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Research Article

The Relationship Between Quality Of Life And Depression In Turkish Older Adults

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ABSTRACT

Objective: The aim of this study is to measure the quality of life of the older adults living in Turkey and to determine the relationship between quality of life and depression.
Methods: The population of the study included older people aged 65 and over. The sample consisted of 219 older adults selected using convenience sampling, based on the availability and willingness of the participants to take part in the study. Data were collected by the face-to-face administration of the socio-demographic characteristics form, SF-36 Quality of Life Scale and Beck Depression Inventory.
Results: There is a significant, strong and negative relationship between quality of life and depression. Quality of life differed according to gender, education, marital status, employment and income perception, social security and health status. Female older adults had higher levels of depression.
Conclusions: Quality of life in older men is higher, and older women are more vulnerable to depression then men. These points should be considered when planning inclusion activities to increase quality of life in older populations. Social policy-makers should consider the social security's contribution to physical and mental functioning of the older people when developing policies and allocating resources for the old.

Keywords: Aging, Depression, Geriatric Depression, Quality of Life, Older Adults.

Introduction

People desire to be satisfied with the conditions they live in in every period of their lives and to lead a life with high quality. However, unequal conditions, facing various problems, individual differences and personal perceptions may lead to differences in terms of life quality.
Quality of life is related to one's satisfaction with their lives and varies by objective and subjective criteria. Clearly, observable or measurable variables such as income, education, health, social networks are among objective criteria. Subjective criteria are personal evaluations and perceptions. For example, an one's self-esteem can be characterised as a subjective criterion affecting their quality of life. In general, the more satisfied one is with the conditions and opportunities they are in, the higher their quality of life is. Likewise, a low level of satisfaction is a phenomenon that negatively affects quality of life (Hagberg et al., 2002).
Studies have shown that economic status, health status, educational status, marital status, social status, social support level, socialisation and self-realisation level as well as the functionality and psycho-social status of individuals are determinants of quality of life (Zhang & Xiang, 2019; Değer & Ordu, 2022).
A high level of quality of life suggests that a person is generally satisfied with the conditions in which he/she lives and the opportunities he/she has. On the other hand, low quality of life indicates a life cycle with insufficient opportunities and more problems. In case of low quality of life, such variables as low economic

income, health problems, loneliness, social exclusion, inability to develop belonging, being ignored and self-realisation come to the fore (Kurt et al., 2010; Ghosh & Dinda, 2020). Those people whose quality of life decreases because of these and similar reasons are likely to have other problems cyclically. In other words, on the one hand, the health problem of a person negatively affects his / her quality of life; on the other, it has an effect on reducing the quality of life by revealing another obstacle in terms of socialisation. Such circumstances, which can be witnessed in every period of life, are valid for older adults and the likelihood of situations that will negatively affect their quality of life is possibly higher.

Depression is a condition that profoundly affects the daily functioning of the individual and has an impact on the quality of life with its psycho-social dimensions (Brown & Roose, 2011). During depression, inability to engage in daily activities, not enjoying life, feeling aimless, regression in the sense of belonging and emotional fluctuations are frequent. Throughout depression, a gradual decrease in quality of life is expected. On the other hand, a gradual decrease in quality of life hightens the risk of depression (Uchmanowicz & Gobbens, 2015; Kong et al., 2019; Alaca et al., 2022).

Old age is defined as a stage in which losses in physical, mental, psychological and social aspects are more common (Say Şahin et al., 2019). The possibilities and competencies in the face of the regressions and losses experienced, and the personal perceptions of the individual provide a prediction about how the period of old age will be sustained. If older adults have met the changes that occurred in the previous life stages as usual and evaluated the process as a normal stage, the old age period can be described as another natural stage that should be experienced for them. On the contrary, if there is a significant difference between what they aim for and what they realize, if they are dissatisfied with the opportunities in their social environment, they are likely to regard old age as an undesirable and difficult period.

Old age increases the risk of diversifying problems and encountering additional ones. The increase in problems negatively affects the well-being of the elderly and leads to a decrease in the quality of life. Among the frequent problems experienced by the elderly in old age are health problems, lack of income, isolation, perception of worthlessness, communication problems, need for someone else's care and security problems (Novak, 2018). While overcoming each problem will increase the quality of life, the persistence of the problem has a negative impact on the quality of life. For the same reason, it increases the risk of depression.

