

Physical Activities in Pe and Mental Hental: Basis for Enhanced Countermeasures to Physical Activities and Mental Health

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Abstract: The profiles of the respondents revealed that the majority of them were male. In terms of age, many of them were 16 years old or older. Likewise, many of the respondents were in senior high school, grade 3. In terms of physical competency, the physical activities related to mental health promotion of the respondents yielded a composite mean score of 3.39 with a 0.63 corresponding standard deviation. This implied that the respondents commonly agreed with their perceptions regarding their physical competency. The respondents usually agreed on their assessments, as indicated by the small value of the standard deviation. Of all the indicators, the highest mean score was evident by doing physical exercises to reduce stress, while the lowest mean score was evident by feeling anxious and experiencing shortness of breath. This implied that the respondents usually agreed on their assessments, as indicated by the small value of the standard deviation. Particularly, the highest mean score was evident by doing things as well as most other people do, while the lowest mean score was evident by the feeling of not having much to be proud of. In terms of emotional self-regulation, the assessment of respondents' mental health promotion obtained a composite mean score of 3.18 with a 0.61 corresponding standard deviation. This implied that the respondents typically agreed on their assessments, as indicated by the small value of the standard deviation. Male and female respondents had different assessments of the level of effectiveness of physical activities in terms of physical competency, benefits of movement, and building a community of movement. The null hypothesis was rejected at a 5% level of significance. Using a Product Moment Correlation Coefficient, the effectiveness of physical activities revealed significant correlations across all ages of the respondents.

Keywords: Physical Activities; Mental Health; Countermeasures.

1. Introduction

Mental health means that individuals can adapt to the development of their environment and respond to cognitive emotions. The behavior is put in a positive state, and normal adjustment ability is maintained.

For senior high school students, physical health education and mental health education are equally important, so in physical education, we should not only focus on physical fitness exercise but also, through physical exercise, take appropriate ways to strengthen the mental health education of young college students and deeply tap the intrinsic value of physical education (A. Morel et al., 2019).

Students are physically healthy, improve their mental health level, enhance their social adaptability, and emphasize improving students' health, life, and quality of life through physical education. Therefore, attention to natural life is the most direct and obvious role of physical education.

Studies have found that when they encounter difficulties in learning, they are more inclined to turn to their peers for help. Through interaction, peers can not only exchange learning experiences or provide emotional support but also improve their foreign language proficiency. By setting up scaffolds, learners' ZPD can be aroused, thus promoting learning development (Ellis, 2013). Lantolf (2000), pointed out that dialogue adjustment between peers may be more effective than monologue adjustment by teachers. Peer interaction provides context for students to experiment, revise, and polish language, and learners experiment with language without anxiety and increasing autonomy and share collective metalinguistic knowledge (Philp et al., 2014).

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2. Theoretical Framework

Self-determination theory is a macro theory about human motivation and personality, and it is also a theory about the evolution trend of human beings and their psychological needs. It focuses on the motivation behind the choices people make without interference from external factors, focusing on the extent to which a person's behavior is triggered by intrinsic motivation and self-determination (Deci & Ryan, 2002). Simply put, it means that a person can have the freedom and power to make his own choices without interference from any external factors.

Constructivism learning theory emphasizes that students should construct knowledge by themselves; that is, they should be encouraged to apply existing knowledge and experience and incorporate new knowledge into the existing knowledge system through the thinking processes of criticism, questioning, and analysis. The peer mutual assistance

learning model advocates that students participate in discussion and cooperation activities, realize the goal of integrating teaching and learning, and pursue students to turn learning into a cooperative inquiry.

The social and cultural theory represented by Vygotsky (1978), believes that humans, society, language, and culture are integrated and inseparable. Language is an important symbolic tool for human development. Vygotsky believes that a learner's level of development includes two kinds: the actual level of development and the potential level of development. The area of proximal development (ZPD) is the gap between the learner's actual development level of being able to solve problems independently and the learner's potential development level of being able to solve problems with the help of adult guidance or peer cooperation.

2.1. Statement of the Problem

This study focuses on the impact of Physical Activities in PE and Mental Health. The result of the study will be the basis for enhanced countermeasures to physical activities and mental health of senior high school students in China.

