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Influence of physical activity to improve quality of life women after 55 years of age

Wpływ aktywności fizycznej na poprawę jakości życia kobiet po 55 roku życia

Summary
Objective of the study. The aging of the organism is irreversible and inevitable, but by appropriate dosage of physical activity can slow down this process, and thus prolong youth. The aim of this study was to examine what place of women in the life of over 55 year old takes physical activity, what are the motives of its making and how it affects their quality of life.
Materials and methods. The material consisted of data obtained from women practicing Nordic walking, practicing in the Szczecin fitness clubs and regularly use the pool. The study was conducted from April 2011 to February 2012, using a diagnostic survey, questionnaire technique. A total of 286 anonymous questionnaires filled women. For the data analysis, were selected 62 respondents who have completed 55 years.
Results. Each of the respondents achieved at least one of the intended effects. The vast majority of respondents felt the physical improvements (89%), and almost 26% loss of body weight.
Conclusions. The women who have completed 55 years take mainly physical activity for health reasons. Physical activity has improved the quality of life of all respondents, and the effects of exercise were achieved depending on the length of practice selected forms of physical activity. It was found that the motives of physical activity are not dependent on the level of education and professional activity of the respondents.

Key words: physical activity of women, the aging of the organism, quality of life

Streszczenie
Cel badań. Starzenie się organizmu jest procesem nieodwracalnym i nieuniknionym, lecz dzięki odpowiednio dawkowanej aktywności fizycznej proces ten można spowolnić, a tym samym przedłużyć młodość. Celem pracy było zbadanie jakie miejsce w życiu kobiet po 55 roku życia zajmuje aktywność fizyczna, jakie są motywy jej podejmowania i jak wpływa ona na ich jakość życia.
Materiał i metody. Materiał do badań stanowiły dane uzyskane od kobiet uprawiających Nordic Walking, ćwiczących w szczecińskich klubach fitness oraz korzystających regularnie z pływalni. Badania prowadzono od kwietnia 2011 roku do lutego 2012 roku metodą sondażu diagnostycznego, techniką ankiety. Łącznie anonimowe kwestionariusze wypełniło 286 kobiet. Do analizy danych, wytypowano 62 respondentki, które ukończyły 55 lat.

Wyniki badań. Każda z badanych osób osiągnęła przynajmniej jeden z zamierzonych efektów. Zdecydowana większość respondentek odczuła poprawę kondycji fizycznej (89%), a prawie 26% utratę masy ciała.
Wnioski. Badane kobiety, które ukończyły 55 lat podejmowały aktywność fizyczną głównie z powodów zdrowotnych. Aktywność fizyczna wpłynęła na poprawę jakości życia wszystkich respondentek, a osiągnięte efekty ćwiczeń były zależne od długości uprawiania wybranej formy aktywności ruchowej. Stwierdzono, że motywy podejmowania aktywności fizycznej nie są zależne od poziomu wykształcenia oraz aktywności zawodowej respondentek.

Słowa kluczowe: aktywność fizyczna kobiet, starzenie się organizmu, jakość życia

Introduction

Physical activity is one of the fundamental characteristics of human functioning. The information contained in the genes impinge on the ability to move condition and psychological ground motion needs, which can be seen especially in young children. Satisfying this need is necessary for the proper development of the physical, motoric, mental and social development. It is also part of the prevention of many disorders arise at all stages of human ontogeny (Żołnierczyk-Glass, 2002).

Perspective development function physical activity is valid from birth to the age of adulthood. It involves stimulation of favorable physical development. This is done by forming functional and morphological characteristics of an organism that determine its ability to adapt to changing conditions, generating results in subsequent phases of life (Lipowski, 2005).

Motoring organism is dependent on everyday life, which leads man. Maximum motor capabilities is for approx 30 years old and over the years decreases reduced levels of coordination, speed and endurance and muscle strength (Wysocka, 2003). In adulthood, physical activity helps maintain an appropriate level of motor skills, compensate for the burden of professional work and helps maintain balance psychophysical. At the age of late adulthood physical activity plays the an anti involutional role, which slows the aging process and contributes to the health and well-being. The role of activity in this period is to maintain fitness and psychophysical efficiency, improve locomotor system through its better blood circulation and protect against degeneration. The movement has a positive effect on the function of the brain, heart, lungs, liver and other organs. Activity also stimulates the psyche, increased life satisfaction, serenity of spirit, which is essential for the optimal experience of old age (Lipowski, 2005).

