Quality of life in health Iranian elderly population approach in health promotion: A systematic review

Mohsen Poursadeqiyan[1,2], Maryam Feiz Arefi[3,4], Amin Babaei Pouya[2,] Mojtaba Jafari[5]

Abstract:

BACKGROUND: The quality of life (QOL) is essential in all different stages of life; however, It is more important for older people as it can be effective in promoting their health. Therefore, the present study aimed to review the literature on the QOL in the Iranian elderly population.

MATERIALS AND METHODS: The study was carried out as a systematic review. For this purpose, all databases were searched in March 2021. The keywords used for the search were "quality of life, elderly, older adults, aging, seniors, and Iran" along with the Persian equivalents. PRISMA protocol was used to screen articles. After removing duplicate and irrelevant items, two evaluators appraised the articles separately based on a researcher-made checklist derived from the SBEM and STROBE Statement standard checklists.

RESULTS: The initial search yielded 3734 studies on the QOL in the Iranian elderly population. After screening and assessing the studies based on inclusion and exclusion criteria, 22 articles remained in the study. Most of the studies (cross-sectional) were conducted in Tehran using a 36-item Short-Form Health Survey to assess the QOL. The studies investigated sociodemographic determinants, physical and health-related behaviors, and spirituality and psychological determinants of the QOL. The sociodemographic determinants were the most common factors under study. The results showed that the role of gender and socioeconomic status was the strongest among the sociodemographic characteristics. A significant association was found between the QOL in the Iranian elderly population and factors such as depression and religious confrontation.

CONCLUSION: In addition to chronic diseases, diseases of the oral and dental, as well as an unhealthy diet, should be considered in the elderly. Therefore, attention should be paid to all social, physical, and psychological variables that affect the QOL of older people.

Keywords:

Aged, health-related quality of life, Iran, population, systematic review

[1]Social Determinants of Health Research Center, Ardabil University of Medical Sciences, Ardabil, Iran,[2]Department of Occupational Health Engineering, School of Health, Ardabil University of Medical Sciences, Ardabil, Iran, [3]Department of Occupational Health Engineering, School of Health, Torbat Heydariyeh University of Medical Sciences, Torbat Heydarieh, Iran, [4]Health Sciences Research Center, Torbat Heydariyeh University of Medical Sciences, Torbat Heydariyeh, Iran, [5]Department of Nursing, School of Nursing and Midwifery, Bam University of Medical Sciences, Bam, Iran

Address for correspondence:
Dr. Mojtaba Jafari, Department of Nursing, School of Nursing and Midwifery, Bam University of Medical Sciences, Bam, Iran.
E-mail: mo.jafari@mubam.ac.ir

Introduction

Over the past decades, life expectancy has increased globally due to improved living conditions and advances in medicine and technology, and forecasts show that the elderly population continues to grow.[1]

Quality of life (QOL) refers to the general well-being of individuals and societies. It outlines negative and positive features of life. The World Health Organization (WHO) defined QOL (1966) as individuals' perception of their positions in life in the context of the culture and value systems in which they live and about their goals, expectations, standards, and concerns.[2,3] QOL is a multidimensional, subjective, and complex concept and a comprehensive and flexible process that encompasses all aspects of people's lives[4,5] in other words, a unique individual perception, and is a way to express a person's feelings about health or other aspects of life, which is examined by expressing people's opinions

and using standardized tools.[6] QOL is a fundamental indicator and a multidimensional concept containing various aspects such as biological, functioning, and existence.[7,8] QOL has become an important concept in medical, social, and psychological researches. In addition, QOL is used in various fields, including sociology, occupational therapy, gerontology, politics, and health promotion. There are a variety of general and specific instruments used to measure the QOL.[9-11] Health-care systems are focused on improving the QOL and health status.[12,13] It is one of the important cases in this field to pay attention to the safety aspects – health and fatigue as well.[14,15]

