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The Effectiveness Exercise Training Programs on the Flexibility and Agility Levels of Female Wrestling Players in North Karnataka

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Abstract – The fundamental motivation behind this examination was to analyze the impact of center activities on the adaptability and spryness of the wrestlers. This examination was directed with 30 wrestlers matured more than 18-25 years (54 -60 kg. weight category) from Hubbali and Dharwad District, Karnataka. The 30 wrestlers were separated into control and trial gatherings. The control aggregate comprised of 12 wrestlers and the exploratory gathering comprised of 18 wrestlers. While the control assemble proceeded with just routine wrestling works out, the trial amass was incorporated into center exercise for two months notwithstanding wrestling works out. SPSS was utilized for the measurable examination of the. There was a measurably critical distinction in the fat proportion in the control gathering; there was a huge change in the BMI esteems in the trial gathering. Factually noteworthy distinction was found in the twofold leg adaptability esteems at last test brings about the control gathering. At the point when the twofold leg adaptability and left leg adaptability pretest and post test scores of the exploratory gathering were looked at, a critical distinction was distinguished, yet no distinction was found in the correct leg adaptability esteem. A critical distinction was seen among the deftness esteems in the trial aggregate as indicated by the pre-test and last test esteems (p<0.05). As the outcomes propose one might say that the center preparing has a factually noteworthy impact on adaptability and deftness execution of wrestlers and it might be connected as a feature of preparing.

Key Words: Wrestling, Adaptability, Nimbleness, Ability Work Out.

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INTRODUCTION

The term core is often associated with a limited group of muscles, especially abdomens, in the popular media; However, other passive tissues, such as bones, cartilage and ligaments, are also important. The skeleton provides the structural frame of the body and acts as a lever mechanism that causes movement that controls or that prevents by means of the neurologically regulated production of muscle torque (muscle strength causing joint movement). The musculoskeletal system is similar to a kinetic chain (bones that attach to joints) consisting of rigid bones Willardson, 2018, which are connected via ligaments on the ligaments (connective tissue that attaches connective tissue). Core is also defined as the region between the rib cage and knees along with being focused on the abdomen, waist and hips.

The control and balance of body can be improved by core training, the risk of injury can be decreased by strengthening many large and small muscles, and the efficiency of the movements or the efficiency of transitions between movements increase depending on increasing in balance. The flexibility and agility are important in wrestling in which there is a transition between movements, and in which the techniques are performed repeatedly. Flexibility, mobility or patency of joint motion in the sports science are defined as the motion angle of twisting, turning, folding of joints within their normal patency. Agility is defined as a control and coordination skill that allows the body and joints to be in correct position in space during very rapid changing's in the direction along the movement sequence.

The aim of this study is to examine the effect of core exercises which will be regularly applied in addition to the training of the wrestlers who regularly exercise on the flexibility and agility of the wrestlers.

METHODOLOGY

Subjects : In the investigation, an aggregate of 30 wrestlers from Uttar Pradesh, who were on a normal 18-25 years of age, required in wrestling exercise frequently, did not have any medical issues, had no

damage over the most recent 6 months and deliberately eager to partake in the examination were chosen as the subjects.

VARIABLE & TOOLS

Body Mass Index (BMI): Estimations of body organization were performed with the TANITA BC-420SMA Body Composition Analyzer. It was focused that the gadget is on a level and inflexible floor. Competitors' feet were stripped amid the estimation and garments did not influence their weight were utilized. So as to make each foot is open similarly on gadget and weight was given similarly. It was guaranteed that body was upright and the eyes are pointed at a decided point on the inverse side. The individual who was in the anatomical condition on the gadget, did not move at all after the summon had been given yet it took after the orders. The body weight was consequently recorded by the gadget in kilograms (kg), the muscle to fat quotients was in rate (%), and the BMI esteems were in rate (%).

Flexibility: The sit and achieve flexibility test was connected for the versatility test estimation. Toward the start of the test, the correct body figure was exhibited all together that test could be performed effectively and appropriately by the subjects. The subjects were kept from turning his knees or pulling himself forward to the sit and achieve stand. The test was connected to each subject twice. The best of two trials esteem was recorded in centimeter (cm).

Agility: In the nimbleness test, a test parkour with a width of 5 meters, a length of 10 meters and comprises of three cones arranged 3.3 meters interims on a straight line in midpoint was set up in a shut games corridor with an engineered floor. The test comprises of 40-meter straight running and 20-meter slalom running between the cones, incorporating the 180º turns in each 10 meters. After the test track had been readied, a two-port photocell electronic timekeeping framework (Tümer Electronic LLC, Turkey) was introduced in the begin and end point keeping in mind the end goal to quantify with ± 0.01 second precision. It was guaranteed all subjects to play out the test twice and best appraising that was considered as substantial was utilized as a part of the examination.

