Perspectives on Healthy Aging in Middle Age: a qualitative study

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Abstract
Background: How to deal with the phenomenon of population aging is influenced by the way we on aging. Understanding how middle-aged people perceive healthy aging and what they need to do to stay healthy as they age can help public policy planning to enhance the lifestyles of middle-aged and elderly people. The purpose of this study was to clarify the concept of healthy aging and look at strategies to achieve it from the perspective of middle aged people in Tehran.

Methods: This study was conducted on 21 Iranian middle-aged people aged 45-59 years old with a qualitative approach and content analysis method. Sampling was carried out gradually until data saturation through purposive sampling was achieved.

Results: From the perspective of the participants, healthy aging is being physically healthy, having good mental health, financial welfare, and social support. From the perspective the subjects studied, financial planning for the future, promoting physical health, promoting psychological health, and maintaining and improving relationships are strategies needed to achieve healthy aging.

Discussion: From the point of view of middle-aged people in the studied population healthy aging is affected by the economic status and the role of financial factors on health is specifically emphasized. The effort put in by middle-aged people to prepare for physical, mental, social, spiritual, and financial aspects in life can lead to a better experience when aging. In addition to personal preparation of middle-aged people for their future, given the importance of the financial aspect in Iranian society, support of the public sector is important to create a suitable environment for the aging population.

Keywords: Health, Aging, Middle-Aged, Strategy

Background
Population ageing is a worldwide phenomenon and the key feature of population in the 21st century. Between 2000 and 2050, the proportion of the world’s population aged 60 years and older will double,
from about 11–22%. The absolute number of people aged 60 and older is projected to increase from 900 million in 2015 to 1.4 billion by 2030, to 2.1 billion by 2050, and to 3.2 billion in 2100[1]. The number of elderly people in Iran which was less than 1.2 million in 1956, has increased six fold, reaching more than 7.4 million in 2016[2]

Compared to other countries, the rate of aging in the Iranian population shows that although the aging process of the Iranian population began with a delay compared to developed countries, due to the population explosion of the 1980s and the dramatic decline in fertility rates in the following decade, it has experienced an extremely rapid growth in population aging and will be one of the fastest aging countries in the world. This aging population growth process will require special planning and management in the future[3].

Healthy aging is defined as a lifelong process of optimizing opportunities for improving and maintaining the health, physical, social and mental well-being, independence, quality of life, and enhancement of a successful life transition [4]. Healthy aging is a multidimensional concept that includes social, mental, and physical dimensions. Physical function, social support, and behaviors including smoking, alcohol, and diet can all contribute to achieving a healthy elderly population [5]. The need to take measures with focus on new evidence-based policies and strategies for healthy aging is one of the priorities being discussed in drafting the WHO's thirteenth work program for the years 2019–2023 to prepare for the “2020–2030 Healthy Aging decade”. This requires time and effort, and thanks to the strong international support of “Healthy Aging” it was addressed in the WHO program with the statement of “Ensuring healthy aging is an emergency challenge for all states” and the main goal of public health is “not only long life but healthy life”[6].

Healthy aging promotion provides more opportunities for older people in the community to play an important role in society and enjoy independence and a good life. It is never too late to change risky behaviors for health promotion. Understanding how middle-aged people understand health, as well as their feelings on the aging process and what they need to do to stay healthy, can help plan public policies to promote lifestyle in middle-aged people and the elderly [7].

Healthy aging is not only influenced by physiological, psychological and environmental factors but
also by culture. Because culture influences people's thoughts, beliefs, decisions, activities, and behaviors, the way people perceive the concept of healthy aging and its components vary from culture to culture [8].

Most studies in the past about the concept of healthy aging focused on the standpoint of the elderly [9-15]. Furthermore, aging perspectives are increasingly associated with actual experiences in adulthood [16]. How we deal with the aging phenomenon of the population is influenced by the way we look on aging [17]. Given the rapid increase of the aging population in Iran and the cultural and religious context of the country, knowing the views and opinions of middle-aged people as the future elderly about healthy aging can really help promote healthy aging. Therefore, the present study was conducted to explain healthy aging, and strategies to achieve it from the perspective of middle-aged people in Tehran.

