



Featured Article

The relationship between perceived social support, quality of life, well-being, successful aging and social health in older adults living in the community

Alperen Goktas, MSc^a, Celalettin Cevik, MSc, PhD^{b,*}

^a Department of Public Health Nursing, Institute of Health Sciences, Balikesir University, Balikesir, Turkey

^b Department of Public Health Nursing, Faculty of Health Sciences, Balikesir University, Balikesir, Turkey



ARTICLE INFO

Article history:

Received 19 March 2025

Received in revised form 31 January 2026

Accepted 18 March 2026

Available online 6 April 2026

Keywords:

Social health

Social support

Quality of life

Well-being

Successful aging

ABSTRACT

Social health in older adults plays a critical role in improving quality of life by jointly supporting physical, mental, and emotional health. The aim of this study was to examine the association between perceived social support, quality of life, well-being, successful aging, and social health among community-dwelling older adults. This observational study was conducted with 535 community-dwelling older adults living in a province in the Pasaalani neighbourhood of Balikesir, using a multistage cluster sampling method. The dependent variable of the study was social health perception and multivariate linear regression analysis was used in the analyses. Reporting of the study followed the STROBE checklist. The participants' mean SHSE score was 50.00 ± 10.00 . According to the linear regression analysis, the Social Health Scale for Elderly score for the older adults was significantly lower among those who were unmarried, employed, had no hobbies, and had poor self-perceived general health ($p < 0.05$). Additionally, social health decreased with increasing age and poorer self-perceived general health, while it increased with higher levels of successful aging, quality of life, and perceived social support ($p < 0.05$). The social health of the participants was at a moderate level. These findings highlight the importance of prioritizing disadvantaged groups and promoting hobbies, general health, and social support to enhance social health among older adults.

© 2026 Elsevier Inc. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

Introduction

The aging process is an inevitable aspect of human life and constitutes a specific public health concern, particularly from the perspective of health and social services. According to United Nations data, while 10 % of the world's population today consists of older adults, this figure is expected to rise to 16 % by 2050.¹ Social health is defined as an individual's capacity to fulfill personal potential and social responsibilities, maintain daily life, and participate in social activities, including work, even in the presence of health problems. It is a multi-dimensional concept encompassing social support, social adjustment, and the perceived environment.^{2,3} Although social health is closely related to constructs such as social support, quality of life, and well-being, it represents a broader concept encompassing social integration, social participation, and perceived environmental support. In this study, social health is operationalized as an overarching

construct reflecting the individual's overall social functioning rather than a single social dimension. The Social Health Scale for the Elderly (SHSE) was developed to comprehensively assess social health in older adults, covering dimensions such as social support, social integration, and perceived social environment. The scale provides an overall social health score rather than focusing on a single social construct. Social health has two dimensions: individual and societal. At the individual level, it is commonly expressed through concepts such as well-being and adaptation and is assessed in terms of social support and social adjustment. At the societal level, social health primarily reflects the characteristics of the living environment and neighborhood conditions.^{2,4}

Social health, alongside physical and mental health, is a vital dimension of overall health.⁵ Promoting social health among the older adults can lead to higher self-efficacy, which in turn enhances physical and mental health, improves physical performance, and increases life satisfaction. Therefore, promoting social health among older adults is crucial for effective health system planning and policy formulation. Furthermore, in the process of planning health and social services, assessing the social health levels of the older adults is essential for addressing needs and shaping policies.

*Corresponding author at: Balikesir University, Faculty of Health Sciences, Department of Public Health Nursing, Balikesir, Turkey.

E-mail addresses: alperengoktas@gmail.com (A. Goktas), celalettincevik@balikesir.edu.tr (C. Cevik).

Social health, an important aspect of overall health in addition to physical and mental well-being, can be measured through Social Support, Social Adjustment, and the Perceived Environment.^{2,6} Social support refers to the level of support an individual receives from others; social adjustment reflects the individual's capacity to actively engage with their community; and the perceived environment encompasses perceptions of equal opportunities and structured surroundings in society.⁷ In the literature, the Social Health Scale for the Elderly (SHSE) scores are reported to range between 42.80 ± 13.00 and 57.27 ± 8.70 .^{2,8–10} SHSE scores tend to decrease with age, in individuals living alone, those who are unmarried, and those with lower education levels.^{2,8,9} Although a limited number of studies have assessed social health in older adults, no study has comprehensively examined its relationship with social support, quality of life, well-being, and successful aging.^{2,9–14} Therefore, this study was conducted. The aim of this study was to examine the association between perceived social support, quality of life, well-being, successful aging, and social health among community-dwelling older adults.

Materials and methods

Ethics approval and informed consent

Before starting the study, permission was obtained from Balikesir University Health Sciences Non-Interventional Research Ethics Committee (dated 28.09.2021, numbered 2021/1), Balikesir Governorship (dated 14.07.2021, numbered E.29459337-492-3032), and verbal consent was obtained from the participants and the study was conducted in accordance with the Declaration of Helsinki.

