

Министерство спорта Российской Федерации



Федеральное государственное бюджетное учреждение «САНКТ-ПЕТЕРБУРГСКИЙ

НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ ИНСТИТУТ ФИЗИЧЕСКОЙ КУЛЬТУРЫ»

North-Western Medical University named after I.I. Mechnikov in St. Petersburg. Krasnogvardeyskiy District Medical and Physical Education Center, St. Petersburg. Saint Petersburg Research Institute of Physical Culture and Sport, St. Petersburg. Center of Psychological Assistance, St. Petersburg.

REPORT

EFEFCTS OF QUANTUM RESONANCE TECHNOLOGY APPLICATION ON HUMAN ENERGY

AND PSYCHOPHIOLOGICAL PARAMETERS

Saint Petersburg

2019

- Developer: Subtle Energy Sciences LLC, USA
- Test Samples: Quantum Resonance Technology Application (Yippi Wave 3.0)
 - Quantum Healthcare,
 - Sleep support,
 - Brain Enhancement,
 - Quantum Nutrition
 - Relaxation

Contents

Research Group	3
Abbreviations	4
1 Introduction	5
1.1. Informing the subjects	5
2. Goals and objectives of the study	5
3. Study design	5
3.1. Subjects under study	5
3.2. Type of study and design of study procedures / stages. Evaluation criteria	5
3.3. Randomization	6
4. Duration of the subject's participation in the study	6
6. Undesired effects	6
7. Statistical processing	7
8. Confidentiality	7
9. Publication of the results	7
10. Methods	7
10.1 Heart Rate Variability (HRV) method	8
10.2. Bio-Well GDV method	7
10.3 Psychological testing	8
11.Results	9
11.1. Psychological testing	9
11.2. HRV data	11
11.3. Measuring Human Energy Field parameters. Bio-Well GDV data	14
11.4. Chakras	16
12. Testing the influence of mobile phone	17
Discussion	21
Conclusions	21
References	22

Abstract

Goals and objectives of the study: The goal of this research was to study effects of the Quantum Resonance Technology apps (Yippi Wave 3.0) on the human energy and psychophysiology parameters.

Study design: Group of 40 people was measured initially, then the group was randomly divided to two parts: control and experimental. Participants in control group for two weeks, twice a day was listening to classic music, while participants in an experimental group for two weeks, twice a day was listening to Quantum Resonance Technology apps (Yippi Wave 3.0) program files through their mobile phone. After two weeks all people were measured again and results were analyzed.

Results: There was statistically significant changes on energy and psychophysiology parameters for participants of experimental group and no changes for control group was found.

Conclusions: This study should be considered a pilot study in clinical research and the results are preliminary. We need to conduct experiments with different sources of both acoustic and electromagnetic signals and the possibility of their registration by the Bio-Well device.

Key words: Quantum Resonance, Energy, Psychophysiology, Electrophotonic Imaging, GDV, Bio-Well

Research Group

Doctor of Pedagogical Sciences, Professor Oleg Churganov, Professor of the Department of Therapeutic Physical Education and Sports Medicine of the North-Western Medical University named after I.I.Mechnikov in St. Petersburg.

Doctor of Medical Sciences, Professor Elena Gavrilova, Head of the Department of Therapeutic Physical Education and Sports Medicine of the Mechnikov North-Western Medical University, Chief Physician of the Krasnogvardeyskiy District Medical and Physical Education Center, St. Petersburg.

Doctor of Technical Science, Professor Konstantin Korotkov, Senior Researcher at Saint Petersburg Research Institute of Physical Culture and Sport, St. Petersburg.

Candidate of Pedagogical Sciences (PhD), Maria Belodedova, methodologist of the Krasnogvardeysky District Medical and Physical Education Center, St. Petersburg.

Candidat of Psychological Science (PhD), Anna Korotkova, Head of the Psychological Department of Saint Petersburg Research Institute of Physical Culture and Sport, St. Petersburg.

Elena Yanovskaya, Director of the Center of Psychological Assistance, St. Petersburg.