Methods
Study design
Content analysis of semi-structured guided interviews using targeted probes was used to provide insight into participants’ Perspective of healthy aging and strategies to achieve it from the middle-aged perspective of Tehran.

Participant Selection
A purposive sampling technique was used. In this study, participants were selected based on purposive sampling from parks and workplaces of middle-aged people in Tehran.

Participants in this study were middle-aged people who were able to express their views and feelings about healthy aging, were in a healthy community, and were 30–60 years old according to the World Health Organization (2014) definition. In order to select the participants with the most diversity, middle aged people with different conditions were selected in terms of age, sex, level of education, occupation, marital status, place of residence, socio-economic and cultural status. So that single and married men and women, people in employment, homemakers and the retired were included in the study. Sampling was performed until saturation of the concept of healthy aging in middle-aged was achieved.

Study Participants
This study draws from interviews with 10 women and 11 men; the participants ranged in age from 45 to 59, around 76% of the sample were married, 2% of them were widowed, 10% were divorced and 10% were single. Close to 21% of the participants were illiterate, 31% had primary and secondary education, 28% had high school education, and 20% had a diploma and higher education. the majority (74%) were in employment, 12% were retired, and the rest of them were homemakers.

Data Collection
In order to collect information, the interviews were conducted in their parks and workplaces. In-depth semi-structured interviews were conducted individually and face-to-face. The main research questions were “What is the concept of healthy aging in your opinion? And how is healthy aging to be achieved.” During each interview follow-up questions were also used to clarify the concepts. Interviews lasted approximately forty minutes each. Interviews were audio recorded and then transcribed verbatim manually.

Analysis
Content analysis was used in the qualitative data analysis. The data collected was managed by coding and sorting into categories and themes[18]. Coding of conversational groups and semantic units was done first by the first author. Two authors independently read the data line by line and analyzed participants' answer codes for each question. The codes were then grouped into categories. The subcategories that emerged were also weaved together to explain each category. Finally, the main groups that reveal the meanings of participants' views were divided into two general categories, describing healthy aging and strategies for achieving it in middle-aged people. In the data analysis process, codes, categories, and themes were compared. In cases of disagreement, decisions were clear, and discussions continued until consensus was reached.

Trustworthiness
To determine the trustworthiness of the data, four criteria were used[18]. The credibility of the data was demonstrated through close interaction with participants, long involvement in the field, and notes in the field. Control by the participants and experts (as well as four professors) were also used as a technique to ensure credibility of the analysis. In order to ensure the conformability of the data, comments and assumptions were controlled to prevent their effect on data analysis and
interpretation.
By providing a detailed description of the participants, the research process, the measures taken, and the research limitations, it was attempted to ensure the transferability of the research findings. The research dependability was obtained using similar results between the researcher and two experts involved in the data analysis process.

Results
The results of this study were divided into two general themes: The view of the middle-aged with respect to healthy aging and the strategies to achieve it.

1. The view of the middle-aged to aging
Elderly interviewees provided various views on healthy aging but four main themes were obtained: having good physical and mental health, having financial well-being, having social support. The themes are interlinked and explain the middle-aged peoples’ view of aging.

1–1 Having Good Physical Health:
The most common health dimension is physical health, which can be more easily evaluated than other aspects of health. In the present study, participants reported being in good physical health having no chronic illnesses and functional independence as one of the first signs of healthy aging.

1-1-1. Lack of chronic disease
Aging is also a period when the elderly are exposed to potential threats such as increased risk of chronic diseases. Many middle-aged people also considered the absence of chronic disease as healthy aging, as one participant said

“Being healthy means getting old and not having a disease, for example, not having hypertension, not being fat or suffering from diabetes. or very dangerous diseases such as cancer which can be seen, but I look around and most of them have various diseases ...” (46 years old woman).

