

# Quality of life in Iranian elderly population using the SF-36 questionnaire: systematic review and meta-analysis

Amin Doosti-Irani <sup>1,2</sup>, Saharnaz Nedjat <sup>3,4</sup>, Sima Nedjat <sup>5</sup>, Parvin Cheraghi <sup>6,7</sup> and Zahra Cheraghi <sup>2,8</sup>

<sup>1</sup>Research Center for Health Sciences, Hamadan University of Medical Science, Hamadan, Islamic Republic of Iran. <sup>2</sup>Department of Epidemiology, School of Public Health, Hamadan University of Medical Science, Hamadan, Islamic Republic of Iran (Correspondence to: Z. Cheraghi: z.cheraghi@umsha.ac.ir). <sup>3</sup>Knowledge Utilization Research Center, University of Social Welfare and Rehabilitation, Tehran, Islamic Republic of Iran. <sup>4</sup>Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran. <sup>5</sup>Knowledge Utilization Research Center, University of Social Welfare and Rehabilitation, Tehran, Islamic Republic of Iran. <sup>6</sup>Department of Health Education and Promotion, School of Public Health, Hamadan University of Medical Sciences, Islamic Republic of Iran. <sup>7</sup>Department of Epidemiology and Biostatistics, School of Public Health, Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran. <sup>8</sup>Modeling of Non-Communicable Disease Research Center, Hamadan University of Medical Science, Hamadan, Islamic Republic of Iran.

## Abstract

**Background:** Ageing is a major known risk factor that is a threat to human health. To date, many studies have investigated quality of life (QOL) among the elderly population in the Islamic Republic of Iran. However, their results were inconsistent.

**Aims:** We designed this systematic review and meta-analysis to estimate the overall mean score of QOL based on the Short Form 36 Health Survey Questionnaire (SF-36) among the Iranian elderly population.

**Methods:** We searched international databases (Medline, Scopus and Science Direct) and national databases (Science Information Database, MagIran, IranMedex and Irandoc) up to February 2015. We included all cross-sectional studies that evaluated QOL among the Iranian elderly population using SF-36.

**Results:** Of 2150 studies identified, 15 were included in the meta-analysis. The mean scores for QOL in the 8 scales were: 47.58, 51.75, 55.42, 55.78, 59.55, 51.54, 47.85 and 51.31 for physical-role, physical function, mental health, bodily pain, social functioning, emotional-role, general health, and vitality, respectively.

**Conclusions:** Our results indicated that health-related QOL decreased with increasing age. QOL was worse in women than in men, especially in physical-role and general health scales. Elderly people who lived in a nursing home had lower QOL than those who lived in their own home. So, health policy-makers should design comprehensive programmes to improve health-related QOL for the Iranian elderly population.

Keywords: ageing, elderly, quality of life, SF-36, Islamic Republic of Iran.

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## Introduction

Ageing is an inevitable biological phenomenon and indicates the aggregation of changes in a person over time in the physical, mental and social dimensions (1). Elderly people (aged  $\geq 60$  years) are exposed to diseases more than younger adults are (2). About 100 000 deaths occur annually due to ageing-related diseases worldwide (3). According to the United Nations, if the proportion of elderly people (aged  $\geq 60$  years) in a country is  $\geq 7\%$ , that country is considered to have an elderly population (4). According to the 2011 census, the Islamic Republic of Iran had 8.26% of people aged  $\geq 60$  years and it was added to the list of countries with an ageing population (5).

According to the World Health Organization definition, people's quality of life (QOL) is related to culture, value system by which they live, goals, expectations, standards and priorities. Physical and mental health, level of independence, social relationships, personal beliefs and the environment all affect the perceived QOL (6). QOL is one of the theoretical frameworks for assessing the living conditions of different communities (7). The Short Form

36 Health Survey Questionnaire (SF-36) is a standardized and widely used tool for assessing health-related QOL worldwide (8).

As the ageing population increases, attention needs to be given to physical, social and mental health to improve QOL among this population. Many studies have investigated QOL among the elderly population in the Islamic Republic of Iran, although the results were inconsistent (9–16). We designed this study to estimate the overall mean score of QOL based on SF-36 among the Iranian elderly population.

## Methods

We searched international databases (Medline, Scopus and Science Direct) and national databases (Science Information Database, MagIran, IranMedex and Irandoc) up to February 2015 using the following keywords: “quality of life” AND (“aging” OR “aged” OR “elderly”) AND “Iran”. We included all studies that addressed QOL among the healthy Iranian elderly population (aged  $\geq 60$  years) using the SF-36 questionnaire, irrespective of sex,

time of study and language of publication. The main outcome of interest was the mean score for QOL in the different domains of SF-36.