Old age is a period in which loneliness increases and health problems come to the fore due to such reasons as children getting married and spouses dying. Insufficient income is another important problem. The quality of life is expected to decrease for the elderly who try to survive without any or with a low amount of income (Güven & Şener, 2010; Ak & Közleme, 2017). Especially in the elderly who withdraw from social life, the development of the idea of uselessness brings about feelings of worthlessness and reaches a point where communication problems become widespread (Tereci et al., 2016). In the older adults who cannot fend for themselves (e.g., being unable to meet their personal needs), the need for care by others comes out. Security may also become an important problem, especially with the widespread cases of violence against the older adults.

The abovementioned problems in the life of the older adults negatively affect their living standards. Turkey is not an exception, for it is a country with an increasing elderly population. The proportion of the older adults over the age of 65 in the total population leaped from 8.3% in 2016 to 9.7% in 2021, 44.3 % being male (TurkStat, 2022). The share of the elderly population in the general population is expected to increase gradually. It is estimated to be 11% in 2025, 12.9% in 2030, 16.3% in 2040, 22.6% in 2060 and 25.6% in 2080 (General Directorate of Services for Disabled and Elderly, 2020).

The aim of this study is to identify the quality of life of the older adults in Turkey and to determine the relationship between quality of life and depression. In addition, it is aimed to determine whether the quality of life and depression of the older adults vary according to socio- such demographic characteristics as gender, education, marital status, employment status, income perception, social security, chronic disease, disability status, place of residence for the longest time and cohabitants.

Materials and methods

With a crossectional design, this study follows quantitative methodology. The population of the study included older people aged 65 and over. The sample consisted of 219 older adults selected through convenience sampling, based on the availability and willingness of the participants to take part in the study. Study data were collected by the face-to-face administration of the demographic characteristics form, SF-36 Quality of Life Scale and Beck Depression Inventory.

SF-36 Quality of Life Scale

Originally developed to measure quality of life by Ware and Sherbourne (1992), *SF-36 Quality of Life Scale* was adapted to Turkish by Koçyiğit et al. (1999). The scale has two dimensions with four domains each: physical component (physical function, physical role, body pain and general health subscales) and mental component (vitality, social function, emotional role and mental health subscales). Although the scores obtained from each subscale vary between 0-100, a score of 100 from each subscale indicates a high quality of life in that particular dimension. The Cronbach's Alpha calculated for this study of the scale is .92.

Beck Depression Inventory

The 21-item depression scale was developed by Beck (1961). The Turkish version of the scale was developed by Hisli (1988). Each item in the scale is expected to be scored between 0 and 3 points. The lowest score is 0 and the highest score is 63. A high score indicates a high level of depression. The Cronbach's Alpha calculated for this study of the scale is .89.

Data Analysis

The data obtained in the study were analyzed using SPSS (Statistical Package for Social Sciences) for Windows 25.0 software. Descriptive statistical methods (number, percentage, mean, and standard deviation), ANOVA and t test as hypothesis tests, and Pearson correlation test were used to identify the relationship between variables. The findings obtained were interpreted at 0.05 and 0.01 significance levels within 95% confidence interval. In cases where the results of one-way variance analysis were significant, Scheffe's test was used to uncover between which groups the difference existed.

Results and Discussion

Slightly more than half (58.9%) of the older adults included in the study were women. The distribution of the study group is similar to the data of the Turkish Statistical Institute (2022) and 55.7% of the elderly population consists of women. 65.8% of the participants were primary school graduates or less, 68.9% were married, and 24.7% were employed. The proportion of older adults with low income is 27.9%, medium income is 64.8% and high income is 7.3%. 84.5% have social security. 54.3% have chronic diseases, 5.5% have a disability and 10.5% use assistive devices. The place where 33.3% of the older adults spend the longest period of their lives is metropolitan, and 15.5% of them live alone. While 33.4% of the older adults lived with their spouses, 44.3% lived with their spouses and children (Table 1).

