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Muhamed Ameen V

Assistant Professor, Department
of Physical Education, KCAET,
Tavanur, Kerala, India

Ahamed Jaseer M

Physical Education Teacher,
Gems Westminister School,
Sharjah

Ummer Farook KK

Ph.D. Scholar, Department of
Physical Education, Pondicherry
University, Pondicherry, India

Effect of wellness dance on health-related physical fitness of teacher trainees

Muhamed Ameen V, Ahamed Jaseer M and Ummer Farook KK

Abstract

The purpose of the study was to determine effect of wellness dance on health-related physical fitness of teacher trainees. The variable selected for the study done based on the health-related physical fitness Cardio respiratory fitness, Muscular strength, Muscular endurance, The subjects of this study were 40 students between the age group of 20-25 years selected from Calicut University. The subject were randomly assigned to a wellness group (n=20) and control group (n=20). The experimental group participated in Wellness training program four days in a week Monday, Tuesday, Wednesday and Friday for a period of eight weeks. The control group did not participate in any sort of this training programme during the same period. The collected data statistically analyzed with the help of SPSS software. In Experimental group, significant difference was seen in Cardio respiratory fitness, Muscular strength, and Muscular endurance. In the case of control group there were changes or decrease in health related physical fitness for same period. The results obtained with in the study indicated that wellness group has vital improvement with in the health related physical fitness variables specifically muscular strength, muscular endurance and cardiovascular endurance. Based on these findings it can be concluded that wellness dance has positive effect on improvement of health related physical fitness components of Calicut University teacher trainees.

Keywords: Wellness dance, physical fitness, muscular strength, muscular endurance

Introduction

In the modern day's people are more desirous of having good health and would like to lead a qualitative life. For this the wellness experts throughout the world are sponsoring the idea of possessing high levels of health related physical fitness than simply having the skill related physical fitness. So, a physical education teacher should be able to understand the concept of health related physical fitness and its individual components and strive to develop these components in the students, so that the students would be able to lead a healthy and happy life. This taste of the healthy life during the childhood makes the individual to develop the right kind of attitude towards the health concepts and the most desirous health related physical fitness. It is the strong View point of the modern day physical education experts that the mere possession of the skill related physical fitness does not ensure the individual proper health. The health of the body depends directly on the functional efficiency of various organs of the various systems and in turn the functional efficiency of the various systems of the body. It has been found that simple speed development is in no way helpful in increasing the health status of an individual and in the same way the simple strength improvement is not an essential aspect to keep the health at appreciable levels. Development of agility may be very essential and highly useful for functional efficiency in tackling the complicated movements in various sporting activities, but this ability may not be that essential or important to enhance one's health status. To improve the health related physical fitness, one essentially needs to have an optimum amount of the skill related physical fitness, so as to participate in various sporting and physical activities. So, both the fitness concepts need attention. Since, the large numbers of people in India are lacking the aptitude towards the physical culture to keep and preserve the health in an optimum level, it is highly essential to develop this quality from the Childhood days onwards. Hence, the role of physical education teachers is really essential in this scenario. Many researches in the field of health-related physical fitness indicate that various

Correspondence

Muhamed Ameen V

Assistant Professor, Department
of Physical Education, KCAET,
Tavanur, Kerala, India

physiological variables are responsible for maintaining the desired health related physical fitness. These physiological variables in turn are dependent on various components of health-related physical fitness. Possession of high levels of the components of this health-related physical fitness will ensure right proportion of physiological variables to attain the desired level in health status, so as to be free from disease and can lead a happy and qualitative life. The concept of health-related physical fitness includes the elements of muscular strength, muscular endurance, cardio-respiratory endurance, flexibility and freedom from obesity.

Muscular Strength

Muscular strength refers to quantity of force a muscle will manufacture and is sometimes measured by the most amount of force a muscle will manufacture in a very single effort (maximal effort).

Muscular Endurance

Muscular endurance is that the ability of a muscle or cluster of muscles to perform repetitive contractions against a force for AN extended amount of your time. The bigger your muscular endurance the upper variety of repetitions you'll complete.

Cardiovascular Endurance

Cardiovascular endurance is that the ability to exercise while not changing into too tired as a result of your heart, lungs and blood vessels are healthy. Exercise examples includes walking, jogging, cycling, dancing, swimming and running.

Hypotheses

H₁: It is hypothesized that there will be a significant effect of wellness dance on muscular strength of teacher trainees.

H₂: It is hypothesized that there will be a significant effect of wellness dance on muscular endurance of teacher trainees.

Aim and Objective of the study

To improve the health related physical fitness of selected teacher trainees through wellness dance.

