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Attitude to medical care and physical activity in population: gender aspects, prevalence and interrelations

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Objective. *To study the prevalence and interactions of attitude to medical care and physical activity workplace in men and women aged 25–64 years and belonging to the open urban population of Tumen.*

Materials and methods. *The study was based on cardiological screening among a representative sample of population, the response amounted to 77,7%. The sample of 2000 people was taken from the electoral lists of one of the administrative districts of Tumen and divided into four groups of different age and gender (25–30, 35–44, 45–54, 55–64 years), consisted of 250 persons each. Stress at work was determined using the WHO questionnaire «MONICA-psychosocial».*

Results. *The results of this study showed that men of working age had negative attitude to physical activity, which did not depend on their attitude to medical care. At the same time, men with negative attitude to medical care*

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were less active, and men with positive attitude to medical care felt more active compared with other people of the same age. Attitude to medical health did not affect physical activity in women. However, women with negative attitude to medical care, unlike men, felt more active.

Conclusion. *Thus, the results on the correlation of attitude to medical care and physical activity and the objective-subjective indicator of public health obtained in this study may be used as the scientific basis for organizing complex socially oriented preventive programs with the main focus on the needs of risk groups – men of working age.*

Key words: *medical care, physical activity, open population, gender differences.*

Conflicts of interest: nothing to declare.

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Introduction

Health of working population is one of the main factors of productivity and economic growth that determines safety and welfare of society.

Many researches have shown, that physical activity in combination with many factors is very important to maintain and improve the quality of life [1–5]. Thus, according to results of University of Michigan's (USA) study on sociodemographic risk factors, chronic diseases, and a history of smoking, people with low muscular strength have 50 % higher chance of early death [6].

At the same time, attitude to medical care is one of the most important objective-subjective indicators of health in population. Many universities conducted studies on medical care and public knowledge in matters of health. Such knowledge is necessary for everyday life of people, so each person can formulate his own opinion and make decisions about his own health [7, 8].

Attitude to medical care is one of the objective-subjective health indicators that is related to population's behavioral characteristics and the risk of non-communicable diseases, including primary cardiovascular diseases. Nowadays population's behavioral including attitude not only to physical activity, but to health and medical care in each case can affect civilization and has its benefits and risks [9, 10].

According to many researches attitude to medical care has gender differences that may be used as the scientific basis for organizing complex socially oriented preventive programs based on the level of medical care in particular area and the possibilities of population in increasing physical activity.

Objective

To study the prevalence and interactions of attitude to medical care and physical activity workplace in men and women aged 25–64 years and belonging to the open urban population of Tumen.

Materials and methods

The study was conducted in the framework of cardiological screening among men and women aged 25–64 years belonging to the open urban working population of Tyumen. A representative population, that involved 2000 participants, was taken from the electoral lists of one of the administrative districts of Tyumen, and included 250 men and women of each age group (25–34, 35–44, 45–54, 55–64 years), the response amounted to 77.7 %.

Questioning of participants was conducted using WHO-MONICA psychosocial questionnaire "Knowledge and attitude towards their health" [11]. Questions of the questionnaire were accompanied by a list of fixed answers, including attitude to physical activity and medical care, from which the respondents could choose the most correct answer, by their opinion.

Statistical analysis was done using SPSS 11.5 Statistics, Statistica 7.0 software and Microsoft Excel spreadsheets, according to the methods of variance statistics. The research data for categorical variables are represented in fractions (percent) for men and women. Pearson's chi-squared test (X^2) was used to determine the statistical significance of the results between different groups.

Results

According to data analysis, 10,5 % of men and 15,2 % of women in open urban population of Tyumen "often" and "very often" had positive experience of medical care (table 1).

We found the following results when comparing men and women aged 25–64 years of open urban population in their attitude to physical activity and medical care.

