

INVESTIGATION OF PHYSICAL PARAMETERS OF TURKISH FOLK MALE DANCERS WHO PLAY DIFFERENT REGIONAL DANCES

MUSTAFA KAYA¹, YAHYA POLAT², YAKUP PAKTAŞ¹, ÇAĞRI ÇELENK³, VEDAT ÇINAR⁴

¹Gaziosmanpaşa University School of Physical Education and Sports, Gaziosmanpaşa University, Tokat/ TURKEY

²Erciyes University School of Physical Education and Sports, Erciyes University, Kayseri/ TURKEY

³Gazi University, School of Physical Education and Sports, Gazi University, Ankara/ TURKEY

⁴Adıyaman University School of Physical Education and Sports, Adıyaman University, Adıyaman/ TURKEY

Abstract

The purpose of this study is to investigate the male and female halay, horon and zeybek Turkish folk dancers' characteristics and compare them according physical parameters .

Totally 118 voluntary male dancers at least 5 years experience in halay, horon and zeybek had participated to the study.

In this research age, height, weight, anaerobic power, speed, flexibility, reaction time, leg force and body fat percentage of the groups had measured. The statistical analysis of data had calculated in the computer by SPSS 10.0 package program. The significant level had taken as 0.05 and 0.01 ($p < 0.05$ and $p < 0.01$)

In the study it had found out that there's significant importance in the speed, anaerobic power, flexibility, reaction time, leg force and body fat percentage in the level of significant difference in groups. ($p < 0.05$)

As a result; at the end of dances exercises, it had found out dancers that playing halay and horon, which practicing physical activities more intensively, have more positively affected values of flexibility, speed, body fat percentage and reaction time according to zeybek dancers.

Key Words: Turkish Folk Dances, Halay, Horon, Zeybek

Purpose

Have different cultures in social structures, the nature, the climate and the geographical conditions has been seen the diversity which it has added to the folk dances clearly. (Ş. Baykurt, 1996, R.Su, 2000) There are different species at Turkish Folk dances (halay, horon, zeybek) This dances figure features are different than each other. The movement with respect to diversity, Turkish folk dances which have a very rich constructions, according to playing time and playing speed, the can live on the players' some physical features. However, based on skills and a high degree of difficulty of movements of the game, uninterrupted, back to back and made a long time, motoric characteristics of the players has been also contributed to the development (A. Mis, 2001) In order to be able to make the movements which the games has necessitated the players' physical appropriateness is suitable of their levels necessary. Physical appropriateness develops with the regular exercises. (A. Ünveren, 1997) Consisting of complex movements, such as folk dance aerobic and anaerobic exercise is effective in the development of physical fitness. (G. Baltacı, 1996). Incorporates many different features of the regional diversity of Turkish Folk, can show different effects in terms of physical and physiological on players who plays this sites. The existing literature on information that is not enough requires such a study. In the study, it is aimed determining the physical features of the man players who plays the games "horon", "zeybek" and "halay" at least five years and comparing the physical parameters of them.

METHODS

In the study, 118 volunteers who are male spotmen from three different regions were selected. Before the measurements, the pre-warm up exercises was performed for 15 minutes by the players.

Measurements of height and body weight:

Volunteer of the body weight was measured with the weighing instrument which has 0.01kg sensitivity. During the measurements, it was considered that the athletes were being barefoot and the shorts and t-shirts on them. In this case, volunteers were allowed to stand upright and the height of the volunteers received tapes with.

