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Analysis of Man 1 Sinjai Students' Participation In Aerobic Physical Activity

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ABSTRACT

Aerobic physical activity has an important role in improving students' fitness and health. However, the level of participation of MAN 1 Sinjai students in this activity still varies. This study aims to analyse the factors that influence students' participation in aerobic physical activity, including motivation, available facilities, and environmental support, and examine the relationship between students' perceptions of the benefits of aerobic physical activity and the level of students' participation in aerobic activity. This research uses quantitative methods with a descriptive design. The population in this study were MAN 1 Sinjai students, with a sample of 50 students selected using a purposive sampling technique. Data collection techniques were carried out through questionnaires, while data analysis used descriptive statistics. The results showed that the level of student participation in aerobic physical activity varied, with most students showing a fairly good involvement, but there were still those who were neutral towards participation. Motivational factors, sports facilities, and environmental support have a significant effect on student participation, where students who are highly motivated and receive more support tend to be more active. In addition, students' perception of the benefits of aerobic physical activity had a positive relationship with their level of participation. In conclusion, increasing student participation can be achieved with strategies to increase motivation, provide better facilities, and strengthen environmental support. It is hoped that the results of this study can be the basis for designing programs to increase students' physical activity in schools.

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B. Acquisition of data;
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INTRODUCTION

Increasing student participation in aerobic physical activity is an important focus for improving overall public health. Aerobic physical activities such as running, fast walking, and cycling have significant benefits, including increasing cardiovascular capacity, reducing the risk of chronic diseases, and improving mental and emotional health (Warburton et al., 2006). In the context of education, physical activity also contributes positively to learning outcomes, concentration, and student motivation

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(Bailey et al., 2013). However, student participation at various levels of education, including secondary schools, often does not meet the minimum standard recommended by WHO, which is 60 minutes of daily physical activity for adolescents (WHO, 2020).

Specifically at MAN 1 Sinjai, student participation in aerobic physical activity has special characteristics. As a religious-based educational institution, MAN not only prioritises academic achievement, but also the formation of religious values that influence students' lifestyle. However, challenges such as limited sports facilities, low intrinsic motivation, and busy academic and extracurricular schedules become obstacles in increasing student participation (Adiputra & Mujiyati, 2017). Intrinsic motivation, which is influenced by students' perceptions of the benefits of physical activity, sports teacher support, and social culture, is the main determinant of student participation.

Physical activity is a vital component in supporting students' quality of life and physical, mental, and social development (Lippi et al., 2006). Aerobic exercise with mild to moderate intensity that lasts long enough is effective in improving cardiovascular health, reducing the risk of disease, and improving psychological conditions (WHO, 2020). In the school environment, sport is the main medium to encourage physical activity, although participation levels are often influenced by various external and internal factors such as motivation, family support, availability of facilities, and teacher learning methods.

Previous research has shown a strong relationship between positive perceptions of physical activity and increased student participation (Pate et al. 2006). At MAN 1 Sinjai, these perceptions are formed through physical education lessons and religious lectures that instil the importance of maintaining health. However, the influence of perception on aerobic participation still needs to be explored further. Environmental factors are also crucial, including the availability of sports facilities and social support from friends and family, which, according to Sallis, Prochaska, and Taylor (2000), largely determine student engagement. However, limited facilities in areas such as Sinjai can be a major obstacle.

Gender differences in participation are also an important issue. The study of Van Hecke et al. (2016) revealed that male students are generally more active than females, which is influenced by social norms and cultural barriers. In MAN 1 Sinjai, which upholds religious and cultural values, an in-depth analysis of the influence of gender on physical participation is needed.

As an educational institution, MAN 1 Sinjai is obliged to create an environment that supports students' participation in physical activity. School-based interventions, such as the integration of sports programs in the curriculum and the development of attractive extracurricular activities, are essential (Trudeau and Shephard 2008). Physical education teachers serve as key motivators and facilitators in inspiring students to be active in sport (Ryan & Deci, 2000).

