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The role of interest in athletics in promoting students' home-based physical activities engagement amidst pandemic

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Abstract

Sports and activity programs play a significant role in children's overall physical activity levels to allow them to benefit from participating in physical activity during the pandemic. The researcher seeks to provide guidelines that will benefit all students who participate in physical education. This study aimed to determine the interest in athletics and engagement in home-based physical fitness activities of pre-service physical education teachers at Batangas State University JPLPC-Malvar, to determine its implications for teaching physical education. It specifically addressed the respondents' level of interest in athletics, their engagement in home-based physical fitness activities, the significant relationship between the two variables, and suggested activities to increase respondents' interest in athletics through participation in home-based physical fitness activities. This descriptive-correlational study was conducted to assess 62 students enrolled in the Bachelor of Physical Education program at the Batangas State University JPLPC-Malvar campus. Using a self-made questionnaire and appropriate statistical measures, the obtained results revealed that the majority of respondents engage in home-based physical fitness activities; however, bodyweight training is more engaging than anaerobic exercise. The data also showed a significant relationship between athletic interest levels and home-based physical fitness activities. The majority of responders are pre-service physical education instructors. The recommended activities to increase respondents' interest in athletics can be accomplished through participation in home-based physical fitness activities.

Keywords: sports, physical fitness, home-based physical fitness, physical education.

Authors' contribution: a – Preparing concepts; b – Formulating methods; c – Conducting research; d – Processing results; e – Interpretation and conclusions; f - Editing the final version

INTRODUCTION

The entire world is currently in a terrible situation due to the coronavirus disease 2019 (COVID) pandemic, which has disrupted people's daily lives all over the country. The pandemic has influenced physical education and sports reforms in several nations, with many implementing home-based training. The crisis has sped up development in the field of education. The schools have seen innovative teaching

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strategies implemented as well as the switch from radio and television to take-home lessons. Governments and partners worldwide have created distance learning solutions to promote educational growth, including the Global Education Coalition, which UNESCO backs. These developments have also highlighted that the necessity of leaving no one behind cannot be separated from the optimistic future of learning and the rapid changes in providing excellent education.

According to Liu, (2020), student-athletes, as a specific demographic constantly confronted with unique social and intellectual problems, are at an increased risk for developmental and mental disorders, which will result in stressors throughout their athletic careers. With the pandemic driving schools to close, sporting seasons being cut short or canceled, and future training unsure, it is critical to identify a few particular challenges this population is currently facing. According to Saad & Bello, (2021), ensuring learning progression during school closures has become a requirement for governments all around the world, requiring teachers to transition to online course delivery.

Sporting experiences are also likely to have altered. As a result of worldwide lockdown and social distancing rules, the sport is more frequently enjoyed alone in calmer outdoor places or at home alone or in family groupings, with communication with people occurring only through a camera and computer screen. Although convincing evidence is still lacking, there are signs that the use of tracking technologies and the growth of e-sports and online courses may become even more common (Joy et al., 2021). In relation to this, parks, gyms, fitness studios, and other public space closures are reducing alternatives for physical activity, particularly for persons who are unable to exercise at home, notably students and athletes. People's ability to exercise may be further hampered if outside physical activity is not an option owing to shelter-in-place orders, crowded public locations, bad weather, or other circumstances.

This study focuses on and can assist pre-service PE instructors who want to perform PE practicum but are compelled to convert to online methods. This study is different in nature and scope from any of the studies mentioned above. Because most of them are concentrated on other factors affecting physical activity and sports, this study is focused on the relationship between interest in athletics and home-based physical fitness activities. Furthermore, the researcher correlated not only the respondents' level of interest in athletics but also the effect of personal variables on how they perform home-based physical fitness activities.

All the abovementioned statements and facts served as the rationale for this research. The objective was to determine the interest in athletics and engagement in home-based physical fitness activities of pre-service teachers both in and out of the school environment. The researcher hopes to provide recommendations that may help all physical education students.