SF-36 has 36 items in 8 sections: physical function, role-physical, bodily pain, general health, vitality, social functioning, role-emotional and mental health. Each scale involves 2–10 questions and low scores indicate low QOL (17). For data collection, two authors (ZCH and ADI) screened the title and abstract of retrieved references independently to assess the relevancy. In the next stage, they reviewed the full text of selected studies to extract the studies that met the eligibility criteria for the meta-analysis. Any disagreement between the authors in the selection of studies was resolved by discussion with and adjudication of a third author. The overall agreement between the authors was 86.76%, and the kappa statistic was 72.44%. In the cases of missing data, we made contact with the corresponding authors of the studies. The variables included the year and location of the studies, mean age and sex of the participants, residence of the participants, sample size, and mean QOL score, and its standard deviation (SD) was extracted for data analysis.

Seven selected items from the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) (18) checklist were used for assessing the risk of bias and quality of reporting. These items (1) presented the key elements of the study design; (2) explained the inclusion and exclusion criteria; (3) defined the outcome, that is, QOL; (4) explained how the sample size was calculated; (5) described the setting, location and date of the study; (6) reported the precision of estimates, that is, SD or confidence interval; and (7) explained the statistical methods for data analysis. Studies that satisfied all the mentioned criteria were classified as having a low risk of bias. Studies that did not meet 1 item were classified as intermediate, and studies that did not meet > 1 item were classified as high risk of bias.

The statistical heterogeneity was explored using the  $\chi^2$  test at the 10% significance level. Also, the heterogeneity across the included studies was quantified using the  $I^2$  statistic. Variance between studies was estimated using  $I^2$  statistics (19). Meta-analysis was performed to estimate the summary measure of mean score of QOL among the elderly population. The random effects model (20) was used for data analysis, and results were reported with 95% confidence interval. Subgroup analysis was accomplished according to the results of meta-regression analysis. We performed subgroup analysis based on age groups, sex, residence, and quality of included studies. We used Stata version 11 (Stata Corp., College Station, TX, USA) and Review Manager 5.3 for data analysis.

## Results

We retrieved 2150 records; 470 were excluded because of duplication, 1000 because they were not related to the aim of the review and 655 because they were not eligible for inclusion in the meta-analysis after checking the full text. Finally, 15 articles (9–16, 21–27) remained for meta-analysis (Figure 1 and Table 1), which involved 16 914 Iranian el-

derly participants with a mean age of 70.31 (3.63) years. It is necessary to mention that 7 studies (9, 10, 12, 14–16, 27) reported the QOL scores for men and women separately, so we divided those studies into 2 independent studies, which gave a final 23 studies for the data analysis.

There was considerable heterogeneity among the results of the included studies. The  $\chi^2$  test results were highly significant ( $P < 0.001$ ) for all QOL scales, and the  $I^2$  statistic was high for all QOL scales (Tables 2 and 3). We estimated the QOL for each scale in SF-36. The highest and lowest pooled mean scores for QOL were related to social functioning and role-physical scales among the Iranian elderly population (Table 2).