Measuring vertical jump: This study has been done to find the maximal anaerobic power of the legs of the volunteers. Volunteers, while in the upright position by extending one arm above the point where the fingertips touch the marked. After the jump with all the force and can jump straight to the top spot has been marked (N. Akgün, 1994) As a result of the test, using the formula given below Liwis'in anaerobic power of the legs was calculated. (E, L Fox, 1998) $P = \text{Anaerobic power}$
 $W = \text{Body weight}$
 $D = \text{Vertical jumping distance}$
(m) $P = \sqrt{4.9 \times W \times \sqrt{D}}$

Speed Measurement: Volunteers waited in 30-meter track at the starting line. By the giving mark, the sportsmen run the 30 meters course

Flexibility measurement: Sit and Reach Stand was used in measurements. Volunteers, sat in a parallel manner and legs in straight position and without bending their knees laying the ruler on the table was pushed. (Y. Sevim, 1995)

Reaction Time Measurement: The Hubbat Reaction Time Battery was used for measurement.

And also the reaction time of volunteers was measured for light and voice. The test were repeated (right hand - sound, left hand - sound, right hand - light, left hand - light, mixed sound from right or left side) 10 times for each of volunteers during the measurement

.Legs Force Measurement: The measurements was performed by Back Strength Dynamometre. The voluntary pressed with both feet on dynamometer, held on the hadle which is connected to the steel cables and pulled the handle with all strength. After that the measured value on the dynamometer were recorded as kg. (K. Tamer, 2000).

Body Fat Measurement: Lange Skinfold Kaliper tool was used for measurements. The measurements were obtained from 6 regions of the body (Breast, Biceps, Triceps, İliac, Subscapula, Abdominal.

Anaerobic Endurance Measurement: Hexagonal Obstacle Test was applied (a hexagonal each of edge is 60 cm was drawn on the ground). Each edge of the hexagon is marked by the literals from A to F. (W. Kiber, 1998) The result of the test was recorded by the chronometer. The volunteers was moved in a clockwise direction: A, B, C, D, E, F, A, anticlockwise direction: F, E, D, C, B, A and clockwise direction: B, C, D, E, F

Results.Results are shown in table 1.

Conclusions.Aerobic power between the ages of 18-25 has the highest levels. A gradual decrease is observed after this age. (T. Bompa, 1986) Skip, jump, roll and downfall, as such actions are implemented mandatory in Turkish Folk Dance. Anaerobic power system is therefore significantly affected. (Ş. Ünal, 1992) It is think that the often used movements downfall and jumping in Halay may affect the anaerobic power of the players. It is thought that the contribution of falk dance training at the speed of development is very small, however it is thought that it supplies a positive contribution on the side of physical and physicalical for players during the training. (Z. Gerek, 2007) Despite the training speed is

less developed. It is thought that Folk dances are not for speed work don't supply an important contribution.

The joint properties and the structure of muscle can affect flexibility. (S. Muratlı,2005) Ünveren have found that an increase in the flexibility of folk dance group with regular three months training (A. Ünveren, 1997) In the study, there is a significant difference in favor of the players who play Horon region. Having a lot of movement which affect the flexibility in Horon region Folk dance and recurrence of this actions can increase the flexibility of the players. Leg strength in the people who play Folk dance is more advanced than players who do not. This is because of the people play Folk dance as active and are working at high speed. (Ş. Ünal, 2004) Having the figures such as jump, skip or downfall which perform the leg muscles Folk dance training and the recurrence them in training can affect the leg strength of the players. (Ş. Günay 1992) It is thought that Halay and Horon Folk Dances which have particularly more movements perform the leg muscles increase the leg strength more than Zeybek Folk Dace. In literature, there have not been a study about anaerobic flexibility of Horon , Zeybek and Halay Folk dances. According to obtained data the anaerobic endurance of horon players are more positive than other local players. Horon dances are played for a long time at a high tempo so that it is a very forcibly structure in terms performance for the players. The more physical activity and the more speed of the game cause a decrease of body fat. (A. Gupta, 2005) Adiloğulları and his friends has found that the players of the Horon Dances have less body fat than Halay Dances. (İ. Adiloğulları, 2007). The training time, the frequency of training and the force of the training are the factors of decreasing the percent of body fat. (Ö. Şenel,1991). Because of the speedy structure of Horon and Halay the players who play these dances may have less percent of body fat. Whereas it is thought that the players of Zeybek with low tempo may have more percent of body fat.