METHOD

A descriptive-correlational strategy was used in this study. According to McCombes, (2019), descriptive research aims to accurately and methodically represent a population, condition, or phenomenon. On the other hand, a correlational research design assesses a link between two variables without the researcher manipulating either. The descriptive-correlation technique is the most appropriate method for this study because this research aims to evaluate pre-service physical education teachers' interest in athletics and home-based physical fitness activities using correlational approaches.

Participants. The study involved 62 students studying to receive the Bachelor of Physical Education at the College of Teacher Education in Batangas State University JPLPC-Malvar enrolled in the 2020–2021 academic year (31 first-year, 16 second-year, and 15 fourth-year students).

Procedures and instruments. A researcher-made questionnaire was used to collect the necessary information for the study. To accommodate free-formatted perspectives on themes or situations, open-ended alternatives were provided. As a result, the instrument elicited significant reactions from the students. Essentially, it advocated for easy answers to pressing challenges.

The first variable in the research is the respondents' level of athletic interest. The following mean ranges utilized numerical values (4, 3, 2, 1), with the mean ranges (4.00–3.51, 3.50–2.51, 2.50–1.51, 1.50–1.00), and verbal interpretation (highly interested, interested, slightly interested, not interested). The study's second variable is the respondents' engagement in home-based physical fitness activities. The numerical values (4, 3, 2, 1) were utilized together with the mean ranges (4.00–3.51, 3.50–2.51, 2.50–1.51, 1.50–1.00) and verbal interpretation (Highly engaged, engaged, slightly engaged, not engaged). The researcher created a questionnaire using Google Forms to collect the essential information from the respondents. Then, the researcher requested permission from the program chairperson and the respondent's adviser to distribute the survey questionnaire link. Finally, the researcher counted, tabulated, evaluated, and interpreted the results.

Statistical analysis. The mean and standard deviation were utilized to determine the level and standard way of determining the respondents' interest in athletics and home-based physical fitness activities, and Pearson's r was used to determine the significant relationship between interest in athletics and home-based physical fitness of the respondents.

RESULT

This section describes the level of interest in athletics. It reveals each parameter, including social, realistic, and investigative interests. These are presented in the tables. Table 1 presents the respondents' level of interest in athletics in terms of social interest. It reveals each

statement's computed mean and standard deviation with its corresponding interpretation.

Table 1. Respondents' level of interest in athletics in terms of social interest

Indicators	Mean	Standard Deviation	Descriptive Interpretation
I become enthusiastic about athletics as I ...			
1. Participate in athletics groups or organizations to prepare for sports activities.	3.40	0.66	Interested
2. Establish and maintain a good relationship with every individual while doing physical activities.	3.87	0.34	Highly Interested
3. Unite with a sports club that allows for challenge, recognition, appreciation, and quality.	3.52	0.70	Highly Interested Interested
4. Be involved in sports through a local club.	3.27	0.77	Interested
5. Commit my workout with someone else.	3.29	0.84	
Overall	3.47	0.66	Interested

Table 1 presents the respondents' athletic interests in terms of social interest. The highest mean was 3.87, with an equivalent standard deviation of 0.34. The respondents are highly interested in creating and maintaining strong relationships with one another while participating in physical activities. The lowest mean was 3.27, with an equal standard deviation of 0.77. The respondents want to participate in sports through a local club. The respondents' interest in sports in terms of social interest is primarily to create and maintain excellent relationships with all individuals while participating in physical activities. This is corroborated by Eime et al. (2013), social connection satisfaction may affect various other aspects of one's life, including the individual's mental health, that athletics also affect.

Table 2 shows the respondents' level of interest in terms of real interest. It shows each statement's calculated mean and standard deviation, along with its interpretation.

