sustainability

MDPI

Article

Satisfaction with Life and Health Behaviours in Pre-Seniors and Seniors: A Cross-Sectional Cohort Study

Mariola Głowacka [1,*], Grażyna Dykowska [2], Monika Gasik [3], Marzena Humańska [4] and Mateusz Cybulski [5]

[1] Collegium Medicum, The Mazovian University in Płock, 09-402 Płock, Poland
[2] Department of Health Economics and Medical Law, Medical University of Warsaw, 02-091 Warsaw, Poland; grazyna.dykowska@wum.edu.pl
[3] Department of Internal Medicine, Provincial Hospital in Płock, 09-400 Płock, Poland; moniknr5@wp.pl
[4] Faculty of Health Sciences Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń, 87-100 Toruń, Poland; marzenahumanska@cm.umk.pl
[5] Department of Integrated Medical Care, Faculty of Health Sciences, Medical University of Bialystok, 15-096 Bialystok, Poland; mateusz.cybulski@umb.edu.pl
* Correspondence: m.glowacka@mazowiecka.edu.pl

Abstract: Background: Satisfaction with life is considered the best indicator of the quality of life of older people and is commonly used as an indicator of adaptation and successful aging. The objective of this study is to evaluate the quality of life and health among pre-seniors and seniors in Płock, Poland, focusing specifically on the interplay between life satisfaction and health outcomes. Methods: The study encompassed a total of 2040 individuals, categorized as pre-seniors and seniors. A diagnostic survey method was employed, utilizing a questionnaire that gathered sociodemographic data and incorporated two standardized psychometric scales: the Satisfaction with Life Scale (SWLS) and the Health Behaviours Inventory (HBI). Results: A majority of respondents demonstrated high levels of life satisfaction, with 1272 people (62.4%) scoring in the high range. In contrast, a smaller group, consisting of 299 respondents (14.7%), reported low satisfaction levels. Notably, men exhibited higher life satisfaction than women ($p < 0.001$). Additionally, a statistically significant but low correlation was found between the age of respondents and various aspects of the health behaviour index. This includes preventive behaviours ($p < 0.001$, r = 0.105), health practices ($p < 0.001$, r = 0.243), proper eating habits ($p = 0.004$, r = 0.063), and a positive mental attitude ($p < 0.001$, r = 0.098). These findings underline the complex interplay between age, life satisfaction, and health behaviours among the senior population. Conclusions: High life satisfaction and average to high levels of health behaviours were observed in our study, varying with gender and age. Individuals aged 61–75 reported the highest life satisfaction, whereas those aged 76–90 exhibited the most robust health behaviours. These results underscore the need for age- and gender-specific health policies and programs supporting sustainable aging, aligning with the Sustainable Development Goals. Further national research is essential to comprehensively explore these trends and support global well-being initiatives for aging populations.

Keywords: elderly people; health behaviours; life satisfaction; older adults; sustainable aging

Citation: Głowacka, M.; Dykowska, G.; Gasik, M.; Humańska, M.; Cybulski, M. Satisfaction with Life and Health Behaviours in Pre-Seniors and Seniors: A Cross-Sectional Cohort Study. *Sustainability* **2024**, *16*, 3040. https://doi.org/10.3390/su16073040

Academic Editor: Hyo Sun Jung

Received: 18 February 2024
Revised: 28 March 2024
Accepted: 4 April 2024
Published: 5 April 2024

1. Introduction

Older people represent a growing segment of the global population with special needs, stemming from significant advancements in science and technology, particularly in diagnostic and therapeutic methods in medicine and increased health awareness in this age group [1]. The rise in the proportion of elderly people in society presents broad challenges for public health and necessitates strategic adaptations in the public health sector to effectively meet the specific health needs of this expanding demographic [2]. In Poland, as in many other countries, the population is aging rapidly. The latest demographic data indicate that over 6.7 million (17.5%) of the Polish population is aged 65 and over,

with projections suggesting this will increase to 25% by 2035. By 2060, Poland is expected to be one of the oldest countries in Europe, with the older population making up over a third of the nation's populace [3,4].

Life satisfaction is widely considered the best indicator of the quality of life in older adults and is frequently used to gauge adaptation and successful aging [5,6]. Seniors with higher life satisfaction typically exhibit more responsible health behaviours [7]. However, achieving a higher level of life satisfaction can be challenging with advancing age due to physical and mental health issues [8–10]. Lifestyle factors play a significant role in this regard, and economic, social, and cultural aspects also significantly influence life satisfaction in older adults [11]. Identifying factors conducive to health and well-being in the aging population is essential to address the increasing prevalence of chronic diseases and rising healthcare costs, thereby enhancing life satisfaction [12–16].

The impact of physical exercise on pain perception and health behaviours in pre-seniors and seniors is increasingly being recognized in geriatric health research. Regular physical activity offers numerous benefits, including improved physical fitness, mental health, and overall quality of life for older adults. Patti et al. demonstrated that structured physical training can significantly improve pain perception and balance in the elderly, emphasizing the importance of exercise in enhancing life satisfaction [17]. Consistent exercise routines positively affect health behaviours and mental well-being in senior populations, highlighting their role as a key element in healthy aging [18,19].

While extensive research exists on life satisfaction and health behaviours across various age groups, focused studies on the elderly remain limited. Existing research often concentrates on younger demographics, frequently overlooking the unique challenges and perspectives of the elderly. Notable variations in health behaviour patterns between younger adults and seniors suggest the need for age-specific health interventions [20]. Additionally, differences in life satisfaction determinants across age groups highlight the complexity of factors influencing well-being in older adults [21]. This focus on pre-seniors and seniors is particularly relevant given the growing global proportion of the elderly population, as identified by the World Health Organization, and the urgent need to adapt public health policies to their unique circumstances [22,23].

The rapidly aging population necessitates sustainable healthcare and social support systems, particularly for improving the quality of life of older people [24]. Sustainable practices that ensure the well-being and active participation of older adults in society align with the Sustainable Development Goals and are crucial for the health and well-being of this demographic group [25,26]. Despite the extensive nature of existing research in this area, our study aims to fill a notable gap by providing specific insights into the Polish context. Most of the literature focuses on broader demographics and often does not sufficiently address the unique sociocultural and economic dynamics in Poland. Our study offers an in-depth analysis of the life satisfaction and health behaviours among pre-seniors and seniors in this specific locale, underlining its importance in the broader narrative of aging populations. This focus is especially pertinent considering the rapid demographic shifts in Poland and their potential impact on public health policy and societal well-being. Therefore, the aim of our study is to assess life satisfaction and health behaviours among pre-senior and senior citizens residing in the city of Płock, Poland, incorporating sociodemographic variables, particularly age and gender.

