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RESEARCH PAPER

Differentiating the Physical Activities Performance between Performers and Non-Performers Girls' College Students of Physical Education

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ABSTRACT

The regular performance of physical activities has lots of benefits in our lives. Exercise and physical activity during adolescence may positively effect on the physical fitness levels and body composition. If a person engages him/herself in physical activities will remain physically fit and can maintain healthy body composition which is the key of life. This research is based on male colleges of northern Punjab. There is total 176 girls' colleges in the northern Punjab from which 29 colleges were selected and 290 performer and non-performer were collected. Four physical activities were compared like flexibility, general endurance, long jump and speed. This research revealed that the performer has more stamina as compare to non-performer. This study also found that the flexibility, general endurance, long jump and speed was good in performers as compare to non-performers. Total number of performers were 290 and non-performers were 290.The mean flexibility of performers is 12.03 with standard deviation 9.995 and non-performers is 7.54 with standard deviation 10.428. This study also found that the flexibility, general endurance, long jump and speed was good in performers as compare to non-performers.

KEYWORDS Non-Performer, Performer, Physical Activity

Introduction

Any healthy lifestyle must include physical activity, and this applies to more than just physical well-being. Making a good connection between physical exercises and raising student accomplishment in the classroom could be the only way to demonstrate the value of exercise and physical education in our academic communities.

Studies have discovered beneficial relationships between academic success. The academic success of students should demonstrate their readiness to begin post-compulsory education. However, it is unknown how much academic success affects starting post-compulsory education. When students started in post-compulsory education, we looked at the relationships between academic achievement and physical exercise. The union contract for New York City (NYC) states that the maximum number of pupils in the gym at one time for physical education in high school is 50, but there is currently no such restriction for younger grades. (NYC Teacher contract, 2018).

Exercise and physical activity during adolescence may positively effect on the physical fitness levels and body composition. If a person engages him/herself in physical

activities will remain physically fit and can maintain healthy body composition which is the key of life (Ruiz et al., 2010).

Physical activity sort of motion that quickens your respiration and pulse rate is considered to be physically active. Your general well-being and health will benefit from physical activity. It provides advantages for people of all ages, such as lowering the chance of developing long-term illnesses, enhancing sleep, boosting power, and enhancing both one's physical and mental health.

People may simply increase their daily activity using simple approaches, which will help them attain the essential exercise levels. Lack of exercise is one of the key indicators of risk for illnesses that are not communicable death. Those who are not sufficiently or insufficiently active have a 22% to 32% greater risk of passing away than those who are suitably active.

This represents the valuing element in the symbiosis with physical education, both activities becoming permanent during the entire period of education of the young generation. "The fact that the formation of modern humans supposes his development from a physical, social, intellectual, ethical and aesthetical points of view must be kept in mind, in connection to the demands of the society and according to his aptitudes, thus leading to an increase of his standard of living and of a social development" (Dacica & Colab, 2012).

Physical Education is expected to have an impact on learning outcomes, namely changes in student behavior. This change in behavior should embrace all the potential in children that can be developed through education. One of them is physical education, which is an integral part of overall education, aims to develop aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, action moral, aspects of a healthy lifestyle and the introduction of a clean environment through selected physical, sporting and health activities that are planned systematically in order to achieve national education goals. Physical education is an important part of the education system (Juliantine, 2016).

Literature Review

Tomporowski, McCullick, Pendleton, and Pesce, (2015), Understanding the effects of PA on students' mental activity, classroom behavior, and academic performance has received a lot of scholarly attention due to the significant negative effects on educational practices at the population level.

According to Martin (2010) examining the literature relating to „physical activity, fitness and academic achievement" provided the following key points: The large majority of university-based, internationally published research in this field has found a positive association between children's physical activity participation and academic achievement. In 2018, the World Health Organization's (WHO) Global Strategy on Physical Activity deployed a slight variation of Caspersen's definition. Instead of activity *resulting* in energy expenditure, the WHO referred to bodily movement that "*requires* energy expenditure".

Regular physical activity, such as walking, cycling, wheeling, doing sports or active recreation, provides significant benefits for health. Some physical activity is better than doing none. By becoming more active throughout the day in relatively simple ways, people can easily achieve the recommended activity levels. Physical inactivity is one of the leading

risk factors for non-communicable diseases mortality. People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active.

According to WHO in 2018, any physical activity based on skeletal muscles that uses energy is considered to be intense exercise. Physical exercise includes all forms of movement, whether they are performed for fun, as a means of transit to and from destinations, or as part of work. Intense and moderate physical activity are both good for your health. The act of running, cycling, swimming, sports, physical recreation, and playing are all popular activities that everyone may undertake for enjoyment regardless of skill.