Motoric period of old age is a consequence of living maintained in earlier periods ontogenetic. Physical activity during this period is an important factor in delaying the inevitable process of aging. The aim activity is to increase the physiological efficiency the organism, improve the heart, to improve the efficiency of the senses, and brain blood circulation. Followed by a process involution motor, or a decrease in muscle strength and reduced exercise capacity. Speed is reduced, the flexibility and fluidity of movement as a result of decrease in the number of active cells in the brain and muscle. The result is a reduced ability to make every effort, especially endurance. At this age, the human body is not sufficiently prepared for high-intensity effort and intensity, and the whole system osteo-articular-ligament is susceptible to all kinds of injuries and concussions (Wysocka, 2003).

Declining birth rate and a gradual lengthening of the human life means that people in Europe, including the Polish aging. Currently in Poland, people aged over 60 represent 17% of the total population (CSO, 2012), and according to forecasts, in 2030 every fourth Pole reaches the threshold of old age. Therefore, the state health policy will have to meet the expectations and needs of an aging population. People not only want to live longer, but also to maintain into old age a good quality of life. Allow it above all relatively good health (Osinski, 2002). Human health depends on many factors, among which the most important role plays lifestyle. Proper nutrition and regular physical activity tailored to the individual needs of man are the basic elements of a healthy lifestyle (Cendrowski, 1993). Resolution of the 57th World Health Assembly on 22 May 2004 with the adoption of the Global Strategy on Diet, Physical Activity and Health calls on member states to programming, implementation and evaluation of measures to improve the the health of communities by promoting proper diet and increased physical activity (Jarosz, 2009).

Increased physical activity in old age could biologically "rejuvenate" the man as much as a dozen years. Studies have shown that exercising in the elderly may increase the physiological efficiency, improve heart function, increase the flexibility of vessel walls, improve the efficiency of the senses such as sight and kinesthetic sense and improve the brain blood supply (Osinski, 2000). Regular physical activity also helps maintain a healthy body weight and an obstacle to senile joints stiffnes and reduce the range of motion (Smith, 2009).

The results of population studies show that women are less physically active than men. This regularity is particularly evident especially in girls and older women, because they are taking less exercise than their peers of the opposite sex (Bidle et al. 1998). Decreased activity in older women may be a warning signal associated with the deterioration of health.

The aim of this study was to examine what place in the life of women over 55 years of age takes physical activity, what are the motives of its making and how it affects their quality of life.

Material and methods

The studied material consisted data obtained from April 2011 to February 2012, using a diagnostic survey, survey technique (Pilch, Bauman, 2001). Anonymous questionnaires were distributed among women practicing Nordic walking, exercising in the fitness clubs in Szczecin and swimming pools regularly visiting. A total of 286 women were examined, from which the data for further analysis, 62 were selected respondents who have completed 55 years.

Filled by them questionnaire consisted of two parts. The first concerned the socio-demographic characteristics such as age, education, family structure, financial situation and economic activity, and the other - reasons for physical activity and its impact on the types and quality of life of patients. Filling in the questionnaire survey was voluntary and respondents had unlimited time to respond.

The collected empirical material became the basis for a simple test of statistical dependence and allowed the qualitative and quantitative analysis of the results. For some nonparametric characteristics were calculated test c^2. It was used to check the presence of the relationship between the variables studied in the qualitative survey and those that cannot be quantified (Stanisz, 2006).

Results

The study group in the majority of the respondents were women with secondary and higher education. They accounted for 45% and 30% (Table 1). Twenty-four percent of the women stated the professional education, and in the study group was not women with primary education. Most of the respondents are married - 46% and single people - 35%, among which a significant proportion constituted widows and divorced - almost 21%. Women living in an open relationship was 18%. Fertility rate of the women were as follows: 42% declared to have one child, two children, 26%, 15% - three, nearly 10% had no children, and 8% had more than three children. Respondents also made a subjective assessment of the material of his family. The vast majority, almost 68% identified their financial situation as good, bad - almost 18% and a very good 15% of the respondents. Analyzing women's economic activity has shown that the majority - 52% is pensioners. A group of working women was 29%, while women not working and persons who are on a pension is, respectively, 11% and 8%.

Most surveyed women in old age exercise regularly over 4 years (37%) and from 2 to 4 years (35%). Shorter periods of 1 - 2 years declared 15% of the respondents. Shortest, for less than a year practicing less than 10%. It is widely recognized that the best results are obtained by taking physical activity 3 times a week (Cendrowski, 1993). This rule applied only less than 13% of the respondents. Ladies most participated in physical activities two times per week (40%) and 1 week (31%). Every day practicing 6% of the respondents, and nearly 10% of women practiced only occasionally. The majority of women (66%) participated in only one form of physical activities.