Abbreviations

Bio-Well GDV	 Bio-Well device of gas discharge visualization
AE	- Adverse events.
EP	- energy potential
b1,b2	- baseline study data
a1,a2	- study data after loading

1 Introduction

Placebo - controlled trials in accordance with the protocol on 40 adults of different sexes, ages, professions, randomly divided into two groups of 20 people have been conducted. Randomization was based on the random numbers principle.

1.1. Informing the subjects

Each subject received information about the study prior to the study, where information about the nature and purpose of the study, the design of test procedures and the nature of the study were presented in a form accessible to the subjects. Each subject signed Informed Consensus Form. Information obtained in the course of the study that identifies the identity of the subjects is kept secret and may be disclosed only within the limits established by the law.

2. Goals and objectives of the study

The goal of this research was to study effect of the Yippi Wave 3.0 mobile application on the Human psychophysiology parameters and several sensors.

3. Study design

3.1. Subjects under study

Participants included 40 **apparently healthy** adults of different genders, ages and professions.

3.2. Type of study and design of study procedures / stages. Evaluation criteria.

40 people volunteered to participate in the study. Age 22 – 56 years, both gender 13 men and 27 women, apparently healthy, without health complains.

All people were measured initially, then the group was randomly divided to two parts: control and experimental.

Participants in control group for two weeks, twice a day was listening to classical music;

participants in an experimental group for two weeks, twice a day was listening to Quantum Resonance Technology apps (Yippi Wave 3.0) programs via their mobile phone.

Comparative tests were carried out **initially** and after **14 days**. On the 1st and 14th days the **following te**sting was carried out at the same time:

Physical examination by a therapist,

Psychological testing,

Rhythmocardiography at rest - investigation of autonomic regulation of heart rhythm (examination of functional state of nervous and cardiovascular systems),

Energy parameters analysis.

3.3. Randomization

All the subjects were randomized into two groups of 20 people.

4. Duration of the subject's participation in the study

The total duration of the study was 14 days. During the study period two cycles of measurements were carried out.

5. Criteria for inclusion and exclusion of subjects in the study

The study included adults meeting the following criteria:

- age between 25 and 62 years,

- absence of severe chronic medical conditions,
- good mental health,
- Ability to comply with the procedures set out in the Protocol of Inquiry.

Persons were not included in the study if one of the following criteria was present:

- serious chronic diseases,
- acute somatic, neurological diseases,
- taking medications during the experiment,
- the subject's refusal to participate in the study,

- **c**linically significant changes in functional parameters indicating an undiagnosed disease and requiring additional examination,

- clinically detectable psychiatric pathology.

There was no early abandonment of the subjects from the experiment.

6. Undesired effects

undesired effects (UE) refer to any adverse reactions (including clinically significant changes associated with the protocol.

No undesired effects were reported.

7. Statistical processing

All data collected in the study were analyzed using descriptive and dispersive statistical methods. Clinical and functional data and their changes relative to the baseline level were analyzed by the Student's T-test, using the Wilcoxon and Mann-Whitney criteria. To estimate the significance of fractions (%) in the samples, the Fisher's Angular Transformation method was applied.

8. Confidentiality

Access to the experiment database and the primary documentation have been allowed for auditors, inspectors of licensing authorities, the Customer of the project.

9. Publication of the results

The results of this study are the property of the Customer and may be published or reported at scientific conferences, congresses or symposiums only in agreement with the Customer.

10. Methods

10.1. Bio-Well GDV method

The technique of Electrophotonic Imaging (EPI) allows the recording of electron and photon emission stimulated by an electromagnetic field in any subject, as well as the acquisition of these data by computer image processing. The short electric impulse (10 microsec) on the camera plate stimulates subjects and generates a response in the form of an excited gas plasma (that is why in physical terms this approach is known as Gas Discharge Visualization – GDV [1-3]. This plasma emits light which is directly measured by a charge-coupled device (CCD), the state of the art in measuring low-level light that is used in astrophysics and other scientific endeavors. The CCD registers the pattern of photons detected over time. These digital data are transmitted directly into a computer for data processing, and each image from the light emitted is stored as a graphics file. These two-dimensional images of the light are then used to calculate the area, emission intensity, fracticality, and other parameters. The EPI technique has been found to be effective in evaluating the state of individual human health [4-6], and in the monitoring of individual reactions to different kinds of training [7-9]. Bio-Well test was performed at rest using device by Bio-Well Co (www.bio-

<u>well.com</u>).

