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Raghunath Das
M. Phil Student, Department of Physical Education, University of Kalyani, Kalyani, Nadia, West Bengal, India

Anjan Konai
Regular Research Scholar, Department of Physical Education, University of Kalyani, Kalyani, Nadia, West Bengal, India

Dr. Madhab Ch. Ghosh
Professor, Department of Physical Education, University of Kalyani, Kalyani, Nadia, West Bengal, India

Corresponding Author:
Raghunath Das
M. Phil Student, Department of Physical Education, University of Kalyani, Kalyani, Nadia, West Bengal, India

Relation between motor creativity and selected motor fitness variable of different groups of rhythmic activity

Raghunath Das, Anjan Konai and Dr. Madhab Ch. Ghosh

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Abstract
The purpose of the study was to observe the Relationship between motor fitness and motor creativity of different groups of Rhythmic Activity. 30 students of varsity level were selected as the subjects of the present study. Subjects were divided into three groups, i.e. Dance, Aerobics and Bratachari group. Each group consists of 10 female students from different universities of West Bengal. To conduct the study selected motor fitness i.e. flexibility, static balance, coordination and cardiovascular endurance and test of motor creativity were taken. After collecting the data Mean, SD and co-efficient of correlation were calculated and the following conclusions were drawn-

1. In Motor creativity Dance and Aerobic group is better than Bratachari group.
2. Static Balance is better in Aerobic group than Dance and Bratachari group.
3. Motor creativity is not related with motor fitness and its components for all the three groups

Keywords: varsity, rhythmic activity, motor fitness, motor creativity, dance, aerobic. Bratachari etc

Introduction
At the time of beginning of human life on this earth, man has faced various problems and solved them with the help of intelligence and creativity. The wonderful and amazing ability that enables person to make new invention and to find solutions to challenging problems and thereby make the life worth living has been termed as creativity. Creativity is the highest function of intellect. Creativity stands for capacity to accept challenge, freedom to exercise choice, capacity to change one's environment. Human creativity is the manifestation of creative force inherent in life. Creativity is universal; it is not confined to any specific field or to any specific individual. With the rapid developments of new knowledge and skills with the advancement of science and technology, creativity and its study has assumed greater importance. Creativity is being encouraged to avoid stagnation and to allow individual to achieve their own fulfillment. Motor fitness is a limited phase of physical fitness and can be more concretely defined as a readiness or preparedness for performance with special regard for big muscle activity without under fatigue. It concerns the capacity to move the body efficiently with force over a reasonable length of time.

Conducting the study the researcher review some related literature
Dharmangadan (1981) [1] studied creativity in relation to sex, age and locate on 300 upper class students with Torrance test of creative thinking and consulted that the male, old students and urban student's scored significantly higher than the female, young students and rural students respectively. Akinboye (1982) [2] Males were found to be more flexible than females on a Torrance test administration. Schemppet. AI. (1983) [3] was working on the 208 first and fifth graders participating in physical education programs. The study indicated that the two treatment groups had significantly higher scores than the control group and the shared decision making group scored significantly higher than the teacher dominated group on creativity, motor skill and self-concept. Dr. Ghosh. M.C (1988) [4] conducted a study on creativity, motor ability and motor creativity of adolescent student. The motor creativity test, creativity test and motor ability test were taken for the study. It was found that the boys and athletes group is

superior in all the test items than the girls and non-athletes groups and it also found that creativity, motor ability and motor creativity are positively related with each other. The purpose of the study was to observe the Relationship between motor fitness and motor creativity of different groups of Rhythmic Activity.

