Pomeranian J Life Sci 2021;67(1):44-47 doi: 10.21164/pomjlifesci.770

Analysis of health behaviour of seniors – students of the University of the Third Age in Police in Poland

Radosław Samborski[1, A], Iwona Radlińska[2, B] ✉, Ewa Kemicer-Chmielewska[3, C], Katarzyna Barczak[4, D], Marcin Kolwitz[2, E] , Mateusz Granat[4, F]

[1] Foundation for Active Rehabilitation, West Pomeranian Region, Łowicka 19, 02-574 Warszawa, Poland
[2] Pomeranian Medical University in Szczecin, Department of Social Medicine, Subdepartment of Medical Law, Żołnierska 48, 71-210 Szczecin, Poland
[3] Pomeranian Medical University in Szczecin, Department of Social Medicine, Subdepartment of Social Medicine and Public Health, Żołnierska 48, 71-210 Szczecin, Poland
[4] Pomeranian Medical University in Szczecin, Department of Conservative Dentistry and Endodontics, Powstańców Wlkp. 72, 70-111 Szczecin, Poland

[A] ORCID: 0000-0001-7190-2018; [B] ORCID: 0000-0002-4726-0702; [C] ORCID: 0000-0002-1942-2313; [D] ORCID: 0000-0001-6381-566X; [E] ORCID: 0000-0001-5021-0389; [F] ORCID: 0000-0002-8373-2279

✉ iwona.radlinska@pum.edu.pl

ABSTRACT

Introduction: Due to the aging population in Europe, where the number of old people exceeds the number of young people, much attention is paid to the issue of the elderly. The studies conducted so far in Poland show that the health behaviour of seniors is inadequate, which may result in a low quality of life. The aim of this paper was to determine the health behaviour of students at the University of the Third Age (UTA).

Materials and methods: Surveys were conducted among the 83rd group of the UTA in Police (Poland). Based on the surveys, the frequency of participation in classes, the form of classes, sex and education were scrutinized in order to examine the background of the respondents and their declared health behaviours.

Results: Assessing the level of health behaviours in the students showed that respondents mostly presented a high rate of healthy behaviour (63.86%). Gender is significantly correlated with the overall participation in health-related behaviours. The respondents are also found to underestimate the role of physical activity in shaping positive health behaviours.

Conclusions: The obtained research results indicate the usefulness of the activities of the UTA in the field of promoting appropriate health behaviours among older people, particularly in those who have a lower level of education. The educational offering at the UTA should be expanded to include knowledge about health behaviours, especially in the field of physical activity.

Keywords: health behaviours; older people; University of the Third Age; U3A.

INTRODUCTION

Nowadays, due to the ageing population of Europe where the number of elderly people exceeds the number of young people [1], much attention is paid to the issue of the elderly. The problem of ageing applies to everyone as this process is inevitable and, given the increase in life expectancy, old age accounts for an increasingly longer period in one's lifetime [2].

Old age constitutes the most varied phase in one's lifetime. It is not subject to any patterns as it is predominantly a reflection of previous individualised phases in life [3].

Ageing and old age are considered to be essential issues in most European countries, including in Poland where the number of people aged 60 and above amounts to approx. 7 million. To a large extent, the outcome of actions undertaken regarding this issue determine not only the socio-economic but also the moral future of society [4].

The programme 'PolSenior', implemented in Poland and comprising 5,695 senior citizens, was aimed at conducting a detailed assessment of the how the elderly function. The results show that the level of health behaviour patterns in the elderly are highly insufficient. Half of the senior citizens under study declared that they are physically inactive and their willingness to participate in physical activity was shown to decrease with age [5, 6].

A lack of physical activity may lead to feelings of loneliness, social isolation, progressive disability and even premature death among the elderly [7].