10.1 Heart Rate Variability (HRV) method

The variability of the heart rhythm in the narrow sense is the variability of the time intervals between the beats of the heart, the nature of which can be used to judge the ability to to adapt to environmental changes both at the moment (the tolerability of current loads) and in the long run (assessment of the adaptation reserve).

Rhythmocardiography is a method of analyzing the automatism of the sinus node, reflecting the state of the regulatory systems of the body and the degree of its equilibrium with the environment (degree of homeostasis). Rhythmogram parameters, which reflect the degree of sympathetic regulation and high centralization of the heart rhythm (LF, LF norm, Amo), as well as indexes of integral centralization (LF/HF, VLF, IC, SI) have been studied. The growth of these indices reflects an unfavorable trend of decrease in adaptation of the organism and its reserve capacities, while the decrease - a reverse trend of adaptation growth.

The parameters of parasympathetic regulation and variability of heart rhythm (RR, RMSSD, Mo, HF, HF norm, SDNN) have been studied as well. Their growth, in turn, reflects the growth of adaptation, regulation and adaptive capacity of the body. On the contrary, a decrease in these indicators is an unfavorable sign of a decrease in the body's reserve capacity. The rhythmogram was performed at rest using the Neurosoft device when analyzing 5-minute records of heart rhythm variability. In interpreting the data, the standards for evaluating heart rhythm variability developed by the European Heart Society and the North American Society of Electrophysiology [10,11] have been used.

10.3 Psychological testing

Questionnaire "Feeling, activity, mood" (FAM) is intended for self-assessment of the following psychological qualities: feeling of well-being, activity, mood. Psychodiagnostics of the subjects was carried out as follows. The control and experimental group read 30 pairs of opposite definitions, from which they had to choose a more suitable condition on a scale from 0 to 3 points. Interpretation of indicators according to "FAM" method was carried out by comparing the state with the scale of 3 2 2 1 0 1 1 2 3. For example, between the statements "Feeling strong" and "Feeling weak" there are numbers 3 2 1 0 1 1 2 3. The number "0" means a neutral state in which the person cannot be classify whether he/she either weak or strong. The number "3" means that the individual feels very strong and vice versa. In this test, all lines are considered and evaluated separately.

11.Results

11.1. Psychological testing

The data of psychological status according to the method "State of health, activity, mood" are presented in Table 1 and fig.1 and 2.

Table 1.: Data of the self-evaluation by the method "State of health, activity, mood" in two groups of subjects

Indicator	Control group		Experimental group	
	1 test	2 test	1 test	2 test
Feeling	50,7±11,0	46,3±8,8	54,9±5,5	58,1±4,9
Activity	46,4±10,1	49,6±11,8	50,9±5,6	63,3±3,4***
Mood	51,9±10,8	48,2±10,0	57,9±4,3	64,5±3,4***
General	49,7±9,1	48,0±9,5	54,6±4,1	62,0±3,3***

***- p<0,001

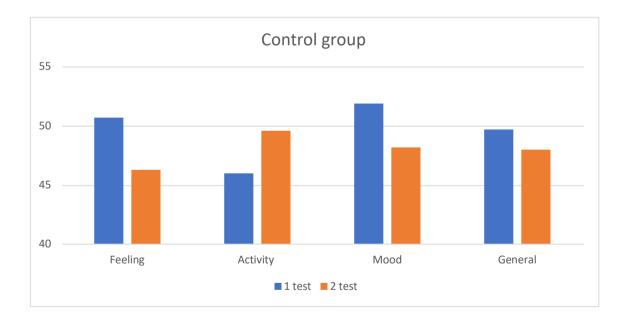


Fig.1. Results of psychological testing for the control group.

