SUMMARY

PHYSICAL ACTIVITY OF MEN AND WOMEN FROM INDEPENDENT CULTURAL CENTERS AND HEALTH RECOMMENDATIONS AND SELF-ASSESSMENT OF QUALITY OF LIFE

Many researchers have pointed to the importance of physical activity (PA) in health prophylaxis in recent years (Bouchard et al. 1994, Astrand 2000, Drabik 2006, Kwilecka 2006, OsiCski 2016, Corbin et al. 2007, Haskell 2007, ĞuszczyCska 2011, Der Ananian, Ainsworth 2013, White DK et al. 2015, Turner, Avolio 2016, Shephard 2017). The study confirms that a moderate-intensity PA taken at regular intervals reduces the risk of many diseases related to the so-called civilization progress. Among the most often mentioned ones is type II diabetes, but obesity, hypertension, neoplastic diseases, cardiorespiratory, musculoskeletal, osteoarticular and nervous disorders occur as well (Samitz et al. 2011, Lee et al., 2012). Physical activity is also one of the essential elements of a healthy lifestyle, which has a significant impact on its quality (Wohl et al. 2017, Melnyk et al 2018, Niestrój-Jaworska 2018). Specialists emphasize that regularly undertaken PA should not only become a way of spending free time but also a duty, a command, a moral duty of every human being (Astrand 2000, Drabik 2006, Kwilecka 2006, OsiCski 2016).

Both national and international authors, pointing to the necessary parameters of physical activity and their pro-health significance, most often refer to the recommendations of the World Health Organization (WHO 2010). They allow for determining to what extent the level of physical activity of a given person or occupational group is beneficial for health. In recent years, the physical activity of schoolchildren, students as well as the elderly has been assessed in this context. Also, some other groups, i.e. health professionals, administrations, executives, penitentiaries and teachers were examined. However, there are few studies of physical activity of members of non-governmental organizations as well as other, often informal and hermetic associations. In this light, researching into the hitherto unresearched associations, forming the so-called Independent Cultural Centres (ICCs) in Poland, was justified in this work.

The obtained results are probably the first attempt to assess physical activity and the quality of life in the ICC members, who rely on own initiative, operating and developing the cultural sector following the D.I.Y. programmes.

Purpose of the research

The cognitive aim of the work is to assess the frequency, volume and intensity of physical activity and self-assessment of the quality of life of those working in selected Independent Cultural Centers in Poland. The application goal of the conducted research is to recognize the strength and directions of the alleged interdependencies between the level of physical activity and the self-assessed quality of life in the respondents of the ICC.

The assumed hypothesis was that the average level of frequency, volume and intensity of physical activity in the tested persons operating in Independent Cultural Centres is higher than the one displayed by other peer groups.

The factors that were considered to significantly impact the physical activity level of respondents include sex, age, education, occupation, leisure time resources (socio-demographic factors), body composition and self-assessment of own physical fitness (morphological and fitness factors).

It was assumed that the majority of the surveyed women and men meet the recommendations of pro-health physical activity and that the respondents positively assess own well-being and health as elements of the quality of life.

It was also estimated that the level of physical activity in the studied women and men has a significant impact on the respondentsô quality of life.

Material and methods of the research

The study involved 112 persons working in the Independent Cultural Centres located in Warsaw, Lublin, Gliwice and Wrocğaw. Altogether, 104 correctly completed questionnaires on physical activity and quality of life were included in the statistical analyses. The study group consisted of 38 women and 66 men aged 19 to 46 years (29.0 ± 5.3). Women were significantly younger (26.5 ± 4.7 years) compared to men (30.5 ± 5.2 years).

The quantitative (volume, frequency) and qualitative (intensity) parameters of the respondentsô weekly physical activity were determined using the International Physical Activity Questionnaire (IPAQ) in its short version (App. 1). The data were enriched by information from additional questions regarding the amount of leisure time, self-assessment of physical fitness, occupation, as well as undertaken and preferred activities (App. 2). The collected data enabled the assessment of physical activity undertaken by the respondents during seven consecutive days preceding the survey. The final estimation of the weekly volume of physical activity determined by the IPAQ questionnaire was expressed in units of

exercise metabolic, i.e. MET / min × week, on which caloric expenditure (kcal) was calculated.

The obtained values of PA self-assessment enabled assessing to which level health-oriented recommendations for physical activity parameters were fulfilled (WHO 2010, ACSM 2007) by individual respondents, as well as determining the percentage of persons meeting the recommendations, both men and women.

The Polish version of the Short Form Health Survey questionnaire, the second version, (SF-36v2) was used for the self-assessment of health-related quality of life (App. 3). This tool, in conjunction with physical activity questionnaires, enabled visualizing the assumed impact of PA on the respondentsô quality of life. The surveyed persons self-evaluated eight parameters (subscales) referring to their quality of life concerning both physical and mental health.

The respondents' answers were transformed and normalized on the 0-100 point-scale, according to the recommendations of the Polish version of the questionnaire (ł oğnierczyk-Zreda et al. 2009). Subsequently, the results were interpreted basing on the standard set at 50 points. The final value was presented in the form of a quality of life index constituting the sum of points indicated in all eight quality of life assessment scales.

Due to a significant socio-demographic differentiation of the studied group, statistical analyses of the findings were divided according to the age group of the respondents (I - up to 30 years and II - above 31 years), their education (I - primary or secondary and II - higher), the nature of their professional work (I - physical and II - mental) and the amount of leisure time (I - insufficient and II - sufficient).

Results

The average frequency of vigorous effort (VPA) in the respondents from the Independent Cultural Centres was 3.6 days per week. This result was much better than the one obtained in the residents of Warsaw (Biernat 2011) and Katowice (Puciato et al. 2018), as well as in the younger group of students from Katowice and Czechowice-Dziedzic (Mynarski et al. 2012).

