Effects of Peculiar beach Workout Program on Selected Motor Fitness Components among Intercollegiate Level Judokas

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***Abstract*— Judo requires a lot of athleticism, stamina, strength, joint flexibility and muscle elasticity. This research is about what happens when judoka does the necessary training on the beach sand. The purpose of the study is find out the effects of six week peculiar beach workout program on motor fitness components among intercollegiate level judokas. A total of 30 judokas both female and male at an age ranged between 18 to 20 years. The selected 30 subjects were divided in to two equal groups of 15 each, control group and experimental group. The following motor fitness variables were selected to meet the objective of the study Agility, Arm Strength, Flexibility, Cardiovascular endurance, Muscular Endurance, Muscular Strength. The experimental group had to undergo peculiar beach training program for a period of 8 weeks. The control group was not involved in peculiar beach training. The peculiar beach training included exercise for whole body. Total duration of warm up, peculiar beach training and cool down sessions was of 45 minutes. The intensity of the exercise increased accordingly 65-70 % upto 85-90% at the end of program. Conclusion : The experimental group have significant improvement of selected motor ability namely Agility, Balance, Flexibility, Cardiovascular Endurance, Muscular Endurance (Upper Body), Muscular Endurance (core), and Muscular Strength due to the peculiar beach Training programme, The significant difference between experimental and control group on selected motor components occurred due to the peculiar beach training programme.**

INTRODUCTION

Athletes train in a structured and focused manner to reach a certain goal. The goal of training is to improve an athlete's skills and work capacity so that they can perform at their best. Training lasts a long time and involves a variety of physiological, psychological, and sociological factors. Human physiological and psychological systems are mimicked to meet difficult demands throughout training. Physical perfection denotes a multifaceted, harmonious growth. The athlete develops a wide range of talents, cultivates favourable psychological traits, and stays in good physical shape. Physical excellence should be achieved by a well-organized and well-planned training programme based on real-world experience and the use of scientifically validated methods.

Every game necessitated a high level of physical fitness and skill proficiency. The question that emerges in everyone's mind now is "what does the phrase 'physical fitness' refer to?" Fitness is extremely unique to the sports or activities that a person participates in. Soccer, for example, necessitates a different level of fitness than rugby, hockey, or squash. Soccer players must have a high level of endurance, upper and lower body strength, flexibility, agility, and speed.

A training programme is a set of exercises meant to improve an athlete's skills and raise their energy capacities in preparation for a certain event (Edward 1984). In sports, the phrase 'training' is commonly used. Some professionals, particularly those in sports medicine, regard sports training as little more than physical activity. Training is the whole process of a sportsman's preparation for higher performance through various means and forms.

Speed, strength, endurance, agility, flexibility, and other factors influence a sportsman's performance in any game or event. The development of talent in specific sports has only one purpose: it allows you to utilise your muscle strength more efficiently. As a result, skill is crucial. But, in the end, the muscles are the ones that do the work. Even if an athlete has

exceptional skill, excellent physical condition, ideal body proportions, and superior neurological efficiency, he can never achieve the level of performance that he is capable of without optimal muscle development. Because, while those things help the muscles, the muscles are the ones that do the work.

Beach workout bodies are comprised of, well, sand, if we're being literal when it comes to a beach body. Sure, it's great to have, your abs, gluten, and Pecs in check on the aesthetic front, but you know a body that'll power through a day in the sand and surface; rather than posting up in a cramped beach chair under and Sure, it's great to have, your abs, gluten, and Pecs in check on the aesthetic front. However, having them powering on the functionality front elevates a beach bay to a whole new level of pleasure in the sun.Take, for example, a few beach day activities. If you've ever found yourself stumbling through a game in the sand while controlling the game on the field or court, it's bee volley ball soccer.

Judo is a fantastic physical activity as well as an intriguing 'hybrid' art form. It appeals to individuals who want to get in shape, have fun, and learn self-defense, as well as those who have more serious ideas about life and man's attempts to control and comprehend himself. Judo requires a lot of athleticism, stamina, strength, joint flexibility and muscle elasticity. This research is about what happens when judoka does the necessary training on the beach sand.