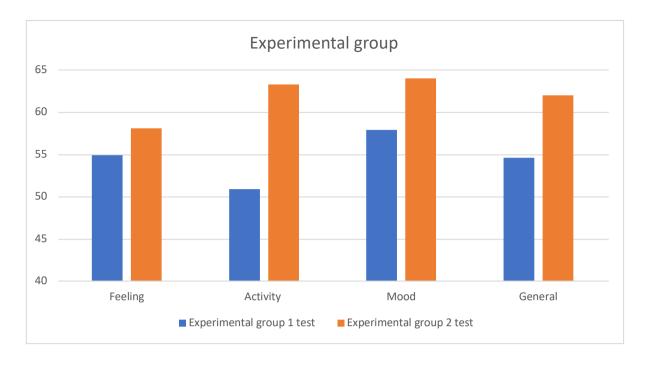


Fig.2. Results of psychological testing for the experimental group.

As we see from these data, for the control group parameters dropped down except of Activity, while for the experimental group we see statistically significant increase of all parameters after two weeks of listening to Quantum Resonance Technology apps (Yippi Wave 3.0) program, which indicates better mood state.

11.2. HRV data

The rhythmogram was recorded at rest and evaluated by 5-minute recording in rest. Dynamics of median parameters of heart rhythm variability in two groups is presented in Table 2 and 3.

Indicator	Control group			Experimental
				group
	1 test	2 test	1 test	2 test
RR (msec)	968,6±147	929,8±148,8	932,6±112,3	904,7±113,8
RMSSD	56,5±35,7	56,5±42,6	37,8±23,4	49,5±36,4
(msec)				
LF/HF (ratio)	1,1±0,9	1,6±1,6	1,6±1,1	1,7±1,5
Mo (msec)	953,9±158,6	930,3±160,4	911,3±114,8	872,5±111,2
TP (msec2)	2578	2062	<mark>1171</mark>	<mark>1590</mark> *
median	(974,5;4798)	(1039;5130,5)	<mark>(610,8;2302,3)</mark>	<mark>(657;3674,8)</mark>
CV%	5,8±2,2	6,2±3,1	4,6±1,7	<u>6,1±2,8</u> **
VLF (msec2)	673	752	<mark>470</mark>	<mark>589</mark> *
	(340;1304,5)	(478,5;1217,5)	<mark>(285,3;725)</mark>	<mark>(321,8;1295,5)</mark>
HF %	54,8±18,8	44,8±23,2	45,9±19,3	45,2±17,6
HF (msec2)	1242	591	339,5	417,5
	(231;2514,5)	(136,5;2486)	(104,8;764,8)	(134,3;1406,3)
SI (ratio)	110,5±149,9	121,2±141,6	127,9±86,5	102,2±67,9
SDNN (msec)	57,1±24,6	59,6±34,1	<mark>42,3±13,7</mark>	<mark>55,2±29,2</mark> *
LF norm (%)	663	719	361,5	583,5
	(403,5;979)	(424;1427)	(220,8;812,5)	(201;973)
Amo (%)	37,9±15,5	39±19	49,1±214,9	39±11,3
LF (msec2)	45,2±18,8	52,7±21,3	54,3±19,1	55±17,5

Table 2. Dynamics of median variables in the experimental and control group.

*- p<0,05,

Table 3. Percentage of changes in the experimental and control group.

	Control	
Indicator	group	Experimental
RR		
(msec)	-4,0	-3,0
RMSSD		
(msec)	0,0	31,0
LF/HF		
(ratio)	45,5	6,3
Мо		
(msec)	-2,5	-4,3
TP		
(msec2)	-20,0	35,8
CV%	6,9	32,6
VLF		
(msec2)	11,7	25,3
HF %	-18,2	-1,5
HF		
(msec2)	-52,4	23,0
SI (ratio)	9,7	-20,1
SDNN		
(msec)	4,4	30,5
LF norm		
(%)	8,4	61,4
Amo (%)	2,9	-20,6
LF		
(msec2)	16,6	1,3

