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ORIGINAL ARTICLE

RELATIONSHIP BETWEEN DIET HEALTH QUALITY AND THE LEVEL OF FUNCTIONAL FITNESS AND QUALITY OF LIFE AMONG POLISH WOMEN AGED 60+

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ABSTRACT

Introduction. Healthy lifestyle is a key factor in improving health and quality of life at any stage of ontogenesis.
Objective. The aim of the study was to assess the relationship between of the health quality of diet and the level of functional fitness as well as quality of life among older women.
Material and Methods. The study was conducted among 201 women aged 60-85 who signed up for the "Active Healthy Senior" project (at the University of Physical Education in Kraków). In the research, the following were used: 1) Dietary Habits and Nutrition Beliefs Questionnaire (KomPAN); 2) Fullerton Functional Fitness Test; and 3) WHOQOL-BREF questionnaire. Relationships between the variables were evaluated using Spearman's R signed rank correlation coefficients in the IBM SPSS 21 program.
Results. In the study, it was demonstrated that along with an increase in the pro-healthy diet index (pHDI-8), agility increased, and with an increase in the non-healthy diet index (nHDI-8), agility and dynamic balance decreased ($p < 0.01$). When there was an increase in pHDI-8, the general perception of quality of life and all domains of quality of life: somatic, psychological, social and environmental, increased ($p < 0.01$). On the other hand, along with the increase of nHDI-8, the psychological domain regarding quality of life experienced a decrease ($p < 0.01$). However, the strength of the demonstrated relationships was low.
Conclusions. Significant (but weak) correlations were found between the health quality of the diet and indicators of functional fitness and quality of life among older women. Thus, health quality of a diet can be one of the predictors of functional fitness and quality of life in elder women.

Keywords: *older adult women, health quality of diet, functional fitness, quality of life, health promotion programme*

INTRODUCTION

Promoting healthy and active aging in Poland is one of the operational goals for the National Health Programme, the strategic objective of which is improving health and quality of life. An element related to the improvement of health potential, further preventing chronic diseases as well as postponing involutional changes is, *inter alia*, maintaining a healthy lifestyle which includes a rational model of nutrition and undertaking recreational physical activity [1]. An active, pro-health lifestyle optimizes various dimensions of holistically-understood health, including physical aspects and psychosocial aspects. On the other hand, mistakes regarding nutrition and hypokinesia are significant factors in the complex etiology of degenerative diseases, including those cardiometabolic, etc. [2, 3].

Within this context, it is necessary to highlight the importance of a significantly varied and balanced diet, which is rich in products having high nutritional density. At the same time, the consumption of high-energy density products, rich in saturated fatty acids, cholesterol, trans polyunsaturated fatty acids and simple sugars, should be limited. Dietary choices define the health quality of a diet, which is a function

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of the implementation of quantitative and qualitative nutritional recommendations, taking into account individual and environmental conditions [2]. Another element of creating health is physical activity, with the features of health training, including endurance and resistance as well as balance, mobility and agility exercises [3, 4]. The positive impact of physical activity on health has been established in various studies. This includes physical fitness, functional fitness, body mass and composition, cognitive functions, mental well-being and social integration of older women [2-4]. Aging is related, among others, with changes in body composition, as well as functional efficiency, which is understood as the aptitude to perform activities of daily living in a safe and effective manner activities [5-7].

Previous studies in this area were particularly concerned with the relationship between physical activity and somatic indicators, functional efficiency and quality of life among seniors [3, 4, 7]. Furthermore, in Finnish research, it has been shown that modifiable risk factors connected with lifestyle, including physical inactivity, increase the risk of depression in older adults [8]. In other studies carried out among this age group, the significance of physical activity with regard to improvement in physical fitness as well as mental state has also been confirmed [9], as well as the optimisation of somatic indicators and increasing life quality, which is defined as subjective assessment of a life situation in relation to culture, the value system, goals, expectations and interests of an individual [10-12]. In our previously published research, relationships were indicated between life satisfaction, eating habits and functional fitness [13] and between dietary behaviors and BMI and functional fitness among senior women [14]. Previous studies have also confirmed the positive impact of participation in a health training program over a 9-month period on BMI, functional capacity and quality of life of women aged 60+ [15].

Despite the crucial importance of behavioral factors for health and quality of life, numerous studies have shown the prevalence of nutritional irregularities and low physical activity in adults and the elderly. Trends in the area have been confirmed in studies carried out among perimenopausal women [16] as well as other groups of senior females in Poland [17, 18]. A low level diet related health quality has also been demonstrated in various regions of the world [19, 20].

