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Original Investigation

Perceived Social Support and Self-Assessed Health as Predictors of Quality of Life in Seniors

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Purpose: Social support is a key factor in the quality of life for individuals over 60, impacting their social functioning and successful aging. Family support, in particular, strengthens intergenerational ties and fosters a sense of belonging. This study aimed to explore the social support network of people over 60 and assess their self-rated quality of life.

Methods The survey involved 322 participants, with 300 completing the survey (271 women, 29 men). Two tools were used: the Polish adaptation of the Norbeck Social Support Questionnaire (NSSQ) and the Short Form-36v2 Health Survey for self-assessment of quality of life (QualityMetric's PRO CoRE License Agreement. License Agreement: QUO-04385-V4P6T6)

Results: The results revealed no significant correlation between the participants' age and their NSSQ or SF-36 scores. However, better self-assessment of material situation and health was linked to more indications of individuals providing support (P=.0016). Additionally, as health self-assessment improved, limitations due to physical health problems decreased (P=.04). A positive correlation was found between physical fitness self-assessment and the NSSQ subscales, including support received and provided (P<.05).

Conclusions: The quality of life for older adults remains closely tied to family, with the extent of these relationships influenced by various individual mechanisms and preferences.

Keywords: family, social support, quality of life, NSSQ, SF-36

Introduction

The aging process is widely researched, focusing on the multidimensional functioning of people aged 60 and over. As human life expectancy rises, the need for support, activation and social integration in this age group grows. Population aging reflects medical progress and development but also poses challenges for families, local communities and social policy, which should address the needs of people over 60, particularly regarding their quality of life.

WHO defines quality of life as "*an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns*". Quality of life in older age is a variable and multidimensional concept (including behavioral competence, environmental competence, psychological well-being and subjective perceptions) shaped by many factors.[1–7] Studies highlight determinants such as health status, activities undertaken (degree of need satisfaction), life goals and their realization, independence, self-reliance, and interpersonal relationships with family, friends and others, which translate into social support.[8–12] Social support is a key determinant of quality of life for people aged 60 and older. Having a support network improves social functioning and promotes successful aging.[2] Social networks can be characterized by their size, interconnectedness, homogeneity, multidimensionality, frequency and value of maintained relationships.[13]

Family, neighbours and friends are primary sources of support, supplemented by institutions and self-help groups. According to Bražinová and Chytil,[14] support within the family strengthens intergenerational bonds, maintains belonging and emotional closeness, and fosters fulfilment and self-realization. Social support influences perceived quality of life, life expectancy, health status and cognitive abilities.[15–19]

Numerous studies confirm the importance of social support for older people.[20–25] Most research concerns individuals aged 60–75 years. Family remains the key support group in late adulthood, often mentioned as the primary source of help for people over 60.[26] Its absence or dysfunction can negatively affect the quality of life of older members. From the perspective of those aged 60 and over, the caring function of the family, directly linked to support and assistance, gains importance.[27]

Older adults most frequently receive instrumental support, such as help with daily activities (shopping, cleaning), which increases with age and declining health.[23,24,28] Interpersonal relationships and social contacts are valuable resources that improve perceived quality of life and form the foundation of support.[29–31]

Married individuals aged 60 and older receive more emotional and informational support than single people.[23] Singularization

and feminization of older adulthood, especially after 75, lead to a growing number of widows and greater demand for support and social activation.[24,32] Family members are perceived as providers of informational, valuing, emotional and spiritual support. People over 60 primarily expect support from spouses, children and grandchildren, followed by friends and acquaintances. Such support helps them overcome crises such as bereavement or illness.[33-35] Previous studies show that support is mainly expected from women—wives, daughters, daughters-in-law and granddaughters.[24,36]

As in many countries, Poland's population is aging. The number of people aged 60 and over continues to rise.[37] This trend is driven by declining mortality and fertility rates. Advances in medicine and lifestyle changes also contribute to increased life expectancy.[38,39] In 2019, the average life expectancy was 81.8 years for women and 74.1 years for men. UN projections indicate that by the end of the 21st century, Poland's population may shrink by more than 57% to 16.3 million unless birth rates increase.[40]

Most previous studies on social support for older adults have focused primarily on family support, often overlooking the importance of both institutional and informal sources of assistance. This study attempted to fill this gap by analyzing the role of family and institutional support and their impact on the self-assessed quality of life of people aged 60 and older. The aim of the study was to identify and define social support networks and specific areas of support used by people over 60. In addition, the study aimed to assess the quality of life of respondents based on their own declarations and to examine the relationship between the social support they receive and their perceived quality of life.