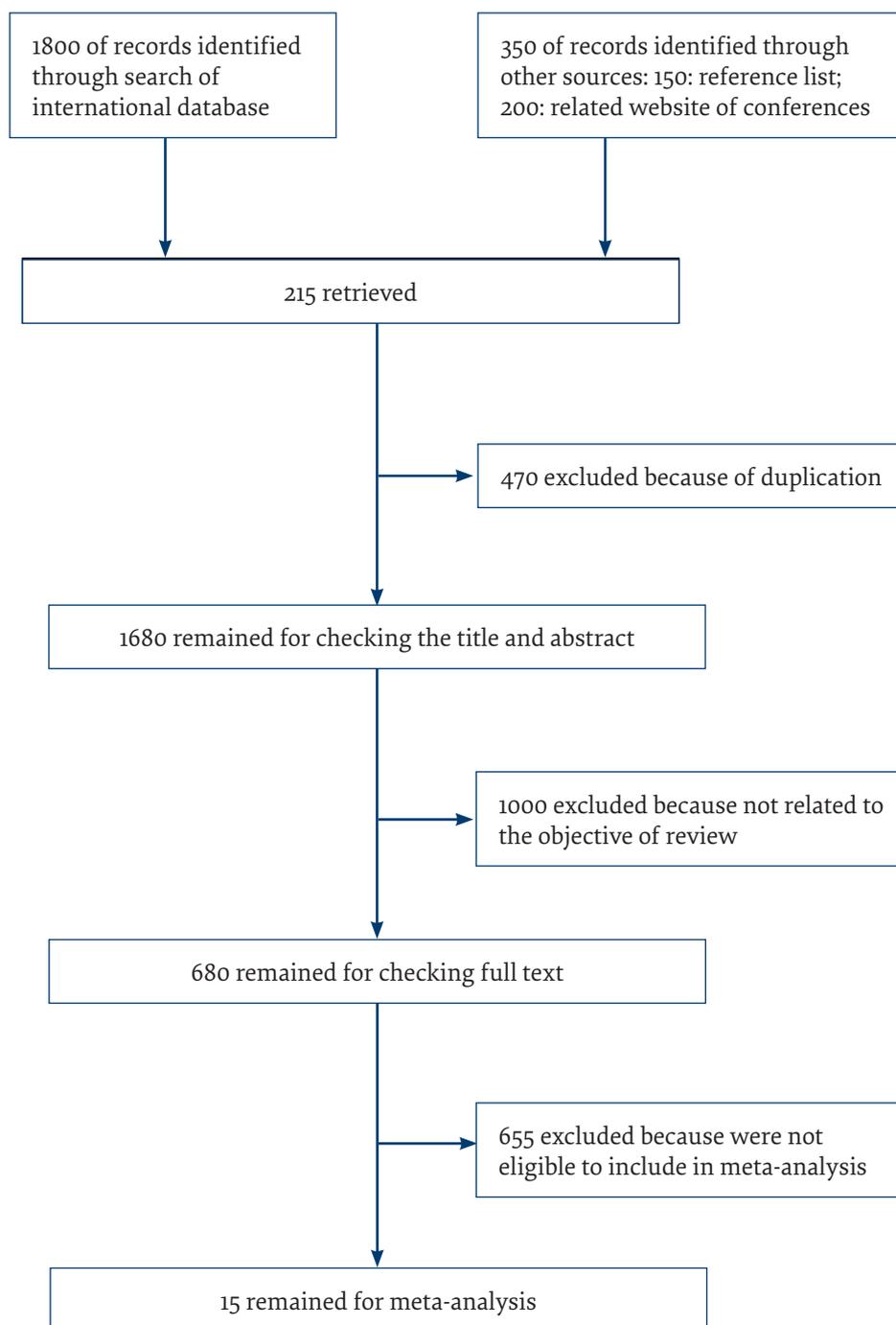
The pooled mean score for the role-physical scale decreased significantly with increasing age (Table 3); the highest and lowest scores were observed among participants aged 60–64 years and aged  $\geq 75$  years, respectively. The pooled mean score of the role-physical scale was higher in men than in women; however, this difference was not significant. The pooled mean score of the role-physical scale was higher for participants who lived in nursing homes compared with their own homes, or in a mixture of the two; however, this difference was not significant.

The pooled mean score for the physical function scale decreased significantly with ageing; the highest and lowest scores were observed among those aged 60–64 years and aged  $\geq 75$  years, respectively (Table 3). The pooled mean score of the physical function scale was higher among men than women; however, this difference was not significant. The pooled mean score of the physical function scale among participants who lived in nursing homes was higher than for those who lived in their own homes or in mixed accommodation; however, this difference was not significant.

In the mental health scale, there was no overall significant trend with ageing; the highest pooled mean score was for participants aged 65–69 years and the lowest for those aged  $\geq 75$  years (Table 3). The pooled mean score of the mental health scale was higher in men than in women; however, this difference was not significant. The pooled mean score of the mental health scale among participants who lived in their own home was higher than for those who lived in nursing homes or in mixed accommodation; however this difference was not significant.

According to the bodily pain scale, there was no overall trend with ageing. The highest pooled mean score was in participants aged 65–69 years and the lowest score was in participants aged  $\geq 75$  years (Table 3). The pooled mean score was higher in men than in women; however, this difference was not significant. The pooled mean score of the bodily pain scale was higher for participants who lived in mixed accommodation compared with those who lived in nursing homes or their own home; however, this difference was not significant.

In the social functioning scale, there was no overall trend with ageing. The highest and lowest pooled mean



**Figure 1** Flow chart of study identification process

scores were in participants age 65–69 years and  $\geq 75$  years, respectively (Table 3). The pooled mean score of this scale was higher among men than women. The pooled mean score of social functioning scale was higher among participants who lived in their own home compared with those who lived in nursing homes or in mixed accommodation; however, this difference was not significant.