The "Active Healthy Senior" project, implemented at the University of Physical Education in Kraków, fits in with the postulate of promoting a healthy lifestyle. The aim of the programme is to improve the psychophysical fitness among these individuals through participation in recreational activities (health training) and lectures on the modified determinants of the aging process as well as the possibility of delaying involutional changes. The programme was described in our earlier publication [13].

In reference to the subject and scope of the presented classes to activate older adults from the metropolitan (Kraków) environment, research was conducted to assess levels concerning the quality of diet-related health, indices of functional fitness and quality of life, and the relationship between of diet health quality and the level of indices of functional fitness and indicators of life quality with reference to the females taking part in the "Active Healthy Senior" project at the time of its commencement. The following research questions have been posed: i) What are the indices of diet health quality and functional fitness and quality of life among elderly women? ii) What are the relationships between diet health quality and the functional fitness as well as quality of life among women who signed up for the "Active Healthy Senior" programme.

MATERIAL AND METHODS

Participants and procedures

The study was conducted among women who agreed to sign up for participation in the "Active Healthy Senior" project, which was implemented at University of Physical Education in Kraków (POWR.03.01.00-00-T225/18). The programme was intended for people aged 60+ and was implemented in 2019-2022. The study was organised after obtaining participants' written informed consent for participation, and the trial was conducted in accordance with the principles proposed by the Declaration of Helsinki. The research protocol was approved by the Bioethics Committee of the District Medical Chamber in Kraków (No. 166/KBL/OIL/2018).

The study comprised a group of 201 women between the age of 60 and 85 (Mean = 66.5, SD = 5.4). The sample was dominated by women with higher (59.3%) and secondary education (36.6%), while fewer had basic vocational education (4.1%). Most of the participants were retired (85.5%), while there were fewer economically-active women (14.5%). Former teachers accounted for the highest percentage (12.4%). The majority of women lived in Kraków (89.7%), less often in smaller centres. The majority resided in a shared household with their spouses (46.9%) or ran a single household (42.2%), and the remaining women lived with their children (10.9%). They assessed their financial situation as average (79.4%), less often as below average (10.5%) and above average (10.1%). In terms of health assessment, women declared the presence of chronic diseases, including hypertension (39.9%), obesity (29.3%), type 2 diabetes (13.6%), osteoporosis (13.6%), lipid disorders (7.6%), neoplastic disease (5.5%) and depressive conditions (3.5%). The presented data regarding sociodemographic and

health characteristics were obtained on the basis of declarations made by the surveyed women (as part of a personal questionnaire).

Instruments

Indices of healthy diet quality

In order to assess nutrition, the Dietary Habits and Nutrition Beliefs Questionnaire (KomPAN), developed by the Human Nutrition Science Committee of the Polish Academy of Sciences, was used [21]. The frequency of product consumption was evaluated on a six-point ordinal scale. The original ranks were then converted into real numbers expressing the daily frequency of food consumption (as times/day), according to the formula: 'never' (0), 'once-three times a month' (0.06), 'once a week' (0.14), 'a few times a week' (0.5), 'once a day' (1) and 'a few times a day' (2) [21].

Totalling the values that determined daily consumption frequency with regard to specific product groups, allowed to note that two indicators of diet quality were calculated: the pro-healthy diet index-8 (pHDI-8), concerning food consumption with possibly positive influence effect on health, and the non-healthy diet index-8 (nHDI-8), indicating food consumption possibly detrimental to health. The pHDI-8 is related to the frequency of consuming eight product groups: whole-meal bread, milk, fermented milk drinks, cottage cheese, fish dishes, dishes from legume seeds, fruit and vegetables. The nHDI-8 is determined by the frequency of consuming eight groups of products: fast foods, fried foods, sweets, instant soups, canned meats and others, sweetened carbonated or non-carbonated beverages, energy drinks and alcoholic beverages [22]. The pHDI-8 and nHDI-8 were calculated by summing the frequency of consuming (times/day) the corresponding eight food groups. Then, the raw results (total frequency of consumption) were converted into a point scale (0-100 points), according to the formula: pro-healthy diet index (pHDI-8, in points) = (100/16) × the sum of the frequency of consuming the eight food groups (times/day); non-healthy diet index (nHDI-8, in points) = (100/16) × the sum of the frequency of consuming the 8 food groups (times/day) [22]. The interpretation of the indices is such that the higher the index value, the greater the intensity of the favourable or unfavourable nutritional features for one's health. The values of the pHDI-8 and nHDI-8 expressed as the sum of the daily consumption frequency of 8 product groups (times/day) are within the range of 0-16. The values of the pHDI-8 and nHDI-8 within the range of 0-5.33 are defined as low, between 5.34-10.66 as moderate, and 10.67-16.00 as high. After conversion to a point scale, 0-33 is assessed as low, 34-66 as moderate, and 67-100 is considered high [22].