Training Program: The preparation program that was connected on wrestlers depended on Willardson's (2018) book named 'building up the center'. There were 12 practices in the preparation program. These activities were connected to subjects of test gather as an expansion toward the finish of wrestling practices for 4 days in week. The act of the activities in the program begun with 6 reps in the main week and was expanded by 2 reps in every week. So when the subjects touched base at week 8, they as of now had polished each of the activities as 20 reps.

ANALYSIS OF DATA

SPSS bundle was utilized for the measurable investigation of the information. The mistake level was acknowledged as 0.05 for every single factual technique and the qualities above $p<0.05$ were viewed as huge. At the point when taken a gander at the Shapiro Wilk Test comes about, it was watched that there were deviations which were altogether not quite the same as typicality, in the scores acquired from the examination. At the point when taken a gander at the ordinary circulation bends, it was seen that there was unreasonable deviation from typicality. Moreover, when the coefficients of skewness and kurtosis were thought about, it was resolved that every one of the scores were inside the scope of ±2. Cooper and Cutting noticed that the ordinariness of the skewness and kurtosis esteems are inside the scope of ±2, is an appropriate circumstance (Cooper, 2015). Since, it was discovered that the scores were not at the extraordinary levels, were in the scope of ±2, and there were no inordinate deviations in the typical appropriation bends, parametric measurable methods were chosen to be utilized.

Table 2: Skewness-Kurtosis and Shapiro-Wilk test significance level results of the scores

Variables	N	Skewness	Kurtosis	P	N	Skewness	Kurtosis	P
Double Leg Flexibility Pre-Test	12	0.330	-1.630	0.30	18	-0.750	0.605	0.14
Right Leg Flexibility Pre-Test	12	-0.110	-1.920	0.34	18	-0.660	- 0.630	0.18
Left Leg Flexibility Pre-Test	12	0.230	-1940	0.10	18	-0.950	-0.180	0.06
Double Leg Flexibility Final Test	12	0.360	-1.566	0.35	18	-1.506	2.624	0.03*
Right Leg Flexibility Final Test	12	0.182	-1.750	0.38	18	-1.068	0.458	0.05*
Left Leg Flexibility Final Test	12	0.182	-1.960	0.24	18	-1.002	0.522	0.18
Agility Pre-Test	12	0.752	0.936	0.75	18	0.350	- 0.010	0.65
0	12	1.310	1.915	0.25	18	1.120	0.440	0.05

RESULTS

As a result of the research, flexibility and agility values of the wrestlers are as follows.

Table 3: Comparing of control and experimental group pre-test and Post-test values in group

Group	Variable	N	X	±SS	t	p
Control Group	Weight Pre-Test	12	78.20	26.42	1.355	0.211
	Weight Final Test	12	77.79	26.53		
	Fat Pre-Test	12	12.49	7.23	3.894	0.006*
	Fat Final Test	12	11.08	6.60		
	BMI Pre-Test	12	25.94	5.84	1.325	0.220
	BMI Final Test	12	25.80	5.87		
Experimental Group	Weight Pre-Test	18	77.37	20.53	-1.024	0.322
	Weight Final Test	18	78.3	20.4		
	Fat Pre-Test	18	10.06	5.13	188	0.845
	Fat Final Test	18	9.2	5.00		
	BMI Pre-Test	18	25.46	5.04	-2.248	0.038*
	BMI Final Test	18	25.80	5.05		

$p<0.05$*

At the point when the last test esteems were inspected, it was clear that the control assemble had a weight normal of 77.79 ± 26.53, fat normal of 11.08

± 6.60 and a body mass record (BMI) of 25.80 ± 5.87, and no critical contrast was found (p>0.05). In any case, it was resolved that there was a factually critical distinction in the fat proportion of the control gathering (p<0.05). While in the test gathering, there was no factually critical contrast between the qualities which are weight normal of 78.3 ± 20.4, fat normal of 9.2 ± 5.05, and body mass list (BMI) of 25.80 ± 5.05 (p>0.05). In any case, it was resolved that there was a measurably huge contrast in BMI esteems (p>0.05).

