

## STATE OF HEALTH SURVEY OF MEDICAL SPECIALISTS PRACTISING MASSAGE

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### INTRODUCTION

Every sphere of human work is a specific variety of socially determined people's activities (Tishinov et al., 2012; Varbanov et al., 2015; Dimitrova, 2018; Trendafilov et al., 2013). During most part of our conscious life, each one of us does his/her office duties. Long practice of different medical specialties is at certain extent a risky factor for health. A considerable role for its keeping has had safety and health conditions of labor and modern ergonomic equipment (Tishinov et al., 2012.a; Dimitrova, 2018.a).

Achieving good professional results by medical specialists is naturally connected with their state of health (Tishinov, 1987). Keeping the body in condition during one's career is obtained by ergonomic utilization of various professional techniques.

In 27 countries members of the European Union musculoskeletal diseases (MSD) are among most frequently found professional damages, as including also carpal tunnel syndrome, they comprise 59% of all acknowledged occupational diseases, covered by the European statistics in 2019 (EU Report, 2019).

According to associate professor Veneta Kostova, “St. Ivan Rilski” MHAL, Sofia – national consultant in occupational diseases – there has been observed tendency in most industrial countries for constant increase of work absences and invalidation because of musculoskeletal diseases (EC, 2020). MSD have been acknowledged as priority by the countries members of EU as well as the European social partners. Occupational musculoskeletal diseases do not have bad prognosis referring life, but besides that their social importance is substantial due to the following reasons: they take leading part in the structure of professional rate; have high frequency and spread; easily acquire a chronic-

recurrent run of course; affect people at active labor age and with considerable professional experience and qualifications (usually 35 – 55); may lead in numerous cases extended temporary invalidity and even invalidation; have considerable presence as nosology in healthcare of developed industrial countries (EU, the USA, Canada, Australia). Stress connected with work and its consequences on health has provoked great concern.

Like other medical staff, masseurs are often “guilty” for unfavorable changes that have occurred in their organisms. Among filled in schedules, care of patients or clients and excessive desire for making a good name in the branch and a better career, they do not allow themselves even the least extension of time, each relaxation has been considered as a wrong step. In Jim Benkomo’s opinion (2004) elimination of self-care has an effect of dominoes. „Poor nutrition leads to stress, which leads to bad sleep, which leads to exhaustion and finally to career burning” (Bencomo et al., 2004).

Medical specialists should also pay attention to themselves as they really do to their patients in order to keep their health and working capacity (Kirch et al., 2016.). Everybody should choose the right lifestyle and means for prevention of occupational diseases. The simplest way to keep good state of health is by systematic physical activities. It is an effective means for successful and long-lasting professional activity.

The present survey was conducted during the period 2018-2019 with masseurs, rehabilitation therapists, kinesitherapists and doctors in dental medicine, working in private surgeries, SPA-centres, DCC and MHAT in Sofia, St. Zagora and Varna.

The subjects of study were 120 respondents (30 from each specialty). Screening study was applied to 120 respondents. They were distributed into two groups – an experimental group (EG) and a control group (CG). The experimental group has been comprised of 30 people, dealing systematically with kinesitherapeutic program, where there have been included elements from yoga and chi gong, modified and added by us. The classes with the experimental group were held *three times a week for learning and mastering the complexes. The task of the respondents was to do them daily within 4 months.*

## RESULTS

The carried out inquiry consists of 9 questions.

In the experimental group (EG) the average age is 37.47 years, and in the control group (CG) is 44.12 years. The average height in both groups is with similar figures with difference of one centimeter for CG, as well as average weight with difference of one kilogram for CG. The biggest difference is in the length of service approximately 14 years for EG and 20 years for CG (Table 1).

The data from the inquiry shows that in both groups 38% work in private surgeries, 39% from the control group and 28% from the EG work in hospitals, 18% from EG and 11% from CG are in DCC, in spa hotels work 16% from EG and 12% from the control group. Totally in private sector there have been hired a little bit more than half of the participants.

**Table 1.** *Statistic results of EG for age, height, weight and service*

Statistics	Age	Height	Weight	Length of service
Valid replies	30	30	30	30
Missing replies	0	0	0	0
Average	37.47	172.07	77.02	13.87
Standard error of Average	1.918	1.948	3.153	1.885
Median	35.00	170.00	80.00	11.00
Moda	35	165	55	5
Standard error	10.507	10.670	17.271	10.325
Group = experimental				

The received results show reduction of average weight of 77.2 kgs to 76.07 kgs after four months' systematic implementation of the kinesitherapeutic program without changes in dietary regime. All variable quantities have normal distribution. To the question "How do you feel at the end of the workday?" the statistics analysis of the results has indicated that in both groups one third of the studied people have been tired at the end of the workday per 33.3%, in the experimental group the overstrained have been more than in the control group and only 6.7% have felt good after work in comparison with 14.4% for the control group (diagram № 1 - CG and 1<sup>a</sup> - EG).

