

Traditional Games Training Impact on Health Fitness Variables among the Rural and Urban Boys Aged 10-12 Years

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Abstract – The study titled as “Traditional Games Training Impact on Health Fitness Variables among the Rural and Urban Boys Aged 10-12 Years” was done to study the effect of traditional games on the health related variables. In the past, the role of traditional games as an instrument for improving various components of health and fitness was under studied. Very few studies were available on this topic. This study was carried out on elementary school going boys of age 10 to 12 years of both rural and urban area in Sangrur district of Punjab. Total 60 students were studied. Students were provided with 8 week training of folk games and during the course various health related variables were recorded. The readings were taken on three different intervals which are pre- training, mid- training and post-training. There were randomly selected groups namely, Control group and experimental group. The data was analyzed with the help of the “t”-test. The level of significance was set as 0.05%. Outcome of the study showed an overall improvement in all variables in both the groups but significant development was noted in the experimental group. This signifies the role of folk games as an instrument to improve various components of fitness, fundamental skills, locomotor abilities, object control etc.

Key words: Folk Games, Traditional Games, Rural Games, Health, Fitness.

INTRODUCTION

The term “folk” was derived from a German word “fulka” which means people. The common people of a society or region are considered as the representatives of a traditional way of life and those are the original carriers of the customs, beliefs and arts that make up a distinctive culture. So the folk games are those activities which are being performed by common people (children and adult) to make themselves fit and healthy through enjoyment. Folk games are a form of structured play, have an objective, have rules, have variability and generally need no special equipment or specific playing area. Folk games come naturally to people of certain area of region. These games can be played individually or by a group. They are often very convenient to play because of simplicity of its rules.

Literature of folk games is a way of enjoyment, healthy life style and also includes fitness and skill perspective of sports. It also enhance the fundamental motor skills which in fact help the children control their bodies, manipulate their

environment and any complex skills and movement patterns involved in sports and other recreational activities. (Davis et al 1991, Payne et al 2002). The development of these fundamental motor skills is very crucial. In those early years of life for the children because it was reported in the literature that failure to develop and refine fundamental motor skills during the crucial pre-school and elementary school years often leads children to frustration and failure to develop specialized movements during adolescence and adulthood. (Gallahue et al 2003). This means that poor performance in fundamental motor skills jeopardizes future physical activities and daily life activities as well. These fundamental motor skills do not simply develop as a result of age (Payne et al 2002) i.e. children cannot rely solely on maturation to reach the mature stage in their fundamental motor abilities. Environmental conditions that include opportunities for practice, encouragement and instruction are crucial to the development of fundamental motor skills. (Gallahue et al, 2006).

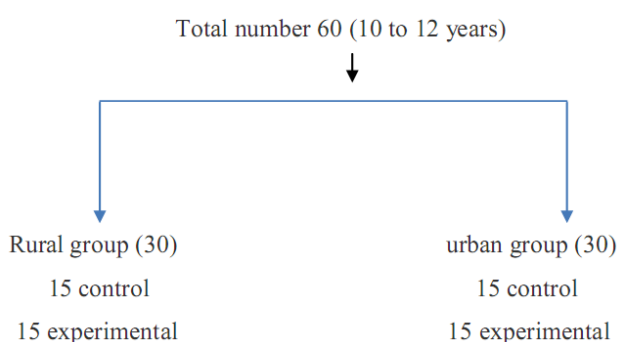
Traditional games are diverse and culturally important. Skills required for these four games are

well matched with health, health fitness and sports skill perspective. At this point traditional game program is more effective than daily activity in order to develop object control, locomotor and fundamental skills (Hakimesh et al 2009). In traditional games there are various kinds of activities which provide vast motor experiences but in daily activities they are not exposed to such motor experiences. Thus their skills don't get a chance to develop and children develop a low level of fitness. In our modern society children often play mobile or computer based games which make them immobile so children don't improve their health related fitness. Therefore the role of folk games becomes very important because they provide the easiest and most convenient alternate. Feelings of folk is not only limited to villagers (Kirkpalkzak 2005). Folk word is not only for villagers it's for whole nation.