Studies have shown that QOL in old age is more important since physiological problems can decrease the elderly's QOL. The elderly suffer from many problems such as vision and hearing problems and other disorders, which result in a gradual increase in dependency on others and decreased QOL. Global population aging is an unprecedented, pervasive, profound, and lasting phenomenon that has multiplied the importance of paying attention to the elderly's health.[16] Therefore, the elderly's QOL is one of the important concepts in gerontology, the well-being of the elderly, and transition into the third phase of life. The elderly's QOL and health are among the important issues in healthcare services. Despite increased life expectancy, aging is associated with more illnesses and dependency. In addition to biological changes, aging causes changes in the social roles of the elderly, which are associated with retirement and more health problems.[17] Extensive policies and programs derived from the studies on QOL have affected many social contexts. Therefore, having an elderly population with a high QOL is part of social policies in different countries, especially the developed countries that are faced with the aging population phenomenon. Several studies have been conducted on the elderly's QOL, and the results have shown that Iranian elderly people have a moderate QOL.[18,19] Wenbo *et al*. showed that factors such as demographics and physical, psychological, and religious characteristics affect the elderly's QOL. The effects of these factors vary according to the elderly's living conditions. The studies have indicated that environmental characteristics and quality of care for the elderly have decisive roles in the QOL of older people living in nursing homes, while religion only affects the QOL of the elderly not living in nursing homes.[20] Therefore, it is necessary to take appropriate measures to improve the health of older people.[21] This issue has received a great deal of attention in many developed countries with aging populations over the past two decades. As mentioned earlier, the development and implementation of policies and programs related to the elderly's QOL can make people live a longer and healthier life with improved QOL. Hence, the present study aimed to review the literature on the QOL in the Iranian elderly population in the research literature.

Materials and Methods

Data sources
Through a systematic review, a variety of databases were searched including Magiran, SID, Noormags, Scopus, WOS, PubMed, Irandoc, and ProQuest. Then, the found studies were assessed and screened, and those that met the inclusion criteria were included in the final study.

Search strategy
The literature search was updated in March 2021. A regular search was performed using these keywords: QOL, elderly, older adults, aging, seniors, and Iran. The search strategy for that database was used using Boolean operators (OR and AND) in each database. For example, the following phrase was used to search Web of Science:

((TITLE: ("quality of life") AND TOPIC: (((((((elder * OR older) OR elder*) OR aging) OR aging) OR "older adults") OR senior*) OR old*)) AND TOPIC: (Iran)).

Inclusion and exclusion criteria
The list of obtained English articles was saved in EndNote so that duplicates could be easily removed. The inclusion criteria included the term "QOL" in the title and "Iran" and "the elderly" in the abstract or keyword sections. Letters to the editor, dissertations, and interventional studies were excluded from the review.

Extracting the data
The PRISMA was used to screen and assess the articles.

Selection of studies
Totally, 3734 articles were found in the initial search and 415 articles remained after removing duplicates and irrelevant studies. At this stage, 300 articles have been removed and 115 articles remained in the study.

Quality assessment of articles
Then, the full texts of the remaining articles were assessed by two reviewers separately based on a researcher-made checklist. This researcher-made checklist, derived from SBEM and STROBE Statement standard checklists, consisted of 22 items including a clear and comprehensive title, an appropriate statement for the research problem, background or theoretical framework, a proper research method, generalizability of the sample, appropriate inclusion and exclusion criteria, assessment instruments, reliability of assessment instruments, validity of assessment instruments, sampling method, study population, time periods of research, statistical method for analysis, data analysis, intervening variables, and study limitations.

Each item was scored from 0 to 1 and articles that scored more than 13 on the checklist remained in the review. Finally, 22 articles entered the final synthesis [Figure 1].

The present study was approved by the ethics committee of Bam University of Medical Sciences. (ethics code: IR.MUBAM.REC.1400.009).

Results

Table 1 lists the characteristics of the articles included in the study. The oldest was published in 2009 and the latest one was published in 2021. Most of the studies on the determinants of the elderly's QOL were conducted in 2015. The majority of studies used a 36-item Short-Form Health Survey (SF-36) as an instrument for assessing the QOL. The studies were in Tehran, Kerman, Ilam, Shiraz, Khorramshahr and Ahvaz, Guilan, Shahrekord, Sari, Babol, Zahedan, and Tabriz, and the majority of studies were conducted in Tehran.