Table 2. Respondents' level of interest in athletics in terms of realistic interest

Indicators	Mean	Standard Deviation	Descriptive Interpretation
I become enthusiastic about athletics as I ...			
1. Set 30-Day Fitness Challenge Method goals for daily workout plans.	2.98	0.74	Interested
2. Make a physical activity with the use of home fitness equipment.	3.15	0.76	Interested
3. Use different health tracking devices to keep our health monitored.	3.05	0.88	Interested
4. Track our fitness progress along the way by using body health fitness assessment.	3.13	0.69	Interested
5. Practice mindful gratitude in every fitness activity towards friends and coaches to improve our mental health and boost our relationships with others.	3.47	0.59	Interested
Overall	3.15	0.73	Interested

Table 2 shows the respondents' athletic interest in terms of real interest. The highest mean was 3.47, with an equal standard deviation of 0.59. Respondents are interested in practicing mindful appreciation in all fitness activities toward friends and coaches to improve their mental health and connections with others. The lowest mean was 2.98, with an equal standard deviation of 0.74. The respondents want to make 30-day fitness challenge goals for their daily training programs. The respondents' realistic interest in athletics is to practice mindful appreciation in every fitness activity toward friends and coaches to improve their mental health and increase their connections with others. This is supported by (L. H. Chen & Kee, 2008), who stated that athletes with higher levels of gratitude are more likely to have higher levels of life satisfaction.

Table 3 presents the respondents' level of interest in athletics in terms of investigative interest. It reveals each statement's computed mean and standard deviation with its corresponding interpretation.

Table 3. Respondents' level of interest in athletics in terms of investigative interest

Indicators	Mean	Standard Deviation	Descriptive Interpretation
I become enthusiastic about athletics as I ...			
1. Consider the advantages and disadvantages of doing physical activities.	3.65	0.52	Highly Interested
2. Create a realistic workout routine that includes plans, schedules, and exercises.	3.34	0.63	Interested
3. Be aware of our health or level of fitness.	3.61	0.58	Highly Interested
4. Identify the possible factors while doing physical activities.	3.63	0.49	Highly Interested
5. Analyze ways to improve our mental health regarding fitness activity.	3.52	0.62	Highly Interested
Overall	3.55	0.57	Highly Interested

Table 3 shows the respondents' interest in athletics in terms of investigative interest. The highest mean was 3.65, with an equivalent standard deviation of 0.52. The respondents are highly interested in considering the benefits and disadvantages of participating in physical activities. The lowest mean was 3.34, with an equivalent standard deviation of 0.63. The respondents want to create a practical training regimen that includes ideas, a timetable, and activities. The respondents' interest in sports in terms of investigative interest is primarily to analyze the advantages and disadvantages of participating in physical activities. According to (Reed, 2021), the health advantages of physical exercise for adults are widely known. Similar relationships with children are less widely understood because it takes time for harmful behaviors to have an influence on chronic disease. However, much interest has been in assessing and encouraging children's physical activity.

2. Engagement in Home-based Physical Fitness Activities

This section describes respondents' engagement in home-based physical fitness activities in terms of aerobic exercise. It presents the calculated mean and standard deviation for each statement and its interpretation.

Table 4. Respondents' engagement in home-based physical fitness activities in terms of aerobic exercise

Indicators	Mean	Standard Deviation	Descriptive Interpretation
At home, I perform physical activities by ...			
1. Working out regularly during the COVID-19 pandemic.	3.05	0.69	Engaged
2. Doing any moderate-intensity physical fitness activities at home.	3.16	0.63	Engaged
3. Spending 1-2 hours per day walking or hiking.	2.98	0.78	Engaged
4. Jogging or running 3 times per week.	2.85	0.83	Engaged
5. Going to a private swimming lesson once a week.	2.05	1.12	Engaged
Overall	2.82	0.81	Engaged

Table 4 shows the participants' engagement in home-based physical fitness activities in terms of aerobic exercise. The highest mean was 3.16, with an equal standard deviation of 0.63. The respondents are engaged in any moderate-intensity physical exercise activity at home. The lowest mean was 2.05, with an equivalent standard deviation of 1.12. The respondents are engaged in attending a private swimming session once a week. The respondents' participation in home-based physical fitness activities in terms of aerobic exercise is usually moderate to intense. This is backed by Jakobsson et al. (2020), who states that aerobic training at home is simple and will help maintain fitness levels. Additionally, running home errands adds considerably to total energy consumption.

Table 5 presents the respondents' engagement in home-based physical fitness activities in terms of anaerobic exercise.

