The Relationship between Physical Fitness/Physical Condition and Students' Sleep Quality

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ABSTRACT

Background: This research aims to find out whether there is a relationship or relationship between physical fitness/good physical condition and sleep quality in high school students.

Methods: The problem is sleep quality and physical condition. The technique used in this research is a quantitative approach. The population in this study were high school students. The sample taken in this study was 30 high school students by distributing PSQI questionnaires to the students in the sample. It can be concluded that there is a relationship between physical fitness and a person's sleep quality which is quite low.

Results: Through statistical analysis, we observed a significant positive correlation between physical fitness levels and sleep quality among students. Students with higher levels of physical fitness tended to report better sleep quality compared to those with lower fitness levels.

Conclusion: In conclusion, our research highlights the intricate interplay between physical fitness/physical condition and students' sleep quality. By prioritizing physical activity, adopting a holistic approach to student health, addressing lifestyle factors, and advancing future research efforts, educational institutions can better support students in achieving optimal physical and mental well-being.

KEYWORD: Physical fitness; sleep quality; students

CORRESPONDENCE

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INTRODUCTION

Fitness is included in the ability of a person / individual to do activities that are quite solid without feeling tired and also have a store of strength or energy to feel free time or other needs. Physical fitness is one of the components of total strength fitness that includes psychological, behavioral, medical, nutritional, spiritual, and social health. Regular and consistent exercise can have a positive impact on social health, depression, generalized anxiety, and 1-5 with dependence from sleep deprivation (Roy, 2010).

Physical fitness is a multidimensional state of existence. Physical fitness is the body's ability to function appropriately and effectively. This is a state of existence that consists of at least five elements of physical fitness which are related to health and also six physical components which are related to component skills or expertise, each of which each contributes to the total quality of life. Physical fitness is equated with a person's or individual's ability to
work effectively, enjoy free time, be healthy, withstand various kinds of pressure and at times be able to meet emergencies (Corbin, 2008)

Endurance is the body's ability to complete the same task repeatedly. Mobility is the ability to move the body within the precise space required to overcome obstacles. So, the two components above are very necessary in a person's or individual's physical fitness (Roy, 2010). Physical fitness is translated as a person's ability or skill in a competent manner. Physical fitness is defined as a person's ability to competently and skillfully carry out daily tasks without excessive fatigue, and with enough remaining energy to enjoy spending free time, as well as resolving unusual situations suddenly and unexpectedly. looks emergency (Cvejić et al., 2013)

Basically, people really need rest, one method or way is to sleep, which is very useful for restoring energy or just to rest the body parts after doing long activities, such as exercising, when the body is sleeping, the body works to restore energy to restore energy to the body, so that you can get the optimal time (Sarfiyanda, Karim, & Dewi, 2015). Sleep quality is a person's ability to sleep, not only to achieve a long period of sleep, but also to know that there is an individual's ability to rest/sleep and can also achieve the amount of rest that suits their needs (Saguem et al., 2022a)

METHOD

Types of research

The type of research used to measure physical fitness with sleep quality is a quantitative instrument. The technique used is a quantitative approach. Namely, to find out how much influence modern fitness has on a student's sleep quality by using the Multistage Fitness Test (MFT) and filling out the Pittsburgh Sleep Quality Index (PSQI) questionnaire to see sleep quality.

Population and Sample

The sample or participants in this research were several high school students, more or less 30 high school students, where the students were given a questionnaire containing several questions related to the quality of sleep experienced by students at this time.

Research Instrument

The instrument used is to measure physical fitness using the multistage fitness test (MFT) which measures the level of physical fitness and also to measure the level of sleep quality by filling out the Pittsburgh Sleep Quality Index (PSQI) questionnaire. (Ferraro et al., 2015a) in order to determine the level of sleep quality in the sample or participant. Where every question item used has had its validity tested by experts.

Data analysis

A good technique for analyzing data for this hypothesis is Product Moment Correlation in order to see whether the coefficient between two results of a combination is positive or not, therefore it is necessary to distinguish between Product Moment tables, being a 5% error level and a 95% confidence level (Book, 2017a).

RESULT

The Multistage Fitness Test (MFT) is a measuring instrument used to determine and also measure a physical fitness activity. The results from the table can be noted and seen in the following table:
Table 1.
Fitness Assessment Results

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;60</td>
<td>Very fit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>52-60</td>
<td>Fit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>47-51</td>
<td>Above average</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>42-46</td>
<td>Average</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>37-41</td>
<td>Below average</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>31-36</td>
<td>Not fit</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>30</td>
<td>60</td>
</tr>
</tbody>
</table>

Based on the results obtained in the table above, it can be seen that 5 students are included in the very fit category (10%) and 15 students are included in the below average category (30%) and 10 students are included in the fit category (20%).

Table 2.
Criteria for Problems Faced by Students

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>No problem</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6-10</td>
<td>Minor problem</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11-15</td>
<td>Medium problem</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>16-21</td>
<td>Serious problem</td>
<td>17</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>30</td>
<td>60</td>
</tr>
</tbody>
</table>

Based on the results from the table above, it was found that 13 students (26%) had moderate problems and 17 students (28%) where the problem was in the severe problem category. Where the test method carried out is, if the r-count>r-table with sig(2-tailed) is below the number 0.05, it can be said that there is a significant relationship and if the r-count<r-table with sig.(2-tailed) is above and greater than the number 0.05 can be said to be where there is no significant relationship.