Table 1. Socio-demographic characteristics of the older adults (N=219)

Variable		Number	%
Gender	Women	129	58.9
	Men	90	41.1
Education	Primary School and less	65.8	144
	Secondary School	18.7	41
	University	15.5	34
Marital Status	Married	151	68.9
	Unmarried	68	31.1
Employment	Working	54	24.7
	Not working	165	75.3
Income Perception	Low	61	27.9
	Medium	142	64.8
	High	16	7.3
Social Security	Yes	185	84.5
	No	34	15.5
Chronic Disease	Yes	119	54.3
	No	100	45.7
Disability Status	Yes	12	5.5
	No	207	94.5
Auxiliary Device Usage	Yes	23	10.5
	No	196	89.5
The Place Where He/She spent the longes period of his/her life	Metropolitan City	73	33.3
	City	24	11.0
	Township	42	19.2
	Village	80	36.5
Cohabitant	Alone	34	15.5
	With his/her Spouse	73	33.4
	With his/her Spouse and children	97	44.3
	With his/her close relatives	15	6.8

Two different scales were used to determine the quality of life and depression levels of the oldr adults. The lowest score that can be obtained from SF36 Quality of life scale is 0 and the highest score is 100. The mean of the scale was calculated as 427.40±153.48. The lder adults had lower scores in the areas of physical role difficulty (47.37±39.07), emotional role difficulty (47.79±42.34), vitality (48.06±39.16), general health (49.95±20.81), and higher scores in the areas of pain (55.39±26.51), mental health (57.08±16.75), social function (60.84±23.96) and physical function (60.91±27.70). Therefore, it was found that physical role difficulty, emotional role difficulty, vitality and general health were relatively lower in terms of quality of life than pain, mental health, social function and physical function. Physical component (213.63±88.94) and mental component (213.77±74.44) scores were found to be close to each other (Table 2).

The lowest score that can be obtained from the depression level scale is 0 and the highest score is 63. The calculated mean of the scale was 14.10±9.395. In general, it was determined that the level of depression was low (Table 2).

Table 2. Score range, mean and standard deviation values of quality of life subscales and depression level scale of older adults

Independent Variable	Score Interval (Min-max)	Mean	SD
Life Quality	0-100 (67-772)	427.40	153.48
Physical Function	0-100	60.91	27.70
Physical Role Difficulty	0-100	47.37	39.07
Pain	0-100	55.39	26.51
General Status of Health	0-100	49.95	20.81
Vitality	0-90	48.06	19.16
Social Function	0-100	60.84	23.96
Emotional Role Difficulty	0-100	47.79	42.34
Mental Health	12-100	57.08	16.75
Physical Component	5-390	213.63	88.94
Mental Component	62-385	213.77	74.44
Depression	0-63	14.10	9.395

Table 3. Comparison of (SF)-36 physical component and subscale mean scores according to demographic characteristics