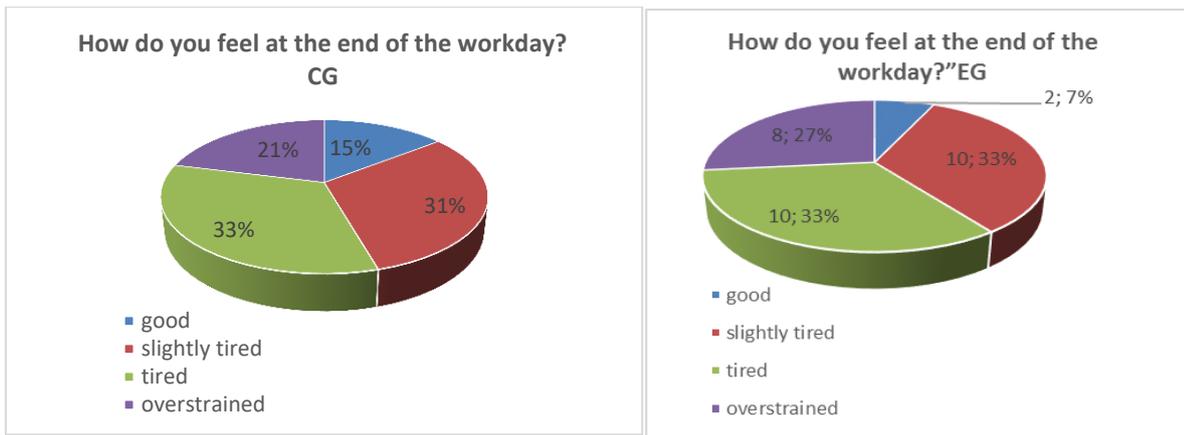
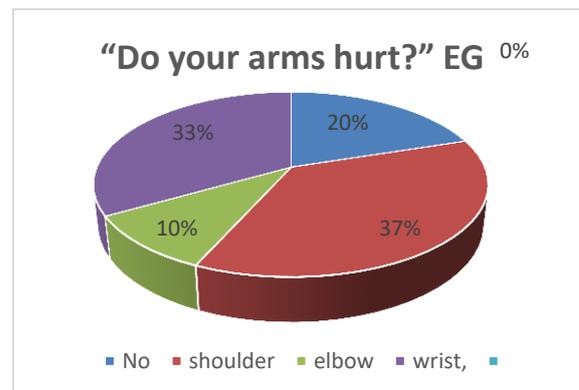
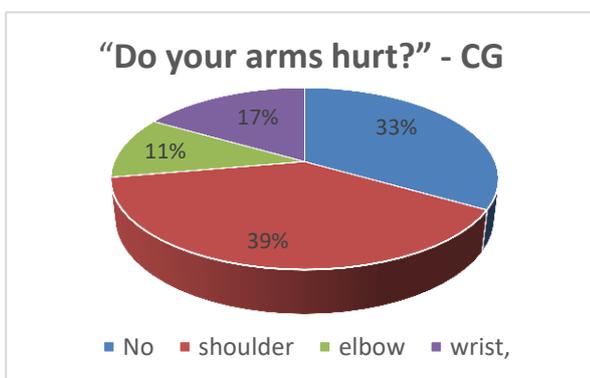


Diagram 1 and 1<sup>a</sup> Replies to the question “How do you feel at the end of the workday?” The statistics analysis of the results of the question “Do you have pains in your spinal column?” shows that they are most frequently located in the lumbar region: 40% for EG and 44% for the CG; on the second place is cervical region with bigger affection of 30% in EG and 17% for CG as well as thoracic region respectively with 26.7% for EG and 15.5% for CG. There are affirmative replies for pains in the pelvis 7.7% only in CG. The obtained results have been close to well-known ones (Bozhinov, 2016; Maslarov, 2016; Popov, 2009). It makes an impression bigger percentage in the cervical region which is most probably connected with working posture and usage of computers. The question “Do your arms hurt?” is of substantial importance for the survey. The initial results indicated pains in the shoulder joints in one third of the participants in both groups. Pains in the wrists are with greater percentage in EG (Diagrams 2 and 2<sup>a</sup>). Statistics data have shown that 33.3% from CG and 20% from EG do not have pains in their arms. After carrying out the experiment this percentage reached up to 70% in EG.



**Diagrams 2. and 2<sup>a</sup>** . Replies to the question “Do your arms hurt?”

During the statistics analysis by comparison of the results, received by the inquiry in a crosstable, there is *ascertained statistically considerable*

dependency regarding: **pains in arms**, damaging habits, maintenance with exercises, spent time for exercises Table №2.