2. Materials and Methods

2.1. Participants and Study Design

Participants for our study were recruited through a three-stage process. In the initial stage, consent was obtained from 2253 individuals. As of 30 June 2022, the total population of Polish citizens aged 55 and over was 12,199,515, out of a total population of 37,827,355, with 5,275,282 men and 6,924,233 women [27]. These figures confirm that, as in the general population, women are more numerous among senior citizens. This gender imbalance increases with age due to higher mortality rates among men [28]. The calculated minimum

sample size for our study was 383, based on the available population and a 95% confidence interval. This sample size calculation was derived from the demographic situation in Poland up to 2020 [29]. Participants were primarily recruited from individuals attending classes at the University of the Third Age and medical entities in Płock, a city located approximately 115 km from Warsaw, with a population of 113,660 as of 31 December 2022 [30]. Our recruitment process aimed to mirror the actual demographic structure of the elderly in Płock. In this population, among residents aged 65+ for men and 60+ for women, females comprise over 67% [31]. This demographic information was integral to our analysis and interpretation to ensure a representative portrayal of the group under study.

In the second stage, all participants underwent the Mini Mental State Examination (MMSE). Those who scored between 27 and 30 points, indicating the absence of cognitive impairments, were eligible for the next phase. This group encompassed 2102 individuals (93% of those initially consented). The inclusion criteria for our study were age $\geq$55, residence or registration in the city of Płock, and no cognitive impairments (as assessed by the MMSE).

Participants selected their preferred method of completing the questionnaire, either in paper form at the recruitment site or at home, or through an electronic version on the LimeSurvey platform (LimeSurvey GmbH, Hamburg, Germany). The final step involved analysing the completeness of the questionnaires. Incomplete forms were excluded, resulting in a total of 2040 complete questionnaires (97% of the eligible forms), of which 1406 (68.9%) were completed by women.

2.2. Tools

The research methodology involved a diagnostic survey utilizing a proprietary questionnaire for gathering sociodemographic data, along with two standardized psychometric scales: the Satisfaction with Life Scale (SWLS) and the Health Behaviours Inventory (HBI).

The SWLS comprises five statements. Respondents rate the extent to which each statement reflects their life on a scale where 1 indicates 'Strongly disagree', 2 'Disagree', 3 'Slightly disagree', 4 'Neither agree nor disagree', 5 'Slightly agree', 6 'Agree', and 7 'Strongly agree'. The scores are summed to derive an overall life satisfaction score, ranging from 5 to 35, with higher scores denoting greater life satisfaction [32,33]. The reliability of the SWLS, as indicated by Cronbach's alpha, is 0.81, based on a study involving 371 adults [33]. Normative data for the SWLS, including older adult populations, indicate mean scores typically ranging from 23.7 to 24.8 points [34,35].

The HBI, designed for assessing health-related behaviours in both healthy and ill adults, consists of 24 statements describing various health behaviours. It measures the overall intensity of health behaviours and the intensity across four categories: good eating habits (GEHs), preventive behaviours (PBs), positive mental attitude (PMA), and health practices (HPs) [33]. Taking into account the frequency of individual behaviours indicated by the respondents, the general intensity of health behaviours and the intensity of the four categories of health behaviours indicated above are determined. Due to the possibility of periodically preferring certain types of health behaviours, it was assumed that the last year should be taken into account in the assessment [33]. The internal consistency of the HBI, as measured by Cronbach's alpha, is 0.85 for the entire inventory and ranges from 0.60 to 0.65 for its four subscales. Scores are based on the frequency of indicated behaviours over the past year, producing a general intensity score and separate intensity scores for the four behaviour categories. Scores range from 24 to 120 points, with higher scores indicating more intense health behaviours. Each category's intensity is determined by averaging the points, with the range for each category being 1–30 points. The general intensity score, after conversion into standardized units (refer to Table 1), is interpreted using the sten scale. Scores of 1–4 sten are considered low, while 7–10 sten are high, corresponding to approximately the lowest and highest 33% of scores, respectively. Scores of 5–6 sten are regarded as average [33].

Table 1. Sten values of the Health Behaviours Inventory [16].

Male	Sten	Female	Results
24–50	1	24–53	low
51–58	2	54–62	
59–65	3	63–70	
66–71	4	71–77	
72–78	5	78–84	average
79–86	6	85–91	
87–93	7	92–98	high
94–101	8	99–104	
102–108	9	105–111	
109–120	10	112–120	

2.3. Statistical Analysis

Data analysis was performed using Statistica 10.0 (StatSoft Polska Sp. z o.o., Kraków, Poland) and PQStat (PQStat Software 1.8.4, Poznań, Poland) software. For continuous variables, descriptive statistics were presented as mean (M), standard deviation (SD), median (Me), minimum (Min), maximum (Max), and the 25th (Q25) and 75th (Q75) percentiles. Categorical variables were reported in terms of frequency (N) and percentage (%). The Pearson correlation coefficient was employed to evaluate the relationship between quantitative variables. Statistical significance was set at a p-value of less than 0.05.

3. Results

3.1. Characteristics of the Respondents

A total of 2040 individuals participated in the study, with a majority being women (1406 participants, 68.9%). The average age of the participants was 65.4 years. Notably, men in the study were older on average, with an average age of 66.87 years, compared to 64.8 years for women. A statistically significant age difference was observed between genders ($p < 0.001$). The largest age group was those aged 60–75 (1073 participants, 52.6%), while the smallest group consisted of those aged over 90 (24 participants, 1.2%). Educational backgrounds varied, with the majority having secondary education (584 participants, 28.6%) or basic vocational education (567 participants, 27.8%). A small number had no education (38 participants, 1.9%) or incomplete primary education (11 participants, 0.5%). A significant portion of the study's participants reported spending the longest phase of their adult lives in retirement. Specifically, 1112 out of the 2040 respondents (54.5%) indicated that retirement constituted the most significant part of their post-working life. Only one individual (0.05%) was a recipient of a rehabilitation allowance. The average length of professional work among respondents was 35.0 years, with the standard deviation accounting for over 23% of the mean value. Men reported a longer average working period (37.8 years) compared to women (33.8 years), with a statistically significant difference in the number of years of professional work between the genders ($p < 0.001$). Detailed sociodemographic characteristics of the respondents are presented in Table 2.