Physical Component			Physical Component Sub-Scales			
			Physical Function	**Physical Role Difficulty**	**Pain**	**General Status of Health**
Gender	Women	196.87±86.55	57.71±26.86	41.28±39.85	50.29±26.10	47.60±20.24
	Men	237.63±87.25	65.50±28.39	56.11±36.39	62.69±25.48	53.33±21.26
		P=0.001	P=0.040	P=0.005	P=0.001	P=0.045
Education	Primary School and less	192.63±90.08*	54.58±27.49*	41.67±38.66*	50.35±26.87*	46.04±20.40*
	Secondary School	238.23±73.44*	69.63±24.63*	52.44±38.65	60.43±22.29	55.73±18.82*
	High School	272.86±65.34*	77.21±22.77*	65.44±35.89*	70.66±23.00*	59.56±20.611*
		P=0.000	P=0.004	P=0.000	P=0.000	P=0.000
Marital Status	Married	218.79±90.78	62.09±27.89	48.68±39.55	57.00±26.80	51.03±21.04
	Unmarried	202.16±84.25	58.31±27.31	44.49±39.11	51.80±25.67	47.57±20.25
		P=0.201	P=0.352	P=0.464	P=0.180	P=0.257
Employment Status	Working	263.14±76.41	73.33±25.34	63.89±34.22	65.09±26.13	60.83±18.49
	Not Working	197.42±86.93	56.85±27.30	41.97±39.14	52.21±25.93	46.39±20.33
		P=0.000	P=0.000	P=0.000	P=0.002	P=0.000
Income Perception	Low	187.41±91.45*	54.75±29.61	38.93±35.80	47.99±27.68*	45.74±21.61
	Medium	220.19±83.51	62.57±26.38	48.94±40.15	57.94±24.71*	50.74±19.41
	High	255.31±104.43*	69.69±31.22	65.63±35.20	60.94±33.02	59.06±26.78
		P=0.008	P=0.077	P=0.037	P=0.033	P=0.055
Social Security	Yes	214.54±87.81	60.92±27.24	46.62±29.35	56.30±25.95	50.70±20.60
	No	208.67±96.11	60.88±30.53	51.47±31.40	50.44±29.27	45.88±21.79
		P=0.725	P=0.994	P=0.507	P=0.237	P=0.215
Chronical Disease	Yes	189.81±89.01	54.79±28.21	41.60±38.68	49.39±26.61	44.03±19.90
	No	241.97±80.52	68.20±25.36	54.25±38.60	62.53±24.67	57.00±19.73
		P=0.000	P=0.000	P=0.017	P=0.000	P=0.000
The place where he/she spent the longest period of his life	Metropolitan City	234.72±89.50*	66.78±26.93*	54.79±39.01	60.55±27.56	52.60±21.37
	City	203.43±86.44	48.33±26.03*	46.88±40.58	58.85±23.18	49.38±24.73
	Township	224.52±86.61	67.02±27.89	50.00±37.85	56.07±27.25	51.43±21.62
	Village	191.71±86.42*	56.13±27.08	39.38±38.52	49.28±25.27	46.94±18.47
		P=0.018	P=0.005	P=0.102	P=0.058	P=0.380
Cohabitant	Alone	202.50±86.39	58.82±25.04	41.18±37.88	54.12±27.85	48.38±20.84
	With his/her Spouse	219.62±85.92	61.92±27.08	48.97±40.27	57.71±25.50	51.03±19.93
	With his/her Spouse and children	215.85±92.43	61.08±28.68	48.45±39.00	55.39±26.93	50.93±21.65
	With his/her close relatives	195.33±90.34	59.67±32.26	46.67±38.80	47.00±26.17	42.00±19.43
		P=0.672	P=0.790	P=0.547	P=0.427	P=0.672

* The groups in which the difference is originated by Scheffe Test

Table 4. Comparison of (SF)-36 mental component and subscale mean scores according to demographic characteristics