The overall Diet Quality Index (DQI) was also calculated as the sum of all components of the pHDI-8 index (with a positive sign) and all components of the nHDI-8 index (with a negative sign), according to the formula: DQI = (100/16) × sum of frequency of 8 healthy food groups (times/day) + (-100/16) × sum of frequency of consumption of 8 unhealthy food groups (times/day). The DQI ranges from -100 to 100 points, with a range of 26 to 100 points interpreted as high intensity of healthy diet traits [21].

Indices of functional fitness

Physical fitness was evaluated using the Senior Fitness test (Fullerton Functional Fitness Test) [6]. The test consists of 6 fitness tests that allow to indirectly assess the strength of the upper and lower body, agility, complex motor coordination and balance, as well as aerobic endurance. Further trials of the Fullerton test include: 1) 'Arm Curl'; 2) 'Back Scratch'; 3) '30-Second Chair Stand'; 4) 'Sit-and-Reach'; 5) 'Up-and-Go 2.44 m'; 6) '2-Minute Step in Place' [6]. For women aged 60-85, the standards for the individual tests are: "Arm Curl" (10-19 no of reps); "Back Scratch" (-5.5 - +1.5 cm); 3) "30-Second Chair Stand" (9-17 no of reps); 4) "Sit-and-Reach" (-2 - +5 cm); 5) "Up-and-Go 2.44 m" (8.7-4.4 s); 6) "2-Minute Step in Place" (60-107 no of steps) [6]. Functional fitness measurements were carried out in accordance with standards determining their proper conduct, i.e. after instruction and a warm-up, including stretching exercises. These measurements were conducted by the study authors, specialists in the field of health training.

Quality of life

Quality of life was judged using the WHOQOL-BREF questionnaire. The scale is used to assess the quality of life of healthy and ill people (for cognitive and clinical purposes). It contains 26 questions implemented to evaluate quality of life profile in terms of 4 dimensions: physical (somatic), psychological, social and environmental. The questionnaire also includes 2 questions that are analysed separately: question 1 – on individual general perception of quality of life, and question 2 – on individual perception of one's own health. The scoring of the questions ranges from 1 to 5 and has a positive direction (the greater the number of points, the better the quality of life). The analysis of the results only included the question concerning quality of life self-assessment. The results are presented as raw values and converted into a scoring scale of 0-100 points, in accordance with WHO recommendations [23].

Statistical analyses

Descriptive statistics (M – mean, SD - standard deviation, Me – median, Q75 – upper quartile, Q25 –

lower quartile, Min, Max) were calculated using the IBM SPSS 21 statistical package. The distribution of variables was assessed using the Shapiro-Wilk test. Due to the nature of the variable distribution, the median was used as a measure of the central tendency. The relationships between the analysed variables were assessed using Spearman's R signed rank correlation coefficients, assuming the significance level of $p < 0.05$.

RESULTS

Health quality of women's diet

The median of the pro-healthy diet index was 33 points, while the non-healthy diet index totalled 3.5 points. The obtained results indicate a low level of both indices concerning the health quality of the diet (Table 1).

Assessing the level of pro- and non-healthy diet indices, it was demonstrated that the study group is dominated by women with a low (52.3%) and moderate (46.7%) level of the pHDI-8 and a low level of the nHDI-8 (99.0%) (Table 2).

The overall diet quality index (DQI-16), as a compilation of pHDI-8 and nHDI-8 indices, showed a high level of healthy diet among women (Me = 29.5 points; Q25 = 21.1; Q75 = 37.4; Min = -20; Max = 88.4). This group was dominated by women (64.8%) characterized by a high level of healthy diet (DQI above 26 points).