Table 1. **Did you have positive experience of medical care?**

Question / attitude Abs. %	Never n=272/155 (32%/22%)		Once or twice n=186/151 (21.9%/21.5%)		A few times n=303/290 (35.6%/41.3%)		Often n=80/94 (9.4%/13.4%)		Very often n=9/13 (1.1%/1.8%)	
	abs.	%	abs.	%	abs	%	abs.	%	abs.	%
1. Do you exercise (excluding your work)?										
1.1. I don't need this	52/7	19.2/4.4***	27/4	14.5/2.6***	33/10	10.9/3.4***	10/3	12.5/3.2*	5/2	55.6/15.4*
1.2. I should exercise, but I don't	134/81	49.3/52.3	92/88	49.4/58.3	150/174	49.5/60.1*	32/47	40.0/50.0	1/7	11.1/53.8*
1.3. I tried unsuccessfully	36/35	13.2/22.6*	26/28	14.0/18.5	63/60	20.8/20.7	16/21	20.0/22.3	0/4	0.0/30.8
1.4. I exercise regularly	48/30	17.6/19.4	39/29	21.0/19.2	54/45	17.8/15.5	20/23	25.0/24.5	2/0	22.2/0.0
1.5. According to my doctor, exercising is contraindicated to me	2/2	0.7/1.3	2/2	1.1/1.3	3/1	1.0/0.3	2/0	2.5/0.0	1/0	11.1/0.0
2. Did your physical activity (moving. exercising. etc.) change over the last 12 months?										
2.1. Yes, I became more active	40/22	14.7/14.2	21/23	11.3/15.2	35/36	11.6/12.4	9/8	11.3/8.5	1/0	11.1/0.0
2.2. No	168/100	61.8/64.5	111/99	59.7/65.6	193/185	63.6/63.8	45/64	56.3/68.1	7/11	77.8/84.6
2.3. I became less active	64/33	23.5/21.3	54/29	29.0/19.2*	75/69	24.8/23.8	26/22	32.5/23.4	1/2	11.1/15.4
3. How do you estimate your physical activity compared with people of the same age?										
3.1. I am significantly more active	36/21	13.2/13.5	21/30	11.3/19.9*	34/30	11.2/10.3	7/6	8.8/6.4	2/0	22.2/0.0
3.2. I am a little more active	78/31	28.7/20.0*	53/39	28.5/25.8	81/77	26.7/26.6	23/28	28.8/29.8	3/2	33.3/15.4
3.3. I am the same	124/73	45.6/47.1	72/54	38.7/35.8	132/118	43.6/40.7	33/45	41.3/48.0	3/8	33.3/61.5
3.4. I am a little less active	26/21	9.6/13.6	34/17	18.3/11.3	44/49	14.5/16.9	13/14	16.3/14.9	1/2	11.1/15.4
3.5. I am significantly less active	8/9	2.9/5.8	6/11	3.2/7.2	12/16	4.0/5.5	4/1	5.0/1.1	0/1	0.0/7.7

Comment: Significance of differences between men and women is signed with * in the right corner of the table cell.

Statistically significant gender differences were found in negative answer to question about physical exercise (the answer "I don't need this") regardless to attitude to medical care. Men who didn't understand the necessity of physical exercise were prevalent compared with women regardless to answer to the question "Did you have positive experience of medical care?" (the answer "never" — 19.2% and 4.4%, p <0.001; "ones or twice" — 14.5% and 2.6%, p <0.001; "several times" — 10.9% and 3.4%, p <0.001; "Often" — 12.5% and 3.2%, p <0.05; "very often" — 55.6% and 15.4%, p <0.05, respectively).

Women with positive attitude to medical care (had positive experience) answered "I should exercise, but I don't" to the question about physical activity more frequent compared with men — "a few times" — 49.5% and 60.1%, p<0.05, "very often" — 11.1% — 53.8%, p<0.05, respectively.

Women who never had positive experience of medical care answered "I tried unsuccessfully" to the question "Do you exercise?" more frequent compared with men (13.2% and 22.6%, p<0.05, respectively).

Women who had positive experience of medical care once or twice became less active over the last year compared with men (19.2% and 29.0%, p<0.05, respectively).

Meanwhile, women who had positive experience of medical care ones or twice felt more active compared with other people of the same age (19.9% and 11.3%, p <0.05 respectively). Men who never had positive experience of medical care felt more active compared with other people of the same age (28.7% and 20.0%, p<0.05, respectively).

Discussion

The results of the current study showed that in general smallest part of open urban working population of Tyumen "often" or "very often" had positive experience of medical care. At the same time, when considering gender aspect, we found that men and women had different attitude to medical care that reflects the correlation between physical activity of population and emotional component and showed that healthy lifestyle includes not only behavioral characteristics (for example, attitude to physical activity) but the desire to undergo medical examination (and have positive experience).

The analysis showed that men of working age mostly had negative attitude to exercising regardless to their attitude to medical care. At the same time, men with negative attitude to medical care were more active and men with positive attitude to medical care felt more active compared with people pf the same age. This correlation shows that physical activity in men compared with women in general positively affects attitude to life circumstances, including medical care.

Attitude to medical care didn't affect the desire to exercise in women. But women who never had posi-

tive experience of medical care felt more active compared with men and people of the same age.

The results of current study are comparable with data of previous studies on the open urban population of Tyumen on the physical activity in association with social gradient and on the attitude to health in association with factors of chronic stress in gender aspects [13, 14].

Thus, according to data of these studies, men from groups of managers, specialists and engineers had the highest physical activity, but even these groups were less active than women [13]. At the same time, single men (compared with single women) had more negative attitude to preventive medical examination [12]. Thus, according to data based on selective social groups and the results of current study, we can assume that healthy lifestyle in men's population include behavioral characteristics (physical activity) and objective-subjective indicator of health in population (attitude to preventive medical examination and medical care).

Previous studies also showed that women with secondary and higher education as well as non-working women (most of the population) had the highest desire of physical activity [13]. At the same time, women were more responsible to their health and were more prepared to take urgent measures in case of emergency or chest pain [14]. Thus, according to data obtained in previous and current studies on Tyumen population, healthy lifestyle less correlated with emotional component, including positive and negative experience of preventive medical examinations and medical care, in women.

Conclusion

Thus, the results on the correlation of attitude to medical care and physical activity and the objective-subjective indicator of public health (based on the model of Tyumen city) may be used as the scientific basis for organizing complex socially oriented preventive programs with the main focus on the needs of risk groups — men of working age and on the awareness of the city administration on the attitude to medical care in population.

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