Table 4: Comparing of pre-test values of control and experimental group athletes

Variable	Group	N	x	±SS	t	p
Double Leg Flexibility	Control	12	31.26	3.08	-1.435	0.163
	Experiment	18	37.38	2.63		
Right Leg Flexibility	Control	12	30.39	2.62	-0.443	0.654
	Experiment	18	32.02	2.24		
Left Leg Flexibility	Control	12	30.58	2.90	-0.452	0.650
	Experiment	18	32.27	2.19		
Agility	Control	12	15.73	2.24	-1.125	0.271
	Experiment	18	17.65	0.13		

In Table 5, it was not watched any noteworthy distinction between pre - test estimations of twofold leg adaptability, right leg adaptability, left leg adaptability and deftness scores of the control gathering and test gathering (p<0.05).

Table 5: Comparing of Post test values of control and experimental group athletes

Variable	Group	N	x	±SS	t	p
Double Leg Flexibility	Control	12	33.01	8.82	-1.447	0.163
	Experiment	18	39.49	10.65		
Right Leg Flexibility	Control	12	30.51	8.60	-0.846	0.415
	Experiment	18	33.95	9.47		
Left Leg Flexibility	Control	12	30.33	8.90	-1.097	0.283
	Experiment	18	34.62	8.79		
Agility	Control	12	17.84	1.79	1.940	0.061
	Experiment	18	16.98	0.84		

At the point when Table 6 was inspected, the distinction in the adaptability and spryness last test estimations of the control and trial gather was not discovered huge.

Table 6: Comparing of the pre-test and Post test elasticity and agility values of control group subjects

Variable	N	x	±SS	t	p
Double Leg Flexibility Pre-Test	12	31.26	8.81	-3.637	0.003*
Double Leg Flexibility Final Test	12	33.01	8.82		
Right Leg Flexibility Pre-Test	12	30.39	7.50	-0.137	0.894
Right Leg Flexibility Final Test	12	30.51	8.60		
Left Leg Flexibility Pre-Test	12	30.58	8.31	0.262	0.792
Left Leg Flexibility Final Test	12	30.33	8.90		
Agility Pre-Test	12	17.68	0.85	-0.445	0.668
Agility Final Test	12	17.72	0.83		

p<0.05*

At the point when Table 7 was analyzed, while it was seen that there was factually noteworthy distinction between the pre and last test twofold leg adaptability estimations of the control gathering (p<0.05), it was not seen any measurably huge contrast between right leg adaptability, left leg adaptability and spryness scores (p<0.05).

Table 7: Comparing of pre-test and Post test elasticity and agility values of experimental group athletes

Variable	N	x	±SS	t	p
Double Leg Flexibility Pre-Test	18	37.38	10.00	-2.385	0.030*
Double Leg Flexibility Final Test	18	39.49	10.65		
Right Leg Flexibility Pre-Test	18	32.02	8.52	-1.416	0.177
Right Leg Flexibility Final Test	18	29	9.47		
Left Leg Flexibility Pre-Test	18	32.27	8.34	-3.354	0.005*
Left Leg Flexibility Final Test	18	34.62	8.79		
Agility Pre-Test	18	17.65	0.61	4.830	0.000*
Agility Final Test	18	16.98	0.84		

p<0.05*

At the point when Table 7 is analyzed, there is a measurably noteworthy contrast between the pre-test and last test twofold leg adaptability estimations of the trial gathering (p<0.05). There was no measurably noteworthy contrast between right leg adaptability scores as per last test outcomes (p<0.05); When the left leg adaptability scores were thought about, the adaptability scores demonstrated a factually critical distinction (p<0.05) as per the last test outcomes. There was a critical contrast between the spryness esteems as per the pre-test and last test estimations of exploratory gathering (p<0.05).

CONCLUSIONS

Because of the investigation, while there was a measurably huge distinction in the control aggregate as far as the fat proportion, there was a noteworthy change in the BMI esteems in the test gathering (Table 3). A measurably critical distinction was found in the last test consequence of the control gather as far as the twofold leg adaptability esteems (Table 6). At the point when the pre-test and last test twofold leg adaptability and left leg adaptability scores of the trial bunch were looked at (p>0.05), a critical contrast was found between them, however it was not discovered huge distinction in the correct leg adaptability esteem (Table 7) and also there was a measurably huge contrast in deftness execution in the trial assemble after the finish of two months (p>0.05). In the light of the insights, one might say that center preparing can give a factually beneficial outcome right this minute leg adaptability, left leg adaptability and spryness esteems in wrestlers. Center preparing is subsequently thought to be appropriate as a piece of wrestling preparing.

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