1-1-2. Functional independence
With the increase in age in the aging period, due to functional impairments, one's dependence on others for carrying out daily tasks increases. In this regard, participants in this study stated that being independent and being able to see to one’s daily affairs and routine activities is an essential part of healthy aging. As one of the middle-aged women said
“A healthy elderly person is one that can afford to look after themselves and does not need the help of others.; can see to her own things and be healthy as it’ is hard to get old and need the help of your child ...” (52 years old woman)

1–2. Having Good Mental Health:
The mental health of the elderly is as important as their physical health and has a significant effect on the health of the individual and society. Having good mental health from the point of view of the middle-aged person falls into two categories of lack of mental discomfort and enjoyment of life.
1-2-1. Lack of mental discomfort
From a middle-aged outlook, the lack of psychological problems such as depression, anxiety, and stress about life in old age indicates that this period is healthy as these problems are seen in most elderly people and can endanger one’s health in old age.
“A healthy elderly person is one who has a healthy spirit, and is not depressed. Depression itself brings sickness. When there is no anxiety and stress, well, elderly people are healthier” (48 years old woman).
1-2-2. Enjoying life
From a middle-aged perspective, a healthy elderly person is one who enjoys life and is happy. The elderly people do not seem to be satisfied with their lives and old age in general and do not enjoy a good life. In this regard a middle-aged person stated that
“A healthy old man is someone who, although aged, is happy inside and is not sad and is still able to chat, laugh, and have fun ...... In fact, aging is a chance to enjoy life” (56 years old man).

1–3. Having Financial Well-being:
One of the biggest misfortunes facing the elderly, and perhaps the most important is poverty. From the perspective of the middle-aged participants in this study, having enough money and wealth is a sign of health and an important factor for health in old age. Middle-aged people consider capitalists as healthy and stated that having money is a basic need for one to be healthy. This concept consists of two sub-categories of having sufficient financial resources and having financial independence.
1-3-1. Having adequate financial resources
Elderly people with adequate capital and savings during t old age are certainly less likely to have
financial problems and better healthcare. Here is an example of a quote from participants in this regard

“For elderly people to be healthy they need money, they need capital and savings; if you have money, everyone’s around you. When you have money, you have mental peace as well as a healthy body” (53 years old man).

1-3-2. Having financial independence
Middle-aged people believe that those who work and have financial independence have a healthier life in old age. One participant stated

“An elderly person who makes a living and has an income and has no financial need of anyone is certainly healthier and has good spirits. I see some old men walking in the park aimlessly..........”

(50 years old woman)

1–4. Having Social Support:
Social support plays a very important role in maintaining the health of the elderly in such a way that those with higher social support have a better health status. In the present study, social support was expressed in the form of emotional support from the family as well as instrumental support from those around the health components of aging.

1-4-1. Emotional Support
Aging can become difficult time for some people due to illness and families can help ease many of these problems by providing a loving and nurturing environment at home. The example that follows is from a middle-aged man;

“You know it's good to be old when you’re healthy, not physically, but because of one’s family support as it is the most important factor; to have a warm and affectionate family, considerate and loving”

(55 years old man).

1-4-2. Instrumental support
Elderly people need the support of those around them. Participants stated that being alone in adversity reduces the health of the elderly. In this regard one middle-aged person commented

“Health means not be alone during hardships in life when you get old; there is always someone to help or visit you every now and then ...” (55 years old woman)
2. Strategies for achieving healthy aging:
Many common problems in old age can be prevented. Appropriate solutions must be taken before reaching old age to ensure good health. Participants have identified several strategies for achieving healthy aging that are generally broken down into 5 sections: Future financial planning, promoting physical health, promoting psychological health, maintaining and improving communication are essential strategies for achieving healthy aging from the perspective of the middle-aged.

2 – 1. Financial Planning For The Future
Participants place greater emphasis on economic factors and believe that “everything depends on money, even health, depends on money”. Wealth is the most important provider of healthy aging. Participants believe that having money is a prerequisite for health, and not having money is the biggest obstacle to good health and healthy aging. Financial planning and forecasting financial needs for the future are essential for healthy aging. To have healthy aging, you need to save money and invest wisely beforehand.

2-1-1. Savings
Middle-aged people believe that for aging to be an opportunity to rest, one must think about earning money and save for one’s old age. One middle-aged man’s opinion about saving for old age is as follows

“Work while you are young and save money so that you have saved up enough for your old age and do not need anyone because you cannot always work and will not always be strong and young and have to have a source of income and capital...” (45 years old man).

