



## Dimensions of Preparation for Aging: A Systematic Review

Mahnaz Solhi<sup>1</sup>, Razieh Pirouzeh<sup>1\*</sup> , Nasibeh Zanjari<sup>2</sup>, Leila Janani<sup>3</sup>

Received: 5 Apr 2020

Published: 20 Jul 2022

### Abstract

**Background:** A deeper understanding of the dimensions of preparation for aging at the personal level may provide new perspectives for healthy aging promotion policies. Therefore, the present study was conducted to investigate the dimensions of preparation for old age and retirement.

**Methods:** This was a systematic review. The search was performed in the following databases: PubMed, Embase, Scopus, Web of Science, PsycINFO, and Google Scholar up to June 2020. This search was done based on the following keywords: "prepare\*", "preparation", "plan\* ", "Aged", "Ageing", "Aging", "older people", "senior", "retirement", "older adults", and "elderly" through the AND/OR operators. In the preliminary search, 2032 papers were identified. After removing the duplicated articles and screening the title and abstract, the full text of 141 papers were investigated. Finally, 42 papers were eligible for inclusion in the systematic review.

**Results:** The results indicated that preparation for aging is propounded in the 6 dimensions: (1) health preparation; (2) psychological preparation; (3) financial preparation; (4) housing; (5) social preparation; and (6) active leisure.

**Conclusion:** The findings of the present study indicated that planning for aging requires coverage of all dimensions of old age preparations to achieve healthy aging. The preparation planning should be performed before later life and during the young or middle-age years.

**Keywords:** Aging, Preparation, Retirement, Systematic Review

**Conflicts of Interest:** None declared

**Funding:** This study was financially supported by the Deputy of Research and Technology of Iran University of Medical Sciences, Tehran, Iran (Grant no.13667)

\*This work has been published under CC BY-NC-SA 1.0 license.

Copyright© Iran University of Medical Sciences

**Cite this article as:** Solhi M, Pirouzeh R, Zanjari N, Janani L. Dimensions of Preparation for Aging: A Systematic Review. *Med J Islam Repub Iran*. 2022 (20 Jul);36:81. <https://doi.org/10.47176/mjiri.36.81>

### Introduction

The recent scientific achievements and medical advances have caused increased life expectancy and the elderly population in both developed and developing countries (1). The global population of those 60 years and older in 2017 reached 962 million, which has doubled from 1980 to 2017. It is predicted that by 2050, the population of the elderly will double and reach around 2.1 billion people (2). The population aging changes all aspects of the society, including economic security, job opportunities, family structure, housing, transportation as well as health care services for the elderly (3).

Aging is the result of the natural course of time, which leads to physiological, psychological, and social changes. In addition to the biological and physiological changes that occur in the body, the elderly also experience important life events, including retirement, death of friends and family members, moving to a new house, and isolation from social activities alongside changes in their social relations and financial situation (4). To adapt to these challenges, planning and preparation are crucial. Personal preparation for aging-associated changes is an important means of preventing financial poverty during aging. It also facilitates adaptation

**Corresponding author:** Dr Razieh Pirouzeh, [pirouzeh.r@iums.ac.ir](mailto:pirouzeh.r@iums.ac.ir)

<sup>1</sup> Department of Education and Health Promotion, School of Public Health, Iran University of Medical Sciences, Tehran, Iran

<sup>2</sup> Iranian Research Center on Aging, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

<sup>3</sup> Department of Biostatistics, School of Public Health, Iran University of Medical Sciences, Tehran, Iran

#### ↑What is "already known" in this topic:

Preparing for aging can facilitate adaptation to age-related changes and challenges that can occur in different areas of life. The identification of preparation can help plan the best time for aging.

#### →What this article adds:

This systematic review showed that preparing for aging has a multidimensional structure that includes more than just finances. Planning for old age should take into account all aspects.

to aging changes and challenges in many dimensions of life (eg, leisure activities, family life, social relations, job, physical and psychological health, fitness, and housing) (5).

Preparation for aging is indeed an investment of resources to prepare for challenges that are expected to occur at advanced ages. This leads to increased quality of life and well-being in the terminal years of life (6, 7).

Indeed, preparation functions as an important means to improve the personal abilities to cope with aging challenges and changes and plays a significant role in the proper use of opportunities during the aging period. Furthermore, preparation is considered as an important task for adults and middle-aged individuals to maintain their health and performance at more advanced ages (8). Preparation and planning have a positive impact on adaptation to retirement and happiness during retirement even if conditions change (9).

Extensive studies have shown positive impacts of preparation for aging; those who are prepared for aging-associated changes become less anxious, are less depressed, and live at a better well-being level. Indeed, those who are prepared are healthier than individuals with less planning (10).

Preparation is a concept that has been tested in various studies as readiness for retirement. Thus, it exclusively deals with preparation for the events and challenges directly and indirectly associated with leaving the labor market (11-15). In some other studies, it has been examined generally and as preparation for aging (10, 16, 17). The studies of preparation for aging and retirement, which is part of the aging, have been done on different dimensions, especially on the financial dimension (12, 18, 19). Some studies have dealt with health dimensions (20, 21), while some have worked on several dimensions (10). Since preparation for aging is very important for well-being, these dimensions should be understood better to achieve new perspectives for health-promoting policies of the aging period. Therefore, the present study has been systematically studied to discover the dimensions of preparation for aging and retirement in qualitative, quantitative, and mixed-method studies.