This study aims to explore the participation of MAN 1 Sinjai students in aerobic physical activity by considering motivation, perception, environmental support, and barriers faced. Quantitative and qualitative approaches were used to obtain a comprehensive picture of the factors that influence student participation. The results of the study are expected to be the basis for the development of effective and sustainable physical activity programs, which not

only improve the physical but also mental health of students.

The findings of this study are also expected to provide practical recommendations for teachers, madrasah heads, and policymakers to create a conducive environment, for example, by improving sports facilities, integrating health programs in the curriculum, and involving students in activities according to their interests. With an in-depth understanding of these factors, it is expected that students' participation in aerobic physical activity at MAN 1 Sinjai can increase, provide optimal benefits for their health and quality of life, and become a model that can be applied in similar educational institutions. The objectives of this study are: (1) To analyse the level of participation of MAN 1 Sinjai students in aerobic physical activity. (2) To identify the factors that influence MAN 1 Sinjai students' participation in aerobic physical activity; and (3) To determine MAN 1 Sinjai students' perceptions of the benefits of aerobic physical activity

METHODS

This study used a qualitative approach to deeply understand the perceptions of MAN 1 Sinjai students regarding the benefits and challenges of participating in aerobic physical activity. Qualitative methods were chosen because they are able to reveal the experiences, views, and motivations of students that are difficult to reach by quantitative methods (Jariono et al., 2025). This research is a type of phenomenology that focuses on understanding the subjective experiences of individuals towards aerobic physical activity, so as to reveal the meaning that students give to these activities.

The study took place at MAN 1 Sinjai in February 2025, a place that is expected to be a supportive environment for student participation in physical activity, both formal and informal. The population consisted of 200 students from grades X to XII with diverse backgrounds in age, gender, and level of engagement in aerobic physical activity. From this population, a purposive sample of 50 students was taken, consisting of 25 male and 25 female students, who were active or had experience in aerobic physical activity, such as participating in extracurricular aerobic sports or school sports activities.

Data were collected through several techniques, namely: (1) questionnaires designed with easy-to-understand language to obtain a preliminary picture of students' perceptions of the benefits and challenges of aerobic physical activity; (2) semi-structured in-depth interviews to obtain more detailed and reflective information from students about their experiences and motivations; (3) direct observation of students' physical activity in the school environment to see the involvement and context of their participation; and (4) documentation in the form of data on sports activities, physical education policies, and available sports facilities to support the research results.

The main instrument of this research is the researcher himself, who plays a role in collecting and analysing data qualitatively. Data analysis used thematic method with several stages: Transcription of interviews verbatim, Coding to identify the main themes that emerged from the data, Categorization of themes into groups of internal (motivation, attitude) and external (environmental support, facilities) factors, and

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Interpretation of results to conclude students' perceptions of the benefits and obstacles in aerobic physical activity.

Data processing also involved questionnaire validation and quantitative analysis using SPSS version 26 software, which helped categorise and evaluate the quantitative data obtained.

RESULTS AND DISCUSSION

Result

The research data are presented in the form of tables and diagrams to facilitate understanding of each questionnaire statement related to the participation of MAN 1 Sinjai students in aerobic physical activity.

Geographical Location of Sinjai Regency

MAN 1 Sinjai is located on Jalan Baronang Tappee, North Sinjai District, Sinjai Regency, South Sulawesi, with diverse geographical conditions, including coastal areas, lowlands, and hills. The location of the school, which is easily accessible with good road infrastructure, makes it easy for students to participate in physical activities, both inside and outside the school. The surrounding environment provides facilities such as sports fields that support aerobic activities. However, the tropical climate with high rainfall also affects the frequency and duration of students' participation in outdoor physical activities. These geographical factors greatly influence students' engagement in aerobic physical activity.

Gender and Age of Students

The results of descriptive analysis regarding the participation of MAN 1 Sinjai students in aerobic physical activity based on gender can be seen in Table 1 below.