Methodology

To conduct the study 30 female students of varsity level were selected as the subjects. Subjects were divided into three groups, i.e. Dance, Aerobics and Bratachari group. Each group consists of 10 female students from different universities of West Bengal. To conduct the study selected motor fitness i.e. flexibility, static balance, coordination and cardiovascular endurance and a test of motor creativity were taken. All the subjects were performed of the test with in stipulated time. The components of motor fitness were measured through standard test such as for flexibility Sit and reach test in c.m, for Static balance Stork stand test in second, for coordination wall pass in number and for Cardiovascular endurance Harvard step test in bit/second was adopted and for motor creativity Dr. M.C. Ghosh motor creativity test battery was taken. The subject were encouraged and instructed to perform their best. All the tests were conduct through standard procedure as par test manual.

Result and Discussion

Analysis of Personal Data

Table 1: The mean and SD of Personal data of different groups subject

Criterion variable	Dance group		Aerobic group		Bratachari group	
	Mean	SD	Mean	SD	Mean	SD
Age (Year)	24.3	1.16	24.4	0.95	23.5	1.08
Height (cm)	155.8	2.30	155	3.05	155	3.89
Weight (kg)	53.1	3.21	54.9	5.08	54.1	3.07

From the table no-1shows that the Mean value of age, height and weight of dance group were 24.3, 155.8 and 53.1 respectively with the SD value were1.16, 2.30 and 3.21 respectively. The Mean value of age, height and weight of Aerobic group were 24.4, 155 and 54.9respectively with the SD value were 0.95, 3.05 and 5.08 respectively.

And also shows that the Mean value of age, height and weight of Bratachari group were23.5, 155 and54.1respectively with the SD value were 1.08, 3.89 and 3.07 respectively.

Table 2: Mean and SD of Flexibility among the three groups

Group	Mean	SD
Dance	19.50	5.13
Aerobics	21.90	4.86
Bratachari	23.80	9.53

From table –2 it appears that the Mean values of flexibility of the three groups Dance group, Aerobic group and bratachari group were 19.50, 21.90 and 23.80 respectively, with S.D. values were 5.13, 4.86 and 9.53 respectively.

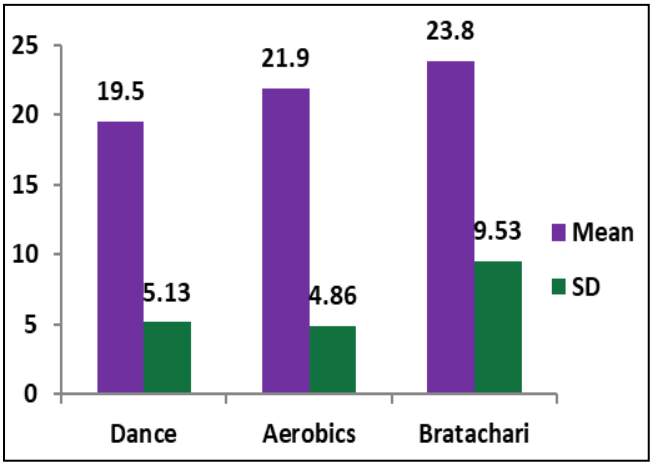

Fig 1: Graphical representation of Mean and SD of flexibility for three groups

Comparing the mean value of Flexibility it was observed that mean value of Bratachari group was higher than other two groups.

Table 3: Mean and SD of balance among the three groups

Group	Mean	SD
Dance	13.75	4.53
Aerobics	25.21	5.22
Bratachari	12.10	5.56

From table –3 it appears that the Mean values of balance of the three groups Dance group, Aerobic group and bratachari group were 13.75, 25.21 and 12.10 respectively, with S.D. values were 4.53, 15.22 and 5.56 respectively.