MATERIAL AND METHOD

The study "Traditional Games Training Impact on Health Fitness Variables among the Rural and Urban Boys Aged 10-12 Years" has been carried out in elementary school of Sangrur district of (Punjab). A total number of 60 boys were selected of age group 10 to 12 years randomly from schools and the total number divided into two categories rural and urban based on the place of their residence accordingly. Then both groups were divided into sub categories under two groups viz. control and experimental.

- Rural control
- Rural experimental
- Urban control
- Urban experimental



Each experiment group has been allocated by random matching to traditional games programme of eight week training, while other control groups has been perform usual physical activities performed generally in school curriculum.

The eight week program of folk games includes the training of various traditional and folk games viz. Bandar Killa, Ruma-Chukna, Kotla-Chhpaki, Rope Skipping, Tug-of-War, Barf Jamauna (Freez Tag), Peecho, Mud wrestling and Freeze tag. For eight

weeks one game was performed and trained for 6 days of a week and on 7th day Tug of War was performed. This way all the nine games were practiced. Recording of the health related fitness variables was performed a day prior the commencement of the training on all the participants and referred as pre training values and the post training measurements were done at the end of eight weeks training programme.

RESULTS AND DISCUSSION:

Table 1

Rural Control PRE Vs Rural Control Post														
	BMI		800 MTR		pull ups		Bent Knee		Sit And		Skin Fold		HST	
							Sit Ups		Reach					
Mean	16.7	17.32	4.64	4.44	1.07	1.13	9.06	18.67	8.59	3.51	32.85	34.55	169.33	163.07
SD	2.27	2.41	0.69	0.75	1.29	1.5	6.39	4.5	7.57	3.75	10.27	15.31	19.32	20.92
T-test	0.725		0.76		0.12		4.76 *		2.38 *		0.36		0.85	

Table 1: Shown the comparison of rural control pre vs rural control post. BMI is 16.7 ± 2.27 (RC pre), 17.32 ± 2.41 (RC post), the value of "t" is 0.725 is non-significant differ at the level of 0.05 level of confidence. 800 meter run walk in minis 4.64 ± 0.69 (RC pre), 4.44 ± 0.75 (RC post), the value of "t" 0.76 is non-significant differ at the level of 0.05 level of confidence. Pull ups 1.07 ± 1.29 (RC pre), 1.13 ± 1.5 (RC post), the value of "t" 0.117 is non-significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 9.06 ± 6.39 (RC pre), 18.67 ± 4.5 (RC post) the value of "t" is 4.762 significant differ at the level of 0.05 level of confidence. Sit and reach in inches is 8.59 ± 7.57 (RC pre), 3.51 ± 3.75 (RC post) the value of "t" 2.375 is significant differ at the level of 0.05 level of confidence. sum of skin fold in mm is 32.85 ± 10.27 (RC pre), 34.55 ± 15.31 (RC post), the value of "t" is 0.357 is non-significant differ at the level of 0.05 level of confidence. HST is 169.33 ± 19.32 (RC pre), 163.07 ± 20.92 (RC post), the value of "t" is 0.851 is non-significant differ at the level of 0.05 level of confidence.

Table 2

Rural Experimental Pre Vs Rural Experimental POST														
	BMI		800 MTR		pull ups		Bent Knee Sit Ups		Sit And Reach		Skin Fold		HST	
Mean	19.65	18.81	4.32	3.99	0.6	1	15.27	15.87	3.36	4.23	45.95	41.97	183.08	163.47
SD	3.57	3.25	0.67	0.71	0.8	1.26	7.28	7.79	2.56	3.32	22.08	21.52	15.64	21.64
T-test	0.674		1.309		1.038		0.218		0.804		0.5		2.845 *	

Table 2: Show the comparison of rural experimental pre vs rural experimental post. BMI is 19.65 ± 3.57 (RE pre), 18.81 ± 3.25 (RE post), the value of "t" is 0.674 is non-significant differ at the level of 0.05 level of confidence. 800 meter run walk in min is 4.32 ± 0.67 (RE pre), 3.99 ± 0.71 (RE post), the value of "t" 1.309 is non-significant differ at the level of 0.05 level of confidence. Pull ups 0.6 ± 0.8 (RC pre), 1 ± 1.26 (RC post), the value of "t" 1.038 is non-significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 15.27 ± 7.28 (RE pre), 15.87 ± 7.79 (RE post), the value of "t" 0.218 is non-significant differ at the level of 0.05 level of confidence. Sit and reach in inches is 3.36 ± 2.56 (RE pre), 4.23 ± 3.32 (RE post), the value of "t" 0.804 is non-significant differ at the level of 0.05 level of confidence. Sum of skin fold in mm is 45.95 ± 22.08 (RE pre), 41.97 ± 21.52 (RE post), the value of "t" 0.5 is non-significant differ at the level of 0.05 level of confidence. HST is 183.08 ± 15.64 (RE pre), 163.47 ± 21.64 (RE post), the value of "t" 2.845 is significant differ at the level of 0.05 level of confidence.

