Striving for Being in the Line of Life: Personal Active Ageing Strategies in Iranian Seniors

fatemeh raeesi dehkordi  
*Lorestan university of medical science*, sabadehkordi@gmail.com

Ahmad Ali Eslami  
*Isfahan university of medical science*, eslamiaa@gmail.com

Fereshteh Zamani Alavijeh  
*Isfahan University of Medical Sciences*, fe.zamani@gmail.com

Hossein Matlabi  
*Tabriz University of Medical Sciences*, hm1349@gmail.com

Mehdi Nakhodaezadeh  
*University of Social Welfare and Rehabilitation Sciences*, Nakhodaezadehm@gmail.com

Follow this and additional works at: [https://nsuworks.nova.edu/tqr](https://nsuworks.nova.edu/tqr)

Part of the Gerontology Commons, and the Quantitative, Qualitative, Comparative, and Historical Methodologies Commons

**Recommended APA Citation**  

This Article is brought to you for free and open access by the The Qualitative Report at NSUWorks. It has been accepted for inclusion in The Qualitative Report by an authorized administrator of NSUWorks. For more information, please contact nsuworks@nova.edu.
Striving for Being in the Line of Life: Personal Active Ageing Strategies in Iranian Seniors

Abstract
Active ageing is a multidimensional, relative, and context-dependent concept with different paths and outcomes. This qualitative study aimed to explore personal active aging strategies in a specific context. Following a directed thematic analysis procedure, we conducted semi-structured individual interviews with 39 seniors (men and women) between the ages of 60-97 years selected with purposeful sampling, data collection and analysis were concurrent. We used directed content analysis to analyze the data from interviews, written narratives, and field notes. The reliability of data was fulfilled following Lincoln and Guba criteria. We stopped data collection when no new concepts were added, and data saturation occurred. Based on the experience of seniors, we identified four categories: (a) Reventive, (b) Coping, (c) Internal Self-Control, and (d) Opportunity Exploiting Strategies. These described the active aging strategies when encountering age-related change. Utilizing these strategies, the senior accompanied the lifetime. The finding suggests that active aging is a continuous process in confronting age-related change. The identified strategies can help promote active aging by familiarizing the elderly with opportunities of life and training them in how to use these strategies.

Keywords
strategy, active aging, elderly, thematic analysis

Creative Commons License
This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 4.0 International License.

Acknowledgements
We thank all individuals who participated in this research.

This article is available in The Qualitative Report: https://nsuworks.nova.edu/tqr/vol28/iss6/7
Striving for Being in the Line of Life: Personal Active Ageing Strategies in Iranian Seniors

Fatemeh Raeesi Dehkordi1, Ahmad Ali Eslami2, Fereshteh Zamani Alavijeh2, Hossein Matlabi3,4, and Mehdi Nakhodaezadeh5
1Lorestan University of Medical Science, Lorestan, Iran
2Isfahan University of Medical Science, Isfahan, Iran
3Research Center for Integrative Medicine in Aging, Aging Research Institute, Tabriz University of Medical Sciences, Tabriz, Iran
4Department of Geriatric Health, Faculty of Health Sciences, Tabriz University of Medical Sciences, Tabriz, Iran
5Shahrekord University of Medical Sciences, Tehran, Iran

Active ageing is a multidimensional, relative, and context-dependent concept with different paths and outcomes. This qualitative study aimed to explore personal active aging strategies in a specific context. Following a directed thematic analysis procedure, we conducted semi-structured individual interviews with 39 seniors (men and women) between the ages of 60-97 years selected with purposeful sampling, data collection and analysis were concurrent. We used directed content analysis to analyze the data from interviews, written narratives, and field notes. The reliability of data was fulfilled following Lincoln and Guba criteria. We stopped data collection when no new concepts were added, and data saturation occurred. Based on the experience of seniors, we identified four categories: (a) Reventive, (b) Coping, (c) Internal Self-Control, and (d) Opportunity Exploiting Strategies. These described the active aging strategies when encountering age-related change. Utilizing these strategies, the senior accompanied the lifetime. The finding suggests that active aging is a continuous process in confronting age-related change. The identified strategies can help promote active aging by familiarizing the elderly with opportunities of life and training them in how to use these strategies.

Keywords: strategy, active aging, elderly, thematic analysis

Introduction

“Aging” is not only a population phenomenon but also an individual experience (Fernández-Ballesteros et al., 2013) with biological, cultural, psychological, and spiritual dimensions (Cunti & Bellantonio, 2018). In addition to age and genes, the interaction of environmental and social conditions and individual and behavioral factors affects “aging.” It is not a random phenomenon (Fernández-Ballesteros et al., 2013). According to a prediction by the World Health Organization, “older” adults can expect to live an average of 0.9 and 0.8 years per decade longer, respectively; this indicates the growth of the aging population in recent years. However, aging was regarded as a stage of dependence in the past, being a burden, wasting time, and waiting for death. Nevertheless, in the 21st-century paradigm, a shift in the conceptualization of aging occurred, which introduced aging as a purposeful stage with an opportunity for maturity and development (Molina-Luque et al., 2022) Accordingly, older
adults are regarded as treasures considering their experiences and knowledge, despite losing their physical capabilities (Buys & Miller, 2006). A key question in countries with a growing population of older adults is how some older people, unlike their peers, continue their daily activities. How does an older adult live independently and manage his/her life while a younger one is not even capable of taking care of his/her personal life (Marcum, 2013)?

