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TAIJIQUAN AS PHYSICAL EDUCATION FOR STUDENTS

BARBOŞ PETRE[1,*], POP-IOAN-NELU[1], CIOCOI-POP DUMITRU RAREŞ[1], GHERŢOIU DAN MIHAI[1]

ABSTRACT. In recent years, with the opening of China's borders to the Western world, culture of this country have managed to attract millions of people. With a history of over 5,000 years, China has managed to amaze both through discoveries made, as by the martial arts, the most famous being the Shaolin School. Coming from Sholin schools, Taijiquan offered the chance to practice an accessible martial art as those with a superior physical training, as those who exercise a high intensity, has been banned for health reasons. Having in mind the numerous worldwide studies on Taijiquan. Faculty of Physical Education and Sport, Babeş-Bolyai University, Cluj, to implement a one-semester program (semester I, academic year, October 2018 -January 2019) of Taijiquan style, Yang short form (Long Box) (20 movements). The program included 46 students who did not practice sports. (23 students group witness and 23 students experimental group). Following this study one can say that Taijiquan exercises significantly improve balance and mental state (attention and memory).

Keywords: *Taijiquan, qi, Yang style, physical education, Chen style, Chen Wangting, Wu style.*

REZUMAT. ***TAIJIQUAN activitate fizică pentru studenţi.*** În ultimii ani, odată cu deschiderea frontierelor Chinei în lumea occidentală, cultura acestei ţări a reuşit să atragă milioane de oameni. Cu o istorie de peste 5.000 de ani, China a reuşit să uimească atât prin descoperirile făcute, cât şi prin artele marţiale. Cea mai cunoscută fiind Şcoala Shaolin. Venind din şcolile din Sholin, Taijiquan a oferit şansa de a practica o artă marţială accesibilă, atât pentru cei o pregătire fizică superioară, cât şi pentru cei care au interdicţie, din punct de vedere medical, pentru eforturile mari. Introducerea exerciţiilor de pregătire fizică şi a tehnicilor Taijiquan poate îmbunătăţi calitatea echilibrului şi a stării psihice a studenţilor. Verificarea eficacităţii utilizării mijloacelor de instruire din educaţie fizică, prin compararea cu datele obţinute în urma practicării Taijiquan-ului în cadrul orelor de educaţie fizică. Exeperimentul a avut loc în cadrul Facultăţii

[1] *Babeş-Bolyai University, Faculty of Physical Education and Sport, Cluj-Napoca, Romania*
[*] *Corresponding author: petrebarbos@yahoo.com.*

de educaţie Fizică şi Sport, UBB-Cluj, în perioada octombrie 2018 - ianuarie 2019. Subiecţii cercetării au fost două grupe de studenţi cu 23 de subiecţi pe fiecare grupă. În urma derulării acestui studiu experimental se poate confirma că exerciţiile de Taijquan pot îmbunătăţi echilibru şi starea mentală (atenţia şi memoria).

Cuvinte-cheie: *Taijiquan, Qi, stilul Yang, educaţie fizică, stilul Chen, Chen Wangting, stilul Wu.*

Introduction

Born from Shaolin schools, Taijiquan is a relatively young age, compared to the history of other Chinese martial arts. Taijiquan translates to "boxing supremacy." The first codified forms of Taijiquan appear in the Ming period (1368-1644), with a major influence Dao. Most schools will appear in the following period, the Qing dynasty (1644-1911), which will bring with them the influences of the Buddhist schools.

The most important schools are named after the families that created them.

Taijiquan Schools

There are five major Taijiquan schools. In order of appearance:

1. Chen - is the oldest school. It is also known as Chen Wang Ting or Zouting. It was created by Chen Wangting (1580-1660) a former commander of the special caravan protection troops.

2. Yang - belonging to the Yang Luchan family (1799-1872). He was known as Yang Wudi (invincible Yang). Yang Luchan was a simple countryman.

3. Wu Hao - belongs to the Wu Yuxiang family (1812-1880).

4. Wu - belongs to the Wu Yuxiang family, also known as Wu Yu-hsiang (1812-1880). He was an Officer of the Imperial Guard.

5. Sun - belongs to the Sun Lutang family (1860-1933).

The effects of Taijiquan

Even if the practice of this art is hundreds of years, scientific studies are recent, which can not give us a definitive answer as to what effects is obtained after practice.

Although research is at the beginning and results can not occur in a relatively short time, there are signs that the effects are positive on the central nervous system, the locomotor system and the sense organs (Song, Lee, Lam,& Bae, 2003).

Effects of Taijiquan is not achieved in a relatively short time, it involves a correlation between central nervous system and muscular system, with automatic nervous system, a process that takes many years.