Mental Component			Mental Component Sub-Scales			
			Mental Health	**Emotional Role Difficulty**	**Vitality**	**Social Function**
Gender	Women	201.79±73.99	57.27±17.37	40.05±41.74	45.08±19.67	59.40±24.25
	Men	230.93±72.06	56.80±15.92	58.89±40.91	52.33±17.66	62.92±23.51
		P=0.278	P=0.261	P=0.689	P=0.802	P=0.094
Education	Primart School and less	202.72±71.28*	55.69±17.12	44.44±42.64	43.99±18.93*	58.59±23.62
	Secondary School	227.79±74.81	57.37±15.68	51.22±42.88	53.66±17.24*	65.55±22.67
	High School	243.66±78.14*	62.59±15.69	57.84±39.61	58.53±16.99*	64.71±26.19
		P=0.006	P=0.096	P=0.215	P=0.000	P=0.155
Marital Status	Married	217.44±73.69	57.93±15.43	48.57±42.81	48.28±18.22	62.67±24.57
	Unmarried	205.62±75.98	55.8±19.35	46.08±41.54	47.57±21.25	56.80±22.17
		P=0.278	P=0.261	P=0.689	P=0.802	P=0.094
Employment Status	Working	255.93±68.73	62.30±16.16	67.90±35.44	58.15±17.75	67.59±25.06
	Not Working	199.97±71.15	55.37±16.63	41.21±42.43	44.76±18.44	58.64±23.24
		P=0.000	P=0.008	P=0.000	P=0.000	P=0.017
Income Perception	Low	186.37±69.15*	51.87±16.78*	39.34±42.38	41.07±18.93*	54.10±24.65
	Medium	221.03±72.84*	58.59±16.44*	49.77±42.71	50.00±18.05*	62.68±23.11
	High	253.81±79.20*	63.50±15.38*	62.50±34.15	57.50±22.65*	70.31±24.09
		P=0.001	P=0.009	P=0.097	P=0.001	P=0.016
Social Security	Yes	213.86±74.69	57.17±16.68	46.31±42.27	48.57±18.43	61.82±23.30
	No	213.27±74.18	56.59±17.39	55.88±42.19	45.29±22.89	55.51±27.03
		P=0.966	P=0.853	P=0.226	P=0.361	P=0.159
Chronical Disease	Yes	200.46±73.04	55.87±18.41	42.02±42.40	45.76±18.72	56.83±23.73
	No	229.61±73.33	58.52±14.50	54.67±41.44	50.80±19.42	65.63±23.46
		P=0.004	P=0.244	P=0.027	P=0.052	P=0.007
The place where he/she spent the longest period of his life	Metropolitan City	225.83±80.07	58.52±15.15	51.60±44.45	53.56±18.22*	53.56±24.73
	City	221.32±71.25	57.33±14.62	47.22±41.60	51.67±19.03	51.67±18.42
	Township	203.37±77.55	54.76±17.45	42.06±39.68	49.40±18.08	49.40±25.77
	Village	205.96±67.65	56.90±18.44	47.50±42.35	41.25±18.86*	41.25±23.84
		P=0.278	P=0.718	P=0.716	P=0.001	P=0.571
Cohabitant	Alone	209.18±79.16	56.00±20.49	45.10±37.50	46.32±22.74	61.76±21.96
	With his/her Spouse	214.32±76.37	58.47±15.6	45.21±43.87	46.10±18.05	64.55±24.82
	With his/her Spouse and children	216.97±74.94	56.37±16.73	50.86±43.32	49.6918.39	60.05±23.49
	With his/her close relatives	200.83±52.02	57.33±13.74	46.67±41.40	51.00±21.23	45.83±22.98
		P=0.859	P=0.847	P=0.820	P=0.555	P=0.049

* The groups where the difference is originated by Scheffe Test

Among the older adults included in the study, males' mean scores and subscale mean scores of both physical component and mental component, except mental health, were higher than those of the females. In other words, the general quality of life of men was determined to be higher than that of women (Table 3). The physical component showed a significant difference according to gender ($p<0.01$). Men's perception of quality of life in the physical component was found to be higher. This could be caused by the fact that men are more active in social life and are more physically active than women, especially in socialisation processes and even in old age, and women's physical fatigue since their youth due to domestic roles and responsibilities. Previous studies determined men's quality of life to be higher than women's (Khaje-Bishak et al., 2014; Öngören et al., 2018; Çetin et al., 2020; Değer & Ordu, 2022).

The physical function, physical role difficulty, pain, general health, mental health, emotional role difficulty and vitality scores of the older adults with higher education level were higher ($p<0.05$). The quality of life generally increases as the level of education increases. It can be stated that this finding is similar to the results of previous studies (Lakshmi Devi & Roopa, 2013; Campos et al., 2014). However, vitality and social function were not statistically significant ($p>0.05$).

The physical function, physical role difficulty, pain, general health, mental health, emotional role difficulty, vitality and social function scores of married older women were higher. However, it is not statistically significant ($p>0.05$). Although no significant difference was found, being married has a relative effect on quality of life for older women within the framework of marital status. This can be evaluated in relation to the perception of social support and the desire not to be alone. The point to be considered here is that being married will not have a positive effect on quality of life in unhealthy marital relationships, especially in empty shell marriages. Studies have shown that being in the advanced age period, lack of education or having a low

level of education, living alone and being chronically ill are among the factors that reduce quality of life and increase the risk of depression. Campos et al. (2014) revealed that there is a relationship between good health, depression and quality of life. Jemal et al. (2021) investigating geriatric depression and quality of life, concluded that depression was associated with low quality of life, as in the present study.

The mean scores of the physical component and mental component of the older adults who continue to work are higher than those who do not work, with a significant difference ($p<0.01$). Active involvement in work increases quality of life. In the social function subscale, working older adults had higher mean scores than non-working older adults. However, no difference was found between the groups ($p>0.05$). Although the result was not significant, it would not be wrong to interpret that employment increases social functionality in some aspect. There are similar results found in previous studies. Abbasimoghadam et al. (2009) concluded that one of the determinants of quality of life in the elderly is their employment. Lin et al. (2021) observed that employment has a positive effect on quality of life. This finding can be explained by considering the direct effect of being in employment on income status and the relationship between living standards and income.