Women's indices of functional fitness

Measurements of functional fitness indicators for the Fullerton test indicated that women in the loaded arm flexion test obtained a result of 17 repetitions, in the attempt of 'Back Scratch', the so-called 'safety pin' test, the result of -4 cm was achieved, in the '30- Second Chair Stand' attempt, 15 repetitions was the result, in the attempt to bend forward in a sitting position, the result of 6 cm was obtained, in the test, get up and walk, the result was 4.9 seconds, and in the test of 2-min walk in place, the result totalled 110 steps (Table 3).

Women's quality of life

Among the areas regarding the quality of life scale, the surveyed women obtained the highest scores in the environmental (Me = 69.0) and social (Me = 69.0) strata, then the psychological domain (Me = 63.0), and lower at the somatic level (Me = 56.0). The overall perception of the quality of life of women was 4.0 (Table 4).

Table 1. Values of pro-healthy (pHDI-8) and non-healthy diet (nHDI-8) indices among older women (descriptive statistics)

	N	Mean ± SD	Median (Q25 - Q75)	Min - Max
pHDI-8 (times/day)	199	5.4 ± 1.9	5.3 (4.2 - 6.6)	0.0 - 14.1
nHDI-8 (times/day)	199	0.7 ± 0.9	0.6 (0.2 - 1.1)	0.0 - 6.5
pHDI-8 (points)	199	33.6 ± 12.3	33.0 (26.4 - 41.5)	0.0 - 88.4
nHDI-8 (points)	199	4.6 ± 5.5	3.5 (1.2 - 6.6)	0.0 - 40.4

Table 2. Level of pro-healthy (pHDI-8) and non-healthy diet (nHDI-8) indicators among older women (%)

Level of index	N	Pro-Healthy Diet Index (pHDI-8)	Non-Healthy Diet Index (nHDI-8)
Low	199	52.3	99.0
Moderate	199	46.7	1.0
High	199	1.0	0.0

Table 3. Functional fitness for older women (Fullerton test) (descriptive statistics)

Fullerton test trials	N	Mean ± SD	Median (Q25- Q75)	Min - Max
Arm Curl (number of repetitions)	200	17.1 ± 3.3	17.0 (13 -17)	7.0 - 28.0
Back Scratch (cm)	200	-5.4 ± 8.3	-4.0 (15 - 19)	-36.5 - 29.5
30-Second Chair Stand (number of repetitions)	199	15.1 ± 2.9	15.0 (2.5 - 17.5)	8.0 - 27.0
Sit-and-Reach (cm)	200	6.1 ± 12.9	6.0 (-5 - 4)	-27.0 - 31.0
Up-and-Go (sec)	200	5.0 ± 0.8	4.9 (5 - 5)	3.3 - 9.9
2-Minute Step in Place (number of steps)	199	109.4 ± 14.8	110 (101 - 118)	29 - 158

Correlations between diet quality and women's indices of functional fitness

Assessment of the correlations between indicators of diet health quality and the level of functional fitness indicates that agility and dynamic balance decreased along with the increase in pHDI-8 ($p < 0.01$), while with the increase of nHDI-8, agility and dynamic balance decreased ($p < 0.01$). However, the correlation rates are low (Table 5).

Correlations between diet quality and women's quality of life

Assessment of the correlations between the health quality indicators of diet and the intensity of the quality of life indicates that with the increase in pHDI-8, the overall perception of the quality of life also increased ($p < 0.01$), as well as all domains of quality of life: somatic ($p < 0.01$), psychological ($p < 0.01$), social ($p < 0.01$) and environmental ($p < 0.01$). On the other hand, with the increase in nHDI-8, the psychological domain of the quality of life decreased ($p < 0.01$). However, the strength of these relationships is low (Table 6).

DISCUSSION

Among women who signed up for the "Healthy Active Senior" programme, significant associations were found between higher health diet quality and better functional fitness and higher quality of life.

In the discussed research, a low level of the pro-healthy and non-healthy diet indices has been shown among older adult women. More than half of the women achieved a low, and less than half, a moderate

Table 4. Level of quality of life indices (WHOQOL) among older women (descriptive statistics)