The Universities of the Third Age (UTA), established in 1975, facilitate the improvement of the mental and physical health of the elderly. Such organisations can provide enrichment for the elderly and, at the same time, have a positive effect on their well-being and behavioural patterns. The UTA offer educational programmes for the elderly and their key objective is the social wellbeing of the students rather than filling gaps in knowledge. Additionally, through engaging lectures and other forms of activities, these institutions contribute to establishing pro-health attitudes in the elderly [8].

Engaging in pro-health behaviour stems from the view that one's health is conditioned by the choices we make. Therefore, the aim of UTA is to install in students the awareness that their health is not determined by chance or other external factors but by personal choices [9].

Health behaviour concerns all activities undertaken which directly or indirectly affect well-being and health. Among these, several pro-health behaviour patterns can be distinguished:

partaking in physical activities, a balanced diet, being able to handle stress, taking safety precautions and many others.

Among the activities that are hazardous to health (anti-health behaviour) the following are distinguished: smoking and abusing alcohol, pharmaceuticals or other intoxicants. It is a well-known fact that pro-health behaviour contributes to a healthy lifestyle [10, 11].

The issue of having a healthy lifestyle is of particular interest to societies in the 21st century, mainly due to the increasing proportion of elderly people in the general population, diseases associated with the progress of civilisation and the rapid decline of mental health [12, 13, 14, 15].

In view of the above perspectives, the present paper is an attempt to identify health behaviour of the students at the UTA and verify whether participation in classes, the form of classes, age and educational attainment differentiate the students in terms of declared behaviour patterns.

MATERIALS AND METHODS

The study was conducted in the first quarter of 2017 among the students of the UTA in Police. The authors obtained permission from the president of the institution to conduct the study among the students. The research material was data obtained from 83 respondents, who agreed to partake in the study by voluntarily participating (consent by behaviour). Pursuant to Polish law, written consent is not required for anonymous survey research. The selected respondents were men and women participating in UTA classes for at least 1 year. These participants were selected with the assumption that these students may have modified their health-conscious behaviour as a result of participation in UTA classes.

The study was carried out using a diagnostic survey consisting of 2 questionnaires: an original questionnaire allowing for the determination of factors necessary to achieve the objectives of the present study and a standardized questionnaire – the Health Behaviour Inventory (pol. Inwentarz Zachowań Zdrowotnych – IZZ) by Jurczyński [16]. The IZZ, also known as the general index of health behaviour, consists of 24 statements regarding various health-related behaviour patterns. The respondents were asked to indicate the frequency with which they participated in the health-related activities listed in the questionnaire in the last 6 months. Additionally, the respondents ranked how often they partook in the activities on a 5-level scale where 1 is hardly ever and 5 is almost always. The value of the IZZ is between 24–120 points. The general index, having been converted to sten scores as suggested by the author of this diagnostic tool, shows the intensity of health behaviour declared by the respondents. Results with a sten score between 1–4 are considered low, sten scores between 5–6 are considered average, and 7–10 as high.

Statistical analysis has been conducted in IBM SPSS Statistics v. 25. Nonparametric methods were used due to the differences between the breakdown in the severity distribution of general health conditions and the normal distribution. The Mann–Whitney U test was used to check the differences in the quantitative severity of IZZ between the 2 groups, and the Kruskal–Wallis test was used to compare a larger number of groups. The differences in the frequency of the qualitative score categories, depending on the qualitative sociodemographic changes verified with the Pearson's χ^2 test and the certificate of linear relationships with continuous variables, was verified by Spearman's pairwise correlation. The value of $p < 0.05$ was assumed to be an indicator of statistical significance, and the value of $p < 0.1$ was taken as an indicator of no statistical significance.

RESULTS

The assessment of the intensity of health behaviour by students at the UTA show that the majority of respondents demonstrate high levels of health behaviour intensity – 63.86% achieved results in the IZZ at a level of at least 7 sten.