The pooled mean score for the role-emotional scale decreased significantly with ageing; the highest and

lowest scores were among those aged 60–64 years and aged  $\geq 75$  years, respectively (Table 3). The pooled mean score of this scale was significantly higher among men than women. The pooled mean score of the role-emotional scale was higher among participants who lived in their own home compared with those who lived in nursing homes or in mixed accommodation; however, this difference was not significant.

For the general health scale, the pooled mean score decreased significantly with ageing, although the score

**Table 1 Characteristics of studies included in meta-analysis**

Author	Year	City	Gender	Resident	Habitat	Mean age (yr)	Sample size
Abbasimoghadam <sup>a</sup>	2009	Tehran	Male	Own home	City	71	5600
Abbasimoghadam <sup>b</sup>	2009	Tehran	Female	Own home	City	71	5600
Aghanoori <sup>a</sup>	2011	Markazi	Female	Own home	City	70.7	91
Aghanoori <sup>b</sup>	2011	Markazi	Male	Own home	City	70.7	74
Ahmadi	2004	Zahedan	Both	Mixed <sup>b</sup>	City	72.3	200
Albokordi <sup>a</sup>	2005	Shahinshahr	Female	Mixed	City	67.2	34
Albokordi <sup>b</sup>	2005	Shahinshahr	Male	Mixed	City	67.2	66
Farhadi <sup>a</sup>	2010	Boushehr	Female	Own home	Rural	–	16
Farhadi <sup>b</sup>	2010	Boushehr	Male	Own home	Rural	–	53
Farzianpour <sup>a</sup>	2012	Marivan	Both	Mixed	City	–	2433
Farzianpour <sup>b</sup>	2012	Masjed Soleiman	Both	Mixed	City	74.51	349
Hekmatpou <sup>a</sup>	2014	Arak	Female	Own home	City	67.5	271
Jaafarzadeh Fakhari	2010	Sabzevar	Both	Own home	Both	69.3	304
Naseh <sup>a</sup>	2014	Chaharmahal Bakhteiri	Both	Nursing home	Both	73.13	87
Nejati <sup>a</sup>	2008	Kashan	Female	Own home	City	69.8	193
Nejati <sup>b</sup>	2008	Kashan	Male	Own home	City	69.8	196
Rafaati <sup>a</sup>	2005	Tehran	Female	Nursing home	City	76.8	118
Rafaati <sup>b</sup>	2005	Tehran	Male	Nursing home	City	76.8	84
Rostamai	2010	Masjed Soleiman	Both	Own home	City	74.51	349
Salehi <sup>a</sup>	2013	Tehran	Female	Nursing home	City	64.07	298
Salehi <sup>b</sup>	2013	Tehran	Male	Nursing home	City	64.07	102
Vahdani <sup>a</sup>	2005	Tehran	Male	Mixed	City	67.9	157
Vahdani <sup>b</sup>	2005	Tehran	Female	Mixed	City	67.9	239

<sup>a</sup>Studies provided all 6 STROBE items (low risk of bias).

<sup>b</sup>Both own home and nursing home.

for those aged  $\geq 75$  years was higher than for those aged 70–74 years (Table 3). The pooled mean score of this scale was higher among men than women; however, this difference was not significant. The pooled mean score of the general health scale was higher among participants who lived in nursing homes or mixed accommodation compared with those who lived in their own home; however, this difference was not significant.

The pooled mean score for the vitality scale decreased significantly with ageing (Table 3). The pooled mean score of this scale was higher in men than women; however, this difference was not significant. The pooled mean score of vitality scale was higher among participants who lived in their own home compared to those who lived in nursing homes or mixed accommodation; however, this difference was not significant.

**Table 2 Pooled estimation for mean score of QOL according the each scale**

Scale of QOL	No. of studies	Pooled mean score (95% CI)	<i>p</i> *	<i>I</i> <sup>2</sup>
Role-physical	23	47.58 (43.95–51.21)	<0.001	99.1
Physical function	23	51.75 (46.78–56.71)	<0.001	99.3
Mental health	23	55.42 (51.32–59.52)	<0.001	99.3
Bodily pain	23	55.78 (50.79–56.78)	<0.001	98.0
Social functioning	22	59.55 (56.78–62.31)	<0.001	97.9
Role-emotional	23	51.54 (48.59–54.49)	<0.001	97.8
General health	24	47.85 (45.25–50.46)	<0.001	99.2
Vitality	21	51.31 (48.93–53.69)	<0.001	97.9

\*Test for heterogeneity.