The following major elements, according to Martin (2010), were revealed by reviewing the research on "physical activity, fitness, and academic success" The overwhelming mostly of school-based, widely disseminated research in this area has discovered a beneficial relationship between kids' engagement in physical exercise and academic success. Caspersen's definition was somewhat modified I n 2017 for the World Health Organization's (WHO) Global Strategy on Increasing Physical Activity. The WHO refers to a bodily movement that "requires energy spending" as opposed to activity that uses up energy.

Thomas, Nelson and Silverman (2015). Regular physical activity, such as riding a bike, participating in sports, or taking part in active leisure, has a favorable effect on well-being. It is better to exercise some than none.

Physical Exercise Categories

Aerobic exercise, bone and muscle repairing, stretching, and strengthening bones are among the five basic categories of physical activity.

Aerobic Exercise

Tinazci, EAlrefai and Musa (2019), Your legs and arms, as well as other big muscles, are moved during aerobic exercise. Aerobic exercise includes things like running, swimming, walking, biking, dancing, and performing jumping jacks. The term "endurance activity" also applies to aerobic exercise.

According to Tomporowski, Davis, Miller and Naglieri, (2008), Your heart beats more quickly during aerobic exercise. Furthermore, this kind of exercise makes you breathe more heavily. Regular aerobic exercise strengthens and improves the function of both your lungs and your heart over time.

Muscles-strengthening

According to the American College of Sports Medicine 2019, Exercise for muscle development is a voluntary endeavor that uses resistance bands, machines for weightlifting, hand-held dumbbells, or the weight of one's own body (such as push-ups or sit-ups).

Troiano, Berrigan and Dodd (2017) described that, the developing field of muscle-strengthening exercise epidemiology is described in this current point of view. The worldwide physical activity recommendations, which previously prioritized aerobic physical activity (running, jogging, playing indoor games, etc.), have recently included a muscle-strengthening exercise to their list of recommended activities. First, we define this term and examine this inclusion.

Presses with a standing dumbbell above

Thomas, J. R., Nelson, J. K., & Silverman, S. J. (2015), Compound workouts, which employ several muscles and joints, are the best type of exercise for those with busy schedules since they work on different areas of the body simultaneously. Freestanding overhead presses, which also strengthen your upper back as well as your core, are one of the best exercises for shoulders.

Material and Methods

This research is based on male colleges of northern Punjab. There is total 112 male colleges in the northern Punjab from which 21 colleges were selected according to equal proportion from each district. Data were gathered from physical education department of each college. The equal sample size of performer and non-participant (Ten students) were selected from each physical education department.

Table 1
Total and Selected colleges from each tehsil according to number of colleges

Division	Districts	Total colleges	Selected colleges	Total female colleges	Selected female colleges
Nakana	Sanglahill	12	7	5	1
	Nankana	8	4	4	1
	Shakot	24	2	12	2
Sargodha	sargodha	33	6	18	3
	Mianwali	15	3	9	2
Sahiwal	Okara	15	3	8	1
	Pakptan	5	1	2	0
Rawalpindi	Rawalpindi	53	9	32	5
	Jehlum	12	2	6	1
Gujranwala	Sialkot	25	4	17	3
	Narowal	9	2	6	1
Faisaabad	Faisalabad	40	6	25	4
	Chinnot	9	2	5	1
	Jang	9	4	18	4
Total		288	50	176	29

Sample Size

This study is based Bachelors in Art (B.A) and Bachelors in Science (Bsc) colleges were considered. 29 girls' colleges were selected. 290 female performer and 290 female non-performer of physical education students at college level. The difficulty and complexities to the respondents were removed, prior to actual data collection. Ten performer and ten non- performers were selected from each college.

Variables

The physical activities have various shapes in modern world. In the research four physical activities were selected like flexibility, general endurance, power and speed. The measurement for all activities were performed and their data were collected. Those tests tool and units are given below.

Test	Tool	Unit
Flexibility	Sit & reach box	Cm
Endurance	Jogging	F

Long jump	Standing Long Jump	F
Speed	200 m Running	Sec

Statistical analysis for the data

Present study had utilized the descriptive as well as inferential statistics. T-test was used for the comparison of physical activities data of performers and non-performers. The data was analyzed by using the (SPSS-23 version).

Results and Discussion

The results of statistical tool t- tests are obtained and presented in table form. Their interpretation also provided below.

