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EFFECT OF SIX WEEKS CONDITIONING PROGRAMME ON PHYSICAL FITNESS STATUS OF PROFESIONAL PHYSICAL EDUCATION STUDENTS

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ABSTRACT To assess the effect of six weeks conditioning programme on selected physical fitness components 90 students pursuing BPED physical education students were randomly assigned to two experimental groups (A – B) and two control group (C) each consisting of 30 subjects. The experimental group was given conditioning programme of continuous and interval methods respectively. The groups C will serve as a control group and will continue participating in the normal programme of the college. Descriptive statistics and ANCOVA was computed to compare groups. The result shows that the 6 weeks of conditioning programme may not influence physical fitness status of professional physical education students.

KEYWORDS : Conditioning Programme, Physiological Fitness, Vital Capacity, Respiratory Rate

Introduction

Movement and activity are basic functions needed by human organism to grow, develop, and maintain health. However, physical activity is no longer a natural part of our existence. We live in an automated world where most of the activities that used to require strenuous physical exertion, can be accomplished by machines with the simple pull of a handle or push of a button. For instance, if there is a need to go to a store most of the people drive their automobiles. Similarly, during a normal visit to a multi-level shopping mall, it can easily be observed that almost everyone chooses to ride the escalators instead of taking the stairs. This is accomplished through regular exercise and proper nutrition. Being overweight is associated with many medical problems such as hypertension, diabetes, and heart diseases. Though researches are conducted on different conditioning programme, but the field of body training is still unexplored and enormous work must be done to highlight the scientific facts related to physical, physiological as well as body composition. Thus the scholar found this area to be interesting and thought of to find out effect of different conditioning programme on selected physiological fitness of professional and general physical education college students of West Bengal, which could help the coaches and teachers to come out of the traditional practice.

Methods

Selection of subjects: 90 student pursuing B.P.Ed courses and 90 student perusing B.A. pass physical education in Mugberia Gangadhar Mahavidyalaya and Panskura Banamali Mahavidyalaya, Purba Medinipur of West Bengal was selected as subjects of the study.

All subjects was randomly assigned to four experimental groups (A – B and D – E) and two control group (C & F) (i.e. from professional courses A & B as experimental group a C as control group, whereas from General courses D & E as experimental group and F as control group) each consisting of 30 subjects. The experimental group was given conditioning programme of continuous and interval methods respectively. The groups C & F will serve as a control group and will continue participating in the normal programme of the college.

Selection of Variables: Keeping the feasibility criterion in mind, especially in the case of availability of instruments, the following variables were selected. Physical fitness components were endurance, agility and flexibility.

Experimantal Design

Random group design was adopted for this study as all the subjects was randomly selected and randomly divided into six groups. Further the experimental treatments was also being assigned at random to the four experimental groups i.e. group A & B from professional colleges and group D & E from general colleges and the rest groups i.e. C & F will serve as a control group. The experimental groups will participate in two conditioning programme (continuous method and interval method). The conditioning programme was carried out for a total duration of six weeks.

Data Analysis: In order to study the effects of different conditioning programme on physical fitness of west Bengal professional college students' descriptive statistics and analysis of Co-Variance was applied at .05 level of confidence.

Result:

Table=1: Mean and Standard Deviation of selected Physical Fitness components of college going students of different conditioning programme

Table=1 : Mean and Standard Deviation of BPEd students

	Type of Training	Test	Mean	Std. Dev
Endurance (minute)	Continuous Training (n=30)	Pre	1.2607	0.07922
		Post	1.234	0.03379
	Interval Training (n=30)	Pre	1.3497	0.10981
		Post	1.3347	0.10078
	Control Group (n=30)	Pre	1.3037	0.08261
		Post	1.3037	0.08261
	Total(N=90)	Pre	1.3047	0.09764
		Post	1.2908	0.08773
Shuttle Run (sec)	Continuous Training (n=30)	Pre	14.3527	1.19038
		Post	13.5397	0.59743
	Interval Training (n=30)	Pre	14.025	0.69295
		Post	13.9423	0.63244
	Control Group (n=30)	Pre	14.825	0.70379
		Post	14.54	0.46676
	Total(N=90)	Pre	14.4009	0.94267
		Post	14.0073	0.69886
Sit and Reach (sec)	Continuous Training (n=30)	Pre	9.7767	3.06253
		Post	11.68	2.92037
	Interval Training (n=30)	Pre	10.3	2.89053
		Post	11.83	3.26762
	Control Group (n=30)	Pre	9.7333	3.1941
		Post	11.123	2.7739
	Total(N=90)	Pre	9.9367	3.0282
		Post	11.544	2.9764