## Methods

### Study selection

A systematic search was performed by 2 authors (R.P., N.Z.) independently in Scopus, Medline via PubMed, Web of Science, Embase, PsycINFO, and Google Scholar up to December 2019. The terms were analyzed using MeSH (Medical Subject Headings), and Emtree (Embase Subject Headings) and Text Word. Eleven descriptors were used as follows: prepare\* OR preparation OR preparing OR plan\* OR planning (related to preparation) AND aged OR aging OR older people OR senior OR older adults OR elderly (related to aging). For example, in PubMed, the following search was done: ((prepare\*[tiab] OR preparation[tiab] OR plan\*[tiab]) AND (aging[Mesh] OR aging[tiab] OR aged[Mesh] OR aged[tiab] OR senior[tiab] OR "older people"[tiab] OR elderly[tiab] AND (retirement))). Also, a hand search of all the references of included papers was performed as well as a grey literature search on Google Scholar.

After searching through the databases, the first author

(M.S.) uploaded this search results and removed the duplicate papers through EndNote X7 (Clarivate Analytics). Then, based on the title and abstract, 2 authors (MS, RP) screened the titles and abstracts independently. The full-text of the papers fulfilling the inclusion criteria was screened by 3 authors (M.S., R.P., and N.Z.). Any disagreements in the study selection were resolved through consultation with another review author (L.I.). The report of the study selection process is presented in Figure 1.

The inclusion criteria were as follows: original papers published from 2000 to June 2020; papers being available in English; and quantitative and qualitative papers measuring preparation for aging or retirement in clear dimensions and elements.

The exclusion criteria were non-English papers, papers on patients, articles with vague definitions of preparation, overlap articles, papers of lectures, letters to the editor-in-chief, reports, theses, and papers measuring preparation or planning through one single question or in general and ambiguously.

### Data extraction

Identifying and evaluating the studies were conducted by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (22) by 2 reviewers. Two authors (N.Z. and R.P.) extracted the data from the included studies independently. The data extraction form was designed by the authors. The data extracted by the authors were compared with each other and corrections were made if necessary. The data extraction form included the following sections: (1) first author and year of publication, (2) title, (3) type of study, (4) number of participants, and (5) the age range of the participants, and (6) dimensions of preparation for aging and retirement.

### Quality assessment

The quality of papers was assessed by 2 authors (R.P. and N.Z.) independently using the mixed methods appraisal tool (MMAT). This instrument is used for assessing the quality of qualitative, quantitative, and mixed method papers. For each type of study, the total score of quality was calculated. This tool allows for concomitant appraisal of studies employing different methodologies (qualitative, quantitative, and mixed methods studies) (23). Each study was initially assessed by 2 screening questions to determine the feasibility of further appraisal. If positive, the study was categorized within its methodological domain using the MMAT scoring metrics descriptors to produce overall quality score varying from 25% (\* – one criterion met) to 100% (\*\*\*\* – all criteria met). Higher percentages indicate better methodological quality. Criteria were assessed by dichotomous answer possibility, with each “yes” adding another 25% to the score. The ratings on the MMAT are included in Table 1. Any disagreements were settled by consensus. Given the exploratory purpose of this review, no study was excluded based on its methodological quality. The quality assessment served to gain an understanding of the relative strengths and weaknesses of the body of evidence.

## Results

This review study was initiated with 2032 papers. After removing the duplicates (N = 279), a total of 1753 papers remained. Then, 141 papers were selected after investigating the title and abstract, and their full-text was examined. Among them, 42 papers were included and their full-text was analyzed. The details of the process of selecting studies are reported in Figure 1.

Out of the 42 papers, 7, 34, and 1 had been conducted as a qualitative, quantitative, and mixed-method, respectively. Also, 5, 26, and 11 studies had been performed before 2005, 2005-2015, and after 2015, respectively. The sample size was different across the studies, ranging from 24 to 10235 participants. The age range of the participants was 18-94 years. Only 10 studies dealt with examining preparation for later life and 32 worked on preparation for retirement (Table 1).

### Preparation for aging

**Health:** In 21 studies, the emphasis has been made on preparation in terms of health for aging. Generally, in most studies, investigations underscoring health maintenance have been mentioned.

**Keeping physical health:** Studies have mentioned the necessary factors for maintaining the health for preparation for aging through physical activity (24), including regular exercise (at least twice per week (25-32), walking (33), cycling, and doing light household chores (16). Healthy diet and nutrition are among the important points for preserving physical health. Eating fruits and vegetables, limiting fat, sugar, and sodium consumption (16, 17, 25, 27, 30, 31, 33, 49) are among the healthy dietary habits. Resting enough is also another point mentioned for preserving physical health (16). Checkups and examinations; following medical recommendations; health screening (16, 17, 25-28, 34, 35, 49, 51); adaptation to health-associated aging problems, such as diminished vision and hearing abilities, arthritis and arthralgia; diminished physical competence, energy, and agility (24); preventing falls (16); quitting or beginning health risky habits (17, 25, 27); and preparing health care and healthy lifestyle (34, 35, 49, 51) are among the important measures for physical health while aging. Also, increasing health knowledge will make people more prepared for retirement (54).