Design

This observational study was conducted with 535 community-dwelling older adults living in a province in the Pasaalani neighbourhood of Balikesir, using a multistage cluster sampling method. This study adhered to the Strengthening of Reporting of Observational Studies in Epidemiology (STROBE) guidelines for cross-sectional studies, as outlined in the STROBE checklist.¹⁵

Participants and data collection

The study population comprised 13,390 individuals aged 60 years and above residing in Pasaalani neighbourhood, of Balikesir.¹⁶ The sample size was calculated using the Epiinfo 7.0 program,¹⁷ considering a population of 13,390, a 50 % prevalence, a 95 % confidence level, a 5 % margin of error, and a design effect of 1.5 to account for the increased variance associated with the multistage cluster sampling design. This value was selected in line with methodological recommendations for community-based studies when the intracluster correlation coefficient is unknown.¹⁸ The calculated sample size was 535, and participants were selected using a multistage sampling method. The dependent variable of the study was the social health of the older adults. The independent variables included sociodemographic characteristics, perceived social support, successful aging, quality of life, and well-being. In the sample selection, the neighborhood was divided into 89 streets, with each street considered a cluster, and the study was conducted in 89 clusters, each containing six individuals. For each cluster, the starting street was determined according to the predefined cluster list, and the starting household within the street was selected as the first eligible household encountered at the entrance of the street. If the starting house in the cluster was a detached house, data collection started from that house, skipping two houses on the right side of the street. In the case of apartment buildings, data collection began from the first apartment, and every second house was skipped. When reaching a dead-end street,

the process continued the opposite side. If no one was at home or individuals refused to participate, the next house was selected, skipping two houses each time. If there was no individual aged 60 or older in a household, data collection immediately moved to the next house. Once the number of participants reached approximately six individuals, the process continued to the next cluster.

Measures

The data for this study were collected using the "Sociodemographic Characteristics Form," the "WHO-5 Well-Being Index," the "EQ-5D General Quality of Life Scale," the "Successful Aging Scale," the "Multidimensional Perceived Social Support Scale," and the "Social Health Scale for the Elderly."

Sociodemographic and health status characteristics form

This form was developed by the researchers based on relevant literature and previous studies examining the social health of older adults and consists of 25 questions related to age, gender, marital status, education level, and healthy lifestyle.^{2,8,19}

Multidimensional perceived social support scale (MPSSS)

This scale, adapted into Turkish by Eker and Arkar in 1995, consists of 12 items on a 7-point Likert scale and measures the level of perceived social support. The Cronbach's alpha coefficient was 0.87 in the Turkish adaptation study,²⁰ while it is 0.96 in this study.

WHO-5 well-being index (WHO-5)

This scale, adapted into Turkish by Eser et al. in 2019, consists of five items on a 5-point Likert scale that assess emotional well-being over the past two weeks. Scores range from 0 (absence of well-being) to 25 (highest well-being). The Cronbach's alpha coefficient for the older adults was 0.81 in the Turkish adaptation study,²¹ while it is 0.97 in this study.

EQ-5D general quality of life scale (EQ-5D)

The EQ-5D scale was developed by the EuroQoL group in 1990 and adapted into Turkish by Eser et al. in 2007. It evaluates health-related quality of life and consists of five dimensions: Mobility, Self-Care, Usual Activities, Pain / Discomfort, and Anxiety / Depression. It is a self-reported scale with a three-level Likert-type response format. The Cronbach's alpha coefficient was 0.77 in the Turkish adaptation study,²² while it is 0.73 in this study.

Successful aging scale (SAS)

This scale was developed by Reker et al. in 2009 and adapted into Turkish by Hazer and Ozsungur in 2017. It consists of 10 items, scored using a seven-point Likert scale. The Cronbach's alpha coefficient was 0.85 in the Turkish adaptation study,^{23,24} while it is 0.98 in this study.

Social health scale for the elderly (SHSE)

This scale was developed by Bao et al. in 2018 and adapted into Turkish by Cevik et al. in 2020. It assesses social well-being among the older adults through 25 items, covering three subdimensions: Social Support, Social Adjustment (reflecting social integration and active participation in society), and Perceived Environment. The total score ranges from 5 to 125, and responses are transformed into a standardized score between 0 and 100. Higher scores indicate better social well-being. The Cronbach's alpha coefficient was 0.90 in the Turkish adaptation study, while it is 0.97 in this study.^{2,11,19}

Statistical analysis

Data collected through the questionnaires were entered into the Statistical Package for the Social Sciences version 26.0 for analysis.