CI = confidence interval; QOL = quality of life.

**Table 3 Subgroup analysis of QOL among elderly population**

Scale	Variable	Subgroup	No. of studies	Pooled mean score (95% CI)	P <sup>a</sup>	I <sup>2</sup>	P <sup>b</sup>
Role-physical	Age (yr)	60–64	8	63.26 (48.16–84.36)	< 0.001	99.8	< 0.001
		65–69	4	49.61 (48.57–50.65)	< 0.001	95.4	
		70–74	8	49.03 (48.65–49.40)	< 0.001	98.8	
		≥ 75	3	35.03 (33.94–36.13)	< 0.001	90.4	
	Gender	Male	8	50.52 (42.29–58.75)	< 0.001	99.3	0.53
		Female	9	46.71 (38.21–55.22)	< 0.001	99.4	
		Both	6	44.90 (41.99–47.81)	< 0.001	87.7	
	Residence	Own home	11	47.19 (43.52–50.87)	< 0.001	98.6	0.99
		Nursing home	7	48.20 (36.54–59.85)	< 0.001	99.6	
Mixed		5	47.34 (35.64–59.04)	< 0.001	96.7		
Physical function	Age (yr)	60–64	3	62.63 (51.58–87.67)	< 0.001	99.8	0.003
		65–69	8	52.98 (43.23–62.74)	< 0.001	98.6	
		70–74	8	52.03 (47.18–56.89)	< 0.001	98.6	
		≥ 75	4	34.56 (24.27–44.86)	< 0.001	93.9	
	Gender	Male	8	59.77 (51.81–67.74)	< 0.001	98.6	0.08
		Female	9	47.51 (36.13–58.89)	< 0.001	98.6	
		Both	6	46.98 (39.78–54.17)	< 0.001	98.6	
	Residence	Own home	11	50.13 (44.84–55.43)	< 0.001	99	0.75
		Nursing home	7	55.04 (43.31–66.77)	< 0.001	99.6	
Mixed		5	50.45 (36.99–63.92)	< 0.001	96.7		
Mental health	Age (yr)	60–64	3	62.55 (60.88–64.23)	0.003	82.8	< 0.001
		65–69	8	63.00 (46.33–79.68)	< 0.001	99.3	
		70–74	7	50.70 (46.79–54.61)	< 0.001	98.6	
		≥ 75	4	42.55 (35.36–49.74)	< 0.001	94.1	
	Gender	Male	8	62.58 (53.33–71.82)	< 0.001	99.2	0.18
		Female	9	53.43 (38.31–63.03)	< 0.001	99.5	
		Both	5	47.47 (38.42–56.23)	< 0.001	99.1	
	Residence	Own home	10	57.22 (49.98–64.45)	< 0.001	99.6	0.74
		Nursing home	7	53.79 (48.82–58.77)	< 0.001	98.3	
Mixed		5	54.29 (42.99–65.57)	< 0.001	97.5		
Bodily pain	Age (yr)	60–64	3	57.53 (49.39–65.68)	< 0.001	98.9	0.01
		65–69	8	60.07 (52.35–67.79)	< 0.001	97.6	
		70–74	8	49.34 (44.22–54.47)	< 0.001	98.7	
		≥ 75	4	46.99 (42.1–51.85)	0.053	61	
	Gender	Male	8	58.84 (53.82–63.85)	< 0.001	95.3	0.27
		Female	9	54.66 (49.20–60.11)	< 0.001	97.9	
		Both	6	46.28 (41.89–50.66)	< 0.001	95.8	
	Residence	Own home	11	52.13 (48.0–56.26)	< 0.001	98	0.58
		Nursing home	7	52.01 (46.75–57.28)	< 0.001	97.5	
Mixed		5	60.99 (44.55–77.3)	< 0.001	98.8		

According to the risk of bias, 56.52%, 21.74% and 21.74% of the included studies were classified in the low, intermediate and high risk of bias, respectively.