Table 3

Urban Control Pre Vs Urban Control Post													
	BMI		800 MTR		pull ups		Bent Knee Sit Ups		Sit And Reach		Skin Fold		HST
Mean	18.49	18.79	5.23	5.04	0.6	0.67	12.13	15.93	2.86	3.59	43.64	42.81	173.73
SD	4.12	4.28	1.42	1.32	1.2	1.19	8.87	9.86	3.12	3.18	21.27	24.3	24.4
T-test	0.196		0.38		0.16		1.11		0.635		0.1		0.227

Table 3: Shown the comparison of urban control pre vs urban control post. BMI is 18.49 ± 4.12 (UC pre), 18.79 ± 4.28 (UC post), the value of "t" is 0.196 is non-significant differ at the level of 0.05 level of confidence. 800 meter run walk in min is 5.23 ± 1.42 (UC pre), 5.04 ± 1.32 (UC post), the value of "t" 0.38 is non-significant differ at the level of 0.05 level of confidence. Pull ups 0.6 ± 1.2 (UC pre), 0.67 ± 1.19 (UC post), the value of "t" 0.16 is non-significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 12.13 ± 8.87 (UC pre), 15.93 ± 9.86 (UC post), the value of "t" 1.11 is non-significant differ at the level of 0.05 level of confidence. Sit and reach in inches is 2.86 ± 3.12 (UC pre), 3.59 ± 3.18 (UC post), the value of "t" 0.635 is non-significant differ at the level of 0.05 level of confidence. Sum of skin fold in mm is 43.64 ± 21.17 (UC pre), 42.81 ± 24.3 (UC post), the value of "t" 0.1 is non-significant differ at the level of 0.05 level of confidence. HST is 173.73 ± 24.4 (UC pre), 171.93 ± 18.76 (UC post) the value of "t" 0.227 is non-significant differ at the level of 0.05 level of confidence. 3333

Table 4

Urban Experiment Pre Vs Urban Experiment Post													
	BMI		800 MTR		pull ups		Bent Knee Sit Ups		Sit And Reach		Skin Fold		HST
Mean	16.39	16.90	4.52	3.98	0.40	0.73	12.07	16.93	1.57	2.22	33.79	31.57	168.20
SD	3.21	3.12	1.06	0.86	0.61	0.85	6.96	6.61	1.99	2.44	16.19	14.44	22.74
T-test	0.441		1.532		1.222		1.961 *		0.886		0.396		0.018

Table 4: Shown the comparison of urban experimental pre vs urban experimental post. BMI is 16.39 ± 3.21 (UE pre), 16.90 ± 3.12 (UE post), the value of "t" is 0.441 is non-significant differ at the level of 0.05 level of confidence. 800 meter run walk in min is 4.52 ± 1.06 (UE pre), 3.98 ± 0.86 (UE post), the value of "t" 1.532 is non-significant differ at the level of 0.05 level of confidence. Pull ups 0.40 ± 0.61 (UE pre), 0.73 ± 0.85 (UE post), the value of "t" 1.222 is non-significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 12.07 ± 6.96 (UE pre), 16.93 ± 6.61 (UE post), the value of "t" 1.961 is significant differ at the level of 0.05 level of confidence. Sit and reach in inches is 1.57 ± 1.99 (UE pre), 2.22 ± 2.44 (UE post), the value of "t" 0.886 is non-significant differ at the level of 0.05 level of confidence. Sum of skin fold in mm is 33.79 ± 16.19 (UE pre), 31.57 ± 14.44 (UE post), the value of "t" 0.396 is non-significant differ at the level of 0.05 level of confidence. HST is 168.20 ± 22.74 (UE pre), 168.07 ± 16.96 (UE post) the value of "t" 0.018 is non-significant differ at the level of 0.05 level of confidence.