Descriptive statistics included frequencies, percentages, and means. The normality of continuous variables was assessed using the Shapiro-Wilk test and skewness/kurtosis coefficients between +1.5 and -1.5. Depending on the normality assumptions, the independent samples *t*-test / Mann-Whitney U test was used for comparisons between two groups, and the ANOVA (post-hoc: Tukey HSD) / Kruskal-Wallis H test was used for comparisons between three or more groups. Relationships between continuous variables were analyzed using Pearson's correlation analysis. In the multivariable analyses, variables that were found to be significant in the univariable analyses ($p < 0.05$) were included in the model. In the linear regression analysis, the backward elimination method was employed. This method was chosen to simultaneously evaluate many sociodemographic and clinical variables potentially associated with social health and to control for possible confounding effects. The backward method allows all candidate variables to be entered into the model initially, enabling the assessment of each variable's independent contribution, and yields the most parsimonious explanatory model through the stepwise removal of statistically non-significant variables.²⁵ The results were evaluated in a 95 % confidence interval.

Results

Characteristics of the research group regarding sociodemographic and continuous variables

The mean age of the participants was 66.79 ± 5.36 years; 51 % were female, 86 % were married, 26 % were high school graduates, 44.1 % had income equal to their expenses, and 97.8 % had children. Additionally, 44.3 % had three children, 92 % lived in their own homes, 87.1 % lived with their spouse, 55.7 % were retired, 98.9 % had health insurance, and 68.6 % lived in an apartment without an elevator.

Of the participants, 75 % had a chronic illness, 75.1 % regularly used medication, and 28.1 % used only one type of medication. Furthermore, 88 % used assistive devices, 55.9 % exercised regularly, with 65.2 % exercising two to four times a week. Moreover, 54.6 % had never used tobacco products, and 90.7 % had never consumed alcohol. Regarding sleep quality, 55.7 % reported good sleep quality, 56.6 % were overweight, and 67.8 % had no hobbies. Additionally, 56.3 % perceived their general health as moderate, 63.2 % did not have a regular doctor, and 57.8 % visited their family physician when experiencing health problems. The mean Body Mass Index (BMI) was 28.43 ± 3.49 , and 7.7 % had experienced a fall within the last six months, of which 73.2 % had fallen only once.

The mean WHO-5 score was 16.91 ± 5.67 , the mean SAS score was 51.74 ± 12.48 , the mean EQ5D-100 scale score was 69.18 ± 18.77 , and the mean EQ5D score was 0.81 ± 0.11 . The mean Perceived Social Support Scale score was 74.04 ± 12.74 . The mean SHSE score of the participants was 50.00 ± 10.00 for the Social Support subscale, 49.99 ± 10.00 for the Social Adjustment subscale, and 50.00 ± 10.00 for the Perceived Environment subscale (Table 1).

SHSE and associated factors in the study group

Participants' SHSE scores were significantly lower among individuals aged 75 years and older, those who were unmarried, those with at least primary school education, those whose income was equal to or less than their expenses, those not living in their own homes, those living alone, those who were employed, those without health insurance, and those living in detached houses rather than apartments ($p < 0.05$). Conversely, SHSE scores did not differ significantly according to gender, having children ($p > 0.05$) (Table 2).

In the study group, SHSE scores were significantly lower in individuals with chronic diseases, those using regular medications or

Table 1

Descriptive characteristics of the scores obtained from the scales applied ($n = 535$).

Scales	Minimum	Maximum	Mean $\pm$ SD
WHO-5	0	25.00	16.91 ± 5.67
SAS	10	70	51.74 ± 12.48
EQ5D-100	1	100	69.18 ± 18.77
EQ5D	0.52	1	0.81 ± 0.11
MPSSS	25	84	74.04 ± 12.74
Family	7	28	25.71 ± 3.28
A Special Person	4	28	23.90 ± 5.51
Friend	4	28	24.42 ± 5.29
SHSE	26.11	84.86	50.00 ± 10.00
Social Support	36.52	82.50	50.00 ± 10.00
Social Adjustment	22.49	77.72	49.99 ± 10.00
Perceived Environment	1.90	70.53	50.00 ± 10.00

SD: Standard deviation.

MPSSS: Multidimensional Perceived Social Support Scale, **WHO-5**: WHO-5 Well-Being Index, **EQ-5D**: EQ-5D General Quality of Life Scale, **SAS**: Successful Aging Scale, **SHSE**: Social Health Scale for the Elderly.

assistive devices, those without hobbies, those who did not exercise, those with poor sleep quality or poor self-perceived general health, those without regular doctor visits or primary care use, and those who had experienced a fall in the past six months (all $p < 0.05$). There was no statistically significant difference between SHSE scores and variables such as the use of glasses, wheelchair, tobacco, or alcohol ($p > 0.05$) (Table 3).