## Discussion

We found that the highest pooled mean score was related to the social functioning scale and the lowest score to the role-physical scale. The lowest mean score for the

role-physical scale may have been due to ageing problems. The highest mean score for the social functioning scale may have been due to better relationships with members of the community and their families. Culturally in the Islamic Republic of Iran, most elderly men are respected in their families and communities. This may be due to the higher QOL in the social functioning rather than other scales of QOL. According to our results, in general,

**Table 3 Subgroup analysis of QOL among elderly population (concluded)**

Scale	Variable	Subgroup	No. of studies	Pooled mean score (95% CI)	P <sup>a</sup>	I <sup>2</sup>	P <sup>b</sup>	
Social Functioning	Age (yr)	60–64	3	61.74 (59.47–64.00)	< 0.001	92	0.001	
		65–69	7	68.85 (60.03–77.68)	< 0.001	97.5		
		70–74	8	56.8 (52.65–60.29)	< 0.001	97.8		
		≥ 75	4	47.49 (37.86–57.12)	< 0.001	91.2		
	Gender	Male	8	65.66 (60.66–70.66)	< 0.001	97.2		0.05
		Female	9	58.67 (53.67–63.67)	< 0.001	98.3		
		Both	5	51.63 (45.33–57.94)	< 0.001	97.7		
	Residence	Own home	10	64.06 (59.87–68.26)	< 0.001	98.1		0.001
		Nursing home	7	52.49 (47.96–57.02)	< 0.001	97.9		
Mixed		5	62.15 (48.29–75.99)	< 0.001	98			
Role-emotional	Age (yr)	60–64	3	57.38 (36.67–78.09)	< 0.001	99.5	0.01	
		65–69	7	57.06 (51.11–63.01)	< 0.001	93		
		70–74	8	50.88 (47.81–53.95)	< 0.001	97.1		
		≥ 75	4	39.44 (30.46–48.41)	0.001	82.01		
	Gender	Male	8	58.71 (53.70–63.73)	< 0.001	96.6		0.01
		Female	9	49.33 (43.99–54.66)	< 0.001	94.3		
		Both	5	44.74 (39.42–50.05)	< 0.001	95.9		
	Residence	Own home	10	52.27 (49.23–55.30)	< 0.001	97.3		0.82
		Nursing home	7	49.97 (39.91–60.03)	< 0.001	98.7		
Mixed		5	54.78 (43.82–65.73)	< 0.001	92.6			
General health	Age (yr)	60–64	3	60.31 (46.01–74.60)	< 0.001	99.8	0.007	
		65–69	8	51.07 (45.50–56.65)	< 0.001	98.4		
		70–74	8	42.05 (37.85–6.25)	< 0.001	98.9		
		≥ 75	4	43.22 (40.30–46.13)	0.003	78.8		
	Gender	Male	8	54.60 (48.68–60.51)	< 0.001	98.4		0.06
		Female	9	47.59 (43.11–52.07)	< 0.001	99.5		
		Both	6	39.55 (34.29–44.81)	< 0.001	98.1		
	Residence	Own home	11	47.34 (44.79–49.89)	< 0.001	98.9		0.97
		Nursing home	7	48.30 (38.78–57.82)	< 0.001	99.6		
Mixed		5	48.10 (41.13–55.08)	< 0.001	95.5			
Vitality	Age (yr)	60–64	3	57.62 (50.99–64.25)	< 0.001	98.7	0.03	
		65–69	7	52.39 (45.62–59.15)	< 0.001	97.4		
		70–74	7	49.61 (46.09–53.13)	< 0.001	98.3		
		≥ 75	4	46.73 (43.39–50.07)	0.028	67		
	Gender	Male	8	54.18 (48.94–59.43)	< 0.001	96.9		0.28
		Female	9	50.17 (45.21–55.13)	< 0.001	98.5		
		Both	4	48.16 (44.87–51.46)	< 0.001	93.4		
	Residence	Own home	10	52.67 (49.35–55.98)	< 0.001	98.2		0.50
		Nursing home	6	51.85 (46.56–57.13)	< 0.001	98.1		
Mixed		5	47.59 (39.82–55.36)	< 0.001	96.3			

<sup>a</sup>Test for heterogeneity.<sup>b</sup>Test for subgroup difference.

the QOL score (in all scales of the SF-36 questionnaire) decreased with increasing age. Men had higher pooled mean scores of QOL than women.

Our results showed that the pooled mean score for the role-physical and physical function scales decreased significantly with age. These results are consistent with the biological changes in the physical dimensions of elderly people (1). The pooled mean scores among men were more than in women in both those scales. The better QOL among men may have been due to greater physical activity in Iranian men than women. Physical activity has beneficial effects on QOL (28). Regular physical activity was associated with better QOL in all domains among older adults, and physical activity among women was lower than in men. The mean score for QOL among older adults with higher physical activity was significantly more than in adults with lower physical activity (29). This finding is consistent with the results of a meta-analysis of randomized control trials that showed that physical activity improves the self-reported physical function in older adults (30).