Specifically, it seeks to answer the following questions:

2.1.1 What is the profile of the respondents in terms of:

- (1) Sex
- (2) Age
- (3) Senior high school: ___ GR 1 ___ GR 2 ___ GR 3

2.1.2 What are the different physical activities related to mental health promotion given in relation to these domains

- (1) Physical competency
- (2) Benefits of movement
- (3) Community of movement

2.1.3 What is the assessment of the respondents as regards their mental health promotion in terms of the following variables:

- (1) anxiety control
- (2) self-esteem
- (3) emotional self-regulation
- (4) interpersonal skills

2.1.4 Is there significant difference in the assessment of the respondents on the level of effectiveness of physical activities when their profiles are taken as factors?

2.1.5 Is there significant relationship between the age of the respondents and the effectiveness of the physical activities?

2.1.6 What output can be proposed based on the results of the study?

2.2. Hypothesis

This study will propose the following null hypotheses:

(1) There is no significant difference in the assessment of the respondents in physical activities when the profiles are taken as test factors.

(2) There is no significant difference in the assessment of the effectiveness of the physical activities in promoting mental health as to the age of the respondents.

2.3. Significance of the Study

This study will be significantly appreciated by the following valuable education players:

Students. Students who have good mental health are more likely to care about their education and apply effort to maximize their learning potential in PE and Sports.

PE Teachers. This study will guide and serve as pool of ideas in promoting mental health in doing physical activities and at the same time, learning for their students to excel in PE

classes.

Educational Leaders. The principals, vice principals, deans, program heads, coordinators and any school decision-maker will be oriented on the essential features of physical activities and learning to encourage all learners to excel not just on major subjects but also those minor subjects, not to dismiss the essential target of this study, the promotion of mental health to college students in China.

School Community. This study will teach all school community members including its students on how to make appropriate decisions in task management and how to stay motivated and focus for scholastic achievement.

Future Researchers. This study can be a reference for future research and augment the necessary data to solve broader gaps.

2.4. Scope and Delimitation of the Study

The study will be conducted at Shenzhen No. 7 Senior High School, a public high school directly under Shenzhen. The researcher will randomly select at least more than a hundred senior high school students that are currently enrolled in PE classes, regardless of gender.

3. Methodology

This chapter presents the research design to be used, the respondents of the study, the research instrument, the data gathering procedure and the statistical data analysis that will be used.

3.1. Research Design

This is mainly a descriptive – comparative – correlational research. The methods of inquiry will be based on self-made questionnaires;

The gathered data from the questionnaires will be analyzed by quantitative survey tools, which gave guarantee for the study to assess the significant difference and significant relationship of the research variables. The process of validation and reliability will be observed.

3.2. Sampling Method

This study will be conducted using purposive sampling since the researcher relies on his or her judgment when choosing members of the population to participate in the study. The senior high school students who are enrolled or having there PE Classes will be selected as participants.

3.3. Research Instruments

A self-made survey questionnaire is crafted. The first part is the demographic profile and the second part of the survey is about the assessment of the different physical activities related to mental health promotion given in relation to these domains, Physical competency, Benefits of movement and Community of movement. The third part is on the assessment of the respondents as regards their mental health promotion in terms of the following variables: anxiety control.

4. Statistical Treatment of Data

In analyzing the data to be gathered, the following statistical treatments will be used in the study at 0.05 level of significance using Statistical Package for Social Sciences or SPSS software:

4.1. Frequency Count and Percentage

This was used by the researcher in its analysis of the profile of respondents in terms of sex, age and years.

4.2. Weighted Mean

Firstly, this will be used by the researcher to analyze the demographic profile of the respondents. Secondly, the level of relationship and effectiveness of the variables will be taken into consideration.

4.3. T-test /ANOVA

The T-test and/or Analysis of Variance or F-test was used by the researcher to determine if there are significant differences in the member respondents as assessed by themselves when their profiles are taken as factors.