According to the correlation analysis, SHSE scores were negatively associated with age ($r = -0.447$, $p < 0.001$), number of children ($r = -0.161$, $p < 0.001$), number of medications ($r = -0.275$, $p < 0.001$), and BMI ($r = -0.100$, $p = 0.021$), while they were positively associated with the number of exercise sessions ($r = 0.202$, $p < 0.001$), Successful Aging Scale scores ($r = 0.480$, $p < 0.001$), WHO-5 scores ($r = 0.480$, $p < 0.001$), EQ5D-100 index ($r = 0.524$, $p < 0.001$), EQ5D scores ($r = 0.509$, $p < 0.001$), and Perceived Social Support ($r = 0.464$, $p < 0.001$). There was no significant relationship between SHSE scores and the number of falls in the past six months ($p > 0.05$) (Table 4).

The variables that were statistically significant in univariate analyses were further examined using the Backward method in the linear regression analysis (Adjusted $R^2 = 0.457$, $F = 50.334$, $p < 0.001$). According to the results of the linear regression analysis, SHSE scores were significantly lower among participants who were unmarried ($\beta = -4.421$, 95 % CI -6.62 to -2.22), employed ($\beta = -7.703$, 95 % CI -13.72 to -1.67), without hobbies ($\beta = -4.822$, 95 % CI -6.29 to -3.34), or with poor self-perceived general health ($\beta = -1.915$, 95 % CI -2.66 to -0.16). Additionally, SHSE scores decreased with increasing age ($\beta = -0.210$, 95 % CI -0.36 to -0.05) and increased with higher Successful Aging ($\beta = 0.126$, 95 % CI 0.05 to 0.19), EQ5D ($\beta = 15.479$, 95 % CI 8.10 to 22.85), and Perceived Social Support scores ($\beta = 0.132$, 95 % CI 0.07 to 0.19) (Table 5).

Discussion

This study is among the first community-based investigations to examine social health in relation to quality of life, perceived social support, well-being, and successful aging. In this study, the total SHSE score, and subscale scores were approximately 50.00 ± 10.00 , indicating a moderate level of social well-being among participants. This finding is consistent with previous studies conducted in Türkiye, China, and Iran, where SHSE scores were also reported to be moderate rather than high (Bao et al., 2018; Cevik et al., 2020; Izadi-Avanji et al., 2023; Yu et al., 2020). The generally moderate level of social health observed across different cultural contexts suggests that social health in older adults remains an area requiring priority, similar to physical and mental health.

Table 2
SHSE according to sociodemographic characteristics in the study group ($n = 535$).

Variable	n (%)	Mean $\pm$ SD	test value	p
Age				
60–74	478 (89.3)	51.01 $\pm$ 9.77	$t = 8.627$	< 0.001
75 and above	57 (10.7)	41.47 $\pm$ 7.63		
Gender				
Female	273 (51.0)	50.44 $\pm$ 10.92	$t = 1.062$	0.289
Male	262 (49.0)	49.53 $\pm$ 8.95		
Marital status				
Married	460 (86.0)	51.62 $\pm$ 9.33	$t = 10.142$	< 0.001
Not married*	75 (14.0)	40.03 $\pm$ 8.08		
Education level				
Primary school ^a	315 (58.9)	47.70 $\pm$ 9.60	$F = 22.005$	< 0.001 c = b > a
High school ^b	139 (26.0)	53.30 $\pm$ 10.25		
University and above ^c	81 (15.1)	53.32 $\pm$ 8.60		
Income				
Income less than expenditure ^a	218 (40.7)	47.35 $\pm$ 9.40	$F = 15.369$	< 0.001 c > b > a
Income equals expenditure ^b	236 (44.1)	51.20 $\pm$ 9.44		
Income more than expenditure ^c	81 (15.2)	53.60 $\pm$ 11.41		
Having a child				
Yes	528 (98.7)	50.08 $\pm$ 10.02	$t = 1.613$	0.107
No	7 (1.3)	43.94 $\pm$ 6.17		
Place of residence				
Own home ^a	492 (92.0)	50.80 $\pm$ 9.62	$F = 32.709$	< 0.001 a > b > c
Rent ^b	19 (3.6)	48.38 $\pm$ 9.61		
Lives with children ^c	24 (4.4)	34.87 $\pm$ 4.41		
Person lived with				
Alone	26 (4.9)	39.49 $\pm$ 7.23	$t = -5.645$	< 0.001
Not alone	509 (95.1)	50.53 $\pm$ 9.83		
Employment status				
Yes	6 (1.1)	42.32 $\pm$ 6.93	MWU = 772.00	0.030
No	529 (98.9)	50.08 $\pm$ 10.00		
Health insurance				
Yes	529 (98.9)	50.08 $\pm$ 10.00	MWU = 823.50	0.042
No	6 (1.1)	42.48 $\pm$ 7.73		
Type of housing				
Private house	47 (8.8)	44.70 $\pm$ 9.75	$t = -3.847$	< 0.001
Apartment	488 (91.2)	50.51 $\pm$ 9.89		

n: Number, SD: Standard deviation, t: Student's t -test, F: ANOVA (posthoc: Tukey HSD), MWU: Mann Whitney U test.

* Single, divorced, spouse deceased.