Discussion

A systematic review of the factors affecting the QOL in the Iranian elderly population was conducted. More than 70% of the studies reported low and moderate levels of the QOL in the Iranian elderly people. QOL is affected by various factors, including health and personal, social, and economic characteristics. According to studies conducted in Iran, the determinants of QOL in the Iranian elderly population included physical and health-related factors as well as sociodemographic, psychological, and religious determinants. The majority of studies investigated sociodemographic determinants of the elderly's QOL. Physical and health-related determinants of QOL were dental problems, physical disabilities, and chronic diseases, overweight, and nutritional status. Living a healthy lifestyle (exercising, not smoking, etc.) and learning more about living a healthy lifestyle can also improve the elderly's QOL.[22,36,41]

Do and Moon in the study of the relationship between oral discomfort and the quality of the life in the elderly in Korea cited toothache, masticatory discomfort, and
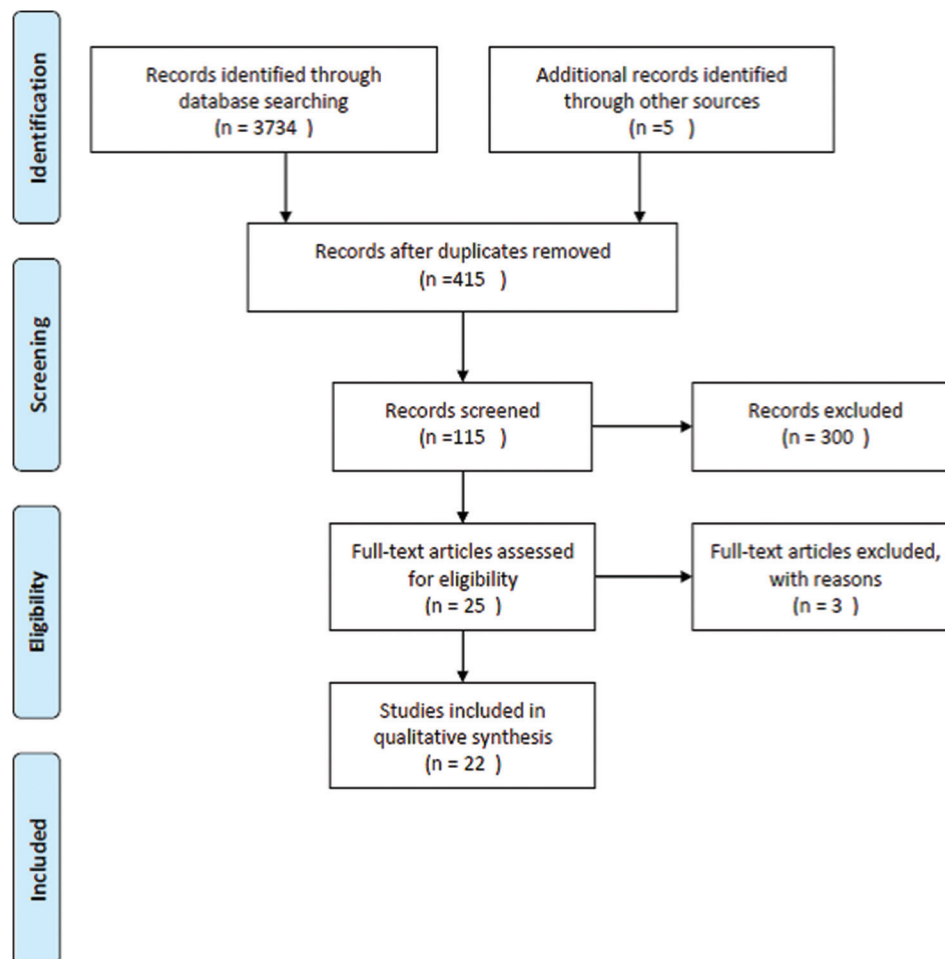

Figure 1: The articles in each stage of the screening process (screening, eligibility, and inclusion criteria) of the systematic review