In the studies on preparation for changes in physical health, independent living has been mentioned. Reducing the burden of the caregiver through family engagement,

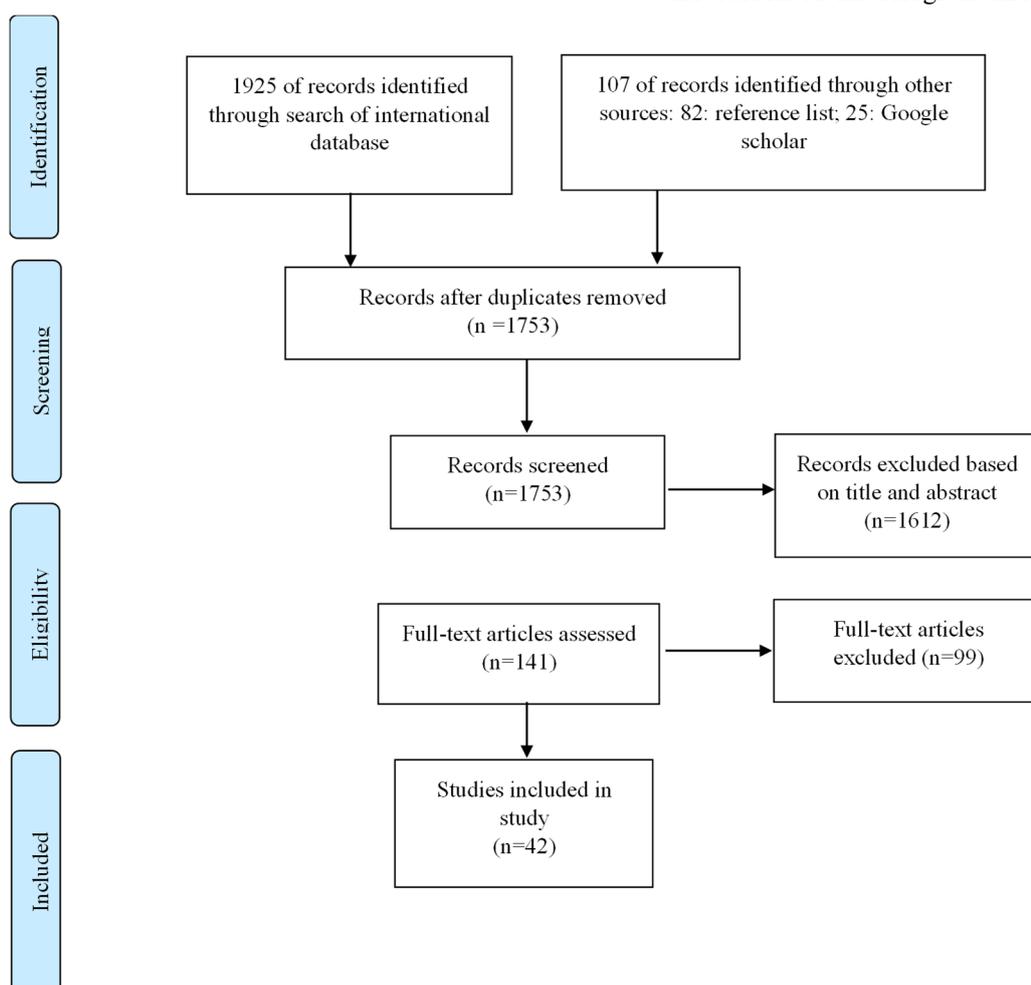


Fig. 1. The number of identified and included articles in the study (Figure created by authors based on PRISMA diagram)

Table 1. Characteristics of the studies included in the review

Author/year/country	Sample size(age)	Methods	The dimensions of preparation for aging	MMAT SCORE
Rattanamongkolgul/2012/ Thailand (16)***	35(60+)	Qualitative	Physical health, spiritual well-being, and preparing for death	75%
Apouey/2018/France (24)**	1244(50+)	Quantitative	Financial preparation and housing, health and social life planning	50%
Kornadt/2014/ German (10)****	951(30-80)	Quantitative	Finances, emergencies and exceptional circumstances, mental and physical fitness, housing, looks and appearance, social relationships, health, Leisure activities and, lifestyle, work and employment.	100%
Spir /2006/ USA/ Chicago (25)*	25(60-85)	Qualitative	Health, housing, work/ leisure activities, finances, and relationship/ social support	25%
Hunter/2007/Australia (26)**	44(41-70)	Qualitative	Attitudes and expectations, finances, health, and food planning for retirement	50%
Hershey/2010/America and Dutch (11)**	975(25-64)	Quantitative	Financial planning for retirement	50%
França/2018/Brazil (12)***	167(21-69)	Quantitative	Financial preparation for retirement	75%
Blakeley/2008/Canada (27)**	124(45+)	Quantitative	Physical health, financial health, psychosocial preparation	50%
Lee/2004/Hong Kong (28)****	1078(40-59)	Quantitative	Health planning, financial planning, Living arrangement planning psychological planning	100%
Noon/2010/New Zealand (29)***	1509(49-60)	Mix method	Financial planning, lifestyle planning, health planning, Psychological preparation for retirement	75%
Noon/2013/ Australia (30)***	304(50-64)	Quantitative	Psychological preparation for retirement	75%
Petkoska/2009/ Australia (31)**	377(50+)	Quantitative	Work, relationship/ leisure, health and financial planning for retirement	50%
Stawski/2007/USA/Oklahoma (32)**	100(19-63)	Quantitative	Financial preparation for retirement	50%
CHOU/2014/Chain (33)****	999(24-64)	Quantitative	Financial preparation for retirement	100%
Palaci / 2017/Spain (18)****	280(45-63)	Quantitative	Financial preparation for retirement	100%
Murator/2010/Australia (34)**	174(45-66)	Quantitative	Financial and health preparation, for retirement	50%
Denton/2004/ Canada (35)****	51(45+)	Qualitative	Financial and health planning for later life	100%
Hira/2009/USA (36)**	911(21+)	Quantitative	financial planning for retirement	50%
Pothisiri/2018/Thailand (17)***	10235(60+)	Quantitative	financial, health, caregiving, living arrangements, and spiritual preparation for old age	75%
Morgan/2004/USA/ Maryland (13)*	1508(40-70)	Quantitative	Retirement financial preparation	25%
Rosenkoetter/2001/ USA/North Carolina (37)**	764(40-94)	Quantitative	Psychological planning- planning for retirement living and later life financial planning	50%
Segel-Karpas/2014/Israel (19)**	227 (25-81)	Quantitative	Perceived financial retirement preparedness	50%
Schofield/2010/Australia (38)*	146(50+)	Quantitative	Financial preparation for retirement	25%
Hajek/2018/German (39)**	1006(65+)	Quantitative	Preparation for long-term care	50%
Kopanidis/2014/Australia and UK (40)***	1103(49-68)	Quantitative	Psychological planning and retirement housing change_ after retirement	75%
Noone/2009/USA (7)***	1008 (50-73)	Quantitative	Psychological and financial planning in later life	75%
Kim/2016/Korea (41)****	279(50+)	Quantitative	Economic preparation for later life	100%
Yeung/2013/Chain (42)***	90 (50-63)	Quantitative	Financial, health, social, psychological planning for retirement	75%
Palaci/2018/Spain (43)***	269(45-62)	Quantitative	Financial planning for retirement	75%
Conrad Glass/2000/ USA /Carolina (44)*	66(45-64)	Quantitative	Preparation for: retirement activities, financial support in retirement, physical health in retirement, well-being in retirement , housing in retirement and family factors in retirement	25%
Kim/2005/USA (45)**	783(25+)	Quantitative	Financial preparation for retirement	50%
Moorthy/2012/Malaysia (46)***	300(26-55)	Quantitative	Financial preparation for retirement	75%
Principi/2018/Italy,England,and USA (47)****	133(55+)	Qualitative	Retirement plans: employment, participation in society, independent living, socially connected and active leisure	100%
Topa/2018/Spain (48)***	132(55+)	Quantitative	Financial preparation for retirement	75%
Eral/2015/ Australia (49)***	367(45+)	Quantitative	Financial and health preparation for retirement	75%
Earl/2014/ Australia (50)**	311(45-72)	Quantitative	Work, relationship/ leisure, health and financial planning for retirement	50%
Donaldson/2010/ Australia (51)**	570(49-97)	Quantitative	Financial and health preparation for retirement	50%
Heraty/2015/ Irish (52)****	1964(50-65)	Quantitative	Financial planning for retirement	100%
Moen/2005/USA (53)****	720(40+)	Quantitative	Financial planning and planning for hobbies/ interests, career or volunteer work after retirement	100%
Li/2019/China (54)****	27(50-60)	qualitative	Health management, financial plans, life arrangements and information about possible bridge employment	100%
Eismann/2019/ Dutch (55)	6248(60-65)	Quantitative	Bridge employment, Self-developmental leisure Social leisure.	75%
Thakur/2020/ USA (56)	3048(18+)	Quantitative	Financial and health planning for retirement	75%