Methodology

Participants: The subjects of this study were 40 students between the age group of 20-25 years selected from Calicut University. The subject were randomly assigned to a wellness group (n=20) and control group (n=20).

Selection of Variables and Tests

Table 1: Variables and Test Items

Sl. No	Variables	Test
1	Muscular Strength	Hand grip dynamometer*
2	Muscular endurance	Curl- up (CRUNCH)*
3	Cardiovascular endurance	Queen College Step Test*

Treatment Program

The selected subject (N) equally divided in to two groups, experimental group (wellness group) and control group. Experimental group undergone Wellness training program 4 days in a week for a period of eight weeks. The control group did not participate in any sort of this training program during the same period. The collected data statistically analyzed with the help of SPSS software.

Analysis of Data and Results of the Study

Table 2: T-ratio of pre and posttest on Muscular Strength scores

Control Factors	Pre test			Post test			t-ratio
	N	Mean	SD	N	Mean	SD	
Experimental	20	22.07	4.67	20	23.67	3.96	3.09*
Control	20	25.81	4.25	20	25.58	4.26	4.85*

The calculated t value was more than the table value at 0.05 level of significance. The result shows that there was significance difference between pre and post test score of experimental group and control group on muscular strength.

Table 3: Analysis of Covariance of muscular strength

Source	Sum of Squares	Df	Mean Square	F	Sig.
Group	62.16	1	62.16	3.38	0.07
group *test	26.36	2	13.18	0.72	0.49
Error	1399.74	76	18.42		
Corrected Total	1585.43	79			

P-value for the F-statistics is 0.07 which was higher than the significant level of 0.05, it was not significant. The interaction between group and test scores on muscular strength, since p-value for the F-statistics is 0.49 which was higher than the significant level of 0.05, it was not significant.

Table 4: T-ratio of pre and posttest on Muscular endurance scores

Control Factors	Pre test			Post test			t-ratio
	N	Mean	SD	N	Mean	SD	
Experimental	20	22.10	3.63	20	25.60	2.87	5.79*
Control	20	24.58	5.36	20	24.10	5.25	1.83

*Significant at the 0.05 level of confidence (Table value of df 19=2.09)

There was significance difference between pre and post test score of experimental group and there was no significance difference between pre and post test score of control group on muscular endurance.

Table 5: Analysis of Covariance of Muscular endurance

Source	Sum of Squares	Df	Mean Square	F	Sig.
Group	83.21	1	83.21	4.28*	0.04
group *test	124.76	2	62.38	3.21*	0.05
Error	1476.04	76	19.42		
Corrected Total	1605.55	79			

*Significant at 0.05 level of confidence F .05 (2, 76) = 3.12

The above table shows that the ANACOVA of group on muscular endurance, since p-value for the F-statistics is 0.04 which was lesser than the significant level of 0.05, it was significant.

The interaction between group and test scores on muscular endurance, since p-value for the F-statistics is 0.05 which was higher than the significant level of 0.05, it was not significant.

Table 6: T-ratio of pre and posttest on cardio vascular endurance scores

Control Factors	Pre test			Post test			t-ratio
	N	Mean	SD	N	Mean	SD	
Experimental	20	35.89	4.68	20	39.92	4.69	4.45*
Control	20	40.14	4.89	20	38.32	5.60	1.88

*Significant at the 0.05 level of confidence (Table value of df 19=2.09)

The calculated t value was more than the table value so the

result shows that there was significance difference between pre and post test score of experimental group on cardio vascular endurance and that there was no significance difference between pre and post test score of control group on cardio vascular endurance.

Table 7: Analysis of Covariance of cardio vascular endurance

Source	Sum of Squares	Df	Mean Square	F	Sig.
Group	35.28	1	35.28	1.42	0.24
group * test	194.97	2	97.49	3.93*	0.02
Error	1885.82	76	24.81		
Corrected Total	2116.08	79			

*Significant at 0.05 level of confidence $F_{.05}(2, 76) = 3.12$

Since p-value for the F-statistics is 0.24 which was higher than the significant level of 0.05, it was not significant. The interaction between group and test scores on cardio vascular endurance, since p-value for the F-statistics is 0.02 which was lesser than the significant level of 0.05, it was significant.

Discussion on Findings

The present study characterizes effect of wellness dance on health-related physical fitness variable of Teacher trainers of Calicut University.

The participants of the study were leading a sedentary lifestyle. When these participants took part in physical ability as per scheduled in the work out plan for six weeks physical characteristic are improved. The result obtained in the study indicated that there was significant improvement in the health-related physical fitness variable namely muscular strength, muscular endurance, body composition, cardiovascular endurance and flexibility.

Conclusion

Based on these findings it can be concluded that wellness dance training programme has positive effect on improvement of health related physical fitness components of Calicut University teacher trainees.

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