STATEMENT OF THE PROBLEM

The purpose of the study is find out the effects of six week peculiar beach workout program on motor fitness components among intercollegiate level judokas

DELIMITATIONS

The study was delimited in the following factors

1 The study was conducted on student of intercollegiate level judokas of both female, and male in calicut university campus.
2 The age range between 18-20 years.
3 The selected motor fitness variables were namely Agility, Balance, Flexibility, Cardiovascular Endurance, Muscular Endurance (Upper Body), Muscular Endurance (core), and Muscular Strength.
4 Total duration of the program was 8weeks.

LIMITATION

1 The heredity and environment factors which influence the criterion variable was recognized as limit.
2 The mode of subject, living condition, lifestyle, family condition and personal habit was limitation on the study.
3 The psychological attitude of subject
4 The climatic condition was not taken into consideration.

HYPOTHESIS

There will not be any significant difference in the selected Motor Fitness variables after eight weeks of peculiar beach training among intercollegiate level judokas.

SIGNIFICANT OF THE STUDY

1. The finding of the study provides a great variable feedback to improve on coaching programs.
2. Study contribute a new method for developing specific motor fitness to judokas.
3. The results of the study might to be helpful for the budding researchers in future to develop more studies about various training methods.
4. The results of the study may help the physical educationist and coaches to use these training methods to improve physical fitness of their players

METHODS

Selection of subject

A total of 30 judokas both female and male at an age ranged between 18 to 20 years. The selected 30subjects were divided in to two equal groups of 15each, control group and experimental group.

Selection of variables

Taking in to consideration all these factors a set of variables was selected to test on selected subject for observing the variations in their levels due to the peculiar beach training effect. The following motor fitness variables were selected to meet the objective

of the study Agility, Arm Strength, Flexibility, Cardiovascular endurance, Muscular Endurance, Muscular Strength.

Selection of Test

The present study undertaken primarily to assist the effect of peculiar Beach training program on selected motor abilities of intercollegiate level judokas. The reach scholar analyzed various a variable literature, had consulted a expects in the field of physical education and selected the following standardized test items to collect relevant data on the selected dependent variables and they were presented in Table

Table 1

Sl. No.	Variables	Test	Unit of measures
1	Agility	Shuttle run	Second
2	Balance	Stork balance stand test	Minutes and second
3	Flexibility	Sit and reach	Centimetres
4	Cardiovascular Endurance	1mile run	Time
5	Muscular Endurance (Upper Body)	Push Up	Number
6	Muscular Endurance (core)	Sit Up	Number
7	Muscular Strength	Pull Up	Number

ADMINISTRATION OF THE TRAINING PROGRAMME

The experimental group had to undergo peculiar beach training program for a period of 8 weeks. The control group was not involved in peculiar beach training. The peculiar beach training included exercise for whole body. Total duration of warm up, peculiar beach training and cool down sessions was of 45 minutes. The intensity of the exercise increased accordingly 65-70 % upto 85-90% at the end of program.

STATISTICAL PROCEDURE

The analysis of co-variance (ANCOVA) was used as a statistical tool to determine the significant difference on the data of pre and post mean obtained for Agility, Speed, Flexibility, Balance, Cardio vascular endurance, Coordination. Among control and experimental group. The level of significant is fixing at 0.05 level of confidence. And LSD post – hoc test is also used as statistical

ANALYSIS OF DATA

In the influence of peculiar beach training on 8 week Agility, Speed, Flexibility, Balance, Cardiovascular endurance, Coordination. Were determined by statistically examine collected data by applying analysis of co-variance (ANACOVA) Are presented below.

LEVELS OF SIGNIFICANCE

The probably level below which we reject the hypothesis is termed as the level of significance. The F-ratio obtained by analysis of co-variance needs to we significant at 0.05 level of confidence.