The subsequent stage of the analysis of the obtained results was a verification of whether participation in classes and the form of classes had any effect on the level of health behaviour declared by the respondents. The majority of the participants who declared more frequent participation in activities requiring increased intellectual activity (eg. computer classes and artistic workshops) were more likely to participate in health-related activities than the participants who declared more frequent participation in activities requiring increased physical activity. The majority of the latter group assessed their health behaviour to be average (Tab. 1).

TABLE 1. Analysis of health behaviour declared by students with respect to the form of activity

Form of activity	Health behaviour						Total	
	low		average		high			
	n	%	n	%	n	%	n	%
Increased physical activity	0	0	10	12.05	6	7.23	16	19.3
Increased intellectual activity	2	2.41	13	15.66	34	40.96	49	59.0
Increased physical / intellectual activity	3	3.61	6	7.23	9	10.84	18	21.7
Total	5	6.02	25	30.12	53	63.86	83	100

The results of the χ^2 test did not show any significant differences in health behaviours depending on the type of activity levels of seniors [χ^2 (4) = 6.106; p = 0.191]. Similarly, there were no differences in the quantitative intensity of the IZZ score measured by the Kruskal–Wallis test [H (2) = 1.816; p = 0.403].

Table 2 shows the level of health behaviour of the elderly with respect to how frequently they participate in classes offered by the UTA.

TABLE 2. Analysis of health behaviour of the Universities of the Third Age (UTA) students with respect to frequency of participation in classes within 1 week

Number	Health behaviour						Total	
	low		average		high			
	n	%	n	%	n	%	n	%
Once a week	1	1.20	8	9.64	10	12.05	19	22.89
Twice a week	2	2.41	7	8.43	17	20.48	26	31.32
Three times a week	0	0	6	7.23	14	16.87	20	24.10
More than 3 times a week	2	2.41	4	4.82	12	14.46	18	21.69
Total	5	6.02	25	30.12	53	63.86	83	100

The comparison with the χ^2 test showed that the frequency of particular exacerbations of health behaviours did not coexist with the frequency of participation in classes [χ^2 (6) = 4.008; p = 0.676]. Using the raw IZZ score, no differences were found in the mean intensity of health behaviours depending on the frequency of activity [H (3) = 1.988; p = 0.573] and the variables were not correlated with each other (rho = 0.138; p = 0.215). The conducted analysis clearly indicated that among the surveyed seniors, health behaviours were not linked to how frequently respondents attended UTA classes.

The next stage of the study was to check whether the gender of the respondents influenced their health behaviours (Tab. 3).

TABLE 3. Analysis of health behaviour of the Universities of the Third Age (UTA) students with respect of gender

Gender	Health behaviour						Total	
	low		average		high			
	n	%	n	%	n	%	n	%
Female	5	6.02	19	22.89	49	59.04	73	87.95
Male	0	0	6	7.23	4	4.82	10	12.05
Total	5	6.02	25	30.12	53	63.86	83	100

Taking into account the observation of individual categories of the severity of general health behaviours, the χ^2 test showed no statistical significance – among women there was an additional study of people with a high intensity of health-related behaviours, while men dominantly declared an average intensity of health behaviours [χ^2 (2) = 5,068; p = 0.079]. Taking into account the quantitative IZZ, the Mann–Whitney U test showed a significant difference – women are on average characterized by a higher intensity of health behaviours than men (Z = –2.625; p = 0.009). The analysis of this increase therefore is that women display an increased intensity of behaviours supporting the maintenance of health while among men, people with an average result of IZZ were predominant.

Next, the association between health behaviour and education was assessed (Tab. 4).

The analysis of qualitative data did not reveal any differences in the individual rates of the severity of IZZ depending on the level of education of the respondents [χ^2 (4) = 5.766; p = 0.217]. The analysis of differences in mean intensity also [H (2) = 3.913; p = 0.141]. As such, it seems that the level of education of the respondents is not related to their health behaviours.