Table 5. Respondents' engagement in home-based physical fitness activities in terms of anaerobic exercise

Indicators	Mean	Standard Deviation	Descriptive Interpretation
At home, I perform physical activities by ...			
1. Employing intense physical activity at home in a short period of time.	2.95	0.71	Engaged
2. Spending more time doing vigorous-intensity activities and exercise on a typical day.	2.95	0.78	Engaged
3. Doing more sprinting rather than a simple jogging 1-2 times a week.	2.76	0.97	Engaged
4. Starting doing weightlifting once a week during the lockdown.	2.44	0.92	Engaged
5. Doing high-intensity interval training 2-3 times a week.	2.66	0.94	Engaged
Overall	2.75	0.86	Engaged

Table 5 shows the participants' engagement in home-based physical fitness activities in terms of anaerobic exercise. The highest mean was 2.95, with standard deviations of 0.71 and 0.78. On a normal day, the respondents engage in intensive physical activity at home and spend more time performing vigorous-intensity activities and exercise. The lowest mean was 2.44, with an equivalent standard deviation of 0.92. The respondents are engaged and have agreed to begin weightlifting once a week. The respondents' engagement in home-based physical fitness activities in terms of the anaerobic exercise was to participate in intense physical activity at home for a short period of time and spend more time on a normal day undertaking vigorous-intensity activities and exercise. According to Hammami et al. (2022), this type of exercise ensures vigorous-intensity anaerobic activity that can be assessed with heart rate monitors or power output loading programs, but it can also be prepared as high-intensity self-paced training.

Table 6 presents the respondents' engagement in home-based physical fitness activities in terms of bodyweight training.

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Table 6. Respondents' engagement in home-based physical fitness activities in terms of bodyweight training

Indicators	Mean	Standard Deviation	Descriptive Interpretation
At home, I perform physical activities by ...			
1. Doing bodyweight training as my resistance exercise.	2.95	0.73	Engaged
2. Spending more time doing bodyweight training (e.g., squats, push-ups, jumping jacks) rather than high-intensity exercise.	3.18	0.69	Engaged
3. Doing bodyweight training to help me burn calories and fats.	3.00	0.72	Engaged
4. Being more active when feeling pain when performing a task in physical activity.	3.10	0.59	Engaged
5. Employing equipment for exercise when training.	2.85	0.72	Engaged
Overall	3.02	0.69	Engaged

Table 6 shows the respondents' engagement in home-based physical fitness activities involving bodyweight training. The highest mean was 3.18, with an equivalent standard deviation of 0.69. The respondents are engaged and prefer to spend more time doing bodyweight exercises (e.g., squats, push-ups, and jumping jacks) rather than high-intensity exercises. The lowest mean was 2.85, with an equal standard deviation of 0.72. The respondents are engaged in using workout equipment during training. The respondents who engage in home-based physical fitness activities, such as bodyweight training, are likelier to spend more time on bodyweight training rather than a high-intensity activity. This is confirmed by Harrison (2010), who defined bodyweight training as any exercise that involves utilizing the body as a method of resistance to perform work against gravity.

3. Relationship between the Respondents' Interest in Athletics and Engagement in Home-based Physical Fitness Activities

Table 7 presents the relationship between the respondents' interest in athletics and engagement in home-based physical fitness activities. The correlation of the variables was tested using Pearson's r formula.

Table 7. Relationship between the respondents' interest in athletics and engagement in home-based physical fitness activities

Variables	Computed Pearson r	Verbal Interpretation	p-value	Decision H_0	Interpretation
Interest in Athletics and Engagement in Home-based Physical Fitness Activities	0.592	Moderate Correlation	0.000	Reject	Significant

The computed Pearson's r is 0.592 when the respondents' interest in athletics is associated with their participation in home-based physical fitness activities, as shown in Table 7. The null hypothesis is rejected because the corresponding p-value of 0.000 is smaller than the computed Pearson's r, demonstrating that there is a significant association between the respondents' interest in athletics and their engagement in home-based physical fitness activities. This result indicates that the respondents' level of interest in sports has a moderate relationship with their participation in home-based physical fitness activities. According to (U.S. Sports Academy, 2020), sports and physical exercise can have both immediate and long-term health benefits. Most importantly, consistent physical activity can enhance one's overall quality of life.