Table 3
SHSE score according to healthy lifestyle behaviours in the study group ($n = 535$).

Variables	n (%)	Mean $\pm$ SD	test value	p
Presence of chronic disease				
No	134 (25.0)	54.23 $\pm$ 11.33	$t = 5.231$	< 0.001
Yes	401 (75.0)	48.58 $\pm$ 9.11		
Continuously used medication				
No	133 (24.9)	54.17 $\pm$ 11.42	$t = 5.097$	< 0.001
Yes	402 (75.1)	48.61 $\pm$ 9.09		
Assistant tools and equipment				
No	64 (12.0)	53.14 $\pm$ 13.27	$t = 2.084$	0.041
Yes	471 (88.0)	49.57 $\pm$ 9.41		
Using glasses				
No	82 (15.3)	51.09 $\pm$ 12.69	$t = 0.881$	0.380
Yes	453 (84.7)	49.80 $\pm$ 9.44		
Using a dental prosthesis				
No	334 (62.4)	51.55 $\pm$ 10.09	$t = 4.724$	< 0.001
Yes	201 (37.6)	47.41 $\pm$ 9.32		
Using a walking stick				
No	512 (95.7)	50.52 $\pm$ 9.74	$t = 5.854$	< 0.001
Yes	23 (4.3)	38.40 $\pm$ 8.78		
Using crutches				
No	530 (99.1)	50.10 $\pm$ 9.96	MWU = 440.00	0.010
Yes	5 (0.9)	38.59 $\pm$ 8.17		
Using headphones				
No	529 (98.9)	50.18 $\pm$ 9.90	MWU = 161.50	< 0.001
Yes	6 (1.1)	33.60 $\pm$ 3.25		
Using a wheelchair				
No	534 (99.8)	50.02 $\pm$ 9.99	MWU = -1.539	0.124

(continued)

Table 3 (Continued)

Variables	n (%)	Mean $\pm$ SD	test value	p
Yes	1 (0.2)	34.37 $\pm$ 8.70		
Exercise				
No	236 (44.1)	46.13 $\pm$ 8.77	$t = -8.451$	< 0.001
Yes	299 (55.9)	53.05 $\pm$ 9.87		
Perception of sleep quality				
Good ^a	149 (27.9)	54.49 $\pm$ 10.83	$F = 42.321$	< 0.001
Middle ^b	298 (55.7)	49.82 $\pm$ 8.67		a > b > c
Bad ^c	88 (16.4)	42.98 $\pm$ 8.60		
Tobacco use				
Yes	60 (11.2)	48.95 $\pm$ 7.64	$t = -0.860$	0.390
No	475 (88.8)	50.13 $\pm$ 10.26		
Drinking alcohol				
Yes	9 (1.7)	52.52 $\pm$ 4.39	MWU = 1766.00	0.191
No	526 (98.3)	49.95 $\pm$ 10.07		
Hobby of interest				
Yes	309 (57.8)	54.02 $\pm$ 9.44	$t = 12.298$	< 0.001
No	226 (42.2)	44.50 $\pm$ 7.94		
General health perception				
Good ^a	159 (29.7)	53.21 $\pm$ 10.99	$F = 36.920$	< 0.001
Middle ^b	301 (56.3)	50.30 $\pm$ 8.54		a > b > c
Bad ^c	75 (14.0)	41.96 $\pm$ 9.00		
Continuous follow-up physician				
Yes	193 (36.1)	50.96 $\pm$ 10.64	$t = 7.882$	< 0.001
No	342 (63.9)	49.47 $\pm$ 9.53		
Institution usually contacted in case of a health problem				
1st stage ^a	309 (57.8)	50.95 $\pm$ 10.24	$F = 3.496$	0.031
2nd stage ^b	206 (38.5)	48.80 $\pm$ 9.64		a > b > c
3rd stage ^c	20 (3.7)	47.59 $\pm$ 8.60		
Fall in the last six months				
Yes	41 (7.7)	42.36 $\pm$ 8.54	$t = -5.205$	< 0.001
No	494 (92.3)	50.63 $\pm$ 9.86		

n: Number, SD: Standard deviation, t: Student's *t*-test, F: ANOVA (posthoc: Tukey HSD), MWU: Mann Whitney U test.

Table 4

The relationship between SHSE score and continuous, discrete variables and scale scores ($n = 535$).

Variables	r	p
Age	-0.447	< 0.001
Number of children	-0.161	< 0.001
Number of medicines used	-0.275	< 0.001
Number of exercises	0.202	< 0.001
BMI	-0.100	0.021
Number of falls in the last six months	0.061	0.706
SAS	0.480	< 0.001
WHO-5	0.480	< 0.001
EQ5D 100	0.524	< 0.001
EQ5D	0.509	< 0.001
MPSSS	0.464	< 0.001

r: Pearson correlation. BMI: Body Mass Index, MPSSS: Multidimensional Perceived Social Support Scale, WHO-5: WHO-5 Well-Being Index, EQ-5D: EQ-5D General Quality of Life Scale, SAS: Successful Aging Scale, SHSE: Social Health Scale for the Elderly.