The results are interpreted as follows:

Table 1. The results

Weight	Scale/Range	Description/Interpretation
4	3.51-4.00	Strongly Agree/ Very Highly Evident
3	2.51-3.50	Agree/ Highly Evident
2	1.51-2.50	Disagree/ Not Quite Evident
1	1.00-1.50	Strongly Disagree/Not at All Evident

4.4. Pearson’s r Correlation Analysis

The researcher used Pearson’s r correlation analysis to determine the significant relationship among the variables.

4.5. Decision Criteria

The analysis of the hypotheses will be carried out using the 0.05 level of significance. The null hypothesis will be accepted when the computed significance value is greater than the set value at 0.05. Otherwise, it will be rejected.

5. Conclusion

The Profile of the Respondents in Terms of:

Table 2. The Profile of the Respondents

Profiles	Indicators	Frequency	Percentage
Sex	Male	94	58.0
	Female	67	42.0
Total		161	100.0
Age	16 y/o and below	67	42.0
	17 years old	54	34.0
	18 y/o and above	40	25.0
Total		161	100.0
Senior High School	Grade 1	45	28.0
	Grade 2	52	32.0
	Grade 3	64	40.0
Total		161	100.0

The profile of the respondents revealed that majority of them were male. In terms of age, many of them belonged to 16 years old and below. Likewise, many of the respondents were in Senior High School Grade 3.

(1) The profile of the respondents revealed that majority of them were male. In terms of age, many of them belonged to 16 years old and below. Likewise, many of the respondents were in Senior High School Grade 3.

(2) In terms of physical competency, the physical activities related to mental health promotion of the respondents yielded

a composite mean score of 3.39 with a 0.63 corresponding standard deviation. This implied that the respondents commonly agreed with their perceptions regarding their physical competency. Of all the indicators, the highest mean score was apparent by engagement of students in a physically active lifestyle due to the individual sports activity to accomplish, which was closely followed by identifying physical activities like running, jumping or breathing that provides opportunity for health enhancement and enjoyment. Meanwhile, the lowest mean score was evident by how the student achieves and maintains a health enhancing level of physical fitness because of sports’ moderate-vigorous physical exercise.

(3) The respondents usually agreed on their assessments as indicated by the small value of standard deviation. Of all the indicators the highest mean score was evident by doing physical exercises to reduce stress while the lowest mean score was evident by feeling anxious and experience shortness of breath. This implied that the respondents usually agreed on their assessments as indicated by the small value of standard deviation. Particularly, the highest mean score was evident by doing things as well as most other people do while the lowest mean score was evident by the feeling of being not have much to be proud of. In terms of emotional self-regulation, the assessment of respondents on their mental health promotion obtained a composite mean score of 3.18 with a 0.61 corresponding standard deviation. This implied that the respondents typically agreed on their assessments as indicated by the small value of standard deviation.

(4) Male and female respondents had different assessments on the level of effectiveness of physical activities in terms of physical competency, benefits of movement and building a community of movement. The null hypothesis was rejected at a 5% level of significance.

(5) Using a Product Moment Correlation Coefficient, the effectiveness of physical activities revealed significant correlations across all ages of the respondents. This implied moderate to high degree of correlations found in the respective age of the respondents when split process of data was employed. Furthermore, the relationships were apparent between the following to wit: 1) physical competency and benefits of movement; 2) physical competency and building a community of movement and; 3) benefits of movement and building a community of movement. This further dictates that each pair of variable either moderately or highly influenced one another.

6. Recommendations

To consider that most respondents are male, it is recommended to add physical activities wherein female will be attracted to participate so as to enhance their physical as well as mental health like aerobics dancing, yoga and cheerleading dance.

Physically active lifestyle due to the individual sports activity to accomplish, which was closely followed by identifying physical activities like running, jumping or breathing that provides opportunity for health enhancement and enjoyment must be maintained or regularly done. The component of mental and physical health promotion should always be monitored by data evaluation like before and after evaluation forms to be filled up by the coach/teacher.

The lowest mean score was evident by feeling anxious and experience shortness of breath. It is recommended to check the vitals of every student who engages in PE since

cardiovascular and other common health problems encountered by young people should be addressed and treated before it became fatal.

Proposed Enhanced Countermeasures to Physical Activities and Mental Health.

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