Table 1: The articles on the elderly's quality of life in the present study

Row	Author	Year	Type of study	Instrument used for assessing QOL	Sample proportions for men and women separately	City or province	Factors related to QOL	Dimensions of the factors investigated	QOL level
1	Esmaeili *et al*.[21]	2012	Cross-sectional study	SF-36	424 (male=150; female=270)	Tehran	Number of chronic diseases	Physical and health-related behaviors	Moderate
2	Shamsi Poor Dehkordi[22]	2012	Case-control study	SF-36	160 (female=114; male=46)	Tehran	Physical activity	Physical and health-related behaviors	Moderate
3	Nouhi *et al*.[23]	2012	Cross-sectional study	SF-36	221 (male=122; female=155)	Kerman	Musculoskeletal pain/ age, education, and employment	Physical and health-related behaviors	Moderate
4	Garousi *et al*.[24]	2012	Cross-sectional study	SF-36	383 (female=191; male=192)	Kerman	Social support	Sociodemographic	Low
5	Saber and Nosratabadi[25]	2014	Cross-sectional study	LIPAD	100 (male=64; female=46)	Kerman	Social support	Sociodemographic	Moderate
6	Kassani *et al*.[26]	2014	Cross-sectional study	SF-12 and standard	330 (male=142; female=188)	Ilam	Individual trust, social support and correlation, social trust, and association relations	Sociodemographic	Moderate
7	Hekmatipour *et al*.[27]	2015	Cross-sectional study	SF-36	Female=73	Khorramshar and Ahvaz	Social support	Sociodemographic	High
8	Rimaz *et al*.[28]	2015	Cross-sectional study	LIPAD	240 (male=127; female=113)	Tehran	Social support	Sociodemographic	Low
9	Safavi[29]	2014	Cross-sectional study	WHO	54 (female=36; male=18)	Gilan	Social support and depression	Sociodemographic Psychological	Low
10	Mousavi Sardashti *et al*.[30]	2014	Cross-sectional study	LIPAD	356 (male=182; female=174)	Shahrekord	Social support	Psychological	High
11	Ebrahimi *et al*.[6]	2014	Cross-sectional study	SF-36	141 (male=73; female=68)	Kahrizak Charity Center	Spiritual health and demographic characteristics	Sociodemographic Spirituality	Moderate
12	Heydari-Fard *et al*.[31]	2014	Cross-sectional study	SF-36	200 (female=122; male=78)	Sari	Religious confrontation	Spirituality	
13	Hajian-Tilaki *et al*.[32]	2016	Cross-sectional study	SF-36	750 (male=375; female=375)	Babol	Obesity, diabetes, hypertension	Physical and health-related behaviors	Moderate
14	Seraji *et al*.[33]	2017	Cross-sectional study	SF-36	117 (male=60; female=57)	Zahedan	Spiritual well-being	Spirituality	Moderate
15	Khaje-Bishak *et al*.[34]	2014	Cross-sectional study	WHOQOL-BRIEF	184 (male=97; female=87)	Tabriz	Cardiovascular diseases, respiratory diseases, gastrointestinal diseases, hearing problems, vision disorders	Psychological	High
16	Tajvar *et al*.[35]	2008	Cross-sectional study	SF-36	400 (female=174, male=226)	Tehran	Age, gender, education, and economic status/ mental health, gender, and economic status physical health	Sociodemographic physical and health-related behaviors Psychological	Low
17	Rakhshani *et al*.[36]	2014	Cross-sectional study	SF-36	500 (female=232; male=268)	Shiraz	Age, sex, education, marital status, lifestyle, health promotion	Physical and health-related behaviors Psychological	Moderate

Contd...

Table 1: Contd...

Row	Author	Year	Type of study	Instrument used for assessing QOL	Sample proportions for men and women separately	City or province	Factors related to QOL	Dimensions of the factors investigated	QOL level
18	Motallebnejad *et al*.[37]	2011	Cross-sectional study	OHIP-14	160 (male=84; female=76)	Babol/sari	Functional limitation, physical pain, psychological discomfort, physical disability, psychological disability, social disability, and handicap	Sociodemographic, psychological oral health information	Low
19	Keshavarzi *et al*.[38]	2014	Cross-sectional study	SF-36	447 (male=125; female=322)	Iran	Nutrition status	Physical and health-related behaviors	Low
20	Moudi *et al*.[2]	2020	Case-control study	LEIPAD	200 (male=115; female=85)	Southern Khorasan	Marital status, income, and education	Sociodemographic Physical and health-related behaviors Psychological	Moderate
21	Moradi *et al*.[39]	2020	Cross-sectional study	LEIPAD	126 (male=68; female=61)	Kermanshah	Emotional intelligence	Sociodemographic	High
22	Honarvar *et al*.[40]	2020	Cross-sectional study	LEIPAD	386	Shiraz	Socioeconomic, demographic, anthropometric	Sociodemographic	Moderate