Table 1.
Gender and age of MAN 1 Sinjai students

No.	Variables		Frequency	Percentage
1	Gender	Men	25	50%
		Women	25	50%
Total			**50**	**100%**
2	Age	16 Years	9	22%
		17 Years	21	78%
Total			**50**	**100%**

The study respondents consisted of 50 students, with a balanced distribution of males and females, 50% each. In terms of age, the majority of students were 17 years old (78%), and the rest were 16 years old (22%). The gender balance allows for a fair analysis of differences in participation based on gender. While the majority age of 17 reflects that most participants are in late adolescence, which tends to be more physically active than younger ages.

Descriptive Analysis of Student Participation

The results of descriptive analysis of MAN 1 Sinjai students' participation in aerobic physical activity include variables of student interest, talent, and motivation, which are

measured through indicators such as feelings, pleasure, interest, and involvement in activities. The data is presented in the form of averages and standard deviations, which can be seen in Table 2.

Table 2.
Descriptive analysis results of research data on MAN 1 Sinjai students' participation in aerobic physical activity

Statistics	Motivation to Participate	Benefits of Aerobic Physical Activity	Environmental Support	Barriers to Participation	Participation level
N	50	50	50	50	50
Mean	23,12	23,44	22,84	29,48	14,48
Std. Deviation	2,02	2,72	2,33	2,91	1,89

The study examined five main variables, namely motivation to participate, benefits of aerobic physical activity, environmental support, barriers to participation, and level of participation. Students' motivation has a mean value of 23.12 with a standard deviation of 2.02, indicating that the majority of students have a fairly high motivation to participate in aerobics, both due to health awareness and external encouragement such as friends and teachers.

Students' understanding of the benefits of aerobic activity was quite good, with a mean score of 23.44. They realise the importance of fitness, heart health, and psychological benefits such as stress reduction, although there are differences in perceptions between students. Environmental support from family, friends, and school facilities was also quite high (mean 22.84), but some students felt this support was lacking.

Barriers to participation had a mean of 2.91, indicating that there were significant constraints, such as limited time, facilities, interest, and health conditions that reduced the frequency of student engagement. The level of participation of students varies, with an average value of 14.48, indicating that although many are active, there are still those who rarely participate in aerobic activities. The following is a diagram of the indicators of motivation to participate, benefits of physical activity, environmental support, barriers to participation, and level of participation in aerobic physical activity.

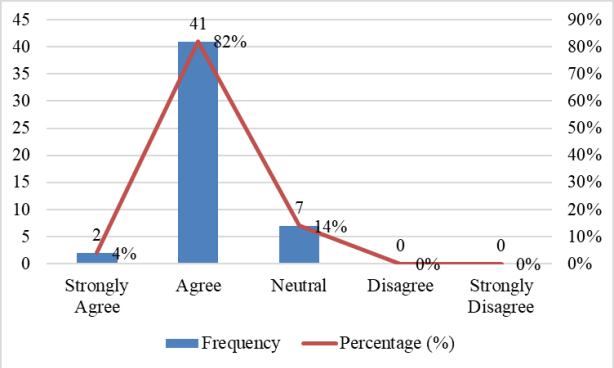

Figure 1.
Displays a diagram illustrating respondents' responses regarding motivation to participate, benefits of physical activity, environmental support, barriers, and level of engagement in aerobic physical activity.

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The recapitulation results show that MAN 1 Sinjai students' participation in aerobic physical activity is high. Based on data from 50 respondents, 82% of students stated "Agree" and 4% "Strongly Agree" to participate in aerobic physical activity, while 14% were neutral. No students expressed disagreement. This indicates that the majority of students have a fairly strong motivation to engage in this physical activity.

Students also understand the benefits of aerobic physical activity, especially in maintaining physical and mental health. Supporting factors such as encouragement from family, friends, and the school environment also encourage their involvement. However, some barriers reduce the level of participation, such as time constraints, lack of facilities, and other personal constraints.