Table 2. Sociodemographic characteristics of the respondents.

	Sociodemographic Feature	**n**	**%**
Gender	female	1406	68.9
	male	634	31.1
Age	up to 60	664	32.5
	61–65	319	15.6
	66–70	460	22.5
	71–75	294	14.4
	76–80	173	8.5
	81–85	84	4.1
	86–90	22	1.1
	more than 90	24	1.2
Education	no education	38	1.9
	incomplete primary	11	0.5
	primary	126	6.2
	basic vocational	567	27.8
	secondary	584	28.6
	post-secondary	228	11.2
	higher vocational/engineering	172	8.4
	higher master's	314	15.4
Social and professional status	retirement	1112	54.5
	disability pension	90	4.4
	unemployed	27	1.3
	running a household	55	2.7
	professional work	707	34.7
	own business	4	0.2
	disability pension, professional work	4	0.2
	retirement, professional work	36	1.8
	retirement, disability pension	4	0.2
	rehabilitation allowance	1	0.05
Source of income	physical work	393	19.3
	mental work	375	18.4
	work outside of agriculture	8	0.4
	work in agriculture	95	4.7
	full-time job	228	11.2
	part-time job	28	1.4
	retirement	831	40.7
	disability pension	61	3.0
	other	16	0.8
	retirement and disability pension	5	0.2

3.2. Satisfaction with Life

The respondents were people with a high level of satisfaction with life. This is evidenced by the average result, which was 24.28 ± 6.175 points. The minimum result was 5.0 points, and the maximum 35.0 points. The majority of respondents obtained high results of satisfaction with life (1272 people, 62.4%), while a minority obtained low results (299 people, 14.7%) (Table 3).

Table 3. The level of the respondents' satisfaction with life.

Results	Number	%
Low level of satisfaction with life	299	14.7
Average level of satisfaction with life	469	23.0
High level of satisfaction with life	1272	62.4
Total	2040	100.0

Due to the level of significance ($p < 0.001$), there was a statistically significant difference between women and men regarding their satisfaction with life. A higher SWLS point average was recorded in the group of men (25.23 points), and in the group of women it was 23.86 points. Men showed higher satisfaction with life. The high result rate was recorded among 444 men (70.0%) and among 828 women (58.9%). Age was not statistically significantly correlated with SWLS results ($p = 0.820$, r = 0.005). The highest SWLS point average was recorded in the age group over 90 (24.58 points) and 60–75 (24.5 points), and the lowest in the age group 76–90 (23.48 points). The highest level of satisfaction with life was obtained by respondents aged 61–75 (691 people, 64.4%), and the lowest level by respondents aged 76–90 (157 people, 56.3%). Education remained in a statistically significant, low correlation with SWLS results ($p = 0.017$, r = 0.053). The highest SWLS point average was recorded in the group with higher education (25.06 points) and vocational education (24.65 points), while the lowest was recorded in the group with at most primary education (22.39 points). The highest result on the SWLS was recorded in the group with higher education (319 people, 65.6%) and vocational education (379 people, 66.8%). The lowest result was obtained by respondents with at most primary education (86 people, 49.1%) (Table 4).

Table 4. SWLS results taking into account sociodemographic variables.

Variable			Low Level of Satisfaction with Life	Average Level of Satisfaction with Life	High Level of Satisfaction with Life	Total
Gender	female	n	232	346	828	1406
		%	16.5	24.6	58.9	100.0
	male	n	67	123	444	634
		%	10.6	19.4	70.0	100.0
Age	up to 60	n	107	148	409	664
		%	16.1	22.3	61.6	100.0
	61–75	n	144	238	691	1073
		%	13.4	22.2	64.4	100.0
	76–90	n	45	77	157	279
		%	16.1	27.6	56.3	100.0
	more than 90	n	3	6	15	24
		%	12.5	25.0	62.5	100.0

Table 4. *Cont.*

Variable			Low Level of Satisfaction with Life	Average Level of Satisfaction with Life	High Level of Satisfaction with Life	Total
Education	at most primary	n	40	49	86	175
		%	22.9	28.0	49.1	100.0
	basic vocational	n	71	117	379	567
		%	12.5	20.6	66.8	100.0
	secondary/post-secondary	n	135	189	488	812
		%	16.6	23.3	60.1	100.0
	higher	n	53	114	319	486
		%	10.9	23.5	65.6	100.0

3.3. Health Behaviours

The respondents, as a whole, exhibited an average level of proper eating habits, with a mean score of 3.48 points. The standard deviation for this category was over 21% of the mean, indicating a moderate variation in responses. Similarly, preventive behaviours were also rated at an average level, with an average score of 3.71 points and a standard deviation exceeding 18% of the mean, which further indicates average variability in this category. Positive mental attitudes among respondents were also at an average level, with a mean score of 3.72 points and a standard deviation of more than 18% of the mean. In the category of health practices, the average score was 3.57 points, with the standard deviation accounting for over 19% of the mean value, suggesting average variability here as well. Among all categories of health behaviours assessed, positive mental attitude and preventive behaviours received the highest average ratings, while proper eating habits were rated the lowest, as detailed in Table 5.

The sten score distribution among the respondents showed a concentration in the mid-to-high range. The highest percentages were for sten 7 (528 people, 25.9%), sten 6 (411 people, 20.1%), and sten 5 (286 people, 14.0%). Conversely, the lowest percentages were noted for sten 10 (86 people, 4.2%), sten 1 (57 people, 2.8%), and sten 2 (46 people, 2.3%). As a group, the respondents exhibited an average level of health behaviours, tending towards a high level. A significant majority (956 people, 46.9%) scored highly on the health behaviour index, while a smaller portion (387 people, 19.0%) had low scores. This tendency was reflected in the average point score of 86.85 points (72.43%) with a standard deviation of 14.685 and an average sten score of 6.11 with a standard deviation of 1.968, as detailed in Table 6.

Table 5. Average point results of health behaviours.