We showed that the mean score for mental health QOL decreased with ageing. The lowest mental health QOL was related to participants aged  $\geq 75$  years. One reason for lower mental health QOL may be lower physical activity in older people. Some studies have indicated a positive association between physical activity and mental health QOL (28, 29). In our study, the pooled mean score for the role-physical and physical function scales decreased with ageing. Therefore, there may be an association between these scales and the mental health scale. Another reason may be due to lower social activity in older people. The mean score for mental health QOL in men was higher than in women, but the difference was not significant. The better mental health status in men may have been due to more social and physical activities. The mean score for mental health QOL in elderly people who lived in their own home was higher than in those who lived in a nursing home. A randomized control trial in 5 nursing homes showed that the intervention group who received meals family style had better QOL than the control group who received the usual service (31). The results of that trial are in line with our present results. The QOL of elderly people who are living in their own home is better than in those who are living in a nursing home, because elderly people in their own home received emotional and physical support from their family.

Our results indicated that mean score of QOL based on bodily pain decreased with age. This is consistent with other scales of QOL in this meta-analysis. Like the role-physical and physical function scales, the lower mean score for bodily pain may have been due to the biological changes in the physical dimensions of elderly people (1). Older people have a higher risk for chronic diseases and syndromes compared with younger adults (2, 3), so the lower mean score for bodily pain in elderly people was expected.

For social functioning, the highest mean score for QOL was in people aged 65–69 years. This finding is

inconsistent with other scales, for example, Acree et al. found that the highest mean score of QOL was related to people aged 60–64 years (29). Better social functioning QOL in people aged 65–69 years may have been due to more activities, resulting in better social activity and community and family relationships. In contrast, social vulnerability is associated with increasing age, female sex, and frailty (32). Therefore, a lower mean score for QOL based on the social functioning scale in older people may have been related to greater social vulnerability. In addition, our results indicated that the pooled mean score for QOL in women was lower than in men, which is consistent with greater social vulnerability among women. Elderly people who were living in their own home had a significantly higher pooled mean score compared to those living in nursing homes. This finding may be related to better support of elderly people by their families in their own homes. Another study has shown that greater life satisfaction is associated with receiving more family support (33).

Like other scales of SF-36, the pooled mean score for QOL based on the role-emotional scale was lowest in people aged  $\geq 75$  years. The lower role-emotional QOL in older people may have been related to other scales of QOL such as role-physical, physical function, mental health and social functioning. Therefore, it seems that the reasons for lower QOL in older people are common in the SF-36 scales.

Factors such as age, chronic disease, smoking, alcohol consumption, insufficient exercise and lack of physical examination are associated with low health-related QOL (34). Also, increasing age and decreasing physical activity are common risk factors for some chronic diseases, so the lower mean score for QOL may be related to higher prevalence of chronic diseases in older people.

We explored evidence of heterogeneity in the results of our included studies. We performed subgroup analysis based on the potential source of heterogeneity, but heterogeneity remained in the subgroups. The high heterogeneity in the results may have been related to different study settings. The studies included in our analysis were conducted in different geographic regions, with different cultures and lifestyles. So, the QOL may have been affected by such factors in different regions of the Islamic Republic of Iran. However, we pooled the results of the included studies using the random effects model in order to estimate the overall QOL, because of the public health importance of QOL in elderly people and for health policy-makers. If the results of a meta-analysis are to be a guide for health decision-making, it is possible to pool the results of heterogeneous studies (35).

There were some limitations to our meta-analysis. First, only 56.52% of the included studies were in the low risk of bias group; this may have increased the probability of information bias. Second, there was a lack of data regarding potential factors related to QOL such as education, job and income in some of the included studies. Therefore, we could not perform subgroup analysis based on those variables.

## Conclusion

Our results indicated that health-related QOL decreased with increasing age. QOL was worse in women than in men, especially in the role-physical and general health scales. Moreover, elderly people who lived in a nursing

home had lower QOL than those who lived in their own home. The Islamic Republic of Iran has been added to the list of countries with an ageing population, therefore, health policy-makers should design comprehensive programmes to improve the health-related QOL for the Iranian elderly population.