Table 2
Group statistics of flexibility for performer and non-performer

Group	N	Mean	Std. D	Std. Error Mean
Performer	290	12.03	9.995	.587
Non- performer	290	7.54	10.428	.612

Total number of performers were 290 and non-performers were 290.The mean flexibility of performers is 12.03 with standard deviation 9.995 and non-performers is 7.54 with standard deviation 10.428.

Table 3
Comparison of flexibility between performer and non-performer

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.251	.616	5.297	578	.000	4.493	.848	2.827	6.159
Equal variances not assumed			5.297	576.967	.000	4.493	.848	2.827	6.159

It is evident that the t- value is 5.297, which is significant at the value of degree of freedom 576.967. P-value is less than specified level of significance ($\alpha = 0.05$). It reflects that mean flexibility of performers and non-performers differ significantly.

Table 4
Group statistics of general endurance for performer and non-performer

Group	**N**	**Mean**	**Std. D**	**Std. Error Mean**
Performer	290	22.12	4.129	.242
Non-performer	290	7.17	2.617	.154

Total number of performers were 290 and non-performers were 290.The mean of general endurance of performers is 22.12 with standard deviation 4.129 and non-performers is 7.17 with standard deviation 2.617.

Table 5
Comparison of general endurance between performer and non-performer

Levene's Test for Equality of Variances	t-test for Equality of Means

	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	47.497	.000	52.079	578	.000	14.948	.287	14.385	15.512
Equal variances not assumed			52.079	488.918	.000	14.948	.287	14.384	15.512

It is evident that the t value is 52.079, which is significant at the value of degree of freedom 578. P-value is less than specified level of significance (α = 0.05). It reflects that mean general endurance of performers and non-performers is not same.

Table 6
Group statistics of long jump for performer and non-performer

Group Statistics

Group	N	Mean	Std. Deviation	Std. Error Mean
Performer	290	2.0638	.22575	.01326
Non-performer	290	1.7424	.23112	.01357

Total number of performers were 290 and non-performers were 290.The mean of long jump of performers is 2.0638 with standard deviation 0.22575 and non-performers is 1.7424 with standard deviation 0.23112.

Table 7
Comparison of long jump between performer and non-performer

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.917	.167	16.940	578	.000	.32138	.01897	.28412	.35864
Equal variances not assumed			16.940	577.681	.000	.32138	.01897	.28412	.35864

It is evident that the t value is 16.940, which is significant at the value of degree of freedom 477.681. P-value is less than specified level of significance (α = 0.05). It reflects that mean long jump of performers and non-performers is different.

Table 8
Group statistics of speed for performer and non-performer

Group Statistics

Group	N	Mean	Std. Deviation	Std. Error Mean
Performer	290	34.0520	3.53340	.20749
Non-performer	290	38.5781	4.30021	.25252

Total number of performers were 290 and non-performer were 290.The mean of speed of performers is 34.0520 with standard deviation 3.53340 and non-performers is 38.5781 with standard deviation 4.30021.

Table 9
Comparison of speed between performer and non-performer

Independent Samples Test

Levene's Test for Equality of Variances	t-test for Equality of Means

	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	12.289	.000	-13.849	578	.000	-4.52610	.32683	-5.16802	-3.88419
Equal variances not assumed			-13.849	557.053	.000	-4.52610	.32683	-5.16807	-3.88414

It is evident that the t value is 13.849, which is significant at the value of degree of freedom 578. P-value is less than specified level of significance (α = 0.05). It reflects that mean speed of performers and non-performers differ significantly.

Conclusion

The study is conducted to test the levels of performing physical activities between the participant and non-performer of girl students of physical education department. This research revealed that the performer has more stamina as compare to non-performer. This study also found that the flexibility, general endurance, long jump and speed was good in performers as compare to non-performers. Sports participation reported in a positive relationship with health and academic achievement. Sports participation may improve cognitive health leading to improved academic achievement.

Previous studies have provided evidence that sports participation has a positive association with cognitive and physical health. This stud has examined the relationship between the sports and academic achievement.

Recommendations

Many future studies are recommended based on this study's limitations and findings. For instance, a qualitative study is recommended to profoundly understand the physical activity phenomenon among academic achievement. The qualitative part is essential in addition to the quantitative section. Future qualitative studies that focus on understanding the weak association between attitude and subjective norms with intention toward physical activity are also recommended. Furthermore, conducting this study at an international level to compare different Physical activity & sports would be beneficial to a better understanding of this phenomenon.

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