Materials and methods

Participants

The survey involved 322 participants, of which 300 complete questionnaires qualified for final analysis (22 incomplete questionnaires were withdrawn at the data verification stage). The study covered residents of cities (over 100,000 inhabitants) and rural areas, living alone/with their families or in social welfare homes. The study group consisted of 271 women and 29 men aged over 60 years. The uneven gender distribution resulted from the availability of participants who met the inclusion criteria for the study and expressed a willingness to participate in the research. The following inclusion criteria were adopted: age over 60 years, and consent to participate in the study. Exclusion criteria were age below 60 years, failure to consent to participate in the study, and withdrawal from the study at any stage. The study was conducted by researchers in direct contact with the participants. All participants were informed about the procedures and objectives of the study and consented to take part.

This study was conducted in accordance with the principles of the Declaration of Helsinki conducted in accordance with the principles of the Declaration of Helsinki [anonymous]. Detailed characterization of participants is presented in Table 1.

Table 1. Characteristics of the study group

Characteristic	variable	n	%
Gender	woman	271	90.33
	man	29	9.67
Age	60-64	73	24.33
	65-69	50	16.67
	70-74	84	28.00
	75-79	45	15.00
	80-84	35	11.67
	85-89	11	3.67
	90+	2	.67
Marital status	unmarried	19	6.33
	married	166	55.33
	divorced	19	6.33
	widow/widower	96	32.00
Education	primary	21	7.00
	vocational	50	16.67
	secondary	114	38.00
	higher	115	38.33
People the respondent lives with	own flat	250	83.33
	with family	45	15.00
	nursing home	5	1.67
Place of residence	rural areas	83	27.67
	city	217	72.33

Self-reported financial status	very bad	1	.33
	bad	16	5.33
	average	107	35.67
	good	135	45.00
	very good	41	13.67
Self-reported health status	very bad	9	3.00
	bad	31	10.33
	average	106	35.33
	good	116	38.67
	very good	38	12.67
Self-reported physical fitness	very bad	9	3.00
	bad	28	9.33
	average	113	37.67
	good	114	38.00
	very good	36	12.00

Methods

The study used the Polish adaptation of the Norbeck Social Support Questionnaire (NSSQ). The tool is designed to assess social support networks in health-related areas. The NSSQ supports the assessment of selected elements of social support, with a particular focus on emotional and financial support. In addition, the sources of support in the study group can be identified. The questionnaire mainly focuses on two components of social support – current and expected support.

The second tool was the Short Form-36v2 Health Survey self-reported quality of life questionnaire (QualityMetric's PRO CoRE, License Agreement: QUO-04385-V4P6T6). The questionnaire allows a self-assessment of quality of life in: physical component summary, mental component summary, and specific subscales: physical functioning, role limitations due to physical health problems, bodily pain, general health, vitality, social functioning, role limitation due to emotional problems, mental health.

The research was conducted in person, using paper questionnaires. Due to the complexity of the research tools, interviewers helped respondents understand the questions and complete the questionnaires.

Statistical analysis

Due to the lack of normal distribution in the analyzed variables (as verified by the Shapiro–Wilk test), nonparametric statistical methods were applied. The Mann–Whitney U test (for comparisons between two independent groups) and the Kruskal–Wallis test with post hoc multiple comparisons (for more than two groups) were used to assess differences between groups. Spearman's rank correlation coefficient was used to evaluate the strength and direction of relationships between variables, as it does not require the assumption of normality. For variables measured on rank and nominal scales, counts and structure index values (percentages) were calculated and presented in graphs or tables. The significance level for all analyses was set at *.05*. All analyses were carried out using the Statistica_13.3_PL package (StatSoft Sp. z o.o).

Results

The analysis of the research results started with unidimensional statistics in the form of basic descriptive statistics and verification of the normality of the distributions. Preliminary analysis of the results revealed, for most variables, non-normality of the distributions (*P* S-W<.05) and very high heterogeneity of the results (V>20%). Therefore, non-parametric statistics were used in further analyses.