Descriptive Statistics

Experiment pre test

Statistics

		Agility	Flexibility	Balance	CVE	MEU	MSU	MECore
N		15	15	15	15	15	15	15
Mean		13.0167	1.8067	11.9667	11.9820	20.0000	24.1333	56.2667
Median		13.0600	1.7000	13.1500	12.3400	19.0000	23.0000	55.0000
Mode		10.59[a]	1.20[a]	10.56[a]	10.51[a]	15.00[a]	18.00[a]	50.00[a]
Std. Deviation		1.68052	.50915	3.76073	1.14656	5.09902	6.62103	12.46977
Skewness		.070	.573	-.336	-.338	.504	.650	-.392
Std. Error of Skewness		.580	.580	.580	.580	.580	.580	.580
Kurtosis		-1.182	-.830	-.374	-1.437	-.665	.189	-.097
Std. Error of Kurtosis		1.121	1.121	1.121	1.121	1.121	1.121	1.121
Range		5.05	1.60	13.20	3.14	16.00	24.00	45.00
Minimum		10.59	1.20	5.00	10.34	13.00	15.00	30.00
Maximum		15.64	2.80	18.20	13.48	29.00	39.00	75.00
Percentiles	25	11.1800	1.4000	10.5600	10.5100	15.0000	18.0000	50.0000
	50	13.0600	1.7000	13.1500	12.3400	19.0000	23.0000	55.0000
	75	14.9800	2.3000	14.5400	13.0000	24.0000	29.0000	68.0000

a. Multiple modes exist. The smallest value is shown

Experiment post test

Statistics								
		Agility	Flexibility	Balance	CVE	MEU	Muscular Strength	MECore
N		15	15	15	15	15	15	15
Mean		15.3053	2.8867	14.0860	11.1480	23.0667	27.9333	56.2000
Median		15.2800	2.8000	15.1700	11.5200	22.0000	28.0000	56.0000
Mode		14.26[a]	2.40[a]	7.00[a]	11.33[a]	19.00[a]	26.00	32.00[a]
Std. Deviation		1.46626	.48970	3.60057	1.18994	6.08824	5.96977	13.97038
Skewness		-.019	.371	-.424	-.600	.826	.252	-.357
Std. Error of Skewness		.580	.580	.580	.580	.580	.580	.580
Kurtosis		-.682	-.838	-.048	-1.307	-.042	.453	-.646
Std. Error of Kurtosis		1.121	1.121	1.121	1.121	1.121	1.121	1.121
Range		4.94	1.60	13.02	3.14	21.00	23.00	44.00
Minimum		12.70	2.20	7.00	9.33	15.00	18.00	32.00
Maximum		17.64	3.80	20.02	12.47	36.00	41.00	76.00
Percentiles	25	14.2600	2.4000	12.5700	9.5900	19.0000	24.0000	47.0000
	50	15.2800	2.8000	15.1700	11.5200	22.0000	28.0000	56.0000
	75	16.9800	3.3000	16.5400	12.0400	27.0000	32.0000	70.0000
a. Multiple modes exist. The smallest value is shown								

Analysis of Covariance

Agility

Dependent Variable: post_exp						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Model	5776.097[a]	3	1925.366	2440.745	.000	.996
exp_grp	48.226	2	24.113	30.568	.000	.694
pre_exp	28.478	1	28.478	36.101	.000	.572
Error	21.299	27	.789			
Total	5797.396	30				
a. R Squared = .996 (Adjusted R Squared = .996)						

From the table we see that there is significant difference between experiment group and control group in shuttle run at the 0.05 level of significance. The F value for comparison between Experiment and Control group is 30.568 and p value is <0.0001.

Flexibility

Dependent Variable: post_exp						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Model	151.118[a]	3	50.373	1981.013	.000	.995
exp_grp	6.592	2	3.296	129.615	.000	.906
pre_exp	3.383	1	3.383	133.042	.000	.831
Error	.687	27	.025			
Total	151.805	30				
a. R Squared = .995 (Adjusted R Squared = .995)						

From the table we see that there is significant difference between experiment group and control group in sit and reach at the 0.05 level of significance. The F value for comparison between Experiment and Control group is 129.615 and p value is <0.0001.

Balance

Dependent Variable: post_exp						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Model	4538.790[a]	3	1512.930	267.030	.000	.967
exp_grp	92.898	2	46.449	8.198	.002	.378
pre_exp	76.526	1	76.526	13.507	.001	.333
Error	152.976	27	5.666			
Total	4691.766	30				
a. R Squared = .967 (Adjusted R Squared = .964)						

From the table we see that there is significant difference between experiment group and control group in balance at the 0.05 level of significance. The F value for comparison between Experiment and Control group is 8.198 and p value is 0.002.