Variable	Health Behaviours	Proper Eating Habits (PN)	Preventive Behaviours (ZP)	Positive Mental Attitude (PN)	Health Practices (PZ)
n	2040	2040	2040	2040	2040
M	86.85	3.48	3.71	3.72	3.57
SD	14.685	0.741	0.696	0.690	0.694
Min.	24.00	1.00	1.00	1.00	1.00
Max.	120.00	5.00	5.00	5.00	5.00
Q_{25}	79.00	3.00	3.33	3.33	3.17
Me	89.00	3.67	3.83	3.83	3.67
Q_{75}	96.00	4.00	4.17	4.17	4.00

Abbreviations: M—arithmetic average; SD—standard deviation; min—minimum; max.—maximum; Q_{25}—lower quartile; Q_{75}—upper quartile; Me—median.

Table 6. Respondents' health behaviour index results, including sten values.

	Value	Number	%
Health behaviour index	low	387	19.0
	average	697	34.2
	high	956	46.9
Sten values	1	57	2.8
	2	46	2.3
	3	106	5.2
	4	178	8.7
	5	286	14.0
	6	411	20.1
	7	528	25.9
	8	235	11.5
	9	107	5.2
	10	86	4.2
	Total	2040	100.0

Statistically significant differences were observed between women and men regarding the health behaviour index ($p < 0.001$) and the subscale of proper eating habits ($p = 0.013$). Women scored higher overall on the HBI, which assesses a range of health-related behaviours, including proper eating habits, preventive behaviours, positive mental attitude, and general health practices. The HBI is a comprehensive tool that measures the intensity and frequency of health-promoting actions, differing from mere assessments of health satisfaction as it focuses on tangible behaviours rather than subjective health perceptions. Men exhibited a higher level of health behaviours, with their scores averaging at a level bordering on high. Across both genders, the level was average, but it neared a high level in the men's group. There was a statistically significant yet low correlation between respondents' age and various components of the HBI: the overall health behaviour index ($p < 0.001$, r = 0.169), preventive behaviours ($p < 0.001$, r = 0.105), health practices ($p < 0.001$, r = 0.243), proper eating habits ($p = 0.004$, r = 0.063), and positive mental attitude ($p < 0.001$, r = 0.098). The highest scores for the health behaviour index, positive mental attitude, and health practices were in the age group above 90. The 76–90 age group achieved the highest scores for proper eating habits and preventive behaviours. The lowest scores were generally found in the up to 60 age group, except for proper eating habits, where the over 90 age group scored the lowest. The 76–90 age group recorded the highest level of health behaviours, oscillating at a high level, while other groups averaged at a medium level, as shown in Table 7.

Table 7. HBI results taking into account sociodemographic variables.

Variable			Low Health Behaviour Index	Average Health Behaviour Index	High Health Behaviour Index	Total
Gender	female	n	301	503	602	1406
		%	21.4	35.8	42.8	100.0
	male	n	86	194	354	634
		%	13.6	30.6	55.8	100.0

Table 7. *Cont.*

	Variable		Low Health Behaviour Index	Average Health Behaviour Index	High Health Behaviour Index	Total
Age	up to 60	n	179	252	233	664
		%	27.0	38.0	35.1	100.0
	61–75	n	159	373	541	1073
		%	14.8	34.8	50.4	100.0
	76–90	n	45	65	169	279
		%	16.1	23.3	60.6	100.0
	more than 90	n	4	7	13	24
		%	16.7	29.2	54.2	100.0

The correlation matrix of the relationships between sociodemographic variables and the SWLS and HBI is presented in Table 8.

Table 8. Correlation matrix of sociodemographic variables and the Satisfaction with Life Scale (SWLS) and Health Behaviours Inventory (HBI) subscales.

Satisfaction with Life Scale			
	Age group	Education level	SWLS
Age group		−0.226	−0.007
Education level	−0.226		0.038
SWLS	−0.007	0.038	

Health Behaviours Inventory							
	Age group	Education level	HBI	GEHs	PBs	PMA	HPs
Age group		−0.226	0.181	0.087	0.130	0.111	0.269
Education level	−0.226		0.030	0.142	0.043	0.042	0.032
HBI	0.181	0.030		0.756	0.740	0.750	0.719
GEHs	0.087	0.142	0.756		0.624	0.601	0.589
PBs	0.130	0.043	0.740	0.624		0.625	0.563
PMA	0.111	0.042	0.750	0.601	0.625		0.613
HPs	0.269	0.032	0.719	0.589	0.563	0.613	

Satisfaction with Life Scale (SWLS), Health Behaviours Inventory (HBI), good eating habits (GEHs), preventive behaviours (PBs), positive mental attitude (PMA), and health practices (HPs);			
	low	$0 < rxy < 0.3$	$0 > rxy > -0.3$
	medium	$0.3 < rxy < 0.7$	$=-0.3 > rxy > -0.7$
	high	$0.7 < rxy \leq 1$	$=-0.7 > rxy \geq -1$

4. Discussion

4.1. Satisfaction with Life

In our study, the average score for satisfaction with life, as measured by the SWLS, was 24.28 ± 6.175 points, indicating a generally positive assessment of life satisfaction among the participants. This finding aligns with the study by Cybulski et al., where the average SWLS score among university third-age students was 17.08 points [35]. Van Damme-Ostapowicz et al. reported a similar level of life satisfaction (23.0 ± 5.7 points) among this demographic [36]. These findings resonate with research conducted in older populations in Sweden, Austria, and Germany, suggesting that aging does not necessarily diminish perceptions of quality of life [37]. Our results were comparable to those found by Phulkerd et al., where the average life satisfaction score was 24.2 ± 5.61 points, higher than in many other countries using the same research tool, such as Spain, Mexico, and South Korea [38–41]. The variation in results can be attributed to demographic and/or socio-cultural factors as well as methodological differences [42].

Our study further confirmed that seniors' satisfaction with life is influenced by socio-demographic variables. We observed a statistically significant difference between men and

women in SWLS scores, with men averaging higher (25.23 points) than women (23.86 points). Men also reported higher satisfaction levels (70.0% compared to 58.9% in women), a finding consistent with the study by Cybulski et al., where men also had significantly higher SWLS scores than women ($p = 0.003$) [36]. Phulkerd et al. found that older women more frequently reported life satisfaction than men, potentially due to prevailing gender norms [39]. Jachimowicz and Kostka conducted a study assessing life satisfaction in older women and its correlation with physical, mental, and functional conditions, involving 100 women aged 65 and over who were participants of the University of the Third Age. They found that most women in the study exhibited average-to-high life satisfaction [43].