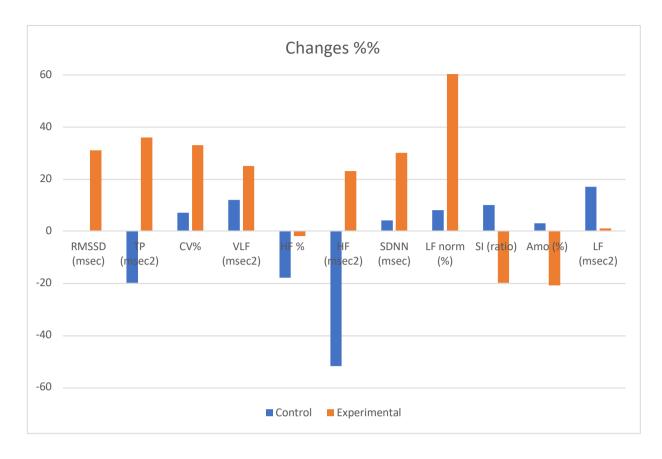


Fig.3. Percentage of changes in the experimental and control group.

As it follows from the data, the experimental group was characterized by the growth of parameters reflecting parasympathetic activity and variability of heart rhythm and the decrease of parameters which reflect the degree of sympathetic regulation and centralization of heart rhythm. Significant changes were noted in most of indexes after two weeks of listening to Quantum Resonance Technology apps (Yippi Wave 3.0) program, which indicated growth of economy of respiratory and cardiovascular systems functioning, growth of adaptive and energetic potential of the organism, as well as recovery after loads.

Statistically significant changes were detected on the Stress-index, which correlates with the results of psychological testing.

In the control group, inverse changes in heart rhythm variability were noted, indicating increased activity of the sympato-andrenal system, which reflected the centralization of the heart rhythm, reduction of adaptation of the organism and its reserve capacity in the adverse epidemiological, climatic and seasonal period.

11.3. Measuring Human Energy Field parameters. Bio-Well GDV data.

Results are presented in Table 4 and fig.4 and 5.

	Control		Experimental	
	group		group	
Parameters	test 1	test 2	test 1	test 2
Stress	3,24	3,23	3,24	3,12
Energy	57,63	55,00	57,63	57,80
Balance	96,01	95,25	96,01	96,31
Balance left	88,58	87,80	88,58	89,03
Balance right	91,11	90,35	91,11	90,41
EC	2,14	2,11	2,14	2,09
FC	2,52	2,51	2,52	2,41
Chakras AL	91	90	89	91,00

Table. 4. Bio-Well GDV indexes.

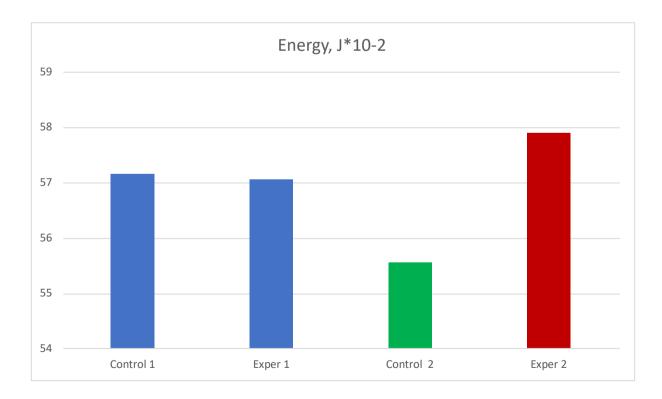


Fig.4. Comparison of averaged data for the initial measurement (1) and after 2 weeks (2).

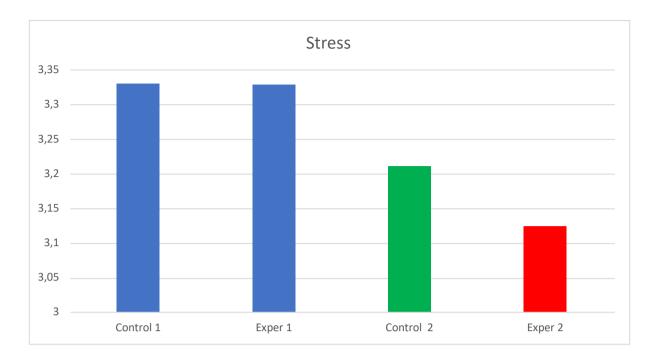


Fig.5. Comparison of averaged data for the initial measurement (1) and after 2 weeks (2).