As for income perception, the mean scores of the physical component and mental component of older adults with higher income were higher ($p<0.01$). In all the subscales, the mean scores increase with the increase in income perception (Table 4). Income is thought to increase the quality of life in meeting needs and responding to expectations. Walker (2005), for instance, pointed to income status as an important reason for inequalities in quality of life.

The physical function, pain, general health, mental health, vitality and social function scores of older adults with social security are higher than those without social security. This indicates that having social security is perceived as a guarantee by individuals, especially in health-related sub-dimensions. Kurt et al. (2010) stated that social security is a determinant of life satisfaction. Similarly, Aranco et al. (2022) pointed out that social protection practices including social security have a positive effect on quality of life. The average score of older adults who do not have social security, who have chronic diseases and whose longest place of residence is a village is higher ($p<0.05$). Accordingly, the depression level of the older adults with inadequate physical and social facilities, having a chronic disease and not being included in the social security system was determined to be higher.

Physical component and mental component showed significant difference according to chronic disease status ($p<0.01$). The mean scores of physical function, physical role difficulty, pain, general health, mental health, emotional role difficulty, vitality and social function of the older adults were higher than those without any chronic disease. While being healthy increases quality of life, the presence of a chronic disease decreases it. On the other hand, physical, social and spiritual dimensions of health have an effect on quality of life (Cho & Kim, 2019; Kong et al., 2019; Değer & Ordu, 2022).

In the physical function subscale, there is a relationship between older adults living in metropolitan and urban areas and there is a statistically significant difference ($p<0.01$). While living in the city decreases the quality of life in terms of physical function, living in the metropolitan area increases the quality of life. In the vitality subscale, there is a relationship between older adults living in metropolitan and rural areas. While the energy and vitality of those living in metropolitan areas were measured as high, it was measured as low in the village. More opportunities offered by metropolises can be considered to be a factor increasing quality of life. In the vitality subscale, a significant difference was found according to the place where the older adults spent the longest period of his/her life ($p<0.01$).

In the subscales of physical function, physical role difficulty, pain, general health, mental health, emotional role difficulty and social function, older adults living with their spouses and living with their spouses and children had higher mean scores than those living alone and living with close relatives. The presence of a family environment to which older adults belong may be the reason for this. Especially within the framework of the Turkish social structure, it can be explained by the desire of older adults to continue their lives with their spouses if they have any, or with their children if their spouses are dead. On the contrary, living alone and/or living with relatives other than spouse and children is not regarded to be desirable by the older adults. In the vitality subscale, older adults living with close relatives had higher mean scores than the other groups. No statistically significant difference was found in the subscales ($p>0.05$). This could be related to the fact that older adults feel relatively insecure with their relatives and are ready for any situation at any time.

In the depression scale, female older adults had higher mean scores than males. However, no difference was found between the groups ($p>0.05$). This could imply a higher tendency to depression in elderly women. Previous research reported similar findings. In the study conducted by Aziz and Steffens (2013), the prevalence of depression in older women varied between 4% and 10.3%, while this rate varied between 2.8% and 6.9% in older men. According to the data of the World Health Organisation, 3.6% of men and 5.1% of women in the world experience depression (WHO, 2017). Lök and Bademli (2017) stated being a woman is a risk factor for depression.

The scores of older adults with primary school education or less ($p<0.05$), unmarried older adults ($p<0.01$) and unemployed older adults ($p>0.05$) were higher. Although the findings presented here contain significant differences, low educational status, being single and not working anywhere were determined as conditions that increase the risk of depression. Examining the quality of life of individuals over the age of 65, Conde-Sala