In our research, age did not show a statistically significant correlation with SWLS results ($p = 0.820$, r = 0.005). The highest average SWLS scores were in the over-90 age group (24.58 points) and the 60–75 age group (24.5 points), with the lowest being in the 76–90 age group (23.48 points). The highest level of satisfaction was noted among respondents aged 61–75 (64.4%) and the lowest among those aged 76–90 (56.3%). Cybulski et al. also reported no significant correlation between age and SWLS scores, with notable differences in life satisfaction between the 60–69 and 70–79 age groups ($p < 0.001$) [35]. Phulkerd et al. observed a positive correlation between age and satisfaction levels, influenced by factors such as reduced work strain and family support in older ages [39].

Interestingly, our study found a statistically significant yet relatively low correlation between education level and SWLS scores ($p = 0.017$, r = 0.053), indicating that while education impacts life satisfaction, it is not the predominant influence. The highest average SWLS scores were among respondents with higher (25.06 points) and vocational education (24.65 points), and the lowest were among those with at most primary education (22.39 points). This trend was further supported by Phulkerd et al., who also noted that higher education levels correlated with greater life satisfaction [39]. Ng et al. supported this finding, suggesting that education equips individuals with skills and resources to adapt to socio-economic changes, especially post-retirement [44]. This can be explained by the fact that education helps equip people with the skills and resources that help them adapt to changes in their socio-economic status, in particular when they retire. Cybulski et al. also observed a significant correlation between education level and SWLS scores [36]. Post hoc analysis, as reported in other studies, demonstrated significant variation in life satisfaction based on education levels. Respondents with primary education had significantly lower Satisfaction with Life Scale (SWLS) results compared to those with secondary education ($p = 0.043$), higher education ($p = 0.017$), or post-graduate education ($p = 0.012$). Additionally, individuals with vocational education registered significantly lower SWLS scores than those with higher ($p = 0.008$) and post-graduate education ($p = 0.045$). This trend was also evident among respondents with secondary education, who showed significantly lower SWLS results than their counterparts with higher education ($p = 0.026$) [35].

4.2. Preferred Health Behaviours

In our study, the average total health behavior index (HBI) score was 86.85 $\pm$ 14.685 points, indicating an overall average level of health behaviours among the respondents. This included scores for proper eating habits (3.48 $\pm$ 0.741 points), preventive behaviours (3.71 $\pm$ 0.696 points), positive mental attitude (3.72 $\pm$ 0.690 points), and health practices (3.57 $\pm$ 0.694 points). Our results closely align with those documented in other studies. For instance, Zielińska-Więczkowska reported an average total HBI score of 90.63 $\pm$ 11.57 points with subscale averages of 3.71 $\pm$ 0.63 for proper eating habits, 3.71 $\pm$ 0.66 for preventive behaviours, 3.83 $\pm$ 0.60 for positive mental attitude, and 3.85 $\pm$ 0.60 for health practices [45]. Similarly, Cybulski et al. found an average HBI score of 88.48 points among university third-age students, with subscale averages of 3.69 for proper eating habits, 3.72 for preventive behaviours, 3.71 for positive mental attitude, and 3.63 for health practices [35].

Muszalik et al., assessing health behaviours in relation to socio-demographic factors in a geriatric patient population, recorded an average HBI of 83.2 points, which is slightly

above the standard for preventive behaviours, positive mental attitude, and health practices but below average for proper eating habits [46].

Consistent with the literature, our study found that women typically score higher in health behaviours than men and are more proactive in maintaining their health [47]. This observation was reflected in our results, which showed higher scores in the health behaviour index and its subscales among women. The longer life expectancy of women and the feminization of old age might explain these gender differences. Statistically significant differences were observed between men and women in both the health behaviour index ($p < 0.001$) and proper eating habits ($p = 0.013$). However, Zielińska-Więczkowska did not find a significant correlation between the total HBI result and gender ($p = 0.641$) [45].

Regarding urban versus rural health behaviours, some authors report that city dwellers are more likely to engage in positive health behaviours [48,49], which may explain the high HBI results in our study, as our respondents were city residents. Furthermore, higher social status and better access to education, often associated with urban living, could be contributing factors [50].

In our study, a statistically significant but low correlation was found between the age of the respondents and the health behaviour index ($p < 0.001$, r = 0.169), as well as preventive behaviours ($p < 0.001$, r = 0.105), health practices ($p < 0.001$, r = 0.243), proper eating habits ($p = 0.004$, r = 0.063), and positive mental attitude ($p < 0.001$, r = 0.098). Contrarily, Zielińska-Więczkowska did not find a significant correlation between age and the total HBI result ($p = 0.641$) [45]. These findings highlight the need for public health strategies and interventions tailored to improve life satisfaction and health behaviours in pre-seniors and seniors. The high life satisfaction in Płock's elderly population suggests community engagement programs and social support networks can significantly enhance quality of life [51]. Moreover, the correlation between age and health behaviours underscores the importance of age-specific health promotion activities focusing on preventive care and healthy lifestyle choices [52]. Such strategies are in line with the Sustainable Development Goals, especially Goal 3, which aims to ensure healthy lives and promote well-being at all ages [53]. Implementing these policies in Płock could provide a model for similar urban areas, contributing to the broader goal of aging well in urban settings [54]. Additionally, our study's focus on Płock highlights the value of localized health policy research for effective public health planning and interventions [55].

4.3. Limitations

Our study has some limitations. Firstly, despite the large number of respondents, the sample was drawn solely from one city, which challenges the generalizability of the results to the entire country's population (and even more so to older people living in rural areas). However, it should be noted that our results are consistent with other research studies conducted in Poland. Secondly, the overrepresentation of women in the study group should be considered as it may affect the applicability of the results to an equally large group of men. This gender imbalance reflects the actual demographic trends in the Polish population, where women constitute a higher percentage of the elderly. To address this, advanced statistical methods, including weighting and stratification, were employed to mitigate this imbalance and ensure that our findings more accurately reflect the demographic composition of seniors in Płock. Thirdly, the selection of the sample from the University of the Third Age and primary care centres could potentially have introduced bias, particularly from the University of the Third Age group. Additionally, the use of two modes of data collection, paper and electronic, could have influenced potential errors in the coding of the results. Furthermore, we acknowledge that other external factors, such as the built environment, can influence life satisfaction. While our study concentrated on the relationship between health behaviours and life satisfaction, it did not explicitly examine factors like living conditions, community infrastructure, and environmental quality, which could also play a significant role. This serves to highlight the multifaceted and complex nature of life satisfaction determinants, extending beyond the direct scope of our study.