**Table 2.** *Statistic results of a cross table*

As for the question “Do your legs hurt?” the lowest are the percentages of platypodia in both groups -10%, followed by pains in ankles with similar

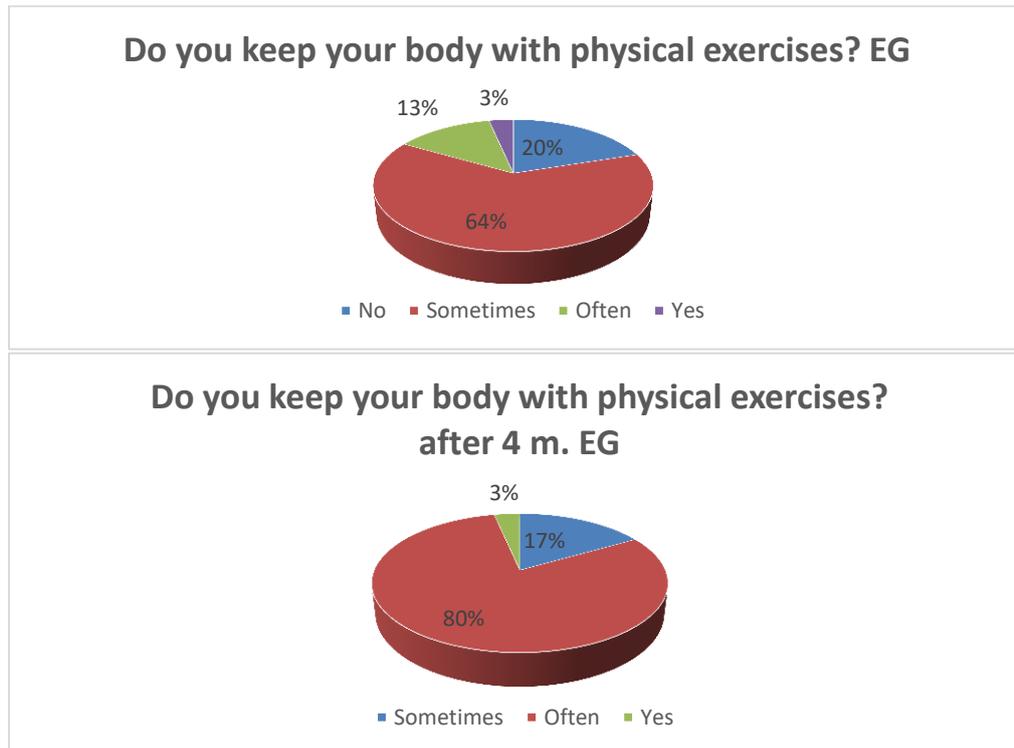
Test Statistics <sup>a,b</sup>								
	Do you have damaging habits?	Do you have physical exercises? your body with	Do you have energy balance? restore your	Do you have time would you spend on recovery?	Do you have any problems with sleep?	Do you recover fast after a hard workday?	any of the listed cognitive symptoms?	
Chi-Square	3,190	1,296	4,863	7,755	9,298	10,187	2,281	
df	3	3	3	3	3	3	3	
Asymp. Sig.	,363	,730	,182	,050	,026	,017	,516	
a. Kruskal Wallis Test								
b. Grouping Variable: Do your arms hurt?								
<i>There is statistically p&lt;0,05 considerable dependency</i>								

figures 14% and 16%. Problems in coxas are twice more in CG - 23%, and in EG problems in knees are approximately twice as many – 27%. There is determined dependency that workers in hospitals have more frequently problems in coxas and those, working in DCC and private surgeries in their knees.

Statistics study ascertaind that more than half of the respondents do not report about damaging habits. The mostly widespread is smoking in both sexes with equal results in both groups. To a different extent alcohol consumption is included - 8.9% for CG and 3.3% for EG, as overeating has a bigger percentage in both groups. After implementation of the physical program there is restored dietary regime of the participants, but smoking remained as a lasting damaging habit. [2].

Modern man has been subjected to a larger nervous pressure and in wishing to achieve his ambitions he loses his sense of self-preservation. As a result of all that Burn out syndrome has been developed in 42.2% from CG and 30% from EG. The process has been developed and deepened imperceptibly. [3].

As for the question “Do you keep your body with physical exercises?” it was determined that only 13.3% from CG and 3.3% from EG medical specialists do sports. They do most often exercises during their holidays or if necessary. In both groups for frequent sports activities the respondents have marked 11% for CG and 13% for EG. They do not do any sports 46.67% from the CG and 20% from EG. The reasons for those results is work pressure of work and accumulated physical and psychic fatigue at the end of the workday.



**Diagram 3. and 3<sup>a</sup>.** Replies to the question “Do you keep your body with physical exercises?”

#### DISCUSSION:

Modern life has been creating preconditions for systemic hypodynamics.

In the struggle for fast professional growth and overcoming of rivalry, lots of medical specialists underestimate and do not pay attention to offered prophylactic measures for prevention of musculoskeletal diseases.

It has been noted during carrying out the inquiry that most of the respondents have announced that they have needed such program but they have been too busy and have not had free time for systematic activities. The results indicated that more and more young people are affected. After being acquainted with the kinesitherapeutic program and its systematic application

within four months, the participants changed their lifestyle in favor of systematic physical activities.

The obtained results proved the decisive role of physical activity as prevention of the most frequent pathology – musculoskeletal diseases.

Diseases from which can be affected workers in all sectors and professions. Besides their influence upon the staffs' health, they cause high expenses for companies and the whole society.

## CONCLUSION

For good prevention of musculoskeletal diseases it is necessary to be formed duly healthy habits, good motive activity as well as to be given information to future medical specialists how to protect themselves from that problem.

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