As for the moderate effort (MPA), it was taken up by members of the associations on average four (4.1) days per the week, which is also a better result compared to the one obtained in Warsaw (Biernat (2011) and Katowice residents (Puciato et al. 2018). The result obtained in the respondents of the ICCs is also superior compared to the one achieved by students from Katowice and Ciechowice-Dziedzic (Mynarski et al. 2012).

Also, those surveyed in my own research demonstrated a higher frequency of low-intensity effort (LPA). They engaged in PA on average six (6.2) days per week, which was a higher frequency than in those in Warsaw (Biernat 2011).

The analysis of the volume of effort at particular intensity levels showed that the average time devoted to PA by the respondents from the ICC during a day (a typical week) was 153 minutes. Low-intensity effort (LPA) was predominant, taken on average for 65 minutes per day, followed by moderate (MPA) ¬ 54 minutes a day, and high (VPA) ¬ 44 minutes on average during the day. The respondents form the tested group declared a lower daily volume of physical effort in the above intensity levels compared to the students from Ciechowice-Dziedzice and Katowice residents (Mynarski et al. 2012). On a weekly scale, the respondents from the Independent Culture Centres undertook physical activity on average for 722 minutes, including LPA for 406 minutes, MPA for 206 minutes and VPA for 150 minutes per week. The time volume declared by the respondents was higher compared to the one indicated by representatives of the majority of professional groups in Warsaw (Biernat 2011), as well as that shown by members of the association promoting health in Zagğbie DŃbrowskie (Dňbska et al. 2017).

The analysis of the level of physical activity intensity in the ICCs respondents showed that 97.1% of them declared low-intensity effort, 89% ¬ high, while 86.5% were involved in moderate intensity PA. The respondents obtained better results in each of the analyzed levels of PA in comparison to the Warsaw residents (Biernat 2011).

The weekly energy expenditure in the respondents from the surveyed associations amounted to 3157 METRIM / week, i.e. 500 contract units more than in the ones who underwent the tests in Warsaw (Biernat 2011).

The current publications, on average, show higher PA values in men than women (Colley R. C. et al. 2011, Puciato et al. 2013, Bergier B. et al. 2014, Ğysak et al. 2014). However, the study group did not show any statistically significant variations between the indicators of physical activity in male and female representatives.

The analysis of the relationship between socio-demographic and morphological-fitness factors and the respondentsô physical activity showed that it is age, education, the character of employment, as well as leisure time resources that significantly impact the level of PA.

The analysis of the percentage (%) of the respondents' complying the pro-health recommendations in physical activity behaviour showed that the vast majority of them (84.6%) meet the recommended safe minimum in pro-health PA behaviour as indicated by the World Health Organization (75 minutes VPA / 150 minutes MPA). In these persons, the vast

majority (87.5%) were those who met the criterion of high intensity (VPA) effort, but less frequently (12.5%) fulfilled the recommendations related to moderate activity (MPA).

Furthermore, the majority of the ICC members (53.8%) also fulfilled the optimal recommendations of pro-health PA formulated by the WHO (150 min. VPA / 300 MPA). Also in this case, it more often refers to the persons following the recommended amount of high-intensity physical activity (VPA) (82.5%), while less often to the respondents meeting the recommendations for moderately intense physical efforts (MPA), i.e. in 17.9%. Furthermore, most of the respondents (67.3%) follow the recommendations for pro-health PA formulated by the American College of Sports Medicine (ACSM) (5x30 min. MPA / 3x20 min. VPA).

The respondents' self-assessment of quality of life was examined in terms of physical (PCS) and mental (MCS) health. The analysis of the findings showed higher values in men (in comparison to women) in both dimensions of quality of life, in each of the eight analysed indicators (subscales).

The average values of self-assessment of quality of life in the respondentsô employed in the ICCs exceeded the ones indicated by the population standard; however, women demonstrated values below this average. In the physical dimension of quality of life, it was due to pain-related problems (BP) and general health (GH). In the psychic dimension, however, it results from limitations in performing oneôs roles due to emotional reasons (RE). It should be noted though that these findings were slightly lower (from 0.6 to 2 points) than the accepted norm of 50 points.

The search for the correlations between the physical activity parameters and self-assessment of quality of life in the respondents from Independent Cultural Centres did not show any significant relationships between the intensity of physical activity and the results indicated in the assessment of these variables.

Conclusions

The obtained results enabled positive verification of the third and fourth hypotheses, as well as partial positive verification of the second one. The first and fifth hypotheses have been verified negatively.

After verifying the hypotheses, the following conclusions were formulated:

1. The frequency of weekly PA, its volume and intensity in the respondents from the Independent Cultural Centres does not exceed the level indicated in other groups of domestic respondents of similar age.

2. Among the analysed socio-demographic and morphological-fitness factors, it was age that varied most the level of physical activity in the respondents (in favour of younger persons); education (in favour of people with primary or secondary education), character of the employment favouring manual workers) and leisure time resources (benefitting people declaring a sufficient amount of free time).

3. The majority of the surveyed NGOs members fulfil the WHO and ACSM pro-health recommendations concerning physical activity.

4. The people who work for the surveyed organizations generally assess the quality of their lives positively, although, it does not concern women, in whom an unfavourable assessment of the quality of life was demonstrated in physical and mental dimensions.

5. The analysis of the survey findings did not show a significant relationship between physical activity and quality of life in the respondents from the Independent Cultural Centres, which probably results from the fact that members of these associations undertake similar physical activity, participating in the same activities as members of the Independent Cultural Centres. Therefore, it can be concluded that PA is not the factor significantly determining the level of their quality of life.