Despite these limitations, our study's results may serve as a starting point for further research into satisfaction with life and preferred behaviours among older people in Poland, taking into account their socio-demographic determinants. Ideally, these questions should be explored in a comprehensive longitudinal study that covers the entire country.

5. Conclusions

The subjective sense of life satisfaction in our study group was high, representing a positive deviation from other studies in the existing literature. Seniors in our study exhibited an average level of health behaviours, verging towards high. Notably, life satisfaction and preferred health behaviours varied based on sociodemographic characteristics. Specifically, men reported greater life satisfaction, while women showed a higher health behaviour index. Age also played a significant role: the highest level of life satisfaction was noted among respondents aged 61–75, whereas the peak in health behaviours was observed in those aged 76–90. These findings offer valuable insights, particularly in the context of the Sustainable Development Goals, emphasizing the importance of ensuring healthy lifestyles and promoting well-being at all ages.

Further in-depth research is essential in the area of life satisfaction and the evaluation of health behaviours among seniors in Poland. The goal is to ascertain a more precise prevalence of these phenomena and to explore potential national-scale correlations. Such studies should not only endeavour to present a comprehensive portrait of aging in Poland but also aim to inform and shape policies and interventions. These should be in line with the Sustainable Development Goals, with a particular focus on creating supportive environments conducive to healthy aging. Understanding these aspects in greater depth will be crucial for developing strategies that effectively address the needs of and improve the quality of life of the aging population.

Author Contributions: Conceptualization, M.G. (Mariola Głowacka), Methodology, M.G. (Mariola Głowacka); software, M.G. (Mariola Głowacka); formal analysis, M.G. (Mariola Głowacka); investigation, M.G. (Mariola Głowacka); writing—original draft preparation, M.G. (Mariola Głowacka), G.D., M.G. (Monika Gasik), M.H. and M.C.; writing—review and editing, M.G. (Mariola Głowacka); supervision, M.C.; project administration, M.G. (Mariola Głowacka); funding acquisition, M.G. (Mariola Głowacka). All authors have read and agreed to the published version of the manuscript.

Funding: The research was financed by funds received from the Commune of Płock as part of the "Adherence as co-responsibility of people at pre- and senior age in the therapeutic process" grant.

Institutional Review Board Statement: The study was carried out following ethical recommendations and was reviewed and approved by the Bioethics Committee of the Mazovian Academy in Płock (statute no. KB/N/BN/P/1.2021). All subjects gave written informed consent in accordance with the Declaration of Helsinki.

Informed Consent Statement: Informed consent was obtained from all the subjects involved in the study.

Data Availability Statement: Data are available upon reasonable request.

Acknowledgments: The authors thank all respondents who participated in the study.

Conflicts of Interest: The authors declare no conflicts of interest. The funders had no role in the design of the study, in the collection, analyses, or interpretation of data, in the writing of the manuscript, or in the decision to publish the results.

References

1. Papi, S.; Cheraghi, M. Multiple factors associated with life satisfaction in older adults. *Prz. Menopauzalny Menopause Rev.* **2021**, *20*, 65–71. [CrossRef] [PubMed]
2. Moghadasi, A.M.; Sum, S.; Matlabi, H. Why do older people not use the public health services of the integrated aging program? A multidimensional approach in a qualitative study. *BMC Health Serv. Res.* **2022**, *22*, 1288. [CrossRef] [PubMed]
3. Countries with the Oldest Populations in the World. PRB. Available online: https://www.prb.org/resources/countries-with-the-oldest-populations-in-the-world/ (accessed on 18 February 2024).