Considering the preferred form of physical exercise, opinions were divided - 52% of respondents preferred to individual sessions, and 48% more likely to participate in organized activities. A very important aspect of the study were the motives of making physical activity. For all the ladies aspect of health was the most important. Over 82% of respondents practiced to reduce weight and improve their fitness. Nearly 70% of practicing because she liked to move. Aesthetic considerations are important for almost 31% of women, and social considerations prevailed in nearly 18%. Fifteen percent of the surveyed women has been the fashion for physical activity.

Physical activity had a positive impact on the quality of life of all surveyed women. Each of them has reached at least one of the desired effects. The vast majority of respondents felt the physical improvements (89%), and almost 26% reduced weight. Nearly 21% of women have not observed the desired weight loss but have noticed improvement in well-being. Over 11% of respondents treat physical activity as the perfect relaxation after work.

Tab. 1. The results of survey research conducted among women over 55 years of age, practicing Nordic Walking, fitness and recreational swimming

No.	Question in the survey	Answers	N	[%]
1	2	3	4	5
1.	Education	Primary	0	0%
		Vocational	15	24.19%
		Secondary	28	45.16%
		Higher	19	30.64%
2.	Marital Status	Single	9	14.51%
		Married	29	46.77%
		Single (divorced, widow)	13	20.97%
		Cohabitation	11	17.74%
		Other	0	0%
3.	Number of children	0	6	9.68%
		1	26	41.93%
		2	16	25.81%
		3	9	14.51%
		Over 3	5	8.06%
4.	The financial situation of the family	Bad	11	17.74%
		Good	42	67.74%
		Very good	9	14.51%
5.	Professional Activity	Work	18	29.03%
		Not work	7	11.29%
		Annuity	5	8.06%
		Pension	32	51.61%
6.	How long do you practice Nordic walking / fitness / recreational swimming?	less than 1 year	6	9.68%
		1 – 2 lat years	9	14.51%
		2 – 4 lat years	22	35.48%
		Over 4 years	23	37.09%
		Inne Other	2	3.22%
7.	How many times a week practicing Nordic walking / fitness / recreational swimming?	Daily	4	6.45%
		3 times in a week	8	12.90%
		2 times in a week	25	40.32%
		Weekly	19	30.64%
		Other	6	9.68%
8.	What forms of activities you are most involved?	Indyvidually	32	51.61%
		Orgaised	30	48.39%

9.	Do you take other forms of physical activity?	Yes	21	33.87%
		No	41	66.13%
10.	Motives of practicing nordic walking / fitness / recreational swimming	For health	62	100.0%
		Loose weight	51	82.25%
		Good locking	19	30.64%
		Because I like	43	69.35%
		To improve conditions	51	82.25%
		It's trendy	9	14.51%
		Because friends practice	11	17.74%
		Other	0	0.0%
11.	What effect have you already reached practicing Nordic walking / fitness / recreational swimming?	Lost weight	16	25.81%
		Do not lost weight, but I'm feeling better	13	20.97
		I have a better condition	55	88.71%
		Relax after work	7	11.29%
		None	0	0.0%
		Other	2	3.22%

To check whether there is a relationship between physical activity motives of women who are at least 55 years of age and their level of education and professional activity, and length of practice chosen form of recreation and achieved effects were calculated chi-square (c^2) (with Yates' correction - the expected number <5). The calculated value of c^2 for the adopted hypotheses zero, allow to conclude that motives for physical activity does not depend on the level of education of the respondents with a probability of type I error equal to 0.05 (value of chi-square was 17.827, a reference value of tables 21.026 for 12 degrees of freedom) (Table 2). Motives for physical activity does not depend on the professional activity of the respondents with a probability of type I error equal to 0.05 (value of chi-square was 28.300, a reference value of tables 28.869 for 18 degrees of freedom) (Table 3). Achieved effects of exercise depends on the length of the chosen form of sports recreation (value of chi-square was 107.963, the reference value tables of 26.296 for 16 degrees of freedom) (Table 4).