self-care, helping in household chores, taking care of grandchildren, and small businesses for extra income (16) have been shown to contribute to independent living. Further, this can be achieved by preserving health, exercising, and constant learning activities (32). Consideration of a nurse for care in the future can also support independent

living (17).

Preserving the mental health is another issue in this part. It involves care for emotional needs, possessing solutions for preventing the sense of loneliness in aging (31, 50), stress management (36), attempts for preventing worries and anxiety (16), and preserving mental skills(10, 24, 33-

35, 49, 51) are the points mentioned for preparation for aging.

These studies have also noted spiritual well-being: Belief in life uncertainty, prayers, meditation, and caring for Buddhist rulings, instability of everything, living in peace, belief in returning to Dhamma in Buddhist creed, (16, 17) and finding meaning through spirituality (31, 50) are among the factors associated with this part to help prepare for aging.

**Psychological preparation:** A total of 15 studies have examined preparation for aging based on psychological aspects. In many studies, the goal of psychological preparation for retirement and aging includes talking to friends about retirement, talking to a spouse about retirement, talking to family members about retirement, talking to colleagues about the retirement, talking to retired individuals, having a discussion with social service staff (7, 11, 27), reading books or papers about retirement, watching TV or listening to radio programs related to retirement, talking to family about the future health, having goals for long-term health (26-28), participation in preretirement workshops, participation in meetings for planning before retirement (7, 24, 27, 29), thinking about retirement (7, 37), and planning with family for retirement (36). Receiving information about health (through doctors, the internet, health care centers, and support centers) (28), thinking for coping with aging health challenges (17), participation in public health seminars (34, 35, 49, 51), listening to financial planning or investment programs, reading books, papers or brochures about financial planning investment or retirement, visiting financial planning websites, investment on the internet (18, 26, 39, 40), and participation in financial planning seminars (13, 31, 34, 35, 49-51) are other points for psychological preparation for aging. Finally, having a positive attitude toward aging and considering it as freedom and emancipation have been considered as important points for adapting to aging and retirement (42).

**Financial preparation:** A total of 37 studies dealt with financial planning for aging. Financial preparation includes having a savings account and personal savings plans, having adequate money for retirement (7, 10, 13, 24, 25, 27-29, 33-35, 40, 41, 43, 49, 51-53), participation in retirement plans, guaranteed plans, buying stocks, exchange funds for long-term investment, participation in retirement funds, investment in retirement plans or savings funds (7, 10, 13, 18, 27, 34-36, 39, 40, 49, 51, 52, 54), investment for business (44), redeeming retirement years, vehicle loan (24), the intention of using loans (44), using the available financial resources (36), planning for investment in real estate (34, 35, 44, 49, 51), and leaving adequate money for unexpected costs (28, 40).

Furthermore, advice on financial plans through a financial expert (13, 18, 24, 26, 31, 39, 40, 43, 50, 51, 54) and collecting financial information (44) are among the factors measured in these studies.