Table 5

Rural Control Pre Vs Rural Experimental Pre													
	BMI		800 MTR		pull ups		Bent Knee Sit Ups		Sit And Reach		Skin Fold		HST
Mean	16.7	19.65	4.64	4.32	1.07	0.6	9.06	15.27	8.59	3.36	32.85	45.95	169.33
SD	2.27	3.57	0.69	0.67	1.29	0.8	6.39	7.28	7.57	2.56	10.27	22.08	19.32
T-test	2.701 *		1.289		1.199		2.483 *		2.535 *		2.083 *		2.142 *

Table 5: Shown the comparison of Rural control pre vs rural experimental is pre .BMI 16.7 ± 2.27 (RC pre), 19.65 ± 3.57 (RE pre), the value of "t" is 2.701 is significant differ at the level of 0.05 level of confidence. 800 meter run walk in min is 4.64 ± 0.69 (RC pre), 4.32 ± 0.67 (RE pre), the value of "t" 1.289 is non-significant differ at the level of 0.05 level of confidence. Pull ups 1.07 ± 1.29 (RC pre), 0.6 ± 0.8 (RE post), the value of "t" 1.199 is non-significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 9.06 ± 6.39 (RC pre), 15.27 ± 7.28 (RE pre), the value of "t" 2.483 is significant differ at the

level of 0.05 level of confidence. Sit and reach in inches is 8.59 ± 7.57 (RC pre), 3.36 ± 2.56 (RE pre), the value of "t" 2.535 is significant differ at the level of 0.05 level of confidence. Sum of skin fold in mm is 32.85 ± 10.27 (RC pre), 45.95 ± 22.08 (RE pre), the value of "t" 2.083 is significant differ at the level of 0.05 level of confidence. HST is 169.33 ± 19.32 (RC pre), 183.08 ± 15.64 (RE pre), the value of "t" 2.142 is significant differ at the level of 0.05 level of confidence.

Table 6

Rural Control Post Vs Rural Experimental Post													
	BMI		800 MTR		pull ups		Bent Knee Sit Ups		Sit And Reach		Skin Fold		HST
Mean	17.32	18.81	4.44	3.99	1.13	1	18.67	15.87	3.51	3.59	34.55	42.81	163.07
SD	2.41	3.25	0.75	0.71	1.5	1.26	4.5	7.79	3.75	3.18	15.31	24.3	20.92
T-test	1.426		1.688		0.257		1.205		0.063		1.114		0.051

Table 6: Shown the comparison of Rural control post vs rural experimental post .BMI is 17.32 ± 2.41 (RC post), 18.81 ± 3.25 (RE post), the value of "t" is 1.426 is non- significant differ at the level of 0.05 level of confidence.800 meter run walk in min is 4.44 ± 0.75 (RC post), 3.99 ± 0.71 (RE post), the value of "t" 1.688 is non-significant differ at the level of 0.05 level of confidence. Pull ups 1.13 ± 1.5 (RC post), 1 ± 1.26 (RE post), the value of "t" 0.257 is non-significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 18.67 ± 4.5 (RC post), 15.87 ± 7.79 (RE post), the value of "t" 1.205 is non-significant differ at the level of 0.05 level of confidence. Sit and reach in inches is 3.51 ± 3.75 (RC post), 3.59 ± 3.18 (RE post), the value of "t" 0.063 is non-significant differ at the level of 0.05 level of confidence. Sum of skin fold in mm is 34.55 ± 15.31 (RC pre), 42.81 ± 24.3 (RE pre), the value of "t" 1.114 is non- significant differ at the level of 0.05 level of confidence. HST is 163.07 ± 20.92 (RC post), 163.47 ± 21.64 (RE post), the value of "t" 0.051 is non- significant differ at the level of 0.05 level of confidence.