However, on short-term effects can be seen even after a shorter period of practice. Among the most important benefits are those related to balance (Bandura, 1997, p. 604).

Reduction of mood disorders (Babyak et al., 2000. pp. 633-638; Barnes et al., 2004; Ospina et al., 2008).

Beneficial effects on the osteomuscular system (Song, Lee, Lam, Bae, 2003).

Hypothesis

I assumed that introducing physical training exercises and techniques Taijiquan can improve the quality of balance and mental state of students.

Research objectives

Verify the effectiveness of using physical education in higher education compared to Taijiquan use.

The purpose of the research

Consists of highlighting the means to improve balance and mental state in adults.

Organization of research

Duration: 70 minutes, once a week for 9 weeks.

Techniques used: Taijiquan, Yang form, Short Toul, 20 moves.

Subjects: 46 students (23 students - control group and 23 students experiment group) from the Faculty of Geography, UBB Cluj, with their agreement, during the second semester of the academic year 2017-2018.

Teacher: is certified as Taijiquan Yang style instructor from 2009

Place: Sports Park "Iuliu Haţieganu", sports grounds, and on bad weather, the gym hall.

Equipment: sportswear

Evaluation Techniques: Static equilibrium on both legs, from Ma Bu position, timed.

The study

***Balance evaluation**:* because this art requires 90% to keep the static and dynamic balance, we evaluated the initial duration of each subject. The evaluation position was from two distal shoulders, flexed knees to 90 degrees (Ma Bu. Fig 1.). The timer starts when the subject takes the correct position, and stops when the subject loses its balance.

Table 1. Control group

Nr.	First and Last Name	Initial Position - Ma Bu/Duration/sec	Final PositionMa Bu/Duration/sec
1	A.B.	0.10	0.15
2	B.A.	0.11	0.10
3	C.C.	0.13	0.11
4	C.B.	0.14	0.12
5	C.R.	0.13	0.14
6	D.D.	0.14	0.13
7	F.M.	0.13	0.12
8	G.S.	0.15	0.15
9	H.D.	0.16	0.16
10	I.I.	0.13	0.14
11	K.L.	0.14	0.13
12	L.M.	0.20	0.18
13	L.G.	0.13	0.10
14	M.Ş.	0.23	0.18
15	M.D.	0.19	0.19
16	M.C.	0.17	0.13
17	M.A.	0.12	0.16
18	O.A.	0.21	0.19
19	P.L.	0.19	0.12
20	P.S.	0.14	0.11
21	R.D.	0.10	0.12
22	S.P.	0.21	0.16
23	S.M.	0.39	0.22

The control group, after testing, did general physical education exercises without equilibrium exercises.

Table 2. Experimental group

Nr.crt.	First and Last Name	Initial Position Ma Bu/Duration	Final Position Ma Bu/Duration
1	A.Z.C.	0.14	0.45
2	B.E.	0.12	0.34
3	B.I.E.	0.17	0.54
4	B.J.	0.16	0.53
5	C.T.S.	0.13	0.34
6	D.K.E	0.16	0.46
7	E.K.	0.18	0.50
8	G.T.	0.15	0.49
9	H.F.S.	0.30	1,26
10	H.M	0.15	0.35
11	J.T.	0.13	0.43
12	K.E.	0.17	0.43
13	K.S	0.19	0.53
14	L.S.T.	0.33	1,02
15	M.H.	0.16	0.56
16	N.O.N.	0.15	0.53
17	P.S	0.13	0.46
18	P.E.	0.24	0.49
19	R.I.	0.24	0.59
20	S.Z.	0.16	0.49
21	T.L.	0.34	1,03
22	T.B.	0.13	0.49
23	Z.A.L.	0.17	0.59

The research paid attention the first on the balance and then the technique. The first criterion for selecting of students from both groups was none of them are not practitioners of any martial arts, so as not to influence the results of the research.

For those in the control group, each hour started with a warm up exercises of 10 minutes, followed by exercises of force and athletics, while the experimental group performed both exercise: mobility and breathing exercises.

The experimental group executed, in the second part of the hour class, the 20 techniques, worked on sections. Finally, the lesson ended with breathing exercises. The last 3 hours of the course were awarded to complete the 20 movements.

Tehnicile propuse

Fig. 1. Ma-Bu position

Fig. 2

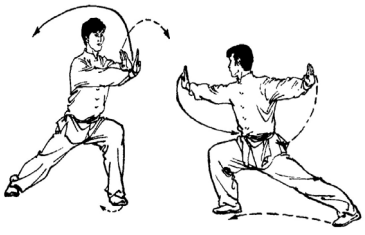

Fig. 3.