4. Beard, J.R.; Officer, A.; de Carvalho, I.A.; Sadana, R.; Pot, A.M.; Michel, J.-P.; Lloyd-Sherlock, P.; Epping-Jordan, J.E.; Peeters, G.M.E.E.G.; Mahanani, W.R.; et al. The World report on ageing and health: A policy framework for healthy ageing. *Lancet Lond. Engl.* **2016**, *387*, 2145–2154. [CrossRef] [PubMed]
5. Estebsari, F.; Dastoorpoor, M.; Khalifehkandi, Z.R.; Nouri, A.; Mostafaei, D.; Hosseini, M.; Esmaeili, R.; Aghababaeian, H. The Concept of Successful Aging: A Review Article. *Curr. Aging Sci.* **2020**, *13*, 4–10. [CrossRef] [PubMed]
6. Basnet, R.; Shakya, N. Factors influencing Successful Aging among Older Adults. *J. Nepal Health Res. Counc.* **2023**, *20*, 708–711. [CrossRef] [PubMed]
7. Tian, H.; Chen, J. Study on Life Satisfaction of the Elderly Based on Healthy Aging. *J. Healthc. Eng.* **2022**, *2022*, 8343452. [CrossRef] [PubMed]
8. Papi, S.; Karimi, Z.; Zilaee, M.; Shahry, P. Malnutrition and Its Relation to General Health and Multimorbidity in the Older People. *J. Holist. Nurs. Midwifery* **2019**, *29*, 228–235. [CrossRef]
9. Uchmanowicz, I.; Rosano, G.; Piepoli, M.; Vellone, E.; Czapla, M.; Lisiak, M.; Diakowska, D.; Prokopowicz, A.; Aleksandrowicz, K.; Nowak, B.; et al. The concurrent impact of mild cognitive impairment and frailty syndrome in heart failure. *Arch. Med. Sci.* **2023**, *19*, 912–920. [CrossRef]
10. Uchmanowicz, I.; Pasieczna, A.H.; Wójta-Kempa, M.; Gobbens, R.J.J.; Młynarska, A.; Faulkner, K.M.; Czapla, M.; Szczepanowski, R. Physical, Psychological and Social Frailty Are Predictive of Heart Failure: A Cross-Sectional Study. *J. Clin. Med.* **2022**, *11*, 565. [CrossRef]
11. Park, J.-H.; Kang, S.-W. Social Interaction and Life Satisfaction among Older Adults by Age Group. *Healthcare* **2023**, *11*, 2951. [CrossRef]
12. Kubzansky, L.D.; Huffman, J.C.; Boehm, J.K.; Hernandez, R.; Kim, E.S.; Koga, H.K.; Feig, E.H.; Lloyd-Jones, D.M.; Seligman, M.E.P.; Labarthe, D.R. Positive Psychological Well-Being and Cardiovascular Disease: JACC Health Promotion Series. *J. Am. Coll. Cardiol.* **2018**, *72*, 1382–1396. [CrossRef] [PubMed]
13. Kwaśny, A.; Uchmanowicz, I.; Juárez-Vela, R.; Młynarska, A.; Łokieć, K.; Czapla, M. Sex-Related Differences in the Impact of Nutritional Status on In-Hospital Mortality in Heart Failure: A Retrospective Cohort Study. *Eur. J. Cardiovasc. Nurs.* **2023**, *23*, zvad050. [CrossRef] [PubMed]
14. VanderWeele, T.J.; Chen, Y.; Long, K.; Kim, E.S.; Trudel-Fitzgerald, C.; Kubzansky, L.D. Positive Epidemiology? *Epidemiol. Camb. Mass* **2020**, *31*, 189–193. [CrossRef] [PubMed]
15. Kwaśny, A.; Łokieć, K.; Uchmanowicz, B.; Młynarska, A.; Smereka, J.; Czapla, M. Sex-related differences in the impact of nutritional status on in-hospital mortality in acute coronary syndrome: A retrospective cohort study. *Nutr. Metab. Cardiovasc. Dis. NMCD* **2023**, *33*, 2242–2250. [CrossRef] [PubMed]
16. Kwaśny, A.; Łokieć, K.; Uchmanowicz, B.; Młynarska, A.; Smereka, J.; Czapla, M. Sex-related differences in the impact of nutritional status on length of hospital stay in atrial fibrillation: A retrospective cohort study. *Front. Public Health* **2023**, *11*, 1223111. [CrossRef] [PubMed]
17. Patti, A.; Bianco, A.; Karsten, B.; Montalto, M.A.; Battaglia, G.; Bellafiore, M.; Cassata, D.; Scoppa, F.; Paoli, A.; Iovane, A.; et al. The effects of physical training without equipment on pain perception and balance in the elderly: A randomized controlled trial. *Work Read. Mass* **2017**, *57*, 23–30. [CrossRef]
18. Yang, Q.; Tang, Y.; Jennings, G.; Zhao, B.; Zhu, F.; Ma, X. Physical activity and subjective well-being of older adults during COVID-19 prevention and control normalization: Mediating role of outdoor exercise environment and regulating role of exercise form. *Front. Psychol.* **2022**, *13*, 1014967. [CrossRef] [PubMed]
19. Rejeski, W.J.; Mihalko, S.L. Physical activity and quality of life in older adults. *J. Gerontol. A. Biol. Sci. Med. Sci.* **2001**, *56* (Suppl. S2), 23–35. [CrossRef] [PubMed]
20. Saint Onge, J.M.; Krueger, P.M. Health lifestyle behaviors among U.S. adults. *SSM—Popul. Health* **2016**, *3*, 89–98. [CrossRef]
21. Siedlecki, K.L.; Tucker-Drob, E.M.; Oishi, S.; Salthouse, T.A. Life satisfaction across adulthood: Different determinants at different ages? *J. Posit. Psychol.* **2008**, *3*, 153–164. [CrossRef]
22. Ageing and Health. Available online: https://www.who.int/news-room/fact-sheets/detail/ageing-and-health (accessed on 24 March 2024).
23. Ribeiro, O.; Araújo, L.; Figueiredo, D.; Paúl, C.; Teixeira, L. The Caregiver Support Ratio in Europe: Estimating the Future of Potentially (Un)Available Caregivers. *Healthcare* **2021**, *10*, 11. [CrossRef]
24. Hong, C.; Sun, L.; Liu, G.; Guan, B.; Li, C.; Luo, Y. Response of Global Health Towards the Challenges Presented by Population Aging. *China CDC Wkly.* **2023**, *5*, 884–887. [CrossRef]
25. He, P.; Dai, W.; Luo, Y.; Ding, R.; Zheng, X. Towards Sustainable Development Goals: Study on the Consequences of Food Insecurity Among Global Population—Worldwide, 2022. *China CDC Wkly.* **2022**, *4*, 583–587. [CrossRef]
26. Shevelkova, V.; Mattocks, C.; Lafortune, L. Efforts to address the Sustainable Development Goals in older populations: A scoping review. *BMC Public Health* **2023**, *23*, 456. [CrossRef]
27. GUS Ludność. Stan i Struktura Ludności Oraz Ruch Naturalny w Przekroju Terytorialnym. Stan w Dniu 30 Czerwca. Available online: https://stat.gov.pl/obszary-tematyczne/ludnosc/ludnosc/ludnosc-stan-i-struktura-ludnosci-oraz-ruch-naturalny-w-przekroju-terytorialnym-stan-w-dniu-30-czerwca,6,35.html (accessed on 18 February 2024).
28. GUS Sytuacja Osób Starszych w Polsce w 2020 Roku. Available online: https://stat.gov.pl/obszary-tematyczne/osoby-starsze/osoby-starsze/sytuacja-osob-starszych-w-polsce-w-2020-roku,2,3.html (accessed on 18 February 2024).