Calculation of living costs for the future, saving costs, collating or organizing one's financial background, net worth of value assessment (18, 25, 27, 39, 40, 44), perception of average budget and budget review, estimating the current assets, the current debt value, thinking for reducing the debts, estimating the amount of money saved for

retirement, knowing how much money is required for a convenient retirement, knowing how much money should be saved per month to have an easy retirement (19, 31, 36, 45, 50), comparing the current financial situation and the retirement situation, knowing the financial problems of retired people, thinking about financial future, perception of the value of financial reparation for retirement (28, 40, 46), financial preparation for long-term care needs (38), being confident about having money in future, and planning for their own and family needs (31, 50) are among the other concepts regarding financial preparation for retirement.

Planning for work after retirement (job as a financial resource) (32, 34, 35, 44, 49, 51, 53) is also considered important to get prepared for retirement and aging. Bridge employment plans were indicated by the following 3 items: continuation of paid work, self-employment, and occasional work for a former employer (55).

Several studies have also mentioned the importance of insurance during aging (33-35, 47, 49, 51, 54). These insurances include accidents, life, or investment (24, 27) plus life and family insurance and health insurance (25), which can support preparation.

In some studies, it was observed that financial planning for retirement has been investigated based on an interdisciplinary financial planning model: financial planning based on psychosocial and economic model includes 3 psychological factors: future orientation: future time perspective, goal clarity, and financial knowledge; 3 social support variables: early learning from parents, support of spouse and friends; 3 institutional factors: the quality of the employer's pension, trust in banks and funding managers, and trust in the government pension; eventually retirement plans and the perceived saving adequacy (11, 12, 47, 48).

**Housing:** Planning for housing during retirement and aging was another point examined in 13 studies. To plan for housing, decision-making and having goals for selling the house and moving, renovation and immunization of the house, identifying the important factors involved in the future house, considering the convenience of the place of living for the elderly, the house matching physical constraints, and access to transportation (31, 33) are among the important factors. Homebuilding (10, 45), procuring housing loan facilities, minimizing the current house (24), purchasing a house or apartment for retirement (24, 27, 28, 33, 40, 45), changing and modifying the house (such as installing a lift), moving to another house (eg, nursing home, care in relatives' home) (38), having construction activities, and having a personal house (34, 35, 45, 49, 51) are also important in this regard. Intention for living in the current house or moving, living with children, consideration of care facilities in the house are among the points mentioned for planning for housing during aging (25).

In a study, the theory of planned behavior has been used for measuring the psychological preparation for planning to changing the house after retirement. The components of the model for changing the house included an attitude of changing the house after retirement (satisfaction, importance, feasibility, and utility of moving)- social norms - the influence of others (support by the family and friends for retirement moving house) - the perceived behavioral control (the

belief in the ability to plan about the housing situation, sense of preparation for moving the house)- advice-seeking behavior: formal advice, informal advice, and information seminars- psychological barriers: perceived lack of support, fear of social isolation- intention for moving to another house after retirement (39).

**Social preparation:** In only 12 studies, the importance of preparation for aging has been examined socially. The most important factors examined in studies regarding the social dimension of preparation for aging were as follows:

Keeping social relations, familial and social friendship (10, 33); having family or friends who can help in the future; getting familiar with new friends and people; developing a supportive system; improving familial relations (29, 31, 50, 53-55); improving interpersonal relations through organizing out of house activities with friends or family; contact with friends or family regularly; emailing friends or family regularly; making new friends; becoming a member in social groups or clubs (36); participation in social networks, including family (34, 35, 49, 51); joining the church and clubs (25); participation in voluntary work; and taking care of children and other elderly to establish participation in the community and keeping social relations with friends, relatives, or colleagues (53-55).

**Planning for daily activities and leisure:** Preparation for daily activities and leisure has been tested in 15 studies. In many of them, generally, the importance of planning for daily activities and living arrangements has been emphasized (10, 17, 27, 34, 35, 49, 51, 53). Leisure activity planning in the studies included creating entertainment, discovering talents, and developing a new talent (25, 27, 29, 31, 50, 55), acquiring and learning new skills (34, 35, 49, 51, 54), getting entertained through physical activities (eg, gardening), improving the house, or entertainments that do not need physical activity (eg, playing an instrument, music-making, painting, and studying) (32), and planning trips with friends and family (24, 25, 34-36, 49, 51, 54). To plan for the daily activities, the way present and future are passed should be compared with each other, and the family should be consulted about how to pass the leisure time during retirement. Generally, having special goals for the time during retirement (26, 28) is useful. Joining clubs or entertainment classes and teams (26), participation in recreational or entertaining seminars (34, 35, 49, 51), planning for using the time efficiently during retirement (36), and planning for having activity with the spouse, friends, and colleagues (25), and taking new courses and resuming hobbies (55) are among the suitable activities during aging.

In the studies on planning for jobs and employment after retirement either as a full-time or part-time, consideration of a second job (10, 24, 25, 31, 32, 34, 35, 49-51) has been considered for preparation for retirement and aging. Note that in these studies the job is intended for filling the leisure time and has no financial goal.

## Discussion

The present study dealt with reviewing the dimensions of preparation for aging. The results led to the extraction of 6 dimensions of planning and preparation. They included health, financial, psychological, housing, social, and

leisure/daily activities.

In most of the studies, financial preparation for the aging has been examined, while preparation is a multidimensional never-ending process, which goes beyond financial preparation (56). Nevertheless, the financial aspect of preparation is of special interest to researchers as financial security is the prerequisite for preparation for aging and retirement. Further, the financial dimension should be accompanied by health to gain satisfaction during retirement years. Furthermore, financial preparation affects the individual ability to participate in social and leisure activities (26).

Financial and health planning are 2 potentially important methods for better preparation and health promotion among the middle-aged and elderly. Indeed, financial planning is associated with a complex health planning, because without having adequate financial resources, individuals may not be able to fulfill their plans regarding health care, long-term care, or end life care (21).