Possible explanations for this finding include rapid urbanization, a shift from extended to nuclear family structures, increased social vulnerability in old age, and insufficient community-based public health policies.^{26,27}

According to the linear regression analysis, SHSE scores were significantly lower in unmarried individuals, those employed, those without hobbies, and those with poor self-perceived general health. Additionally, social health decreased with increasing age and poorer self-perceived general health, while it increased with higher levels of successful aging, quality of life, and perceived social support.

Marital status emerged as an important determinant of social health, with unmarried individuals exhibiting lower SHSE scores. This finding may be explained by higher levels of loneliness and social isolation among unmarried older adults and is consistent with

studies conducted in China and Iran.^{8,14} Similarly, Hung et al. reported poorer mental, social, and physical outcomes among widowed individuals compared to their married counterparts.²⁸

SHSE scores were lower among employed individuals in this study. In the Turkish context, economic pressures often necessitate continued employment after retirement, which may negatively affect social participation and well-being. Supporting this interpretation, an Iranian study reported lower social health scores among self-employed older adults, emphasizing the role of working conditions and lifestyle factors.⁹

Consistent with the literature, social health decreased with increasing age and poorer self-perceived general health.^{8,10} Given that health is a multidimensional construct encompassing physical, mental, and social components, self-rated health may inherently reflect social well-being. Similar findings have been reported by Zhao et al., who demonstrated a decline in social health with advancing age.²⁹

Participants without hobbies and those experiencing lower levels of successful aging also reported lower SHSE scores. Engagement in leisure activities and hobbies may enhance social interaction, sense of belonging, and perceived social support, thereby improving social health. This finding aligns with studies from Korea, Iran, and Türkiye showing positive effects of leisure activities and successful aging on health and life satisfaction.^{9,12,30} Longitudinal evidence from Japan further supports the importance of social and environmental engagement for maintaining functional capacity in older age.³¹

As expected, SHSE scores decreased as quality of life and perceived social support decreased. These findings reinforce the close interrelationship between social health, quality of life, and social support, which has been consistently reported in previous studies.^{2,31,32}

In contrast, no significant associations were found between SHSE scores and gender, having children, tobacco or alcohol use, or a history of falls within the past six months in the univariable analyses.

Table 5SHSE score and associated factors according to linear regression analysis ($n = 535$).

Variables	β	S.E.	Standardized β	p	95 % C.I.	
					Lower limit	Upper limit
Age	−0.210	0.077	−0.113	0.007	−0.36	−0.05
Marital status	−4.421	1.119	−0.150	0.001	−6.62	−2.22
Employment status	−7.703	3.067	−0.081	0.012	−13.72	−1.67
Hobby of interest	−4.822	0.751	−0.237	0.001	−6.29	−3.34
General health perception	−1.915	0.637	−0.091	0.027	−2.66	−0.16
SAS	0.126	0.037	0.156	0.001	0.05	0.19
EQ5D	15.479	3.756	0.179	0.001	8.10	22.85
MPSSS	0.132	0.031	0.168	0.001	0.07	0.19

Adjusted $R^2 = 0.457$, $F = 50.334$, $p < 0.001$, Durbin Watson = 1.725.

SE: Standard Error, CI: Confidence Interval. MPSSS: Multidimensional Perceived Social Support Scale, EQ-5D: EQ-5D General Quality of Life Scale, SAS: Successful Aging Scale, SHSE: Social Health Scale for the Elderly.

Variables Included in the Model: Age (continuous), Marital status (married: 0, not married: 1), Education level (university and above: 0, high school: 1, primary school: 2), Income level (income more than expenses: 0, income equal to expenses: 1, income less than expenses: 2), Number of children (continuous), Living place (own home: 0, rented: 1, living with children: 2), Living situation (not living alone: 0, living alone: 1), Employment status (not working: 0, working: 1), Health insurance (yes: 0, no: 1), Housing type (apartment: 1, detached house: 0), chronic disease (no: 0, yes: 1), Regular medication use (no: 0, yes: 1), Assistive device use (no: 0, yes: 1), Exercise (yes: 0, no: 1), Sleep quality (good: 0, moderate: 1, poor: 2), Hobbies (yes: 0, no: 1), General health perception (good: 0, moderate: 1, poor: 2), Regular physician (yes: 0, no: 1), Health service level used (primary care: 0, secondary care: 1, tertiary care: 2), Fall in the past 6 months (no: 0, yes: 1), BMI (continuous), SAS (continuous), WHO-5 (continuous), EQ5D (continuous), MPSSS (continuous).