Table 1:The comparison of physical properties of the group

Variable	Halay N=34 X ± SD	Horon N=45 X ± SD	Zeybek N=9 X ± SD	F	p
Year (yıl)	23,5 ± 6.04 ^{ab}	21,1 ± 2.46 ^a	25,1 ± 3.99 ^b	9,460	,000**
Height (cm)	1,76 ± 0.64 ^a	1,75 ± 0.48 ^a	1,75 ± 0.48 ^a	2,110	,115
Body weight (kg)	68,4 ± 12.0 ^a	65,6 ± 6.54 ^a	75,4 ± 11.5 ^b	10,144	0,00**
Anaerobik Power (kgm/sn)	126,4 ± 16.7 ^a	108,3 ± 16.7 ^b	103,8 ± 22.6 ^b	14,48	0,00**
Speed (sn)	4,73 ± 0.36 ^a	4,86 ± 0.41 ^a	5,56 ± 0.83 ^b	22,43	0,00**
Flexibility (cm)	5,07 ± 4.64 ^a	7,32 ± 3.37 ^b	4,56 ± 3.31 ^a	6,391	,002**
Leg force (kg)	90,6 ± 19.7 ^a	68,5 ± 18.4 ^b	75,1 ± 11.1 ^b	17,186	,000**
Anaerobik Endurance (sn)	17,9 ± 3.42 ^{ab}	17,0 ± 1.74 ^a	18,9 ± 2.70 ^b	5,151	,007**
Percent body oil (%)	15,0 ± 2.47 ^a	11,4 ± 1.60 ^b	17,7 ± 2.98 ^c	71,706	,000**
The reaciton time of right hand (ms)	207,64 ± 33.8 ^{ab}	187,50 ± 18.3 ^a	212,60 ± 41.2 ^b	2,498	,087
The reaciton time of left hand (ms)	209,00 ± 33.6 ^a	199,09 ± 11.6 ^a	240,15 ± 51.7 ^b	12,988	,000**
The reaciton time of right hand for the light (ms)	198,35 ± 16.2 ^{ab}	191,84 ± 16.6 ^a	232,72 ± 42.4 ^b	9,737	,000**
The reaciton time of left hand for the light (ms)	229,64 ± 22.7 ^a	217,31 ± 16.5 ^b	243,42 ± 42.8 ^a	20,666	,000**
The mixed reaciton time (ms)	262,23 ± 37.4 ^{ab}	255,00 ± 18.5 ^a	297,63 ± 53.3 ^b	7,809	,000**

****P<0.01 **p<0.001 abc:** If two cells in each row of the table contain the same letters (a,b,c) you can not say that there is difference between groups

Ünveren has determined that the pretest average value of reaction time of hands against the sound by working three months with a group of folk dances is 18.611 + 2.033, the average value of post-test is 17.444 + 1.653, the pretest average value of reaction time of hands against the light is 19.056 + 2.014 and the average value of post-test is 17.167 + 1.043. (A. Ünveren, 1997). The reaction time is associated with alert and also it is related to situation in the activity. In many studies, regular physical activity is known to have developed a simple and choice reaction time. (S. Karaküçük, 1996) When the Black Sea region folk dances are considered as being

physical, it is seen that they are consist of fast, swift and sudden movements. It is thought that Horon folk dances which are more speedy and more rapid than Halay and Zaybek as being physical and rhythmic may affect the reaction times of the players positively.

As a result; Turkish folk dance has a structure at different physical activity level for each region. In this context, the games of halay and horon region has a faster structure than the region of Zeybek in terms of musical rhythmic and figure. It is concluded that the physical parameters of male players who play the Horon and Halay folk dances may be affected more positive than the region of Zeybek folk dances.

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