Table: 2: Analysis of Co-Variance of the Means of Two Experimental Group and a Control Group in relation to endurance; Agility and Flexibility

Variables		Groups				F-ratio
		Continuous Training	Interval Training	Control Group		
Endurance	Pre-test Means	1.2607	1.3497	1.3037	A	7.087*
					W	
	Post-test Means	1.234	1.3347	1.3037	A	13.200*
					W	

	Adjusted post test means	1.266	1.302	1.304	A	7.695*
					W	
Agility	Pre-test Means	14.3527	14.025	14.825	A	6.084
					W	
	Post-test Means	13.5397	13.9423	14.54	A	23.390
					W	
	Adjusted post test means	13.565	14.138	14.319	A	42.024
					W	
Flexibility	Pre-test Means	9.7767	10.3	9.7333	A	0.465
					W	
	Post-test Means	11.68	11.83	11.123	A	1.073
					W	
	Adjusted post test means	11.460	12.166	11.292	A	2.207
					W	

* Significant at 0.05 level of significance

N = 90
A = Among Means variance
W = With in Group variance
F = Ratio needed for significance at 0.05 level of significance = df (2, 87)=3.09
df (2,86) = 3.09

The analysis of co-variance was insignificant in case of pre-test means from which it is clear that the pre-test mean does not differ significantly and that the random assignment of subjects to all the groups was quite successful. The post-test means of all the four groups yielded a F-ratio of 13.20 which was also significant at 0.05 level of confidence. The difference between the adjusted post means was found significant as the obtained F-ratio was 7.695. The F-ratio needed for significance at 0.05 level of confidence was 3.09.
The analysis of co-variance was insignificant in case of pre-test means from which it is clear that the pre-test mean does not differ significantly and that the random assignment of subjects to all the groups was quite successful. The post-test means of all the four groups yielded a F-ratio of 23.390 which was also significant at 0.05 level of confidence. The difference between the adjusted post means was found significant as the obtained F-ratio was 42.024. The F-ratio needed for significance at 0.05 level of confidence was 3.09.

The analysis of co-variance was insignificant in case of pre-test means from which it is clear that the pre-test mean does not differ significantly and that the random assignment of subjects to all the groups was quite successful. The post-test means of all the four groups yielded an F-ratio of 1.073 which was also insignificant at 0.05 level of confidence. The difference between the adjusted post means was found insignificant as the obtained F-ratio was 2.207. The F-ratio needed for significance at 0.05 level of confidence was 3.09.

Discussion:

The primary findings of the present study indicate that conditioning programme alone may be a positive training stimulus to enhance physical fitness in healthy college aged males. The findings are in agreement with previous Tomljanovic, M. et al (2011); Ashira Hiruntrakul et.al (2010); Lila Sabbaghian Rad and Mandana Gholami (2012); Moradichaleshtori. M. etal (2008);Hamid Arazi et.al (2008); Karol görner (2009) K. Vaithianathan, (1988); K.G. Promoth, (2010); Marimuthu (2002), Wilson (1993), Reddy (1993), Conroy (1991), etc.
The experimental group had shown significant alteration on endurance when compare with pre, and posttest. The result of the study is in consonance with Kodama et al. (2009); Belardinelli et al. 1999, Dubach et al.1997, Dziekan et al. 1998, Hambrecht et al. 1995, Koukouvou et al. 2004, Kulcu et al. 2007, Myers et al. 2002). Hickson & Rosenkoetter stated that for inactive untrained subjects greater improvements in VO2 max can be achieved when the initial VO2 max is lower.

Our findings indicate that a conditioning programme positively influence the agility. The finding of study were supported by the findings of other researchers such as Alve et al.,(2010); Roopchand and Martin (2010); Shaik and Mallick (2012); Parsons and Jones., (1998); Bride, et., al., (2002) The result of the study is attributed the conditioning programme might affect positively on neuromuscular coordination, reflective electrical activity, increased muscular contraction and the musculoskeletal systems might get hypertrophy. As the agility is the outcome of strength and speed, the significant improvement of agility was occurred along with the improvement of explosive strength and speed. Baro M., (2012)

The results of the present study demonstrated that physical education subjects of BPEd were able to gain flexibility after 6 weeks of conditioning programme. A stretching component targeting the major muscle groups and performed in all training sessions might have been the primary reason for improved flexibility scores in our study, the result is corresponds with other studies like Santos et al., (2010); Simão et al., (2011); Licl.et.al, (2006);Chen et.al, (2009); and Tran et.al, (2001) Fatouros et al., (2002); and Venkatareddy et.al (2003).

Conclusion:

Within the limitation of the study it was concluded that six weeks of conditioning programme may not influence physical fitness status of professional physical education students.

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