Similarly, other variables that were significantly associated with SHSE scores in the univariable analyses including education level, income, number of children, place of residence, living alone, health insurance status, type of housing, use of assistive devices, regular medication use, regular physician follow-up, type of health service utilized, exercise, body mass BMI, and WHO-5 scores also failed to retain statistical significance in the multivariable linear regression model, indicating that they were not independent predictors of social health. Similar findings have been reported in some previous studies conducted in the literature^{2,10}; however, results may vary depending on regional characteristics and the measurement instruments used. Differences observed between studies regarding education level, residential setting, and lifestyle behaviors may be attributed to cultural context, regional characteristics, and differences in study populations, such as urban versus rural settings.^{8,29,33} In the present study, the urban setting and relatively younger and healthier sample may partly explain the lack of significant associations with chronic conditions and healthcare utilization.

The lack of an independent association between WHO-5 and social health may be related to contextual factors, such as the pandemic period, which could have uniformly affected well-being levels across participants.

Strengths and limitations

The strengths of the study include its community-based design, generalizability to the study population, and comprehensive assessment of social health among the older adults. However, a limitation is that its cross-sectional nature may weaken causal relationships. Data were collected based on the self-reports of the participants. On the other hand, to the best of our knowledge, there is no study in the literature evaluating the relationship between social support, well-being, quality of life and successful aging with social health in community-dwelling elderly. Therefore, this study is valuable in terms of contributing to the knowledge on this subject. Finally, the high Cronbach's alpha values observed for some scales in this study may be related to the relative homogeneity of the sample and participants' tendency to provide similar responses. Very high alpha values may indicate item redundancy, and therefore, the findings should be interpreted with caution. It is recommended that future studies evaluate the psychometric properties of these scales in different samples.

Conclusion

The participants had relatively high levels of social support, well-being, and successful aging, and moderate levels of quality of life and social health. Being disadvantaged, experiencing deprivation, aging less successfully, and having lower levels of quality of life and social support pose risks for older adults.

In this context, it is important to promote successful aging, perceived social support, and quality of life for the older adults and to foster their socialization. Older adults individuals living alone and in advanced age groups should be monitored more closely, as they are more disadvantaged in terms of social health. A socio-economic and socio-cultural environment conducive to improving the quality of life of the older adults should be created, and active aging should be encouraged. Public policies that comprehensively address health and social services for the older adults should be developed. Health policies should be reviewed, and priority should be given to providing services that reduce inequalities, protect, and promote the health of the older adults.

Ethics approval statement

In order to conduct the study, the approval was obtained from the Balikesir University Health Sciences Non-Interventional Research Ethics Committee (Dated:28.09.2021, No: 2021/1), and before the data collection process, verbal consent was obtained from the participating elderly.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Acknowledgement

The authors would like to thank all participating in this study.

Data availability

Data supporting the findings of this study will be shared with other researchers upon reasonable request.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRediT authorship contribution statement

Alperen Goktas: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Celalettin Cevik:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization.