Table 3
Correlation between sleep quality and physical fitness

<table>
<thead>
<tr>
<th>Physical Fitness Activities</th>
<th>Pearson correlation</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Fitness Activities</td>
<td>1</td>
<td>.011</td>
</tr>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sleep Quality</th>
<th>Person Correlation</th>
<th>Sig.(2-tailed)</th>
<th>N</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep Quality</td>
<td>0.581</td>
<td>.017</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

From the table above, we get the results from a data analyst that 30 students have a significance level of 0.05 (95% confidence level) with a table r value = 0.3610, then the results obtained from the calculated r-table 0.581 with sigma (2-tailed) 0.017 which can be interpreted as r-table> with sig(2-tailed) <0.05 or 95% confidence then Ho is rejected which means that this statement means that there is a relationship between physical fitness and sleep quality with a figure of 0.581, the relationship is in the medium category.

DISCUSSIONS

The results of the data obtained are a moderate or less relationship between sleep quality and physical fitness obtained from a sample of high school students. The results obtained are r-table = 0.3610 with N = 30, sig level 5% with sig(2-tailed) 0.017, 05 (95% confidence level), therefore Ho is rejected, which means the relationship between physical health and sleep quality, with a correlation coefficient value of 0.581, which is in the medium category.

Based on the results obtained, it can be concluded that if a person’s physical fitness level is good, their sleep quality is good or vice versa, and also on the contrary, if a person’s physical...
fitness level is categorized as good, it means that the quality of sleep is also in the good category as well and the results obtained in the research. This was found to be 10% of students in the average category and 15% of students in the medium category and 10% of students in the not good or unfit category. From these results it can be concluded that if a person's level of physical fitness is not good, it can also be ascertained that the person's sleep quality is in the moderate category, based on what has been observed where high school students spend a lot of time studying in their daily lives which is quite busy and this is supplemented by the extracurricular activities they provide. Followed by these students which results in the student being in physical fitness according to what is related to the physical endurance of a person's body which can carry out physical activity for quite a long time and persist for a long or long period of time, it can be said that the existing physical fitness or condition in a person, this is a form of function or a way of doing it while still having sufficient energy reserves to carry out the next activity (Chen et al., 2018).

Good achievement can also be obtained due to physical fitness or good or excellent physical condition of the body due to a fresh mind and a good amount of time to sleep so that learning achievement can also improve. A person can be said to be Physical fitness is an important component to support a person's achievements (Wouters et al., 2020). Endurance is the body's ability to complete the same task repeatedly. Mobility is the ability to move the body within the precise space required to overcome obstacles. So, the two components above are very necessary in a person's or individual's physical fitness (Roy, 2010). Physical fitness is translated as a person's ability or skill in a competent manner.

Physical fitness is defined as a person's ability to competently and skillfully carry out daily tasks without excessive fatigue, and with enough remaining energy to enjoy spending free time, as well as resolving unusual situations suddenly and unexpectedly looks emergency (Cvejić et al., 2013). Basically, people really need rest, one method or way is to sleep, which is very useful for restoring energy or just to rest the body parts after doing long activities, such as exercising, when the body is sleeping, the body works to restore energy to restore energy to the body so that you can get the optimal time (Sarfriyanda, Karim, & Dewi, 2015).

Sleep quality is a person's ability to sleep, not only to achieve a long duration of sleep, but also to know that there is an individual's ability to rest/sleep and can also achieve the amount of rest that suits their needs (Saguem et al., 2022a).

CONCLUSION

It can be concluded that physical fitness/good physical condition also has a fairly low or low relationship with sleep quality, this research all provides input for high school students so that they can maintain good quality sleep and maintain regular physical activity so that they can get quality sleep. Get good sleep and also be able to get fitness or good physical condition, and where fitness or good physical condition can help a person carry out tasks easily without feeling significant fatigue and maintain a healthy body and a regular lifestyle.

REFERENCE


Hubungan Kebugaran Jasmani/Kondisi Jasmani Dengan Kualitas Tidur Siswa

ABSTRAK

Latar Belakang: Penelitian ini bertujuan untuk mengetahui ada tidaknya hubungan atau hubungan antara kebugaran jasmani/kondisi jasmani yang baik dengan kualitas tidur pada siswa SMA.

Metode: Permasalahanannya adalah kualitas tidur dan kondisi fisik. Teknik yang digunakan dalam penelitian ini adalah pendekatan kuantitatif. Populasi dalam penelitian ini adalah siswa SMA. Sampel yang diambil dalam penelitian ini adalah siswa SMA sebanyak 30 orang dengan cara menyebarkan kuesioner PSQI kepada siswa yang menjadi sampel. Dapat disimpulkan bahwa terdapat hubungan antara kebugaran jasmani dengan kualitas tidur seseorang yang cukup rendah.

Hasil: Melalui analisis statistik, kami mengamati adanya korelasi positif yang signifikan antara tingkat kebugaran jasmani dan kualitas tidur di kalangan siswa. Siswa dengan tingkat kebugaran jasmani yang lebih tinggi cenderung melaporkan kualitas tidur yang lebih baik dibandingkan dengan mereka yang tingkat kebugarannya lebih rendah.

Kesimpulan: Penelitian kami menyoroti interaksi yang rumit antara kebugaran fisik/kondisi fisik dan kualitas tidur siswa. Dengan memprioritaskan aktivitas fisik, menerapkan pendekatan holistik terhadap kesehatan siswa, mengatasi faktor gaya hidup, dan memajukan upaya penelitian di masa depan, lembaga pendidikan dapat lebih mendukung siswa dalam mencapai kesejahteraan fisik dan mental yang optimal.

KATA KUNCI: Kesehatan fisik; kualitas tidur; siswa