2-1-2. Employment
Middle-aged participants in the study cited having a job and a steady income will help to improve the quality of life in old age and put one’s mind at rest. The following example reinforces this

“If you don’t have an income, you won’t have a good life, and you may not remain healthy, which will reduce your quality of life; many are looking for a job to make a living, if you have a good job, you’ll have financial independence, motivation and goals....” (49 years old woman).

2 – 2. Physical Health Promotion
To have healthy aging the most important and most basic aspect of health is promoting physical
health. Middle-aged people in the present study stated that those who had more physical activity and a healthier nutritious diet when younger would certainly experience a healthy aging.

2-2-1. Healthy nutrition
Physical development and health are directly linked to healthy nutrition. Obviously, aging cannot be prevented, but it is possible to maintain good physical and mental health when aging by adhering to the principles of proper nutrition throughout life. One of these views is as follows
A 50 years old woman commented: “Someone who is well fed from youth, although it may not be luxurious food but good enough, and consistent, nutritious, when they get old, will be healthier than others” (58 years old man).

2-2-2. Exercise
Middle-aged people believe that exercise has been a part of some elderly peoples’ lives from their youth; they’ve kept their bodies active and healthy. The views of the participants are as follows
“Exercise should be a priority in life for sure. There is no need for heavy exercise light exercise like walking is very effective for the health of the elderly.” (47 year old woman).

2–3. Promoting Psychological Health
One of the most important issues faced by the elderly is psychological health problems, so paying attention to these issues before reaching told age and preventing the damage caused by them is important. From a middle-aged perspective, promoting mental health through kindness, positive thinking, happiness, and spiritual connection are effective strategies for health in aging:

2-3-1. Kindness
One of the most important consequences of being kind and spreading kindness in the society is the effect it has on the overall health of the body in individuals. As one participant stated
“Be kind to other human beings because we believe that the more kindness we show to other creatures, human or animals, and the more we live together in peace and friendship, the greater it will affect our own mental health” (50 years old man).

2-3-2. Positive Thinking
Positive thinking leads to a healthier lifestyle. Middle-aged people said that it is easier to solve problems and to endure problems when viewed with a positive outlook. You have to think about good
things. A middle-aged man's point of view on this

“If we strengthen our imagination and positive thinking as capable human beings and experience the positive aspects of our life in the universe, we must also realize that we must remain healthy, sound, energetic …” (47 years old man).

2-3-3. Happiness
Happiness is one of the positive emotions that is in opposition to negative emotions such as depression, anxiety and despair. In fact, happiness can play a protective role against mental health problems that are a particular challenge for the elderly; for example, a 56 years old man stated People must be happy and care for themselves. The more a man cares for himself and is happy, the better he feels. It’s very good to be happy, it’s very effective. Those who live happily, live longer.

2-3-4. Spiritual relationship
Faith in God gives peace to man, and when he has peace it will be easier to accept truths. Participants also believe that spirituality and religious practices can play a protective role against aging problems and challenges. One participant stated

“Belief in God is very important to a person. He must believe that aging is not the end and death is not the end of life. Aging is a good opportunity for self-knowledge and ultimately knowing God.”

(56 years old woman).

2–4. Maintaining And Expanding Communications
From the perspective of middle-aged people in the study, communicating with others and not being alone are effective in promoting healthy aging. Communication with those around in aging can lead to good mental health and, in some cases, improve physical health, so maintaining and expanding relationships are of the essential strategies for achieving healthy aging.

2-4-1. Having a companion and not being alone
Middle-aged people believe that being alone and not having a partner and spouse will be a big problem in their old age, and in this regard a bachelor stated

“In old age, you should be accompanied by your loved one a, your companion and not be alone, being alone makes a man feel depressed and not care about his health, neither his mental health, nor his physical health. If one is mentally healthy, their body will be healthy.” (48 years old man).