Preparation in the health dimension captured preserving the physical health and independent living. Health status is another important factor involved in maintaining a successful life during aging. Health maintenance is important to live an independent and longer life. The elderly requires health planning since they are at risk of discomfort as well as chronic diseases and disabilities.

The health dimension affects other dimensions. Poor health limits the ability of participating in postretirement activities (57). It has also well been established that poor health causes low economic activity (58). On the other hand, physical health positively affects psychological well-being and even satisfaction with life and aging (59).

Health is one of the essential bases for healthy aging. Prevention from chronic diseases as well as disease management leads to health promotion. Also, if the elderly desire to remain independent, they should preserve their physical and psychological health. Studies have shown that not only is diminished performance preventable during aging, many functions lost can also be recovered. Preventive strategies should focus on promoting the selection of a healthy lifestyle, including a healthy diet, limiting tobacco consumption, preventing injuries, physical activity as well as psychological and social stimulation (60).

Psychological preparation was also examined here. Indeed, in the studies, the aim of psychological planning is to promote psychological preparation for adapting to retirement changes (6). The elderly experience stress caused by changes in the family and community structure; thus, they should be prepared for such changes (60). Mental health is an indispensable part of health and well-being. Senior citizens are at risk of developing psychological problems.

In reviewing the studies, it was observed that the goal of measuring psychological preparation for the elderly is to get prepared for adapting to aging challenges and mental preparation for aging and its challenges and thinking about some coping strategies. Having mental planning and mental preparation before stepping into aging can lead to better aging and a positive appreciation of this phenomenon.

Planning for daily and leisure activities was also emphasized in the studies reviewed. In advanced ages,

considering the diminished mental and physical activities, the elderly experience barriers for their leisure time. As such, the elderly become stay-at-home individuals. The elderly who have an independent life has to virtually constrain themselves to their home and deprive themselves of social participation due to the absence of suitable educational recreational or welfare facilities or the high cost of employing these facilities. In case of the absence of a suitable plan and the necessary facilities for leisure time, fatigue and depression may emerge, which are associated with chronic diseases. This highlights the value of planning for leisure time at advanced ages. Furthermore, this planning and preparation should be regarded as significant both at personal and social levels, which requires planning at macro scales.

Another part of the retirement plans is housing. The studies have mentioned decision-making about housing, remaining in or moving from or modifying the current house, purchasing a suitable house for the aging period as the important plans for retirement and aging. The importance of housing selection can be due to the tendency of living independently at advanced ages. The earlier the place of residence is planned, the easier the elderly adapt to the changes. Therefore, people should have plans during their youth and middle age for a suitable house to live during the senescence period.

The minimum attention had been paid to the social aspect of preparation. Rowe and Kahn's theory highlights the importance of social structure in successful aging, and they have underscored more social opportunities for senior citizens. The active aging model of the WHO (2012) also emphasizes the importance of providing more social opportunities for the elderly. The healthy aging model of the WHO (2015) has used the term environment for covering all healthy aging elements in the external world at different levels, including the neighborhood, relations between people as well as policies and social services (61).

When the elderly quit their occupational roles and social communication, a huge gap develops between the elderly class and other active age groups, causing social isolation of the elderly. To prevent this damage in the elderly, the social dimension at this stage of life should be taken seriously, because the interaction between the person and their social environment leads to healthy aging. To this aim, social capacities and social participation should be strengthened at younger ages to prevent social problems.

Aging and transition into aging can be either a satisfactory or unfavorable experience for people. If individuals at younger ages plan and prepare themselves for aging, they will definitely have good aging and will be more competent to cope with the aging challenges.

One of the strong points of this study was its comprehensively; preparation for retirement has been considered as part of the preparation for the elderly. Also, including all quantitative and qualitative studies in this review was another strong point, which made it more feasible to capture the dimensions of preparation for aging.

This study has some limitations that should be considered. First, despite the high efforts of the researchers, some unpublished studies were inevitably omitted due to a lack

of access to their information. Second, only English papers were included. Papers in other languages may have presented other indicators of preparation for the aging. Therefore, it is suggested that further studies also examine non-English papers. Last, the studies conducted on patients were not included in this review. Considering the special needs and challenges of these people, preparation for aging should also be examined in this group.

## Conclusion

The findings of the present study indicated that preparation for aging is a multidimensional concept, which affects each other and is interrelated. Planning for aging requires coverage of all dimensions. To achieve better outcomes, the plans should be made before stepping into aging and during youth and middle age periods. By fully understanding the preparation for aging, effective studies and interventions can be designed and implemented for preparing the middle-aged for aging.

Most of the studies have focused on the financial dimension, while the social dimension of preparation for aging had not been considered in-depth. Nevertheless, individual health is dependent on interaction with the community. This highlights the necessity of planning social participation to promote social relations for achieving a healthier aging period.

It is suggested that to improve the research on preparation for aging, interventional studies are conducted to promote the planning abilities of individuals at younger ages to achieve healthier aging. Considering the ever-increasing growth of the population of the elderly, suitable educational protocols should be designed to get prepared for aging for different age groups, including children and the elderly, in line with the age group. Furthermore, the middle-aged should be empowered before stepping into advanced ages so that they can experience a good aging period.

## Acknowledgement

The review is part of a doctoral research by the second author (R.P.) under the supervision of M.S., with the ethics code of "IR.IUMS.REC.1397.1043", approved by the research and technology deputy of Iran University of Medical Sciences. The authors would like to extend their deepest thanks to all librarians who helped with accessing information resources in Iran University of Medical Sciences.

## Conflict of Interests

The authors declare that they have no competing interests.