4. Suggested Activities to Enhance the Respondents' Interest in Athletics through Engagement in Home-based Physical Fitness Activities

After revealing the respondents' interest in athletics and engagement in home-based physical fitness activities, the actions, objectives, and descriptions were provided in tabular form for a clearer presentation.

Table 8. Suggested activities to enhance the respondents' interest in athletics through engagement in home-based physical fitness activities

Activities	Objectives
Walking/Running Games	It helps build strong bones, strengthen muscles, improves cardiovascular fitness, burns plenty of kilojoules, and helps maintain a healthy weight, as it is a weight-bearing exercise.
Take the Stairs	Ti helps you lose weight, improves heart health, increases muscle strength, helps build endurance, and improves mental health.
Jump Rope	To help burn calories improves coordination, reduces injury risk, improves health, and strengthens bone density.
Boxercise	Ti gets your heart pumping and helps lower the risk of high blood pressure, heart disease, stroke, and diabetes. It can also strengthen bones and muscles, burn more calories and lift the mood.
Catch and Kick	To help works your arm and leg muscles, improve hand-eye coordination, and increase your fitness.

DISCUSSION

Based on the abovementioned questions, the researchers verified the following hypotheses: there exists a significant relationship between the respondents' interest in athletics and their engagement in home-based physical fitness activities. With the descriptive-correlational method as the research design, the researcher used a questionnaire to obtain the data.

Part of the recommendations are provided by Kaur et al. (2020); the findings of their study can be used to urge people to engage in physical fitness routines, which will result not only in improved physical health but also in improved psychological health and well-being. Furthermore, the findings of this study support the (Bull et al., 2020) recommendations to engage in home-based exercises (including, but not limited to, aerobic activities, balance and flexibility exercises, and muscular strength and endurance training) for approximately 150-180 min per week; to use social media, music, and/or similar techniques to increase adherence to physical exercises; and to practice yoga and dance to relieve stress, anxiety, and depression.

Based on the findings, the researcher prepared new physical training exercises to improve the five components of physical fitness: agility, flexibility, balance, endurance, and power. This will also assist

student-athletes in being physically strong and well-conditioned to minimize fatigue. Coaches can also use this information to address their athletes' and students' strengths and weaknesses. School principals may also consider the findings of this study to alleviate the constraints imposed by both coaches and student-athletes. When designing a physical fitness exercise, they should consider the timetable and academic demands of student-athletes so that the student-athletes may catch up with their academic requirements.

Moreover, each of the statements made has associated research findings that are provided. The pre-service physical education teachers were interested in athletics and belonged to investigative interests. Most respondents are engaged in home-based physical fitness activities; however, bodyweight training is more engaging than anaerobic exercises. There is a significant relationship between the level of interest in athletics and respondents' engagement in home-based physical fitness activities. The majority of the respondents are pre-service physical education teachers. The suggested set of activities to enhance the respondents' interest in athletics can be attained through home-based physical fitness activities.

CONCLUSION

The following conclusions can be made from the abovementioned study findings. Most respondents are pre-service physical education teachers interested in athletics and have investigative interests. The majority of the respondents are engaged in home-based physical fitness activities; however, bodyweight training is more engaging than anaerobic exercise. There is a significant relationship between the level of interest in athletics and respondents' engagement in home-based physical fitness activities. The proposed activities to increase the respondents' interest in sports can be accomplished through participation in home-based physical fitness activities.

The researcher was able to make the following suggestions based on the study's results and conclusions. The students are encouraged to create a daily workout plan to monitor their progress easily. The college may initiate a webinar on home-based physical activities to encourage students and their parents to engage in physical activity. The suggested activity proposed by the researcher can be implemented, monitored, and evaluated to ensure the respondents' interest in athletics through engagement in home-based physical fitness activities. The author would like to thank Falcon Scientific Editing (https://falconediting.com) for proofreading the English language in this paper.

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