WHOQOL domains	N	Mean ± SD	Median (Q25 - Q75)	Min - Max
WHOQOL 1 (overall quality of life)	198	3.8 ± 0.6	4.0 (3 - 4)	2.0 - 5.0
Somatic domain (raw results)	198	22.5 ± 2.7	22.0 (21 - 24)	15.0 - 30.0
Somatic domain (0-100 scale)	198	55.8 ± 10.0	56.0 (50 - 63)	31.0 - 81.0
Psychological domain (raw results)	198	21.3 ± 2.3	21.0 (20 - 23)	15.0 - 27.0
Psychological domain (0-100 scale)	198	61.6 ± 10.6	63.0 (56 - 69)	38.0 - 88.0
Sociological domain (raw results)	198	10.7 ± 1.3	11.0 (10 - 11)	5.0 - 13.0
Sociological domain (0-100 scale)	198	65.0 ± 10.7	69.0 (56 - 69)	19.0 - 81.0
Environmental domain (raw results)	198	29.0 ± 3.7	29.0 (26 - 31)	18.0 - 38.0
Environmental domain (0-100 scale)	198	68.6 ± 10.7	69.0 (63 - 75)	31.0 - 94.0

Table 5. Relationship between indicators of diet health quality and indices of functional fitness among older women (Spearman's R) (N=199)

Fullerton test trials	pHDI-8	nHDI-8
Arm Curl (number of repetitions)	0.06	0.01
Back scratch (cm)	0.06	0.09
30-Second Chair Stand (number of rep)	0.09	0.06
Sit-and-Reach (cm)	0.16*	0.12
Up-and-Go (sec)	-0.07	-0.19*
2-Minute Step in Place (number of steps)	0.05	-0.02

*$p < 0.01$

Table 6. Relationship between indicators of diet health quality and indices of quality of life among older women (Spearman's R) (N=198)

WHOQOL domains	pHDI-8	nHDI-8
WHOQOL-Q1	0.19*	0.04
Somatic domain (raw results)	0.19*	-0.07
Psychological domain (raw results)	0.17*	-0.15*
Sociological domain (raw results)	0.15*	-0.02
Environmental domain (raw results)	0.23*	-0.07

*$p < 0.01$

level of the pHDI-8. At the same time, almost all women achieved a low level of the nHDI-8. However, the general diet quality index indicated a high level of a healthy diet. Low values of the pro-healthy diet index indicate a limited frequency of consuming products recommended in the diet (i.e. whole-meal bread, dairy products, including fermented ones, fish, fruit and vegetables), which could reduce the supply of e.g. dietary fibre, calcium, omega-3 PUFAs and food antioxidants, ingredients important in the prevention of various diet-related diseases. In turn, low values of the non-healthy diet index indicate a low frequency of consuming less recommended and contraindicated products in the diet (i.e. fast food, sweets as well as sweetened and energy drinks), which could limit the supply of salt, trans isomers and simple sugars, ingredients that increase the risk of developing various chronic diseases, including those cardiovascular. The authors of a various publications suggest the pro-health nature of a diet rich in fruit, vegetables, milk and dairy products, legume and oil seeds, in opposition to processed foods, sweets, high-fat products and alcohol [24, 25]. A low level of the pro-healthy diet index was also described in other population groups in Poland, including adolescents and adults [26] and women from southern Poland [27]. Low values of health quality indicators of the diet were also described among people aged 23-80 from Warmia and Mazury (north-eastern Poland). The level of the pHDI-8 was 3.6 times/day and was lower than in the studied group from Kraków, while nHDI-8 was 1.2 times/day and was higher than in our research [22].

The evaluation of functional fitness among women participating in the "Healthy and Active Senior" programme, based on the Fullerton test, showed that women most often achieved results within the norm for women aged 60-85, presented in the methodological section [6]. In other studies among older adult women, a different level of physical fitness and its individual domains was demonstrated in the Fullerton test. Higher values of some indicators of functional fitness than those achieved in the present study were obtained among University of the 3rd Age students (60-75 years) in Włocławek (Poland) [28]. Lower values of some indices of functional fitness found among the studied women from the Kraków population compared to the above-mentioned studies (from Włocławek, Poland) may result from the fact that women enrolled in the "Healthy Active Senior" programme were at the beginning of the physical activation programme. Cognitively interesting in this context would are the results of tests repeated after completing the programme. Comparing the results before and after implementing the health training programme, it was found that the while the functional fitness indicators, including the tests: '30-Second Chair Stand', '30-Second Arm Curl', 'Back Scratch' and 'Two-Minute Step-in-Place' increased [15]. In other studies on the functional fitness of women aged 60-74 from the University of the 3rd Age in Warsaw (Poland), no significant age-related differences were shown, and the values of some samples oscillated around mean values similar to those obtained in our own research [29].