## References

1. Mirzaie M, Darabi S. Population aging in Iran and rising health care costs. *Iran J Ageing*. 2017;12(2):156-69.
2. United Nations. Department of Economic and Social Affairs, Population Division (2017). *World Population Ageing 2017 - Highlights (ST/ESA/SER.A/397)*. 2017.
3. Animasahun VJ, Chapman HJ. Psychosocial health challenges of the elderly in Nigeria: a narrative review. *Afri Health Sci*. 2017;17(2):575-83.
4. Azizi A, Sepahvandi MA, Peyda N, Mohamadi J. Effective Approach to the Study of Aging: Grounded Theory Study. *Iran J Ageing*.

- 2016;10(4):88-101.
5. Kornadt AE, Voss P, Rothermund K. Subjective remaining lifetime and concreteness of the future as differential predictors of preparation for age-related changes. *Eur J Ageing*. 2018;15(1):67-76.
  6. Yeung DY, Zhou X. Planning for Retirement: Longitudinal Effect on Retirement Resources and Post-retirement Well-being. *Front Psychol*. 2017;8:1300-.
  7. Noone JH, Stephens C, Alpass FM. Preretirement planning and well-being in later life: A prospective study. *Res Aging*. 2009;31(3):295-317.
  8. Hutteman R, Hennecke M, Orth U, Reitz AK, Specht J. Developmental tasks as a framework to study personality development in adulthood and old age. *Eur J Pers*. 2014;28(3):267-78.
  9. Kleiber DA, Linde BD. The Case for Leisure Education in Preparation for the Retirement Transition. *J Park Recreat Admi*. 2014;32(1).
  10. Kornadt AE, Rothermund K. Preparation for old age in different life domains: Dimensions and age differences. *Int J Behav Dev*. 2014;38(3):228-38.
  11. Hershey DA, Henkens K, Van Dalen HP. Aging and financial planning for retirement: Interdisciplinary influences viewed through a cross-cultural lens. *Int J Aging Hum Dev*. 2010;70(1):1-38.
  12. França LH, Hershey DA. Financial preparation for retirement in Brazil: A cross-cultural test of the interdisciplinary financial planning model. *J Cross Cult Gerontol*. 2018;33(1):43-64.
  13. Morgan LA, Eckert JK. Retirement financial preparation: Implications for policy. *J Aging Soc Policy*. 2004;16(2):19-34.
  14. Anderson M, Li Y, Bechhofer F, McCrone D, Stewart R. Sooner rather than later? Younger and middle-aged adults preparing for retirement. *Ageing Soc*. 2000;20(4):445-66.
  15. Ju YJ, Kim W, Lee SA, Lee JE, Yoon H, Park E-C. Lack of retirement preparation is associated with increased depressive symptoms in the elderly: Findings from the Korean Retirement and Income Panel Study. *J Korean Med Sci*. 2017;32(9):1516-21.
  16. Rattanamongkolgul D, Sritanyarat W, Manderson L. Preparing for aging among older villagers in northeastern Thailand. *Nurs Health Sci*. 2012;14(4):446-51.
  17. Pothisiri W, Quashie NT. Preparations for Old Age and Well-Being in Later Life in Thailand: Gender Matters?. *J Appl Gerontol*. 2018;37(6):783-810.
  18. Palaci F, Jiménez I, Topa G. Economic cognitions among older adults: parental socialization predicts financial planning for retirement. *Front Aging Neurosci*. 2017;9:376.
  19. Segel-Karpas D, Werner P. Perceived financial retirement preparedness and its correlates: A national study in Israel. *Int J Aging Hum Dev*. 2014;79(4):279-301.
  20. Rowe JW, Fulmer T, Fried L. Preparing for better health and health care for an aging population. *JAMA*. 2016;316(16):1643-4.
  21. Chen D, Petrie D, Tang K, Wu D. Retirement saving and mental health in China. *Health Promot Int*. 2018;33(5):801-11.
  22. Moher D, Shamseer L, Clarke M, Ghersi D, Liberati A, Petticrew M, et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Syst Rev*. 2015;4(1):1-.
  23. Pace R, Pluye P, Bartlett G, Macaulay AC, Salsberg J, Jagosh J, et al. Testing the reliability and efficiency of the pilot Mixed Methods Appraisal Tool (MMAT) for systematic mixed studies review. *Int J Nurs Stud*. 2012;49(1):47-53.
  24. Apouey BH. Preparation for old age in France: The roles of preferences and expectations. *J Econ Ageing*. 2018;12:15-23.
  25. Spira M. Mapping your future—a proactive approach to aging. *J Gerontol Soc Work*. 2006;47(1-2):71-87.
  26. Hunter W, Wang W, Worsley A. Retirement planning and expectations of Australian babyboomers: are they ready to retire? *Ann N Y Acad Sci*. 2007;1114(1):267-78.
  27. Blakeley J, Ribeiro V. Are nurses prepared for retirement? *J Nurs Manag*. 2008;16(6):744-52.
  28. Lee WKM, Law KWK. Retirement planning and retirement satisfaction: The need for a national retirement program and policy in Hong Kong. *J Appl Gerontol*. 2004;23(3):212-33.
  29. Noone JH, Stephens C, Alpass F. The process of Retirement Planning Scale (PRePS): Development and validation. *Psychol Assess*. 2010;22(3):520.
  30. Noone J, O'Loughlin K, Kendig H. Australian baby boomers retiring 'early': Understanding the benefits of retirement preparation for involuntary and voluntary retirees. *J Aging Stud*. 2013;27(3):207-17.
  31. Petkoska J, Earl JK. Understanding the influence of demographic and psychological variables on retirement planning. *Psychol Aging*. 2009;24(1):245.