Statistical analysis of the data obtained showed that, in the study group, gender did not translate into significant differences between the results of the individual subscales for the social support questionnaire (NSSQ) and the self-reported quality of life (SF-36). Accordingly, the results and analyses below are presented for both genders of the respondents. Table 2 presents the basic descriptive statistics for the results obtained from the NSSQ and SF-36 questionnaires, including the mean, median, minimum and maximum values, standard deviation, coefficient of variation, skewness, kurtosis, and the Shapiro–Wilk test results. These data allow for the assessment of the distribution and variability of the variables related to social support as well as the physical and mental health status of the study participants.

Table 2. Basic descriptive statistics.

Variable	M	Me	Min	Max	SD	V	Sk	Ku	P S-W
NSSQ questionnaire									
support persons (number of indications)	4.62	4.00	1.00	15.00	2.63	**56.89**	1.18	2.04	**<.001**
impact/influence (mean)	8.66	8.94	1.00	32.00	2.09	**24.16**	4.15	51.95	**<.001**
support/assistance (mean)	8.69	8.89	.00	32.00	2.12	**24.39**	3.88	49.85	**<.001**
help (mean)	8.70	9.00	.00	32.00	2.16	**24.87**	3.60	46.26	**<.001**
SF-36 questionnaire									
PF	68.95	75.00	.00	100.00	26.22	**38.03**	-.89	-.07	**<.001**

RP	52.04	50.00	.00	100.00	42.87	**82.38**	-.02	-1.76	**<.001**
BP	52.52	51.00	.00	100.00	24.37	**46.39**	.16	-.10	**<.001**
GH	45.17	47.00	15.00	72.00	13.09	**28.98**	-.20	-.57	**<.001**
VT	56.29	56.25	.00	100.00	17.99	**31.96**	-.43	.78	**<.001**
SF	70.79	75.00	.00	100.00	24.44	**34.52**	-.51	-.45	**<.001**
RE	58.89	66.67	.00	100.00	44.29	**75.20**	-.31	-1.73	**<.001**
MH	63.25	65.00	20.00	100.00	16.09	**25.44**	.10	-.57	**<.001**
PCS	43.26	44.42	9.84	61.84	10.03	**23.18**	-.66	.12	**<.001**
MCS	44.48	46.35	21.37	66.17	10.60	**23.83**	-.29	-1.01	**<.001**

M- arithmetic mean. Me – median. SD - standard deviation. V- coefficient of variation. Sk - skewness. Ku - kurtosis. p S-W - test probability for the Shapiro-Wilk test for normal distribution. Abbreviations for SF-36: PF - physical functioning. RP - role limitations due to physical health problems. BP - bodily pain. GH - general health. VT – vitality. SF - social functioning. RE - role limitation due to emotional problems. MH - mental health. PCS - physical component summary. MCS - mental component summary.

Respondents asked in the NSSQ questionnaire how many people in their environment they could identify as those from whom they would receive or received support, indicated 4 to 5 people on average (maximum number of indications: 15 people). When looking at respondents' answers as to who they could count on in their everyday life (e.g. who is important to them, who really influences their life situation, and whose support they can expect), the most frequently mentioned were children (31.7%), spouses (16.8%), immediate family (14.8%), friends (9.9%), and grandchildren (6.9%). It should be noted that in the surveyed group, a small percentage of respondents indicated support from social workers (about 3% of respondents).

It was checked whether the respondents' place of residence (i.e., living alone, with family or in nursing homes) reveals significant differences between respondents. Significant differences were noted between those living with family and respondents living in nursing homes in several areas:

- higher scores in terms of the impact of social support were indicated by those living with family than those residing in nursing homes (*P*=.018);
- higher scores in terms of social support received were indicated by those living with families (*P*=.032);
- the situation was similar with regard to the provision of assistance: higher support in this respect was indicated by those living with family (*P*=.044).

In the study group, it was noted that the place of residence (urban/rural) revealed significant differences between the respondents' results on 8 subscales of the questionnaires analyzed (*P*<.05), as highlighted in bold in Table 3. It was found that scores on the subscales of the NSSQ questionnaire relating to the impact and influence of the support network, the support received, and the scale of support were statistically significantly higher in the group of respondents living in urban than in rural areas. It was also found that the SF-36 questionnaire's subscale scores on role limitation due to physical health problems (RP), social functioning (SF), role limitation due to emotional problems (RE), mental health (MH), and mental component summary (MCS) were statistically significantly higher in rural than in urban areas.