Our research in the area of quality of life assessment among women from the "Healthy Active Senior" programme allowed to demonstrate the highest results in the environmental and social domains, and the lowest in the somatic area. The obtained results indicate that the surveyed women were most satisfied with their functioning in the environment and interpersonal relationships, less in terms of their mental state, and the lowest assessment of the physical dimension of life, which can be explained, among others, by declared chronic diseases. In other studies among women with excess body mass, lower values were noted for the quality of life indices in all domains of the WHOQOL scale, with a similar overall perception of quality of life [30].

In our research, significant (however weak) dependencies were also demonstrated between quality of diet health as well as levels of some areas of functional fitness and the quality of life among the women registered in the "Healthy Active Senior" programme.

With regard to the correlation between diet quality and the indicators of functional fitness, it was found that along with the increase in the quality of the pro-healthy diet index (pHDI-8), agility of the lower body increased, and with the decrease in diet quality (increase in nHDI-8), agility and dynamic balance decreased. However, the relationships shown were weak. The obtained regularities suggest the importance of a rational diet for the physical fitness of older adult women. Assuming that physical fitness is related to physical activity level, it can be concluded that people with more rational food choices are also more involved in undertaking physical activity, which is also indicated by other authors [31]. The research results obtained by other authors correspond with the presented trends. In systematic reviews, role of nutrition and physical activity have been confirmed in the etiopathogenesis of clinical frailty syndrome, which is characterised by loss of muscle strength and impairment of physical function associated with more frequent falls and hospitalisation in the 60+ age group [32]. In research on the role of diet in geriatric rehabilitation, it has been shown that there is a correlation between malnutrition and poor physical fitness as well as a weaker rehabilitative effects. At the same time, the importance of dietary intervention (additional supply of energy and protein)

for the improvement of physical fitness, including the strengthening of muscle mass and strength, and the role of a high-quality health diet in delaying the development of sarcopenia [33], have been confirmed.

In terms of the relationship between the diet quality as well as quality of life, it was observed that along with increasing quality of the pro-healthy diet index (pHDI-8), the overall opinion regarding quality of life and the intensity of all quality of life domains (somatic, psychological, social and environmental) increased, while the quality of nutrition (with an increase in nHDI-8), the psychological domain of quality of life decreased. However, the relationships shown were weak. The obtained regularities suggest the importance of a rational diet in improving quality of life, which is related to holistically understood health, as a balance and integration of all dimensions constituting a human being (physiological, psychological and sociological), and to factors that determine them, including those behavioural and environmental (physical and psycho-social). The correlations indicated above are consistent with the results of other studies in this area of research. The associations between indicators of nutritional status and the quality of life in older adult women have been demonstrated in various studies. In this respect, it has been indicated that with the increase in WHR, the quality of life of Iranian women decreased [34]. In other studies on Australian women, relationships have been found between indicators of diet quality, physical fitness and overall health. Correlations between the quality of diet and the physical and psychological domain of the quality of life among Australian women aged 60 and above have also been demonstrated [35]. In our previous research, positive associations were also confirmed between rational eating behaviours (in terms of the correct number of meals, consumption of wholegrain cereal products, vitamin D supplementation and proper hydration) with higher life satisfaction, which is an indicator of assessment regarding subjective quality of life [13]. Our previously published work also found that healthy eating habits (including natural dairy products as snacks and regular meals) were associated with higher quality of life, while unhealthy eating habits (including sweetened beverages and sweet dairy products as snacks) were associated with lower quality of life [36], which is consistent with the results of the discussed studies on the relationship between quality of life and the health quality of the diet of women aged 60+.

The limitations of the present study are principally associated with the nature of the group, including individuals that are interested in maintaining a healthy lifestyle who willingly took part in the health activation programme for older adults, restricting the potential of transferring the results of this study to the general population of individuals aged 60 and above. Another important limitation is the cross-sectional and descriptive nature of the study, as well as the lack of a control group. In following research, it would be possible to evaluate relationships between the analysed variables, but in a different configuration, e.g. between somatic features, functional efficiency and quality of life.

CONCLUSIONS

Among women who joined the "Healthy Active Senior" programme in Kraków (Poland), significant positive (but weak) relationships were found between the health quality of the diet and some areas of functional fitness and the all domains of quality of life. The results therefore suggest that diet health quality may be one of the predictive factors for the functional fitness and quality of life among women aged 60+ from a metropolitan population interested in an active lifestyle.

Conflict of interest

None declared.

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