As we see from the graphs, in the initial measurement between control and experimental groups it was no difference, but after 2 weeks for the control group Energy dropped down and Stress dropped down as well. For the experimental group Energy increased and Stress decreased more, than for the control group.

It was no statistical difference between 1st and 2nd tests for both groups, but if we remove from calculations 2 people, Energy increase for the experimental group would be statistically significant.

So we can make a conclusion that after two weeks of listening to Quantum Resonance Technology apps (Yippi Wave 3.0) program, the state for 20 participants improved and Stress level dropped down for all the participants.

For the members of a control group listening classic music Stress level dropped down, while Energy decreased.

11.4. Chakras

For Chakras is important their position relative to the central line – their alignment. In Bio-Well 100% is evaluated as precise position.

As we see from the fig.6, for the experimental group after two weeks of listening Yippi music alignment increased from 89% to 91%, while for the control group it decreased.

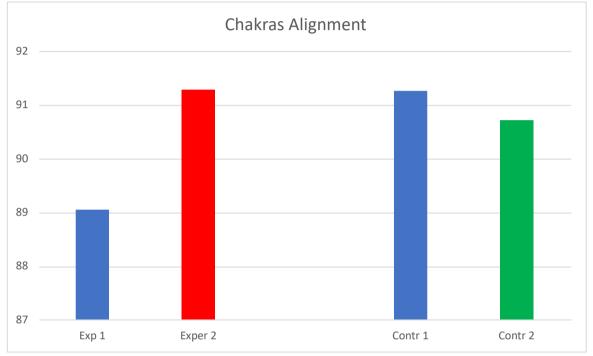


Fig.6. Changes of Chakras Alignment.

12. Testing the influence of mobile phone

It is known that many people respond to the radiation of the mobile phone. To test this option, the following test was done:

1.1. Initial GDV Bio-Well Energy field measurement.

1.2. People are measured with Bio-Well while mobile phone is turned on and make a call.

1.3. Phone is off.

1.4. Yippi application is turned on.

1.5. People are measured with Bio-Well while mobile phone is turned on and make a call while Quantum Resonance Technology app (Yippi Wave 3.0) program is on play mode.

Results

1st test

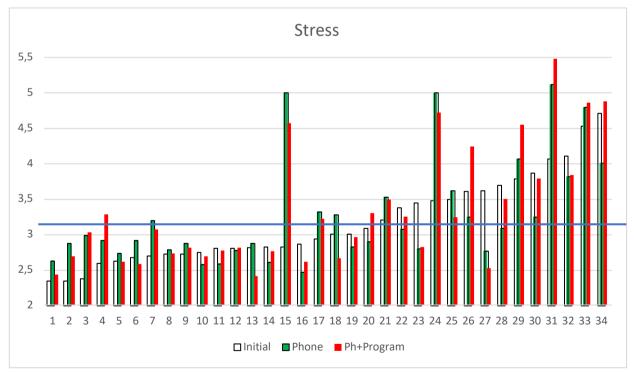


Fig.7. Stress level for 34 participants in three tests.

As we see from the graphs, there are practically no difference in Response of people to mobile phone in calling mode with and without Yippi application. For hlf of the group Stress level was higher than the optimal level 3+/- 0.3.

2nd test experimental group

Results presented compare the initial test and test after two weeks of using Quantum Resonance Technology app (Yippi Wave 3.0); program is on play mode and phone is on in calling mode.