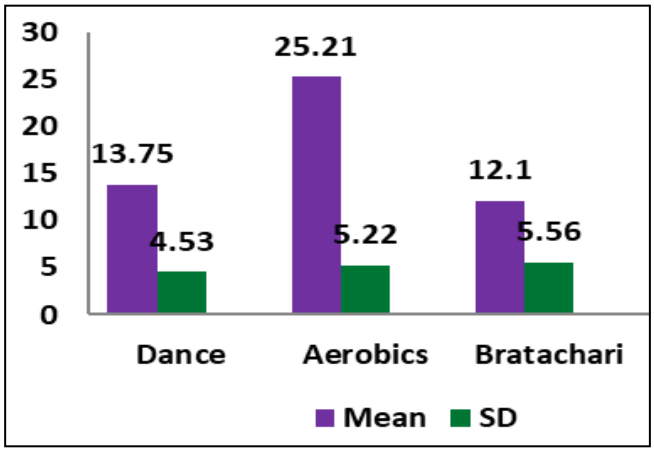

Fig 2: Graphical representation of Mean, SD of balance for three groups

Comparing the mean value of Static Balance it was observed that mean value of Aerobics group was higher than other two groups.

Table 4: Mean and SD of coordination among the three groups

Group	Mean	SD
Dance	7.40	0.97
Aerobics	7.20	1.48
Bratachari	8.00	1.63

From table -4 it appears that the Mean values of coordination of the three groups Dance group, Aerobic group and bratachari group were 7.40, 7.20 and 8.00 respectively, with S.D. values were 0.97, 1.48 and 1.63 respectively.

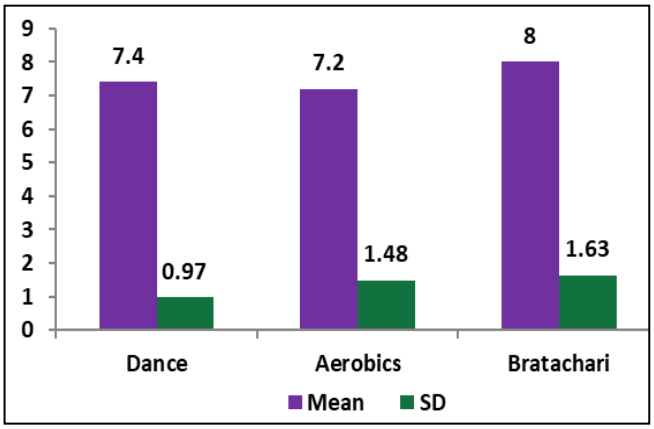

Fig 3: Graphical representation of Mean, SD of coordination for three groups

Comparing the mean value of coordination of the three groups it was observed that the three groups were more or less equal.

Table 5: Mean and SD of cardiovascular endurance among the three groups

Group	Mean	SD
Dance	81.55	3.24
Aerobics	85.38	10.16
Bratachari	87.59	12.22

From table -5 it appears that the Mean values of cardiovascular endurance of the three groups Dance group, Aerobic group and bratachari group were 81.53,85.38 and 87.59 respectively, with S.D. values were 3.24, 10.16 and 12.22 respectively.

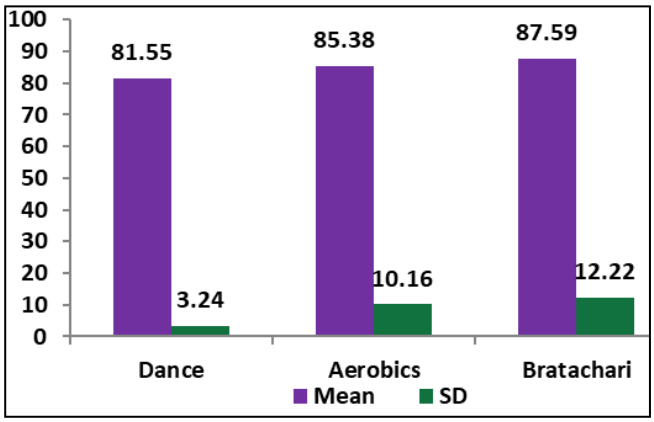

Fig 4: Graphical representation of Mean, SD of cardiovascular endurance for three groups

Comparing the mean value of cardiovascular endurance it was observed that mean value of Bratachari group was higher than other two groups.