29. Główny Urząd Statystyczny. Available online: https://stat.gov.pl/ (accessed on 23 March 2024).
30. GUS Demographic Yearbook of Poland 2022. Available online: https://stat.gov.pl/en/topics/statistical-yearbooks/statistical-yearbooks/demographic-yearbook-of-poland-2022,3,16.html (accessed on 18 February 2024).
31. Statystyka | Plock.eu. Available online: https://nowy.plock.eu/statystyka/ (accessed on 24 March 2024).
32. Diener, E.; Emmons, R.A.; Larsen, R.J.; Griffin, S. The Satisfaction with Life Scale. *J. Pers. Assess.* **1985**, *49*, 71–75. [CrossRef]
33. Juczyński, Z. *Narzędzia Pomiaru w Promocji i Psychologii Zdrowia*; Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego: Warsaw, Poland, 2001; Volume 188.
34. Pavot, W.; Diener, E.; Colvin, C.R.; Sandvik, E. Further validation of the Satisfaction with Life Scale: Evidence for the cross-method convergence of well-being measures. *J. Pers. Assess.* **1991**, *57*, 149–161. [CrossRef]
35. Cybulski, M.; Krajewska-Kulak, E.; Jamiolkowski, J. Preferred health behaviors and quality of life of the elderly people in Poland. *Clin. Interv. Aging* **2015**, *10*, 1555–1564. [CrossRef]
36. Van Damme-Ostapowicz, K.; Cybulski, M.; Galczyk, M.; Krajewska-Kulak, E.; Sobolewski, M.; Zalewska, A. Life satisfaction and depressive symptoms of mentally active older adults in Poland: A cross-sectional study. *BMC Geriatr.* **2021**, *21*, 466. [CrossRef]
37. Kutubaeva, R.Z. Analysis of life satisfaction of the elderly population on the example of Sweden, Austria and Germany. *Popul. Econ.* **2019**, *3*, 102–116. [CrossRef]
38. Vázquez, C.; Duque, A.; Hervás, G. Satisfaction with life scale in a representative sample of Spanish adults: Validation and normative data. *Span. J. Psychol.* **2013**, *16*, E82. [CrossRef]
39. Phulkerd, S.; Thapsuwan, S.; Chamratrithirong, A.; Gray, R.S. Influence of healthy lifestyle behaviors on life satisfaction in the aging population of Thailand: A national population-based survey. *BMC Public Health* **2021**, *21*, 43. [CrossRef]
40. López-Ortega, M.; Torres-Castro, S.; Rosas-Carrasco, O. Psychometric properties of the Satisfaction with Life Scale (SWLS): Secondary analysis of the Mexican Health and Aging Study. *Health Qual. Life Outcomes* **2016**, *14*, 170. [CrossRef]
41. Yun, Y.H.; Rhee, Y.E.; Kang, E.; Sim, J.-A. The Satisfaction with Life Scale and the Subjective Well-Being Inventory in the General Korean Population: Psychometric Properties and Normative Data. *Int. J. Environ. Res. Public. Health* **2019**, *16*, 1538. [CrossRef]
42. Schmidt, S.; Bullinger, M. Current issues in cross-cultural quality of life instrument development. *Arch. Phys. Med. Rehabil.* **2003**, *84*, S29–S34. [CrossRef]
43. Jachimowicz, V.; Kostka, T. Satisfaction with life of elderly women. *Ginekol. Prakt.* **2009**, *3*, 27–32. (In Spanish). Available online: https://www.termedia.pl/Satisfaction-with-life-of-elderly-women,5,13006,0,1.html (accessed on 18 February 2024).
44. Ng, S.T.; Tey, N.P.; Asadullah, M.N. What matters for life satisfaction among the oldest-old? Evidence from China. *PLoS ONE* **2017**, *12*, e0171799. [CrossRef]
45. Zielińska-Więczkowska, H. Relationships Between Health Behaviors, Self-Efficacy, and Health Locus of Control of Students at the Universities of the Third Age. *Med. Sci. Monit. Int. Med. J. Exp. Clin. Res.* **2016**, *22*, 508–515. [CrossRef]
46. Muszalik, M.; Zielińska-Więczkowska, H.; Kędziora-Kornatowska, K.; Kornatowski, T. Assessment of Selected Health Behavior among Elderly People in Juczyński's Inventory of Health Behavior Regarding Socio-Demographic Factors. *Probl Hig Epidemiol.* **2013**, *94*, 509–513.
47. Kurpas, D.; Mroczek, B.; Bielska, D. The correlation between quality of life, acceptance of illness and health behaviors of advanced age patients. *Arch. Gerontol. Geriatr.* **2013**, *56*, 448–456. [CrossRef]
48. Pilewska-Kozak, A.B.; Dobrowolska, B.; Stadnicka, G.; Drop, B.; Jędrych, M. Place of residence and age as variables differentiating health behaviours and perception of health by women past menopause. *Ann. Agric. Environ. Med.* **2019**, *26*, 165–173. [CrossRef]
49. Rüger, H.; Hoherz, S.; Schneider, N.F.; Fliege, H.; Bellinger, M.M.; Wiernik, B.M. The Effects of Urban Living Conditions on Subjective Well-Being: The Case of German Foreign Service Employees. *Appl. Res. Qual. Life* **2023**, *18*, 1939–1963. [CrossRef] [PubMed]
50. Yeom, H.-E. Association among ageing-related stereotypic beliefs, self-efficacy and health-promoting behaviors in elderly Korean adults. *J. Clin. Nurs.* **2014**, *23*, 1365–1373. [CrossRef] [PubMed]
51. Jones, C.A.; Jhangri, G.S.; Yamamoto, S.S.; Hogan, D.B.; Hanson, H.; Levasseur, M.; Morales, E.; Légaré, F. Social participation of older people in urban and rural areas: Canadian Longitudinal Study on Aging. *BMC Geriatr.* **2023**, *23*, 439. [CrossRef] [PubMed]
52. Zadworna, M.; Stetkiewicz-Lewandowicz, A. The relationships between wisdom, positive orientation and health-related behavior in older adults. *Sci. Rep.* **2023**, *13*, 16724. [CrossRef] [PubMed]
53. THE 17 GOALS | Sustainable Development. Available online: https://sdgs.un.org/goals (accessed on 24 March 2024).
54. Wood, G.E.R.; Pykett, J.; Daw, P.; Agyapong-Badu, S.; Banchoff, A.; King, A.C.; Stathi, A. The Role of Urban Environments in Promoting Active and Healthy Aging: A Systematic Scoping Review of Citizen Science Approaches. *J. Urban Health Bull. N. Y. Acad. Med.* **2022**, *99*, 427–456. [CrossRef]
55. Rudnicka, E.; Napierała, P.; Podfigurna, A.; Męczekalski, B.; Smolarczyk, R.; Grymowicz, M. The World Health Organization (WHO) approach to healthy ageing. *Maturitas* **2020**, *139*, 6–11. [CrossRef]