Table 3. Results of Mann-Whitney U-test analysis (variable: place of residence).

Variable	**city**	**rural area**			
	Rank sum	Rank sum	U	Z	*P*
NSSQ questionnaire					
support persons (number of indications)	33328.50	11821.50	8335.50	1.00	.32
impact/influence (mean)	34227.50	10922.50	7436.50	**2.33**	**.020**
support/assistance (mean)	34741.50	10408.50	6922.50	**3.10**	**.0019**
help (mean)	35035.00	10115.00	6629.00	**3.53**	**.0004**
SF-36 questionnaire					
PF	32443.50	12706.50	8790.50	-.32	.75
RP	31018.00	14132.00	7365.00	**-2.44**	**.015**
BP	31743.50	13406.50	8090.50	-1.36	.17
GH	32553.50	12596.50	8900.50	-.16	.88
VT	31576.00	13574.00	7923.00	-1.61	.11
SF	30903.00	14247.00	7250.00	**-2.61**	**.0090**
RE	31135.00	14015.00	7482.00	**-2.27**	**.023**
MH	30436.50	14713.50	6783.50	**-3.31**	**.0009**
PCS	31868.00	13282.00	8215.00	-1.18	.24
MCS	30262.50	14887.50	6609.50	**-3.56**	**.0004**

Abbreviations for SF-36: PF - physical functioning. RP - role limitations due to physical health problems. BP - bodily pain. GH - general health. VT – vitality. SF - social functioning. RE - role limitation due to emotional problems. MH - mental health. PCS - physical component summary. MCS - mental component summary.

Table 3. Results of Mann-Whitney U-test analysis (variable: place of residence)

It was interesting to test and determine the relationships between the individual subscales of the NSSQ and the SF-36 questionnaires and the variables such as age, marital status, level of education, self-reported financial status, self-reported health status, and self-reported physical fitness of the respondents. The analysis made it possible to indicate that in the study group:

- there were no significant correlations between the age of the respondents and the scores on the NSSQ and SF-36 subscales;
- the marital status of the respondents did not reveal differences between the results for the subscales of the questionnaires analyzed;
- there was a weak negative correlation (P=.041, r=0.0832) between the educational level of the respondents and the social support influence and impact scale (NSSQ), and a weak positive correlation (P=.02, r=0.0950) between the educational level and the number of people identified as a support group;
- a better self-reported financial status correlated positively with the number of indications of people from whom the respondent could receive or received support (P=.0016, r=0.1275);
- self-reported health status correlated positively with the number of indications of people from whom the respondent could receive or received support (P=.00052, r=0,1415);
- self-reported health status also correlated negatively with role limitations due to physical health problems (P=.04, r=0,0839), meaning that as self-reported health status increased, social role limitations due to physical health problems decreased;
- self-reported fitness level correlated positively (P<.05) with the NSSQ subscales in terms of number of indications of people from whom the respondent can receive/receives support, support received, and assistance provided.

The Mann–Whitney test was used to assess differences between the responses of urban and rural residents. Due to the failure to meet parametric assumptions, this test allowed for a comparison of the medians of the distributions of the studied variables between independent groups. The effect sizes ranged from 0.08 to 0.14, which means very small to small effects.

Discussion

Our research showed that respondents most often indicated their loved ones as the people from whom they receive support (mainly children, spouses, friends). Support and a sense of belonging to a family are essential for improving the quality of life of older people. Emotional and practical support help prevent isolation, improve health, and foster a sense of meaning and belonging.[41] Aging is often accompanied by health decline, loss of loved ones, and reduced mobility. Research shows that loneliness negatively affects cognitive function[42,43] and increases the risk of chronic diseases.[44-46] Therefore, activities that expand support networks are vital for well-being, as social support plays a significant role in determining quality of life. [4,47-49]

Older adults who receive support from family, friends, or institutions report better mental and emotional health, lower levels of loneliness, and ~~lower~~ reduced rates of depression and anxiety. Such supportive relationships also foster a stronger sense of belonging and greater emotional stability.[50-56]