References

- United Nations Ageing. 2023. <https://www.un.org/en/global-issues/ageing>.
- Bao C, Yu Z, Yin X, et al. The development of the social health scale for the elderly. *Health Qual Life Outcomes*. 2018;18:1–14. <https://doi.org/10.1186/s12955-018-0899-6>.
- Huber M, Knottnerus JA, Green L, et al. How should we define health? *Bmj*. 2011;343:d4163. <https://doi.org/10.1136/bmj.d4163>.
- Russel R. Social health: an attempt to clarify this dimension of well-being. *Int J Health Educ*. 1973;74–82.
- Tognetti M, Greco S. Healthcare. In: Maggino F, ed. *Encyclopedia of Quality of Life and Well-Being Research*. Springer; 2024:3010–3013. <https://doi.org/10.1007/978-94-007-0753-5>.
- Rudnicka E, Napierała P, Podfigurna A, Meczekalski B, Smolarczyk R, Grymowicz M. The World Health Organization (WHO) approach to healthy ageing. *Maturitas*. 2020;139:6–11.
- Samadifard H, Narimani M. Prediction of death anxiety of elderly based on mindfulness and irrational beliefs. *Iran J Psychiatr Nurs*. 2017;5:15–21. <https://doi.org/10.21859/ijpn-05033>.
- Yu Z-B, Bao C-Z, Wu M-Y, et al. Regression-based normative data for social health scale for the elderly (short version) in eastern China. *Health Qual Life Outcomes*. 2020;18:1–9. <https://doi.org/10.1186/s12955-020-01306-2>.
- Izadi-Avanji FS, Mohseni-Asl R, Gilasi H. Social health status and its related factors in older adults. *J Holist Nurs Midwifery*. 2023;33:222–229. <https://doi.org/10.32598/jhnm.33.3.2518>.
- Aldemir I, Cevik C. Relationship between health literacy, health protective behaviour, quality of life and social health in older adults living in the community. *J Clin Nurs*. 2025;1–11. <https://doi.org/10.1111/jocn.17779>.
- Cevik C, Baydur H, Ozdemir R, Sonmez S. Validation and reliability study of the Turkish version of the social health scale for the elderly. *Eur J Geriatr Gerontol*. 2024;6:185–193. <https://doi.org/10.4274/ejgg.galenos.2024.2024-5-1>.
- Choi Y, Lee KS, Shin J, Kwon JA, Park EC. Effects of a change in social activity on quality of life among middle-aged and elderly Koreans: analysis of the Korean longitudinal study of aging (2006–2012). *Geriatr Gerontol Int*. 2017;17:132–141. <https://doi.org/10.1111/ggi.12685>.
- Lim S, Han Y, Park JH. Psychometric evaluation of the Korean social health scale for the elderly: a rasch analysis of item level validity. *J Eval Clin Pr*. 2025;31:e70275. <https://doi.org/10.1111/jep.70275>.
- Izadi-Avanji FS, Mohseni-Asl R, Gilasi H. Psychometric properties of the Persian version of the social health scale for the elderly. *J Client-Centered Nurs Care*. 2025;11:229–236. <https://doi.org/10.32598/jccnc.11.3.280.8>.
- Von Elm E, Altman DG, Egger M, et al. The strengthening of Reporting of Observational Studies in Epidemiology (STROBE) Statement: guidelines for reporting observational studies. *Int J Surg*. 2014;12:1495–1499. <https://doi.org/10.1016/j.ijsu.2014.07.013>.
- Turkish Statistical Institute. Older People in Statistics. 2021. https://www.tuik.gov.tr/media/announcements/istatistiklerle_yasliilar_2021.pdf.
- Epi Info™ for windows 2021. CDC. *Epi Info™ for Windows*. <https://www.cdc.gov/epiinfo/pc.html>.
- Kish L. Methods for design effects. *J Stat*. 1995;11:55.
- Cevik C, Baydur H, Ozdemir R, Sonmez S. Validity and reliability of the Turkish version of the social health scale for older adults. *4th International 22nd National Public Health Congress*. Antalya, Turkey; 2020350.
- Eker D, Arkar H. Factor structure, validity, and reliability of the multidimensional perceived social support scale. *Turk J Psychol*. 1995;10:45–55. Turkish.
- Eser E, Cevik C, Baydur H, et al. Reliability and validity of the Turkish version of the WHO-5, in adults and older adults for its use in primary care settings. *Prim Health Care Res Dev*. 2019;20:e100. <https://doi.org/10.1017/s1463423619000343>.
- Eser E, Dinc G, Cambaz S, Ozyurt B. EURO-QoL (EQ-5D) index community standards and psychometric properties: manisa city community sample. *Qual Life Health Congr*. 2007;5–7. Turkish.
- Reker G. A brief manual of the successful aging scale (SAS). 2029;102009:1–13.
- Hazer O, Atesoglu L. The effect of health literacy on successful aging: the case of Ankara province. *Turk Clin Intern Med Nurs - Spec Top*. 2019;5:48–56. Turkish.
- Field A. *Discovering Statistics Using IBM SPSS Statistics*. SAGE Publications; 2024.
- Sonmez S, Cevik C. Elderly and inequalities in health. *Humanist Perspect*. 2021;3:496–511. <https://doi.org/10.47793/hp.943515>. Turkish.
- Yilmaz S, Acikgoz A, Cevik C, Selcuk KT, Ucku R. Health and social services for the elderly; the evaluation of some country examples. *J Contin Med Educ*. 2013;22:105–114. Turkish.
- Hung Y-C, Chen Y-H, Lee M-C, Yeh C-J. Effect of spousal loss on depression in older adults: impacts of time passing, living arrangement, and spouse's health status before death. *Int J Env Res Public Health*. 2021;18:13032.
- Zhao Z-Y, Tang H, Li F-H, Wu S-Y. Analysis of influencing factors of social health of the aged based on visual analysis. *Nurs Commun*. 2024;8:e2024028. <https://doi.org/10.53388/IN2024028>.
- Kutmec Yilmaz C. Determining the relationship between aging in place and successful aging and life satisfaction among older people. *Health Soc*. 2020;20:38–48. Turkish.
- Watanabe K, Tanaka E, Watanabe T, et al. Association between the older adults' social relationships and functional status in Japan. *Geriatr Gerontol Int*. 2017;17:1522–1526. <https://doi.org/10.1111/ggi.12909>.
- Lu J, Yu Z, Zhang X, et al. Association between social health status and health-related quality of life among community-dwelling elderly in Zhejiang. *Health Qual Life Outcomes*. 2020;18:1–8. <https://doi.org/10.1186/s12955-020-01358-4>.
- Li X, Zhang Y, Li R. Study on the health status of middle-aged and elderly people of different ethnic groups in Yunnan Province and its influencing factors. *China Rural Health Manag*. 2024;44:214–221. <https://doi.org/10.19955/j.cnki.1005-5916.2024.03.010>.