Cardiovascular endurance

Dependent Variable: post_exp						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Model	3877.352[a]	3	1292.451	2473.111	.000	.996
exp_grp	.205	2	.103	.196	.823	.014
pre_exp	23.909	1	23.909	45.751	.000	.629
Error	14.110	27	.523			
Total	3891.462	30				
a. R Squared = .996 (Adjusted R Squared = .996)						

From the table we see that there is no significant difference between experiment and control groups in cardiovascular at the 0.05 level of significance. The F value for comparison between Experiment and Control group is 0.196 and p value is 0.823 (>0.05).

Muscular Endurance (Upper Body)

Dependent Variable: post_exp						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Model	11362.233[a]	3	3787.411	753.202	.000	.988
exp_grp	9.215	2	4.607	.916	.412	.064
pre_exp	496.900	1	496.900	98.818	.000	.785
Error	135.767	27	5.028			
Total	11498.000	30				
a. R Squared = .988 (Adjusted R Squared = .987)						

From the table we see that there is no significant difference between experiment and control groups in push ups at the 0.05 level of significance. The F value for comparison between Experiment and Control group is 0.916 and p value is 412 (>0.05).

Muscular Endurance (Upper body)

Dependent Variable: post_exp						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Model	13244.677[a]	3	4414.892	632.968	.000	.986
exp_grp	93.547	2	46.773	6.706	.004	.332
pre_exp	448.344	1	448.344	64.280	.000	.704
Error	188.323	27	6.975			
Total	13433.000	30				
a. R Squared = .986 (Adjusted R Squared = .984)						

From the table we see that there is significant difference between experiment group and control group in pull ups at the 0.05 level of significance. The F value for comparison between Experiment and Control group is 6.706 and p value is 0.004.

Muscular Endurance (core)

Dependent Variable: post_exp						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Model	57180.778[a]	3	19060.259	257.028	.000	.966
exp_grp	387.266	2	193.633	2.611	.092	.162
pre_exp	1067.911	1	1067.911	14.401	.001	.348
Error	2002.222	27	74.156			
Total	59183.000	30				
a. R Squared = .966 (Adjusted R Squared = .962)						

From the table we see that there is no significant difference between experiment and control groups in sit ups at the 0.05 level of significance. The F value for comparison between Experiment and Control group is 2.611 and p value is 0.092 (>0.05).

SUMMARY AND CONCLUSION

Peculiar Beach workout modes are made in well, the sand that is if were being rather literal when it comes to a beach bodyFor instance let's take a few beach day activities. For is bee volley ball soccer; if you have found your self straggling through a play in the sand while you own the game on the field or court its because physical activity on a constantly shifting and charging surface more muscles per movement while calling for not only increased power and strength but also stability.

The purpose of the study was to find out the effect of peculiar beach Training on selected motor components of inter collegiate level Judokas. To achieve the purpose of the present both male and female students, aged between 17 and 20 years. The selected 30 subjects were divided in to two equal groups of 15 each, 15 controlled group 15 experimental group. The experimental underwent the peculiar Beach Training and control group; they didn't take part in specific activities. The following variables selected as criterion variables namely Agility, Balance, Flexibility, Cardiovascular Endurance, Muscular Endurance (Upper Body), Muscular Endurance (core), and Muscular Strength. all the subjects were tested on selected criterion variables prior to and immediately after the 8 week training period.

The collected data were statistically analyzed with ANACOVA to determine whether the programs of the training produced significant improvement in the selected motor abilities after 8 weeks of training. In all the conditions the significant level was fixed at 0.05 level of confidence which was considered to be appropriate. The significant difference of pairs of adjusted final group means was tested for significance by applying LSD post –hoc test.

CONCLUSION

1 The experimental group have significant improvement of selected motor ability namely

Agility, Balance, Flexibility, Cardiovascular Endurance, Muscular Endurance (Upper Body), Muscular Endurance (core), and Muscular Strength due to the peculiar beach Training programme.

2 The significant difference between experimental and control group on selected motor components occurred due to the peculiar beach training programme.

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