Table 6: Mean and SD of motor creativity among the three groups

Group	Mean	SD
Dance	189.30	29.32
Aerobics	183.90	12.32
Bratachari	148.70	15.74

From table - 6 it appears that the Mean values of motor creativity of the three groups Dance group, Aerobic group and bratachari group were 189.30, 183.90 and 148.70 respectively, with S.D. values were 29.32,12.32 and 15.74 respectively.

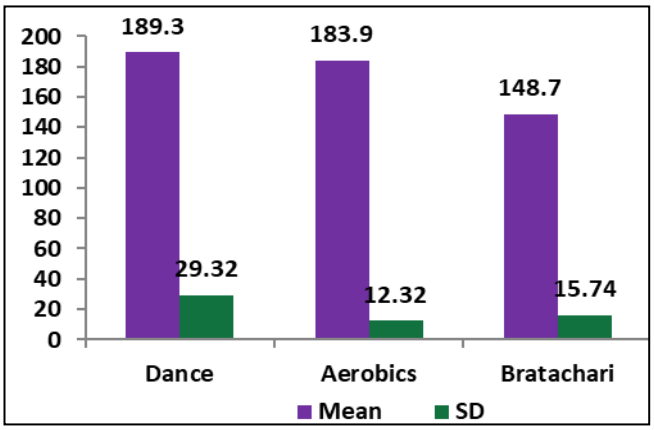

Fig 5: Graphical representation of Mean, SD of Motor creativity for three groups

Comparing the mean value of Motor creativity of the three groups it was observed that Dance group and Aerobics group is better than Bratachari group.

Table 7: The Pearson Correlations between Motor fitness and Motor creativity among the three groups

Motor fitness component	Motor creativity		
	Dance group	Aerobic group	Bratachari group
Flexibility	0.272	0.215	-0.530
Static Balance	0.318	0.223	-0.375
Coordination	0.140	0.233	-0.156
CVE	-0.157	0.616	0.251

*. significant at the 0.05 level (2-tailed).
Df=8, 'r' value=0.632 at 0.05 level.

From the table no- 7 it was observed that the relationship between Motor Creativity and Motor fitness component i.e. Flexibility, Static Balance**,** Coordination and Cardiovascular endurance of Dance group were found0.272, 0.318, 0.140 and -0.157respectively and all the relationship were found not significant.

The relationship between Motor Creativity and Motor fitness component i.e. Flexibility, Static Balance**,** Coordination and Cardiovascular endurance of Aerobic group were found 0.215, 0.223, 0.233 and0.616respectively and all the relationship were found not significant.

The relationship between Motor Creativity and Motor fitness component i.e. Flexibility, Static Balance**,** Coordination and Cardiovascular endurance of Batakari group were found-0.530, -0.375, -0.156 and 0.251 respectively and all the relationship were found not significant.

Table 8: The Pearson Correlations between Motor fitness and Motor creativity of overall groups

Motor fitness component	Motor Creativity
	Overall group
Flexibility	-0.202
Balance	0.233
Coordination	-0.123
CVE	-0.021

*. Correlation is significant at the 0.05 level (2-tailed).
Df=58, 'r' value=0.255 at 0.05 level

From the table no- 8 it was observed that the relationship between Motor Creativity and Motor fitness component i.e. Flexibility, Static Balance**,** Coordination and Cardiovascular endurance of Overall group were found -0.202, 0.233, -0.123, -0.021respectively and all the relationship were found not significant.

Discussion

Dr. Ghosh. M.C (1988) [4] conducted a study on creativity, motor ability and motor creativity of adolescent student and he was conclude that the boys and athletes group is superior in all the test items than the girls and non athletes groups and it also found that creativity, motor ability and motor creativity are positively related with each other. In the present study the researcher did not found any relationship between fitness components and Motor Creativity, It may be due to small sample size.

Conclusion

On the basis of result and discussion the following conclusions were drawn. In Motor creativity Dance and Aerobic group is better than Bratachari group. Static Balance is better in Aerobic group than Dance and Bratachari group. Motor creativity is not related with motor fitnessand its components for all the three groups.

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