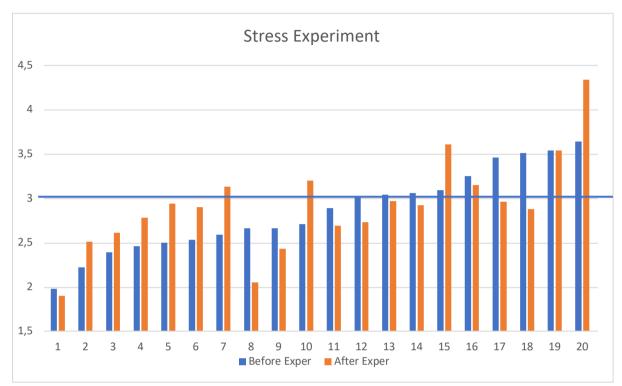


Fig.8. Stress level for the participants in experimental group initially and after two weeks of using Quantum Resonance Technology app (Yippi Wave 3.0); program is on play mode and phone is on in calling mode.

Stress level below 3 is considered as optimal.

As we see from the above data, for 15 people Stress level was optimal and for 16 people it stayed optimal, while it increased for 3 people.

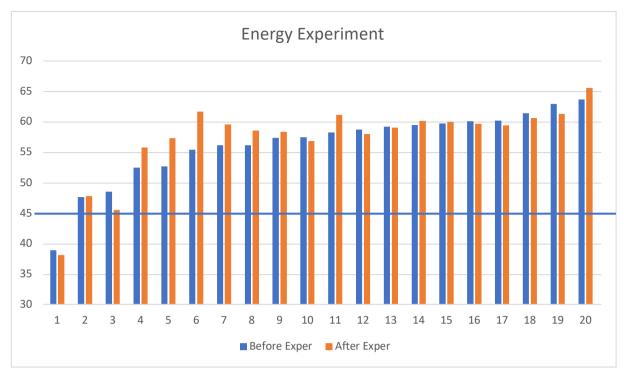


Fig.9. Energy level for the participants in experimental group initially and after two weeks of using Quantum Resonance Technology app (Yippi Wave 3.0); program is on play mode and phone is on in calling mode.

Energy level > 45 was optimal for 19 people and stayed optimal with mobile phone in calling mode.

2nd test control group

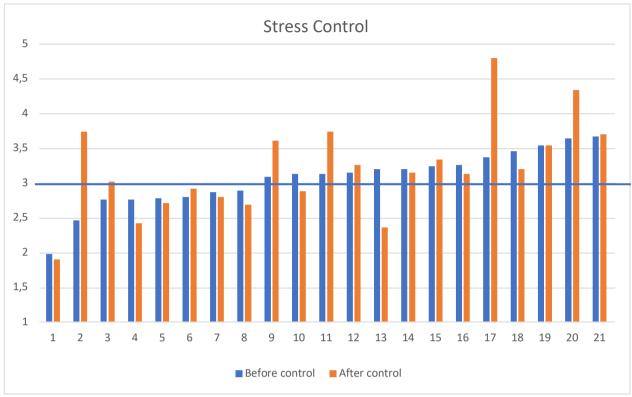


Fig.10. Stress level for the participants in control group initially and after two weeks of listening to classic music; phone is on in calling mode.

As we see from the graph, Stress level was optimal for 12 people and stayed optimal for 12 people, while for 10 people it increased with mobile phone.

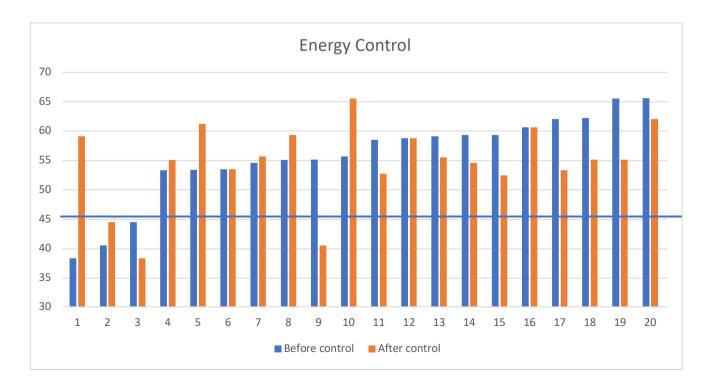


Fig.11. Energy level for the participants in control group initially and after two weeks of listening to classic music; phone is on in calling mode.