In general, the level of student engagement in aerobic physical activity is quite good, although there are still those who do not participate optimally. Therefore, strategic efforts are needed, such as improving sports facilities, developing attractive programs, and providing continuous education about the importance of physical activity. These steps are expected to motivate more students to be active in aerobic physical activities consistently.

In conclusion, although motivation and support were good, the barriers were large enough to reduce student participation. Therefore, improved facilities, environmental support, and engaging programs are needed to encourage students' engagement in aerobic physical activity for their health.

Discussion

This study revealed variations in the level of participation of MAN 1 Sinjai students in aerobic physical activity. Most students were actively involved, with 56% agreeing and 10% strongly agreeing that they participated in the activity. However, 34% of students were neutral, indicating a group that was not fully active. This is in line with the findings of Sallis et al. (2000b), which states that the level of participation is influenced by motivation, environmental support, as well as barriers faced.

Student Motivation: Motivation is an important factor in driving student engagement. Research shows that 84% of students agreed and 6% strongly agreed that they have the motivation to engage in aerobic physical activity. This motivation can be intrinsic, such as awareness of the health benefits, or extrinsic, such as encouragement from teachers and peers. According to the autodetermination theory of motivation by Deci and Ryan (2000), individuals who have high intrinsic motivation are more likely to be physically active.

Facilities and Environmental Support: Adequate facilities also play a crucial role in supporting physical activity. Research (McKenzie et al., 2002) states that access to good sports facilities encourages higher physical activity. In MAN 1 Sinjai, 80% of students agreed that they received environmental support, while 6% strongly agreed. The support came from teachers, peers, and family.

Perception of the Benefits of Physical Activity: Most students realised the benefits of aerobic physical activity. A total of 72% agreed and 16% strongly agreed that the

activity is beneficial. These benefits include improved physical fitness, cardiovascular health, as well as psychological benefits such as reduced stress and improved mood. However, there were still 12% who were neutral, indicating the need for further education.

Barriers to Participation: Although motivation and support were high, barriers remained a major challenge. A total of 74% of students agreed that they faced barriers to participation, and 2% strongly agreed. These barriers include busy academic activities, lack of facilities, and lack of family support. Research by Biddle et al. (2011) also confirms that a lack of facilities and opportunities is a major barrier to physical participation among students.

Role of School and Social Environment: To increase student participation, schools can take strategic steps such as providing more attractive sports programs, improving facilities, and conducting awareness campaigns on the importance of physical activity. Research by Dishman et al. (2005) showed that fun school-based programs can increase student engagement. Trost et al. (2003) also found that the role of teachers in encouraging students is very important in forming active living habits.

Influence of Individual and Demographic Factors: Individual factors such as age and gender also influence participation rates. Trost et al. (2003) state that male students tend to be more active than female students. This difference may be influenced by academic load and personal preferences.

Overall, the level of participation of MAN 1 Sinjai students in aerobic physical activity is quite high, but there are still groups that are not maximally active. Factors such as motivation, availability of facilities, environmental support, and barriers faced play a big role in determining student participation. By implementing the right strategies, such as creating interesting activities, improving facilities, and building support from the surrounding environment, student participation in aerobic physical activity can be increased.

CONCLUSION

Based on descriptive analysis, MAN 1 Sinjai students' participation in aerobic physical activity shows a positive trend. Most students were actively involved, although there were variations in the level of participation influenced by internal and external factors. Some students showed a neutral attitude, signalling the need for a more strategic approach to increase their involvement. Individual motivation, availability of facilities, and support from the surrounding environment are the main factors that influence student engagement. Students who have high motivation, both from self and external encouragement, tend to be more consistent in participating in physical activities. In addition, the existence of adequate sports facilities makes it easier for students to participate more actively. Support from teachers, friends and family also contributes to fostering interest in exercising. Students' perception of the benefits of

aerobic physical activity is also closely related to their participation. Students who understand the importance of exercise for physical and mental health are more encouraged to participate regularly. However, there are still students who do not fully realise these benefits, so further education is needed to increase their awareness and participation.

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