Table 7

Urban Control Pre Vs Urban Experimental Pre													
	BMI		800 MTR		pull ups		Bent Knee Sit Ups		Sit And Reach		Skin Fold		HST
Mean	18.49	16.39	5.23	4.52	0.6	0.40	12.13	12.07	2.86	1.57	43.64	33.79	173.73
SD	4.12	3.21	1.42	1.06	1.2	0.61	8.87	6.96	3.12	1.99	21.27	16.19	24.4
T-test	1.557		1.552		0.575		0.021		1.35		1.427		0.642

Table 7: Shown the comparison of urban control pre vs urban experimental pre. BMI is 18.49 ± 4.12 (UC pre), 16.39 ± 3.21 (UE pre), the value of "t" is 1.557 is

non- significant differ at the level of 0.05 level of confidence.800 meter run walk in min is 5.23 ± 1.42 (UC pre), 4.52 ± 1.06 (UE pre), the value of "t" 1.552 is non- significant differ at the level of 0.05 level of confidence. Pull ups 0.6 ± 1.2 (UC pre), 0.40 ± 0.61 (UE pre), the value of "t" 0.575 is non-significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 12.13 ± 8.87 (UC pre), 12.07 ± 6.96 (UE pre) the value of "t" 0.021 is non-significant differ at the level of 0.05 level of confidence. Sit and reach in inches is 2.86 ± 3.12 (UC pre), 1.57 ± 1.99 (UE pre) the value of "t" 1.35 is non- significant differ at the level of 0.05 level of confidence. Sum of skin fold in mm is 43.64 ± 21.27 (UC pre), 33.79 ± 16.19 (UE pre) the value of "t" 1.427 is non- significant differ at the level of 0.05 level of confidence. HST is 173.73 ± 24.4 (UC pre), 168.20 ± 22.74 (UE pre), the value of "t" 0.642 is non- significant differ at the level of 0.05 level of confidence.

Table 8

Urban Control Post Vs Urban Experiment Post													
	BMI		800 MTR		pull ups		Bent Knee Sit Ups		Sit And Reach		Skin Fold		HST
Mean	18.79	16.90	5.04	3.98	0.67	0.73	15.93	16.93	3.59	2.22	42.81	31.57	171.93
SD	4.28	3.12	1.32	0.86	1.19	0.85	9.86	6.61	3.18	2.44	24.3	14.44	18.76
T-test	1.382		4.081 *		0.159		0.326		1.324		1.54		0.591

Table 8: Shown the comparison of urban control post vs urban experiment post.BMI is 18.19 ± 4.28 (UC post), 16.90 ± 3.12 (UE post), the value of "t" is 1.382 is non- significant differ at the level of 0.05 level of confidence.800 meter run walk in min is 5.04 ± 1.32 (UC post), 3.98 ± 0.86 (UE post), the value of "t" 4.081 is significant differ at the level of 0.05 level of confidence. Bent knee sit ups in 1 min is 15.93 ± 9.86 (UC post), 16.93 ± 6.61 (UE post) the value of "t" 0.326 is non-significant differ at the level of 0.05 level of confidence. Sit and reach in inches is 3.59 ± 3.18 (UC pot), 2.22 ± 2.44 (UE post) the value of "t" 1.324 is non-significant differ at the level of 0.05 level of confidence. Sum of skin fold in mm is 42.81 ± 24.3 (UC post), 31.57 ± 14.44 (UE post) the value of "t" 1.54 is non- significant differ at the level of 0.05 level of confidence. HST is 171.93 ± 18.76 (UC post), 168.07 ± 16.96 (UE post), the value of "t" 0.591 is non-significant differ at the level of 0.05 level of confidence.

CONCLUSION

Present study entitled "Traditional Games Training Impact on Health Fitness Variables among the Rural and Urban Boys Aged 10-12 Years" in which an evaluation has been made to study the effect of 8 weeks (as provided in literature) training of traditional folk games on the health related parameters viz. BMI,

800 meter run/walk (Cardiovascular endurance), Bent knee sit-ups (muscular strength and endurance), Sit and reach test (Flexibility), Sum of Skin fold (Body composition) and Harvard Step Test (Physical efficiency index). Study has shown that after the 8 week training of folk and traditional games the experimental groups in both categories Rural and Urban had shown improvement in various parameters. When we compare the improvement among rural and urban control Vs experimental groups then experimental groups had depicted better improvement and more favorable effects to training on boys aged 10-12 years. It also had been concluded that the traditional games training program positively effect on health fitness, socially behavior and sports skills. It has been recommended for future research that the training schedules and performance parameters of human body must be studied through the geographical, traditional and folk-lore cultural aspects, so that the real evolutionary trends will be presented for programming of human development.

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