As we see from the graph, Energy level was optimal for 17 people, for 5 people it increased and for 10 people it decreased with mobile phone.

Discussion

- 1. In the initial measurement between control and experimental groups it was no difference.
- 2. After using Yippi Wave 3.0 applications for two weeks, for the participants in experimental group Stress level was lower, and Energy higher, than in initial measurement, while for the control group Energy dropped down.
- 3. After using Yippi Wave 3.0 applications for two weeks, for the participants in experimental group Stress level was lower, and Energy higher, than in control group.
- 4. After using Yippi Wave 3.0 applications for two weeks, for the participants in experimental group it was no negative response to mobile phone.
- 5. In experimental group negative effect of the mobile phone for most of the participants both in the first and second measurements was detected.
- 6. After using Yippi Wave 3.0 applications for two weeks, for the participants in experimental group Chakras became more balanced, while for the control group Chakras balance decreased.
- 7. After using Yippi Wave 3.0 applications for two weeks, for the participants in experimental group parameters of the mood state increased, while for the control group it did not change.

Conclusions

Using Quantum Resonance Technology apps (Yippi Wave 3.0) for two weeks had a positive impact on the parameters of the Human Energy Field and people's response to mobile phone.

We may conclude that Quantum Resonance Technology apps (Yippi Wave 3.0) applications have energized and protective effects for the Human Energy Field.

References

- Korotkov, K.G., Orlov, D.V., Williams, B.O. Application of Electrophoton Capture (EPI) Analysis Based on Gas Discharge Visualization (GDV) Technique in Medicine: A Systematic Review. Journal of Alternative and Complementary Medicine. 2010, 16, 1, 13-25.
- 2. Korotkov, K.G. The Energy of Health. Amazon.com publishing. 2017.
- Korotkov, K.G. Review of EPI papers on medicine and psychophysiology published in 2008-2018. International Journal of Complementary and Alternative Medicine.2018, 11, 5, 311–315.
- 4. Muehsam, D., Chevalier, G., Barsotti, T., Gurfein, B.T. An Overview of Biofield Devices. Global Advances in Health Medicine. 2015, 4, 42-51.
- Korobka, I.E., Yakovleva, T.G., Korotkov, K.G., Belonosov, S.S., Kolesnichenko, T.V. Electrophotonic Imaging technology in the diagnosis of autonomic nervous system in patients with arterial hypertension. Journal of Applied Biotechnology and Bioengineering. 2018, 5, 112-118.
- 6. Buck, K.H., Novelli, C., Costa, F.T., Martins, G.C., Oliveira, H.F., Camargo, L.B., Casagrande, R.M., Dias dos Reis, R.R., Moraes, V.R., Vieira, F.S., Passos, R.P., de Barros Vilela, J.G. O uso da bioeletrografia na comparação entre mulheres com câncer de mama, mulheres saudáveis sedentárias e mulheres praticantes de corrida. Centro de Pesquisas Avançadas em Qualidade de Vida. 2016, 8, 2, 9-11.
- Yakovleva, E.G., Buntseva, O.A., Belonosov, S.S., Fedorov, E.D., Korotkov, K.G., Zarubina, T.V. Identifying Patients with Colon Neoplasias with Gas Discharge Visualization Technique. Journal of Alternative and Complementary Medicine. 2015, 21, 720–724.
- **8.** Kushwah, K.K., Nagendra, H.R., Srinivasan, T.M. Effect of Integrated Yoga Program on Energy Outcomes as a Measure of Preventive Health Care in Healthy People. Central European Journal of Sport Sciences and Medicine. 2015, 12, 4, 61–71.
- Shiva, K.K., Srinivasan, TM., Nagendra, HR., Marimuthu, P. Electrophotonic Imaging Based Analysis of Diabetes. International Journal of Alternative and Complementary Medicine. 2016, 4, 5, 134-137.
- 10. Heart rate variability. Standards of measurement, physiological interpretation, and clinical use
- European Heart Journal 1996, 17, 354–381.Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology. Heart rate variability. Standarts of Measurement. Physiological interpretation and clinical use // Circulation. 1996. 93, 1043–1065.