et al. (2017) stated that the level of education has an effect on the quality of life; the higher the level of education, the higher the quality of life.
There is a relationship between older adults with low and medium income and there is a significant difference in the depression scale according to income perception (p<0.01). Compared to the older adults with low and medium income perception, the risk of depression of the elderly with high income perception was measured as low. High income perception was determined as a preventive factor for depression, as in previous studies (Zou et al., 2018; Lin et al., 2021; Anbesaw & Fekadu, 2022). As the perception of income increases, the risk and level of depression decreases.
It was determined that elderly individuals living alone (19.53±10.65) had higher mean scores than those living with close relatives (16.67±11.12), living with their spouse and children (13.79±9.79) and living with their spouse (11.45±6.38). Hence, it is clear that the risk of depression increases in the course of time during which the belonging of the older adult weakens and becomes lonely. Thus, loneliness has a decreaing effect on quality of life. Kasar and Karaman (2021) agree to the conclusion that there is a strong link between loneliness, social isolation and quality of life, as in previous studies (Esmaeilzadeh & Oz, 2020; Liu et al, 2020; Çam et al., 2021). Futher, prevous studies highlight that a significant improvement in quality of life is achieved if interventions are made to reduce loneliness, for it is one of the factors increasing depression (Elsayed et al., 2019; Van As et al., 2021).

Table 5. Correlation matrix for quality of life and depression levels of elderly individuals (r)

Independent Variable	Life Quality (Total Score)	Physical Function	Physical Role difficulty	Pain	General Status of Health	Mental Health	Emotional Role Difficulty	Vitality	Social Function	Physical component	Mental component
Depression	-0.537**	-0.391**	-0.382**	-0.403**	-0.422**	-0.428**	-0.299**	-0.391**	-0.410**	-0.508**	-0.499**

Correlation analysis sugguests that there is a strong, negative and significant relationship between quality of life and depression [r(219)= 0.537; p<0.01]. Accordingly, as the quality of life of older adults increases, depression decreases, as reported by previous research (Aslan & Hocaoğlu, 2017; Levkovich et al., 2021; Devita et al., 2022). In addition, depression may cause the emergence of other mental problems; thus, it indirectly reduces the quality of life.
Emotional role difficulty [r(219)= -0.299; p<0.01], physical role difficulty [r(219)= -0.382; p<0.01], physical function [r(219)= -0.391; p<0.01], vitality [r(219)= -0.391; p<0.01], pain [r(219)= -0.403; p<0.01], social function [r(219)= -0.410; p<0.01], general health [r(219)= -0. 422; p<0.01] and mental health [r(219)= -0.428; p<0.01] and depression have a weak, negative and significant relationship. This coincides with the effects of depression on older adults. In individuals with depression; not enjoying life, avoiding activities (Ağar, 2020), withdrawal and adaptation anxiety (Qiao & Li, 2022) may manifest themselves. These symptoms are consistent with the research results. There is a moderate, negative and significant relationship between the mental component [r(219)= -0.499; p<0.01] and depression. Increased level of depression negatively affects mental health. In addition, there is a high, negative and significant relationship between the physical component [r(219)= -0.508; p<0.01] and depression (Table 5). Therefore, it was concluded that depression had more negative effects on physical well-being. Considering that health has bio-psycho- and social dimensions, depression has negative effects on all of them; as a result, it decreases the quality of life.

Conclusion

The study has shown that gender plays an import role in quality of life and depression. Quality of life in older men is higher, and older women are more vulnerable to depression then men. These points should be considered when planning inclusion activities to increase quality of life in older populations. If female social participation could be increased, then improvements can be expected in quality of life and considering the fact that low quality of life is associated with high level of depression, in depression levels.
Quality of life increases with education level, social security, living with close family members and income perception. Learning continues life-long. Older adults should be supported to continue learning both in formal and informal means of education. Technological assistance for theose in need is vital in this respect. Social security means receiving healthcare services relatively easily, which is very important in old age, for it is marked with poor health. Social policy-makers should consider the social security's contribution to physical and mental functioning of the older people when developing policies and allocating resources for the old. Finally, person-in-environment perspective tells us how valuable to maintain family bonds in terms of physical and mental health. Family-centered care models as well as practices to develop and sustain strong intergenerational bonds should be supported both by the government and NGOs.

Prospective research may focus on investigating the practices and their effectiveness in increasing quality of life in older women. Moreover, other studies may examine whether the amount of pensions may play a role in reducing depression. Finally, the diversity and effectiveness of social work practices with older adults living in rural areas could a research topic.

Ethical Approval

This study has been approved by Gazi University Board of Ethics [Date: 05.04.2022/ Decision Number: 2022-466]

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