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## Qualité de vie des personnes âgées iraniennes mesurée à l'aide du questionnaire SF-36 : analyse systématique et méta-analyse

### Résumé

**Contexte :** Le vieillissement est l'un des principaux facteurs de risque pour la santé humaine. À ce jour, de nombreuses études ont enquêté sur la qualité de vie des personnes âgées en République islamique d'Iran, mais leurs résultats ne concordent pas.

**Objectifs :** Nous avons conçu les présentes analyse systématique et méta-analyse afin d'estimer le score moyen global de la qualité de vie des personnes âgées iraniennes à l'aide du questionnaire d'évaluation de la santé SF-36 en version abrégée.

**Méthodes :** Nous avons mené des recherches dans des bases de données internationales (Medline, Scopus et Science Direct) et nationales (Science In-formation, MagIran, IranMedex et Irandoc) pour les études produites jusqu'en date de février 2015. Nous y avons inclus toutes les études transversales qui avaient évalué la qualité de vie des personnes âgées iraniennes à l'aide du questionnaire SF-36.

**Résultats :** Sur 2150 études identifiées, 15 ont été incluses à la méta-analyse. Les scores moyens pour la qualité de vie sur les huit échelles du questionnaire étaient les suivants : 47,58, 51,75, 55,42, 55,78, 59,55, 51,54, 47,85 et 51,31 pour les limitations dues à l'état physique, l'activité physique, la santé psychique, la douleur physique, la vie et les relations aux autres, les limitations dues à l'état psychologique, la santé perçue et la vitalité respectivement.

**Conclusions :** Nos résultats ont indiqué que la qualité de vie liée à la santé diminuait avec l'âge. Elle était moins bonne chez les femmes, notamment pour les échelles de limitations dues à l'état physique et de la santé perçue. Les personnes âgées résidant dans des maisons de retraite avaient une qualité de vie inférieure à celles vivant chez elles. À ce titre, les décideurs politiques devraient mettre au point des programmes complets visant à améliorer la qualité de vie liée à la santé des personnes âgées iraniennes.

### جودة حياة المسنين الإيرانيين باستخدام نموذج الاستبيان المختصر للمسح الصحي: مراجعة منهجية وتحليل بُعدي

أمين دوستي إيراني، سحرناز نجات، سيما نجات، بروين جراغي، زهرا جراغي

### الخلاصة

**الخلفية:** الشيخوخة هي عامل خطر رئيسي معروف يهدد صحة الإنسان. وحتى الآن، درست أبحاث عدة جودة حياة كبار السن في جمهورية إيران الإسلامية، إلا أن نتائجها لم تكن متسقة مع بعضها البعض.

**الأهداف:** لقد صممنا هذه المراجعة المنهجية والتحليل البُعدي لتقدير المتوسط العام لقيمة جودة حياة كبار السن الإيرانيين استناداً إلى نموذج الاستبيان المختصر للمسح الصحي (SF-36).

**طرق البحث:** بحثنا في قواعد البيانات الدولية (Medline, Scopus, Science Direct) وقواعد البيانات الوطنية (Science In-formation, MagIran, IranMedex, Irandoc) حتى فبراير/شباط ٢٠١٥. وقمنا بتضمين جميع الدراسات المقطعية التي قِيمت جودة الحياة للسكان المسنين الإيرانيين باستخدام الاستبيان SF-36.

**النتائج:** من بين ٢١٥٠ دراسة من الدراسات التي حددناها، أدرجنا ١٥ دراسة في التحليل البُعدي، وكان متوسط درجات جودة الحياة في ٨

مقاييس هي: [٤٧, ٥٨] لدور النشاط البدني و[٥١, ٧٥] للقدرة البدنية و[٥٥, ٤٢] للصحة النفسية و[٥٥, ٧٨] لآلام الجسد و[٥٩, ٥٥] للأداء الاجتماعي و[٥١, ٥٤] للدور العاطفي و[٤٧, ٨٥] للصحة العامة و[٥١, ٣١] للحياة.

الاستنتاجات: أشارت نتائجنا إلى أن جودة الحياة التي ترتبط بالصحة قد انخفضت مع تقدم العمر، وكانت جودة الحياة أسوأ في النساء منها في الرجال، لاسيما حسب مقاييس النشاط البدني والصحة العامة، وكانت جودة الحياة لدى كبار السن الذين يعيشون في دار لرعاية المسنين أقل مما هي عليه لدى الذين يعيشون في منازلهم، وبالتالي ينبغي لراسمي السياسات الصحية تصميم برامج شاملة لتحسين جودة الحياة المرتبطة بصحة المسنين الإيرانيين.

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