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The Impact of Physical Education on Student Mental Health

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Abstract – Mental health issues among students have increased dramatically worldwide impacting performance in school and overall wellness. Depression, anxiety and stress are highly common among students in today's society which get even worse due to academic pressure and social turmoil. Among these, one of the most promising non-drug approaches to tackle these problems is the implementation of physical education in schools. This paper examines the association of sports participation and improved mental health among students, specifically how routine involvement in physical activities through PE may contribute to emotional well-being. It is hoped that by looking it into the previous studies, any data analysis made, considering a few case studies and other aspects will clarify how important physical education in boosting students' psychological health, mood promoting and cognitive function.

Keywords – mental health, physical education, sport, anxiety, depression, student well-being, cognitive performance

1. INTRODUCTION

Students' mental health is important for their performances and developments. Mental health global estimates provided by the world health organization (who) indicate depression and anxiety, as well as feeling of unhappiness and irritability among both boys and girls."20 almost 1 in 7 young people in the world had a mental disorder, with half having their first symptoms before they were 14 years-old²⁶. In addition, in this era of heightened social anxiety and academic pressures as well as diminished levels of physical activity, these indicators have become more troubling. It increasingly leaves schools seeking effective options to support students' mental health.

Physical education (pe) has historically been considered as an instrument to enhance physical health, however, its potential for mental health is equally important. Pe is a structured, safe context for students to be physically active that has the potential to improve not only physical health but emotional well-being. Physical activity, enriched by social engagement and learning experiences can also support improved mental health; helping to alleviate anxiety and depression symptoms, lifting mood and self-esteem.

The purpose of this research is to explore the effects of pe activities on students' mental health. Specifically, it focuses on the potential of pe to alleviate common mental health challenges such as anxiety, depression, and stress, and explores how sports can contribute to improved psychological health in educational settings

2. LITERATURE REVIEW

There are several studies that support the positive associations of physical activity with mental health outcomes, especially among young population. Studies below have recommended the benefits of PE towards mental health:

Biddle and Asare (2011) carried out a study of 2,000 adolescents and discovered that regular physical activity is strongly associated with fewer symptoms of anxiety and depression. The fact that recreational physical activity is readily available and requires no equipment, makes it an easier way of preventing negative mood states in those who are experiencing mental health problems," the authors write.

Lubans et al. (2016) investigated the effect of in-school physical education on mood and self-worth in secondary school children. Their results showed that PE was associated with a positive change in mood and self-esteem, where students reported feeling better about themselves as well as having improved feelings of worth. This work emphasizes the value of structured PE programs for overall physical and psychological well-being.

Singh et al. (2012) investigated the efficacy of exercise in mild depressed children and adolescents. The research found that exercise like PE, could be just as effective in treating mild depression as cognitive behavioral therapy (CBT). The study underscores the importance of integrating physical activity into treatment strategies for young people with mental health problems.

These studies collectively lay the groundwork for understanding the connection between PE and mental health in youth. There was evidence to demonstrate the importance of PA, specifically PE, in relieving symptoms of anxiety, depression and stress which resulted in better well-being.

3. METHODOLOGY

This study is an instrumental mixed-methods investigation of the impact of physical education (PE) on student mental well-being. A variety of 300 (middle and high) secondary pupils took part in the study. The study design was a mixed-methods between-groups design using surveys and standardized psychological tests for mental health outcomes pre-(baseline) and post-(12 weeks) PE.

4. RESULTS AND ANALYSIS

Table 1: Mental Health Scores Pre- and Post-PE Program (n=300)

Mental Health Indicator	Pre-PE Avg Score	Post-PE Avg Score	Improvement (%)
Depression (PHQ-9)	10.3	6.7	34.95%
Anxiety (GAD-7)	8.8	5.2	40.91%
Stress (PSS)	17.1	12.4	27.49%

Table 2: Student Feedback on PE Impact

Feedback Item	Agree (%)	Neutral (%)	Disagree (%)
PE helped reduce my stress	72.5%	18.0%	9.5%
I feel more energetic after PE classes	81.2%	12.3%	6.5%
PE made me more socially connected	69.4%	20.1%	10.5%
PE improved my mood and confidence	74.8%	17.2%	8.0%

5. DISCUSSION

The findings of the present study verify the positive impact of physical education on students' mental health. Engagement in pe attenuated symptoms of anxiety and depression as well as enhanced mood, energy, and social connectedness. Psychological effects of pe may be due to following:

- **Physical benefits:** regular physical activity raises endorphins (feel-good hormones) and decreases cortisol (stress-inducing hormone).
- **Psychological:** pe contributes to improved self-esteem, self-efficacy, and students' ability to cope with stress and stress-related anxiety.
- **Social benefit:** participating in team sports or group activities supports socialization, decreases loneliness and fosters peer relationships necessary for emotional health.

These results demonstrate the need for physical education to be included within school curricula as an aid to students' psychological wellbeing. Schools that make physical education a priority are giving students an important opportunity to manage stresses of adolescence, benefiting their developing bodies and minds.

6. CHALLENGES AND LIMITATIONS

Notwithstanding exciting findings, the current study has its limitations and challenges:

Knowledge deficit the health-enhancing effects of pe on mental health remain largely unnoticed in the schools where only few regard pe as central with respect to good grades.

Unstandardized pe delivery: physical education can be very good or not so good and it depends on the curriculum, resources and training of pe teachers. Power et al 4 some schools may not have resources or staff trained in order to promote the efficient implementation of per programs.

Short duration: the 12-week study period may be too short to see long-term improvements. Pe over this period of time is potentially not sufficient for sustained improvements in mental health.

7. SUGGESTIONS

In order to optimize the mental health benefits generated by PE, we offer the following recommendations:

- **PE of the future:** Schools should require at least 150 minutes a week in physical education for all students.
- **Incorporate mental health into PE:** Incorporating mindfulness exercises, meditative techniques and additional emotional resilience training in PE curriculums can also help to support students' mental health.
- **Teacher training:** Training physical educators to recognize signs of and provide assistance for children with mental health problems is vital.
- **Balanced offerings of activities:** Physical education programs shall offer a variety of activities to meet the interests and fitness levels of all students, ensuring that all students can participate and find success.

8. CONCLUSION

Finally, physical education is an indispensable, easily accessible and cost-effective means to promote students' mental health. A positive feature of PE is that by encouraging a regular habit of exercise there can be reduction in symptoms of anxiety, depression, stress; and an increase in well-being and social connectedness. Schools must value physical education as it pertains to wellness, and work toward assuring that all students are able to experience the mental health benefits of being active. The incorporation of physical education as part of the school curriculum supports students' mental health needs, which in turn enhances academic performance and promotes personal development.

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