Finally, the age of the respondents was measured against the intensity of their health behaviours. This analysis showed that in the studied group of seniors a correlation does not exist (rho = –0.008; p = 0.944).

TABLE 4. Analysis of health behaviour in Universities of the Third Age (UTA) students with respect to educational attainment

Educational attainment	Health behaviour						Total	
	low		average		high			
	n	%	n	%	n	%	n	%
Vocational	1	1.20	2	2.41	4	4.82	7	8.434
High School	3	3.61	11	13.25	14	16.87	28	33.735
Tertiary	1	1.20	12	14.46	35	42.17	48	57.831
Total	5	6.02	25	30.12	53	63.86	83	100

DISCUSSION

One of the most characteristic changes in social awareness is the increased understanding of the key role of health behaviour patterns. Promoting a healthy lifestyle and the prevention of diseases is of particular importance to remaining healthy at later stages of life. The elderly are encouraged by UTA to make conscious choices regarding their health which is confirmed by the results of the questionnaire completed by the students of UTA in Police. Most respondents (63.86%) declared a higher-than-average level of engagement in healthy behaviour. However, among the students of the UTA in Kielce, only 28% of the participants showed high levels of health behaviour as measured by the IZZ questionnaire by Juczyński [16, 17]. Slightly different results were reported by Smoleń et al. in their study on health behaviour among UTA students. Their study shows that a high level of health behaviour was declared by 43.2% of the respondents [18]. A significantly smaller percentage (34%) of the respondents taking part in the study by Dębska et al. on health behaviour among UTA students showed a high level of health behaviour [19]. Moreover, the studies by Grzanka-Tykwińska et al. conducted on 119 students of UTA show that classes on health issues and promoting pro-health behaviour patterns offered by UTA result in an increase in the quality of life of the elderly [20].

Our study did not show statistically significant differences between the frequency of participation in UTA classes, the form these took, and the intensity of health behaviour. However, it is noticeable that most seniors do not consider physical activity a factor related to health behaviour. We found that the education level of the surveyed seniors may be important for health behaviours although in the studied group, the linear relationships were not significant. It is apparent that alongside an increase in education, the percentage of seniors showing a high level of health-related behaviours also gradually increased. This is also confirmed by other studies. Students at the UTA in Sanok who had attained a High School education scored higher in general health behaviour than students of the UTA in Bydgoszcz and Toruń who only had a primary education [21].

Statistical tests in this study showed a relationship between gender and attitudes to health. In studies conducted by Kozieł et al. or by Sygit-Kowalkowska, statistical tests did not confirm the relationship between sex and health behaviours in general terms [17, 21]. However, there was a very uneven distribution of gender (an overwhelming predominance of women) in our research which makes it difficult to unambiguously assess the relationship between gender and health behaviours.

CONCLUSION

Despite the lack of a direct relationship between healthy behaviours and participation in UTA classes, the obtained results indicate the usefulness of UTA activities in the field of research and promotion of these behaviours among older people, especially those with a lower level of education and those who are male. As part of UTA classes, educational activities should be offered on proper health behaviours, especially in the field of physical activity.