QOL=Quality of life, SF-36=36-item Short-Form Health Survey, WHO=World Health Organization, WHOQOL-BRIEF=WHO Quality of Life BRIEF Version, OHIP-14=Oral Health Impact Profile-14, LEIPAD=elderly quality of life questionnaire

pronunciation problems as risk factors for the quality of the life. The masticatory discomfort has a more severe negative effect on QOL in the dimensions of "self-care" and "normal activities." As well as "pronunciation problems" had a similar effect on all aspects of the quality of the life.[42]

Studies have shown a significant association between the elderly's QOL and demographic variables such as gender, level of education, place of residence, occupation, and economic status. The results of some studies have shown that older women have a lower QOL compared to older men.[35,36,43] Honarvar *et al*. in their study stated that the quality of the life of most elderly people was moderated and older women with chronic diseases had a lower quality of the life. Sleep disorders, osteoporosis, the female gender, and lack of family income were inversely related to the quality of the life.[40] Another study assessing the relationship between QOL and depression in 159 older adults found a negative relationship between depression and QOL. Furthermore, a statistically significant relationship between age, gender, and depression has been reported. Although the prevalence of depression in women was higher than in men, men were more depressed in this study, which could be due to stressful living and working conditions in men and retirement crises in them.[44] Xiong *et al*. showed that the prevalence of urinary tract infections increases with age and that the prevalence of urinary tract infections in rural areas is lower than in urban areas. Factors such as education level, depression, sleep duration, geographical region, smoking, and alcohol use affect it.[45]

However, this difference was not significant according to the study conducted by Khaje-Bishak *et al*.[34] Feeling lonely may affect the QOL, and the majority of older women feel lonely.[46] The results of studies have shown that place of residence is also a factor affecting the QOL, so that QOL in the elderly people living in nursing homes may be lower than that of the older people who live in their homes with their families. In addition, the results of previous studies showed a poor general health status in older people living in nursing homes compared to those living in their homes.[47] According to Kim *et al*., 58% of the over 65s needed help doing activities of daily living so that they had a higher QOL when supported by their children, spouse, and friends.[48] Older people's emotional well-being affects their mental health. Iman and Shirdel conducted a study on the experiences of the elderly living at nursing homes in order to better understand the nature of their emotional well-being. The results showed that the elderly living at nursing homes experienced emotional stagnation. Their emotional and spiritual needs at nursing homes, their social interactions inside and outside nursing homes, and their physical conditions played important roles in their emotional well-being.[49] Moreover, the elderly living in rural areas had a higher QOL since they had more physical activities than those living in cities.[50,51] Hou *et al*. stated that the QOL of the elderly with urban hypertension was higher than that

of the rural population in all dimensions except public health and that the QOL of hypertensive patients was lower than that of the general population. In terms of physical and mental health, the QOL of rural residents was more down than urban dwellers.[52]

The findings showed that there is a positive and significant relationship between QOL and leisure. Moreover, interpersonal communication had the highest level of communication with the overall QOL score.[53] Zin *et al*. in a study examined the QOL of the elderly in urban and suburban areas. Income level and having close friends affect the QOL score of the elderly in all areas. Furthermore, the level of education and marital status affect psychological health, social relations, and environmental dimensions. Social interaction with neighbors increased QOL scores in the dimensions of physical health, social relationships, and environmental dimensions. Living in suburban areas was associated with a lower QOL score for physical, psychological, and environmental health dimensions, while participation in group activities increases QOL scores in these dimensions, having illness affects their quality of psychological life, while the frequency of going out affects physical health, and the frequency of religious practices affects social relationships.[54] Sociodemographic factors include a healthy lifestyle, economic and social status, contextual variables, social support, and social health. Studies have shown a direct and significant association between QOL and social supports among which emotional support had the greatest effect on the QOL.[24,40]

In addition, the structural inequalities leading to different social classes can affect the elderly's QOL, so that the elderly with higher socioeconomic status might have a better QOL.[23]