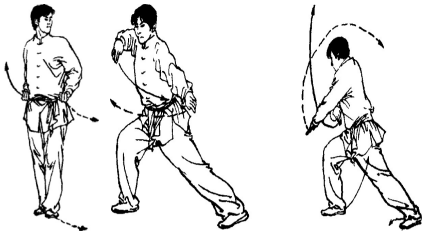

Fig. 4.

Fig. 5

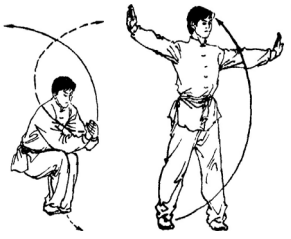

Fig.6

Fig. 7

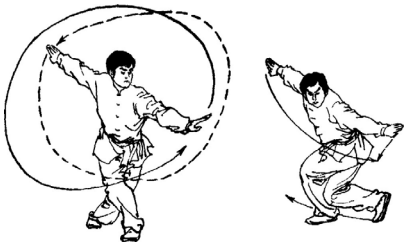

Fig. 8

Fig. 9

Fig. 10

Fig. 11

Results

After final evaluation, the control group achieved results less than or equal to the primary assessment, while the experiment group achieved a time superior to the primary assessment.

The experiment group has been positive in the way of performing techniques, where certain positions required a balance of the body at a higher level than other exertions of physical education. The experiment group, students have shown a high interest in this kind of exercise, especially since Taijiquan is not an easily accessible form, due to lack of coaches and instructors.

From a psychological point of view, the memory is the first psychological quality that contributes to the execution of Taijiquan techniques. The presentation of techniques, in natural motion, initially led to the idea of abandonment, but with the execution of segments of each technique, the students were able to memorize the order of each technique, and why it's running. Without recourse to memory can not reach any performance in this direction.

Attention was the second of the psychological qualities most commonly used in Taijiquan practice. The focused attention to execution, to keep the body in certain positions, the student correctly controls his body, preparing him for a series of linked movements (Toul). The attention to execution, to keep the body in certain positions, to understand the correct role of each movement, has made the 20 movements to be executed flowing, logical, and with a tendency to be effective in terms of martial arts.

These results confirm also the research conducted by Marko Nedeljkovic (Nedeljkovic, Ausfeld-Hafter, Streitberger, Seiler & Wirtz, 2012*).*

Table 3. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MabBu_Cntrl_Ini - MaBu_Cntrl_Fin	,01870	,04310	,00899	,00006	,03733	2,080	22	,049

Table 4. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MaBu_Exp_Ini	,1826	23	,06376	,01330
	MaBu_Exp_Fin	,5609	23	,22936	,04783

Table 5. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	MaBu_Exp_Ini & MaBu_Exp_Fin	23	,881	,000

Table 6. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MaBu_Exp_Ini - MaBu_Exp_Fin	-,37826	,17577	,03665	-,45427	-,30225	-10.320	22	,000

A paired-samples t-test was conducted to compare MaBu_Cntrl_Ini and MaBu_Cntrl_Fin. There was a significant difference in the scores MaBu_Cntrl_Ini (M=0.16, SD=0.06) and MaBu_Cntrl_Fin (M=0.14, SD=0.03) conditions; t(22)=2.08, p = 0.049. These results suggest that Taijiquan training methods really do influence the balance of the control group.

A paired-samples t-test was conducted to compare MaBu_Exp_Ini and MaBu_Exp_Fin. There was a significant difference in the scores MaBu_Exp_Ini (M=0.18, SD=0.06) and MaBu_Exp_Fin (M=0.56, SD=0.22) conditions; t(22)=-10.32, p = 0.00. These results suggest that Taijiquan training methods really do have an effect over balance in the case of the experimental group.

A correlation test was conducted for both the control and the experimental group that showed, for each of the cases, a strong correlation between the initial and the final values of the experiment. For the control group the correlation was 0.75 and for the experimental group the correlation was 0.88.

According to the descriptive statistical analysis the biggest difference between the control and the experimental group was the value of the average values. For the control group the initial average was 0.16 and the final was 0.14, while for the experimental group the initial average was 0.18 and the final was 0.56.

Conclusions

As a result of studies made both by researchers in other countries, (as Wolf, S. L.; Barnhart, H. X.; Ellison (1998), or Wile, D. (1995), but also by us, we conclude that the practice of Taijiquan techniques in *Taoul* variant (model, shape), bring amateur physical exercise practitioners to significant improvements in balance.

This improvement in balance is only for a limited time, and can not be considered as a permanent acquisition. The lack of Taijiquan practice will lead, over time, to the loss of these motor skills, especially to those who practice physical exercise as a form of relaxation, occasionally.

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