Tab. 2. Motives for physical activity and education

EDUCATION	MOTIVES OF PHYSICAL ACTIVITY								
	Health	Loose weight	Good looking	Because I like	Improve conditions	It's trendy	Because friends practicing	Other	SUMMARY:
Primary	0	0	0	0	0	0	0	0	0
Vocational	15	15	7	5	9	4	6	0	61
Secondary	28	23	9	23	24	3	5	0	115
Higher	19	13	3	15	18	2	0	0	70
SUMMARY:	62	51	19	43	51	9	11	0	246

Tab. 3. Motives for physical activity and education

PROFESSIONAL ACTIVITIES	MOTIVES NORDIC WALKING, FITNESS OR RECREATIONAL SWIMMING								
	Health	Loose weight	Good looking	Because I like	Improve conditions	It's trendy	Because friends practicing	Other	SUMMARY:
Work (employed)	18	13	7	14	17	4	4	0	77
Not work (not employed)	7	7	6	3	5	2	5	0	35
Annuity	5	4	3	2	4	1	1	0	20
Pension	32	27	3	24	25	2	1	0	114
SUMMARY:	62	51	19	43	51	9	11	0	246

Tab. 4. Length of practice chosen form of recreation and achieved effects of exercise

	WHAT EFFECT HAVE YOU ALREADY REACHED PRACTICING NORDIC WALKING, FITNESS OR RECREATIONAL SWIMMING?							
HOW LONG HAVE YOU PRACTICING CHOOSEN FORM PHYSICAL RECREATION		Lost weight	Do not lost weight, but I'm feeling better	I have a better condition	Relax after work	None	Other	SUMMARY:
	Less than 1 year	3	1	5	3	0	0	12
	1 – 2 years	4	2	7	2	0	0	15
	2 – 4 years	7	3	20	1	0	0	31
	Over 4 years	2	7	23	1	0	0	33
	Other	0	0	0	0	0	2	2
	SUMMARY:	16	13	55	7	0	2	93

Discussion

The phenomenon of movement accompanied man throughout his life. Adequate physical activity is a factor in prolonging youth and prevent aging of the body (Zołnierczyk-Glass, 1999). In old age, often after retiring man has more free time that can be spent on leisure, entertainment, personality development. Prophylactic particular importance in this period is physical activity, which may be limited to walks and early morning exercise. Using the available forms of movement, optimism and desire for all kinds of works are good symptoms aging. Habits age of post-production, pro-health attitudes is a result of behavior shaped the earlier stages of life. Determinant of physical activity is mobility, which is essential for independent coping in everyday life. As shown, the benefit of exercise in the elderly is better mood, increased self-esteem and, consequently, increase the quality of life.

Aging is a natural stage of human life, and people are aging in a differentiated manner. About this, what will be the age of man, depends on many factors, among which very important role plays health, to a large extent conditioned by physical activity and diet (Chrapkowska-Zielinska, Wolf 2007). The effects of reduced physical activity in the elderly are comparable to the effect that causes high blood pressure, smoking, obesity, etc. (Osinski, 2002).

Despite the undisputed role of the positive effects of regular undertaken physical activity by the elderly, still there is no information of the motivation mechanisms and barriers and long-term programs for the elderly. That is why it is extremely important

study motives seniors to participate in physical activities (Siekanska, Wojcik, 2009). Work carried out for the purposes of the study are encouraging. For all respondents, the main motive for inducing physical activity was the health aspect. In addition, 82% of women practicing to lose weight and improve their fitness.

A very important aspect of old age is quality of life. Currently a lot of research has been aimed at reducing morbidity and increasing the length and quality of life. The test is carried out, in particular, by the influence of physical activity on the reduction of heart disease, obesity, diabetes, etc. (Osinski, 2002). Analyzing the results of the research work we found that physical activity had a positive impact on the quality of life of all surveyed women. Each of them has reached at least one of the desired effects. The vast majority of respondents felt the improvements physical condition, large group of women observed lose weight and feel better.

Decline in performance and physical fitness with age is inevitable, but it runs at different rates in different people. On the slowdown affects largely maintain into old age physical activity. Research shows a direct link between low physical activity and premature death (Osinski, 2002). Should therefore make every effort to ensure that at all stages of ontogeny society was prepared to take enough physical activity, in order to live in accordance with the principle to add life to years, not years to life.

Conclusions

Based on the study the following conclusions can be drawn:

1. Women who are over 55 years undertake physical activity, mainly for health reasons.
2. Physical activity has improved the quality of life of all surveyed women, and the effects of exercise are achieved depends on the length of the chosen form of sports recreation.
3. It was found that the motives of physical activity are not dependent on the level of education of the respondents, the motives for physical activity are not dependent on the professional activity of the respondents and achieved effects of exercise are related to the period chosen form of sports recreation.

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