Our study found that individuals living with family scored higher on the influence/impact scale (NSSQ). Within the study group, family members—particularly children, spouses, and siblings—remained the primary source of support, providing both instrumental assistance (e.g., shopping, transportation, caregiving) and emotional support. Children provided the greatest proportion of support (31.7%), followed by spouses (16.8%) and other immediate family members (14.8%). Participants living with family reported significantly higher social support scores (P= .032). More than 83% of respondents lived in their own homes. Other research confirms the importance of intergenerational ties for older adults' mental well-being. A close relationship with one's children may therefore be associated with greater perceived well-being, while support from friends appears to improve self-rated health. Emotional support in late adulthood enhances self-worth and coping ability.[57,58]

We also found that higher self-reported physical activity was associated with higher scores on NSSQ support scales. Smith et al.[59] reported that family-provided social support encourages physical activity. Conversely, loneliness is negatively associated with physical fitness, particularly among women. Friends also play an important role in promoting leisure-time activity. 'Buddy' programs, in which older adults exercise in pairs, have been successful in China.[60]

Older adults often rely on institutional support—such as social care centers, medical services, or charities—for healthcare, financial advice, and daily assistance. However, only 3% of our respondents reported using such support . In Korea and Japan, where family ties are weakening, programs have been developed for older adults living alone. These initiatives focus on safety, maintaining family contact, facilitating access to information and supporting informal caregivers.[61-64] With an aging population and declining birth rates, future generations may lack close family support.[65] In such circumstances, welfare institutions can play a crucial role in enhancing the quality of life for older adults, particularly those without family support.

It should be emphasized that women definitely predominated in our study group—we assume that this is mainly due to women's greater willingness to participate in research and the higher percentage of women (in general) in the centers where we conducted our research.

Practical Applications

The findings highlight the need for integrated measures to strengthen social support networks for individuals aged 60 and over. Family members—particularly daughters— often remain the primary source of support. It is worth noting the solutions being implemented to reduce the burden on women, who often have to balance caregiving responsibilities with work. Promoting aging in place through the development of community-based services and programs aimed at maintaining functional independence is essential, as it may delay the need for institutionalization. Strengthening family and social ties often promotes physical activity, which has a positive impact on the physical and mental health of older people. Higher self-rated health correlates with greater perceived social support and better social functioning, which may confirm the key role of social support in enhancing quality of life in later life. Given the growing importance of formal support services, it is essential to expand comprehensive and accessible day care and community-based programs that complement informal family care.

Conclusions

Family support networks play an important role in shaping the psychosocial quality of life of people aged 60 and over. Based on the analyses conducted, the following conclusions were drawn:

- Among family members, older adults most frequently identified their children—particularly daughters—as the primary source of both emotional and practical support.
- Older individuals living with family members reported receiving a higher level of social support compared to those residing in 24-hour institutional care settings.
- A positive association was observed between the level of social support and physical activity, suggesting that the presence of close social ties may contribute to greater engagement in daily activities.
- Respondents in better self-reported health more often indicated receiving social support, which was associated with fewer physical limitations and better performance in social roles. Higher health ratings also coincided with fewer difficulties in social functioning.
- While the family remains the main source of support for older adults, an increasing role of other forms of support—such as public services and local community resources—was also noted. Participants reported using non-family sources of assistance in managing everyday life.

Limitations of study: overrepresentation of women in the study group – when conducting further research on support networks, particular attention should be paid to equal gender representation; this will allow for the generalization of the results obtained; lack of a priori power analysis prior to data collection – this was due to organizational constraints.

Informed Consent Statement

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

Ethical Committee approval

Ethics Committee of the University of Physical Education in Warsaw (SKE01-19/2023).

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Topic

Psychology

Conflicts of interest

The authors have no conflicts of interest to declare.

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Author-s contribution

The contributions were: conception of the work: AL; acquisition of the data: AL, KB-W, ML-K, RM, JP, MW; ; analysis of the data: AL; drafting of the work: AL, KB-W, ML-K, RM, JP, MW; revising it critically for important intellectual content: AL, KB-W, ML-K, RM, JP, MW; final approval of the version to be published: AL, KB-W, ML-K, RM, JP, MW. All authors have read and agreed to the published version of the manuscript.

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