2-4-2Keeping people satisfied: Participants believed that we should not push others away from us, as
having relationships and maintaining them with those around during aging is effective on health. Keeping people satisfied by being kind to them and helping others can be a supporting factor for healthy aging. A 59 years old woman says: “If you are kind, everyone will want to stay with you, but if you are sharp and bother others, when you get old, everyone will leave you....”

Discussion
The present study was conducted to explain the middle-aged view of healthy aging and strategies to achieve it. From the perspective of the middle-aged participants, healthy aging is reaching a state of having physical health, mental health, financial well-being, and social support. Strategies for achieving healthy aging reported from the perspective of middle-aged people are financial planning for the future, promoting physical health, promoting psychological health, and maintaining and improving communication in aging. The findings showed that healthy aging is more than a health dimension. In fact, from the perspective of middle-aged people, healthy aging, in addition to the physical, mental and social aspects, also includes financial and spiritual dimensions.

A review of healthy aging from an elderly perspective by Tavares showed that healthy aging includes biological, psychological, spiritual and social dimensions (in factors of social support and capacity for independent life [19].

Therefore, healthy aging from the perspective of middle aged people in the present study corresponds to the perspective of the elderly in studies in all dimensions, except for the financial aspect that has been emphasized in the present study in the Iranian middle-aged community. In fact, middle-aged people in the present study also agree that having money and possessing wealth as a key aspect of healthy aging. Given the economic status of the country in recent years and the financial pressure on different segments of society, especially the elderly, it is clear that these factors have influenced middle age's perspective on healthy aging.

Lack of chronic illness is another dimension that, from the middle-age perspective, is one of the prominent definitions of healthy aging. In a qualitative study by Thanakwang, from the perspective of elderly Thai people, the lack of serious chronic illness is the first definition of healthy aging [8]. Tin-uans study also reported the lack of chronic disease from healthy aging indicators [20].
For middle aged people, functional independence is essential for aging health in the present study. Functional independence in the ability to perform daily activities and has been examined in various studies [21–23]. Functional independence indicates good physical health and healthy aging [8]. Decrease in performance in old age can be prevented, and by adopting a healthy lifestyle, the elderly can achieve independence.

Another dimension in this study is having good mental health, which among the middle-aged subjects under study indicates that they were not depressed, not unhappy, and enjoy life. Old age is a period that would be highly desirable and enjoyable if it is of good quality. A positive psycho-emotional perspective is an essential part of having healthy aging and can be considered an optimistic perspective in both the mental and emotional aspects [8].

Social support dimension from a middle-aged perspective on healthy aging is related to emotional attachment, especially from the family, and is also stated as important in instrumental support in this period. In studies by Waites [24] and Stephens [25], family relationships especially good family relationships are identified as elements of healthy aging. Social support in aging reduces everyday problems and can promote physical and mental health, and can be effective as a support for health measures and social support in enhancing one's happiness, self-esteem, and self-confidence [19]. In the Chong study in China, support from family and friends was found to be positive from the perspective of the middle-aged and elderly [22]. In Iran, the main support for the elderly comes from the family. Given the rich Islamic and Iranian culture, the role of the institution of family remains unbeaten and should be strengthened. Families can help ease many of the problems the elderly face by providing a loving, nurturing home environment.

Concerning the strategies of achieving healthy aging from the perspective of middle age in the present study, it was found that their viewpoints are closely related to the economic status of society. The middle-aged people in the present study emphasized the importance of money and wealth on healthy aging. A review of the dimensions of healthy aging shows that people in higher socioeconomic groups are more likely to have illness in old age [26]. Saving or using financial resources carefully to maintain financial security is one of the factors influencing positive aging in the perspective of
Chinese elderly and middle-aged people [22]. The middle aged people under study emphasized the importance of financial planning for aging to have healthy aging. To achieve this, having savings and being in employment afrom a young age and before reaching retirement age must be part of a person's financial planning for the future.

Employment from a middle-aged perspective is a motivating factor in aging to improve the quality of life and health of individuals. Retirement comes with aging. Retirement can have a positive effect on people's health, for example by reducing stress and increasing enjoyment of life. But it can also have a negative effect, for example, by feeling one has no purpose and the reduction in social interactions [27]. In this study, retirement is a negative factor for elderly health, which highlights the importance of Iranian old people working to have good health.

