students scored consistently high across most domains, with Physical Benefits having the lowest average. This pattern implies that students may be relatively more familiar with general concepts, psychosocial benefits, and healthy living messages than with specific physical or physiological explanations.

Table 4. Descriptive Statistics Per Dimension

Dimensi	N	Min	Max	Mean	Std. Dev
Basic Knowledge of Sports	20	18	25	21.10	2.049
Physical Benefits of Sports	20	17	24	20.75	1.713
Mental & Social Benefits	20	18	25	20.90	1.832
Exercise Habits	20	14	25	19.90	3.024
Healthy Lifestyle	20	13	25	19.80	3.088

Table 4 further clarifies the distribution of scores within each dimension by showing the minimum and maximum values as well as variability. Notably, the Exercise Habits and Healthy Lifestyle dimensions show larger standard deviations, indicating greater differences among students in these areas than in the more uniform scores seen in the knowledge- and benefit-oriented dimensions. In practical terms, while many students already understand the benefits of exercise, fewer students may share the same level of certainty or consistency when it comes to habit formation and lifestyle-related knowledge.

3.2. DISCUSSION

The survey results show that, in general, the level of knowledge of junior high school students at Labschool UNTAD Palu regarding the benefits of exercise is in the High category, with an average total score of 102.5 out of a maximum of 125. The percentage of students who reached the High category was 75%. This strong understanding indicates the success of physical education in instilling general awareness of the benefits of exercise and the importance of a Healthy Lifestyle (Dimension E) as fundamental knowledge. Students seem to cognitively understand that exercise in general is positively correlated with long-

term health and quality of life [20], [21], [22], [23]. This overall pattern suggests that key health messages delivered through PJOK have been received and retained at the knowledge level, particularly those emphasising the value of physical activity for wellbeing.

However, when a more in-depth analysis was conducted of each instrument dimension, a gap was identified between general knowledge and specific, applied understanding. The Exercise Habits and Frequency dimension (Dimension D) recorded the lowest average item scores (e.g., 3.75), despite the overall level of knowledge being in the High category. The decline in scores in this dimension suggests that, although students know that exercise is healthy, they do not fully understand or consistently apply the ideal consistency, duration, and routine to achieve optimal physiological and fitness benefits. Students may be familiar with the broad benefits of exercise (e.g., “exercise is good for the heart”), but they lack a specific understanding of how irregular frequency can hinder improvements in endurance or metabolism, which are the main foundations of strong physical literacy. Therefore, the main challenge lies in transforming cognitive knowledge into behavioural compliance. This finding aligns with the broader educational issue that knowing “what is good” does not always develop into knowing “how to do it” and “how often it should be done” in daily life. Thus, the dimension-level results are important because they indicate where PJOK content may need to shift from general statements to more actionable, measurable guidance for students [24], [25], [26].

This study involved only 20 students (N=20) from two classes (VII A and VIII A) in one school. This very small sample size limits the ability to generalise the findings to the entire population of junior high school students. Data were collected from only one institution (UNTAD Palu Labschool Junior High School), so these results are very specific to that school's curriculum and demographic context and cannot represent the conditions of other schools. The use of a Likert-scale questionnaire may introduce social desirability bias, leading respondents to choose answers they consider ideal or correct (e.g., selecting “Strongly Agree” on statements about the importance of sports) rather than reporting their actual knowledge or behaviour. This has the potential to inflate knowledge scores. The use of Likert-scale questionnaires can lead to social desirability bias, in which respondents tend to choose answers they consider ideal or correct (e.g., selecting “Strongly Agree” on statements about the importance of sports) rather than reporting their actual knowledge or behaviour. This has the potential to inflate knowledge level scores. This study does not explicitly report the results of validity tests (e.g., content validity) and reliability tests (e.g., Cronbach's alpha) for the questionnaire used. The absence of these reports reduces confidence in the accuracy and consistency of the data. In addition, because the study is descriptive, it cannot explain causal factors (for example, whether teaching methods, facilities, or student motivation directly influence differences in knowledge). It should therefore be interpreted as a baseline profile rather than an evaluation of program effectiveness. These limitations point to the need for broader sampling, stronger psychometric reporting, and the inclusion of behavioural measures (such as activity logs) in future studies to capture the knowledge–behaviour relationship better.

Physical education programs need to be reoriented to strengthen the practical implementation of knowledge about the benefits of exercise. Teachers are advised to

integrate learning focused on creating weekly physical activity plans and instilling an understanding of specific physiological mechanisms (such as increased endurance and metabolism) that can only be achieved through optimal frequency and consistency of exercise, rather than just knowing that exercise is good. Practically, this can be supported through structured tasks (e.g., personal activity targets, simple monitoring sheets, or reflective journals) so students practice translating knowledge into routine. With this approach, PJOK learning is expected to move beyond awareness and become a bridge that supports students in forming sustainable exercise habits that match recommended frequency and consistency.

4. CONCLUSION

Overall, the level of knowledge of Labschool UNTAD Palu junior high school students regarding the benefits of exercise is in the High category, reflecting initial success in instilling cognitive awareness of the importance of a Healthy Lifestyle. However, a detailed analysis shows significant weaknesses in the dimensions of Exercise Habits and Frequency. This indicates a gap between theoretical knowledge (students know that exercise is good) and practical understanding of the consistency needed to achieve specific physiological benefits, such as increased endurance and metabolism. This gap needs to be addressed because knowledge alone is not enough to ensure sustained physical activity behaviour.

Based on the results of the study, researchers recommend that future researchers and teachers strengthen teaching materials, particularly in the areas of endurance and the physiological mechanisms of exercise, so that students not only understand the benefits, but also how consistency can change their bodies, as well as the importance of effective cooling down/warming up (as seen in the low-scoring items). Furthermore, schools can initiate brief daily exercise programs outside formal physical education classes, such as “10 Minutes of Healthy Movement,” to help students form regular, consistent exercise habits, thereby bridging the gap between knowledge and behaviour.

This study is limited by its small sample size (N=20), its focus on one school, and its failure to report the full validity and reliability of the instruments. Therefore, the findings cannot be generalised widely. It is recommended that future research use a much larger sample and multiple schools, and conduct simple comparative analyses based on grade level or gender, supplemented with statistical tests to examine differences, in order to produce more comprehensive and externally valid findings.

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