REFERENCES

1. Trafiałek E. Starzenie się i starość. Wybór tekstów z gerontologii społecznej. Kielce: Wydawnictwo Uczelniane Wszechnica Świętokrzyska; 2006. p. 63.
2. Braun-Gałkowska M. Nowe role społeczne ludzi starszych. In: Steuden S, Marczuk M, editors. Starzenie się a satysfakcja z życia. Lublin: Wydawnictwo KUL; 2006. p. 183-95.
3. Nowicka A. Starość jako faza życia człowieka. In: Nowicka A, editor. Wybrane problemy osób starszych. Kraków: Impuls; 2006. p. 20-2.
4. Kotarska K, Drohomirecka A, Wilk K. Ocena aktywności fizycznej i stylu życia osób po 50. roku życia. Handel Wewnętrzny 2016;6(365):465-85.
5. Mossakowska M, Więcek A, Błędowski P, editors. Aspekty medyczne, psychologiczne, socjologiczne i ekonomiczne starzenia się ludzi w Polsce. Poznań: Termedia Wydawnictwa Medyczne; 2012.
6. Rowiński R, Dąbrowski A. Aktywność fizyczna Polaków w wieku podeszłym. In: Mossakowska M, Więcek A, Błędowski P, editors. Aspekty medyczne, psychologiczne, socjologiczne i ekonomiczne starzenia się ludzi w Polsce. Poznań: Termedia Wydawnictwa Medyczne; 2012. p. 531-48.
7. Bień B. Proces starzenia się człowieka. In: Grodzicki T, Kocemba J, Skalska A, editors. Geriatria z elementami gerontologii ogólnej. Gdańsk: Via Medica; 2016. p. 49-55.
8. Jurek Ł. Wykluczenie społeczne osób starszych – analiza problemu z perspektywy kształcenia ustawicznego. In: Gulanowski J, editor. Uniwersytety Trzeciego Wieku – przeciw wykluczeniu, dla społeczeństwa wiedzy. Wrocław: Agencja Wydawnicza Argi; 2012. p. 112.
9. Jurkiewicz M, Mianowana V, Wysokiński A. Aktywność fizyczna jako zachowanie zdrowotne zmniejszające ryzyko wystąpienia ponownego incydentu wieńcowego u pacjentów po zawale mięśnia sercowego. Pol Prz Kardiol 2011;13(1):24-30.
10. Kotarska K, Drohomirecka A. Styl życia nauczycieli wychowania fizycznego. Handel Wewnętrzny 2013;5(1):21-53.
11. Palacz J. Zachowania zdrowotne studentów w świetle wybranych uwarunkowań. Medycyna Ogólna i Nauki o Zdrowiu 2014;20(3):301-6.
12. Elinson J. Socjomedyczne wskaźniki zdrowia. In: Sokołowska M, editor. Socjologia a zdrowie. Warszawa: Państwowe Wydawnictwo Naukowe; 1976. p. 371-93.
13. Tobiasz-Adamczyk B. Wybrane elementy socjologii zdrowia i choroby. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego; 2000. p. 61-2.
14. Zych A. Leksykon gerontologii. Kraków: Impuls; 2007. p. 165-8.
15. Hill RD. Positive aging. A guide for mental health professionals and consumers. New York: Norton & Company; 2005. p. 21-37.
16. Juczyński Z. NPPPZ – Narzędzia pomiaru w promocji i psychologii zdrowia. Warszawa: Pracownia Testów Psychologicznych; 2009.
17. Kozieł D, Kaczmarczyk M, Naszydłowska E, Gałuszka R. Wpływ kształcenia w Uniwersytecie Trzeciego Wieku na zachowania zdrowotne ludzi starszych. Stud Med 2008;12:23-8.
18. Smoleń E, Gazdowicz L, Żyłka-Reut A. Zachowania zdrowotne osób starszych. Pielęg XXI w. 2011;3(36):5-9.
19. Dębska G, Korbel-Pawlas M, Zięba M, Ławska W, Luberda A. Jakość życia a zachowania zdrowotne w grupie uczestników Uniwersytetu Trzeciego Wieku – badania wstępne. Zdr Publ 2012;122:48-54.
20. Grzanka-Tykwińska A, Chudzińska M, Podhorecka M, Kędziora-Kornatowska K. Udział w zajęciach Uniwersytetów Trzeciego Wieku a aktywny styl życia osób starszych. Gerontol Pol 2015;23(3):47-50.
21. Sygit-Kowalkowska E. Zachowania zdrowotne osób w okresie późnej dorosłości – socjodemograficzne korelaty i różnice między środowiskami społecznymi. Ann Acad Med Stetin 2013;59(1):103-13.