  32. Stawski RS, Hershey DA, Jacobs-Lawson JM. Goal clarity and financial planning activities as determinants of retirement savings contributions. *Int J Aging Hum Dev*. 2007;64(1):13-32.
  33. Chou KL, Yu KM, Chan WS, Wu AM, Zhu AY, Lou VW. Perceived retirement savings adequacy in Hong Kong: An interdisciplinary financial planning model. *Ageing Soc*. 2015;35(8):1565-86.
  34. Muratore AM, Earl JK. Predicting retirement preparation through the design of a new measure. *Aust Psychol*. 2010;45(2):98-111.
  35. Denton MA, Kemp CL, French S, Gafni A, Joshi A, Rosenthal CJ, et al. Reflexive planning for later life. *Can J Aging*. 2004;23(5):S71-S82.
  36. Hira TK, Rock WL, Loibl C. Determinants of retirement planning behaviour and differences by age. *Int J Consum Stud*. 2009;33(3):293-301.
  37. Rosenkoetter MM, Garris JM. Retirement planning, use of time, and psychosocial adjustment. *Issues Ment Health Nurs*. 2001;22(7):703-22.
  38. Schofield D, Fletcher S, Page S, Callander E, Shrestha R. How well prepared are Australian dentists for retirement? A survey of practitioners aged 50 and above. *Int Dent J*. 2010;60(4):285-92.
  39. Hajek A, Lehnert T, Wegener A, Riedel-Heller S, König H-H. Do individuals in old age prepare for the risk of long-term care? Results of a population-based survey in Germany. *Int J Environ Res*. 2018;15(10):2189.
  40. Kopanidis FZ, Robinson LJ, Reid M. State of inertia: psychological preparation of single Australian and UK baby boomer women for retirement housing change. *J Women Aging*. 2014;26(3):280-97.
  41. Kim HJ, Lapierre TA, Chapin R. Grandparents providing care for grandchildren: implications for economic preparation for later life in South Korea. *Ageing Soc*. 2018;38(4):676-99.
  42. Yeung DY. Is pre-retirement planning always good? An exploratory study of retirement adjustment among Hong Kong Chinese retirees. *Ageing Ment Health*. 2013;17(3):386-93.
  43. Palaci F, Jiménez I, Topa G. Too soon to worry? Longitudinal examination of financial planning for retirement among Spanish aged workers. *PloS One*. 2018;13(12):e0209434.
  44. Conrad Glass DKF, J. Retirement needs and preparation of rural middle-aged persons. *Educ Gerontol*. 2000;26(2):109-34.
  45. Kim J, Kwon J, Anderson EA. Factors related to retirement confidence: Retirement preparation and workplace financial education. *J Financial Couns Plan*. 2005;16(2):77-89.
  46. Moorthy MK, Durai T, Chelliah L, Sien CS, Leong LC, Kai NZ, et al. A Study on the retirement planning behaviour of working individuals in Malaysia. *Int J Econ Manag*. 2012;1(2):54.
  47. Principi A, Santini S, Socci M, Smeaton D, Cahill KE, Vegeris S, et al. Retirement plans and active ageing: Perspectives in three countries. *Ageing Soc*. 2018;38(1):56-82.
  48. Topa G, Segura A, Pérez S. Gender differences in retirement planning: a longitudinal study among Spanish Registered Nurses. *J Nurs Manag*. 2018;26(5):587-96.
  49. Earl JK, Bednall TC, Muratore AM. A matter of time: Why some people plan for retirement and others do not. *Work Aging Retire*. 2015;1(2):181-9.
  50. Earl JK. Retirement Planning is more than just accumulating resources. *Eur J Manag*. 2014;14(2):21-36.
  51. Donaldson T, Earl JK, Muratore AM. Extending the integrated model of retirement adjustment: Incorporating mastery and retirement planning. *J Vocat Behav*. 2010;77(2):279-89.
  52. Heraty N, McCarthy J. Unearthing psychological predictors of financial planning for retirement among late career older workers: Do self-perceptions of aging matter? *Work Aging Retire*. 2015;1(3):274-83.
  53. Moen P, Sweet S, Swisher R. Embedded career clocks: The case of retirement planning. *Adv Life Course Res*. 2005;9:237-65.
  54. Li H, Xing Z, Li Y, Wan Z, Sun D, Zhao M, et al. Retirement planning: the perceptions of pre-retirement nurses within different hospitals in China. *Int Nurs Rev*. 2019.
  55. Eismann M, Verbeij T, Henkens K. Older workers' plans for activities in retirement: The role of opportunities, spousal support, and time perception. *Psychol Aging*. 2019;34(5):738-49.
  56. Kornadt AE, Voss P, Rothermund K. Hope for the best, prepare for the worst? Future self-views and preparation for age-related changes. *Psychol Aging*. 2015;30(4):967.
  57. Adams GA, Rau BL. Putting off tomorrow to do what you want today: planning for retirement. *Am Psychol*. 2011;66(3):180.
  58. Disney R, Emmerson C, Wakefield M. Ill health and retirement in

- Britain: A panel data-based analysis. *J Health Econ.* 2006;25(4):621-49.
59. Nam SI, Kim J, Shin J, Yim A. Later-Life Preparation Patterns on Depression Among Korean Baby Boom Generations. *Int J Aging Hum Dev.* 2018;86(2):172-90.
60. WHO. Health BCMo. Healthy Aging through Healthy Living. Towards a comprehensive policy and planning framework for Seniors in B.C. a discussion paper. 2003.
61. Lu W, Pikhart H, Sacker A. Domains and measurements of healthy aging in epidemiological studies: A review. *Gerontologist.* 2018;59(4):e294-e310.