Improving physical health is another effective strategy for achieving healthy aging from a middle-aged perspective, which is one of the most effective items in this area, that of exercise and healthy nutrition. From the perspective of Chinese middle-aged and elderly people in the Chong study, effective factors for positive aging include adopting a healthy lifestyle with a healthy diet and regular exercise [22]. Studies show that people who have more exercise and eat healthier are more likely to have a healthy aging [26, 28]. These findings confirm the importance of physical health promotion factors from the perspective of the middle-aged in the present study.

Promoting psychological health was another strategy for achieving healthy aging from the perspective of study participants, including kindness, positive attitude, happiness, and a spiritual relationship. Unfortunately, most people who reach old age have problems including depression and anxiety [29]. In order to have healthy aging, these harmful conditions must be prevented and appropriate strategies must be adopted to promote psychological health sooner, and the earlier ait is possible, the better the results will be. A review of healthy aging studies has shown that having a positive attitude is one of the characteristics of healthy aging [26]. Kindness is one of the factors that can help promote health in aging, which has been addressed in this study, and perhaps only because of the cultural fabric of Iranian society that consider kindness to be one of the highest human values.

One of the consequences of aging is the reduction in happiness. The World Health Organization places
a great emphasis on happiness as a component of health [30].

In the present study, promoting spirituality and indeed the discussion of religiosity and beliefs, from the perspective of middle aged people is one of the psychological strategies to achieve healthy aging. Various studies have highlighted the importance of spirituality as having faith in God and spirituality has a supportive role in life's challenges and problems [19]. Other studies in Iran, [21] [31], show that spiritual health in Iranian elderly people is one of the main dimensions of health in the aging period which is related to the religious beliefs of the elderly and also Iranian elderly people view spirituality as an important part of their lives and have expressed their relationship with God and prayer as facilitating peace of mind and problem solving.

Maintaining and expanding relationships so as not to be alone, especially with a spouse, and attracting satisfaction of others are other factors that have been found to be important for healthy aging in this study. Loneliness is a common problem and a negative experience for the elderly. Researches have shown that the elderly will have better physical and psychological performance if they do not feel alone [32]. the maintaining of relationships with family and friends among the elderly was shown to be important; the elderly are actually community dependent [8].

The present study deals with healthy aging from the perspective of Eastern and Islamic societies in a developing country and differs from the western context. In fact, the participants in this study defined healthy aging according to their experiences and living conditions. Also, the middle-aged participants in this study were healthy and had no serious disability or illness, therefore it would not be possible to extend this study to all middle-aged Iranians.

**Conclusion**

The present study showed that healthy aging as a multidimensional concept includes physical, mental, emotional, spiritual, economic and social aspects. The definition of healthy aging in the study population is influenced by economic status and special emphasis is placed on the role of financial factors on health. The spiritual dimension is one of the dimensions that is influenced by religious and Islamic beliefs of Iran. In the present study, the concepts and definitions of healthy aging have been subjective discussions that are derived from the imagination of the middle-aged towards the elderly.
Providing old age people with a positive and future-oriented concept by health care providers, clearly eliminates negative stereotypes about aging and stimulates people's interest in the aging process and the tendency to plan for the future. Middle-aged people's striving to prepare for all aspects of physical, mental, social, spiritual, and financial dimensions can lead to a better experience of aging. In addition to the personal preparation of middle-aged people, given the importance of the financial dimension in the community under study, support from the public sector is important to provide an appropriate context for the aging population.

Abbreviations
WHO
World Health Organization
IUMS
Iran University of Medical Sciences

Declarations
Ethical approval
This study is part of doctoral research by the second author (RP) under the supervision of MS, with the ethics code of "IR.IUMS.REC.1397.1043", approved by the research and technology Deputy of Iran University of medical sciences. All persons who participated in the research gave their informed consent prior to their inclusion in the study.

Competing interests
The authors declare that they have no competing interests.

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Contributions
MS, RP and NZ designed the study; RP performed and analysed the interviews; MS, RP and NZ discussed the analysis; RP and NZ drafted the article; all authors revised it critically and all authors read and approved the last version.

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