Psychological factors, including depression and mental health as well as spiritual factors including spiritual health and spiritual well-being, are other detriments of QOL among the Iranian elderly population. Social support and communication with family and friends, respect for the elderly, intimate relationships, etc., are also positive determinants of the elderly's QOL.[25-29] Retirees who go back to work have a better QOL, and re-employment positively improves the QOL.[55] Among the psychological factors, mental illness has a negative impact on the elderly's QOL. The reviewed studies showed a two-way correlation between depression and QOL so that depressions can reduce the elderly's QOL.[32] The elderly with spiritual health and strong religious beliefs had a higher QOL. Studies have shown a significant association between spiritual health and all aspects of QOL except physical health for which no association was observed.[36,43] In a study conducted by

Keyvanara *et al*. in Isfahan, the eight subscales of QOL, physical pain, and limitations in physical and mental functioning were inversely related to socioeconomic status, and other dimensions of physical health, mental health, social activities, general health, and well-being had a significant positive relationship.[56] Doosti-Irani (2019) in a systematic review study evaluated the QOL of the elderly with the SF-36 questionnaire. The highest mean score is related to the Social Performance Scale, which may be due to better relationships with community members and their families, and the lowest is related to the Physical Role Scale, which may be due to aging problems. Culturally in Iran, most older men are respected in their families and communities. This may be the reason for higher QOL in social performance than other QOL scales.[57]

In Iran, the elderly are literally neglected by society since the society is young and faced with numerous problems. Iran has a large youth population who will become a large old population in the next few years. Hence, studying elderly-related issues can guarantee the future of the current active population. Given the growing population of the elderly in the country, it is essential to create infrastructures to support and care for the elderly, especially in the form of cohabitation. Studies have shown that most of the older population suffer from chronic diseases, and the QOL in senior citizens with diseases is much lower than that in healthy senior citizens.[21,24,32,34]

Studies have shown that diabetic elderlies have a lower QOL than their counterparts. Coordination of different physical and mental dimensions of individuals, including the ability to control difficult conditions, effectively prevents and develops various diseases such as diabetes and improves their QOL. There was no significant difference in the mean scores of QOL and emotional intelligence of diabetic and nondiabetic individuals. However, emotional intelligence affects the QOL of the elderly. Cultural and social factors such as religious beliefs, social networks, relationships between them, and behavioral, emotional, and psychological factors affect the QOL of people in these conditions[39] since disease and medication side effects affect the QOL.[58,59]

Today, due to advances in the health system, life expectancy has increased. According to the WHO, between 2015 and 2050, the global proportion of the elderly population (60 years or older) will almost double (12%–22%). Many older people cannot live in their own homes forever and need 24-h care due to health problems and serious disabilities.[60]

Although high severity of mental health problems and depression have been reported in the media, studies

have reported that their severity is low. Four reasons for this discrepancy are suggested: (1) older people are less likely to take part in surveys because of mental health problems. (2) People with mental health problems had lower life expectancy due to high suicide rates. (3) Alcohol use and high-risk behaviors. (4) People with mental health problems are cured during their lifetime, and finally, it can be said that the older generation reported fewer depressive symptoms than the younger generation.[60]

Considering that healthy nutrition and fitness can prevent diseases, improving the QOL in the elderly[31,36] and planning a health promotion program can be a preventive approach to improve the QOL in the growing elderly population. The strength of this study is that so far no systematic study has been conducted to examine the correlations of QOL in the elderly with health approaches. Moreover, one of the weaknesses of this study is the lack of access to some full texts of Persian sources, especially conference papers, and the lack of study in Iran in all aspects of elderly health.

Limitation and recommendation

Regardless of the time or language of publication, all cross-sectional research used the WHO-QOL-BRIEF questionnaire to assess QOL in the healthy Iranian senior population. Due to the COVID-19 pandemic and quarantines, it appears that the elderly's quality of life should be given greater attention, and research should be done in this area.[61]

Conclusion

It is necessary to pay attention to all social, physical, and psychological variables affecting the elderly's QOL in community planning for health promotion of elderly. In addition to the elderly's chronic diseases, other health issues such as oral and dental problems or poor nutrition should also be considered. Planning for the elderly's social health and participation in society should be also taken into account. In addition, planning for the elderly should be based on age groups and gender differences. Participation in cultural, religious, and sports rituals with peers can help reduce depression among the elderly. Moreover, financial and nonfinancial supports as well as creating job opportunities for the elderly can improve their QOL.

Conflicts of interest

There are no conflicts of interest.

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