To answer this question, in recent years, new concepts with a standard message have emerged and provided a positive perspective on aging. Among these concepts, active aging is a more comprehensive (Walker, 2002), multi-dimensional, and relative concept encompassing the concepts of productive aging (social payment and welfare state) and healthy aging (staying healthy in the final years of life by practicing healthy habits; Katz, 2013). Active aging entails continued participation in social, cultural, religious, and economic contexts. This term is based on social gerontology and Activity Theory (Victor, 2004). Various definitions for active aging have been offered so far. D’Souza has defined active aging as seniors' efforts to control potential resources for themselves and their society’s development (Moulaert & Paris, 2013). Moreover, (Kalache, 1999) has defined active aging as optimizing opportunities for physical, mental, and social well-being to promote a healthy life span expectancy (Del Barrio et al., 2018). In addition to emphasizing the importance of cultural context and the norms related to where a person lives, World Health Organization expanded on earlier definitions and defined active aging as the process of optimizing opportunities for health, participation, and security (based on a life-long approach(Organization, 2002). Active aging puts more emphasis on social aging (years of life) rather than “population” aging (Zaidi & Howse, 2017) and seeks to promote the concept of "adding life to years." This enables people to remain functional and active for many years if needed and be more productive and healthier in retirement (Walker, 2002). Active aging leads strategic programs from a needs-based approach (an older adult is considered inactive) toward a rights-based approach (Cox & Pardasani, 2017). The concept of active aging is still vague since the meaning of the term "active" varies in different societies, and most of the existing models have been developed based on a western perspective (Thanakwang et al., 2014). A biomedical range characterizes active aging: an extended life span, physical health (Hirai et al., 2012; van Dyk & Turner, 2010), lack of dependence (Jumadi et al., 2019), social participation (Formosa, 2019b), maintaining cognitive functions and stress management (Fernández-Ballesteros et al., 2012) to care of grandchildren (Nantsupawat et al., 2010), participation in the labor force (Foster, 2018), life satisfaction (Wu et al., 2018) also life-long learning(Costa et al., 2018). Hence, studies have repeatedly reported the need for a scientific definition of active aging and a culture-based model (UdO, 2016). Based on the 2016 demographic census results, aged people constituted about 9.3% of Iran's population, most of whom were women. Only 46% were literate, 27% lived without their spouses (46% of women and 9% of men), and one-fourth were employed (Afshar et al., 2016).

Most Iranian seniors were not financially independent enough to improve their life. It was predicted that by 2050, about a quarter of Iran’s population would be seniors (Mehri et al., 2019) and bearing “the highest burden of chronic diseases” such as cancer and cardiovascular diseases. This will impose many negative burdens on the health care system (Asrani et al., 2018). Iran's cultural context differs from other countries, and most of its people are Muslims (Ahmadi et al., 2018). Among Islam and the Iranian culture, aging parents is known as potential growth and development (Nakhodaezadeh et al., 2017).

The researchers believe that the needs and concerns of Iranian seniors for active aging are unknown and western models cannot explain active aging strategies in Iranian older adults (Dorri et al., 2019; Mohammadi et al., 2018; Speziale et al., 2011). On the other hand, active aging is subjective and depends on individuals' presuppositions and inner experiences (Mohammadi et al., 2018). Seniors tend to live independently and protect their privacy with or without minimum intervention from others (Illario et al., 2016). Various studies emphasized...
personal independence, management of life, and participation in society (Rantanen et al., 2018).

This article is part of a more extensive study that describes the concept of active aging among Iranian seniors using a thematic analysis procedure. We report on one of the main themes, striving for being in the line of life that showed seniors' strategies for active aging. The researcher involved in this study, F. Raeesi Dehkordi, Ph.D., is an Assistant Professor in the Department of Public Health in the Faculty of Health and Nutrition at Lorestan University of Medical Sciences, Khorramabad, Iran. Her areas of research include education, gerontology, and qualitative studies. For years, the researchers working and the relationship with the seniors from the active to the inactive spectrum arose in the researchers mind as to why some of the seniors remain active, and others do not?

Moreover, a greater understanding of the strategies the seniors applied in the Iranian context would help program administrators implement policies to improve active aging. Additionally, the findings would have important implications for the health professionals' development programs. Building on the above discussion, the present study was conducted to answer the following primary research question: clarifying active aging strategies among Iranian seniors.

**Method**

**Study Design**

Qualitative research is considered an appropriate method for giving voice to marginalized groups. All have argued that qualitative methods are beneficial for researching issues such as active aging. A review of studies has shown that little research has been done about active aging strategies in developing countries, and the experiences of Asian elders are different from those of Europeans who have different cultural backgrounds (Au et al., 2021).

This paper reports on the findings of qualitative, semi-structured interviews conducted with Iranian participants.

This qualitative study addressed the following questions: what does the lived experience of active aging strategies from the perspective of an older adult? Focusing on individual experience, thematic analysis was used to explore older people has lived experiences and perspectives.

Thematic analysis was chosen as appropriate because it is commonly used for describing, analyzing, and reporting themes and patterns in data (Braun, 2006). The flexibility of thematic analysis allows the data to be analyzed under several qualitative frameworks (Strauss & Corbin, 1998). Data collection and thematic analysis procedures were concurrent to identify new and emerging themes. As interviews progressed, the responses to the questions given in earlier interviews informed new questions in future interviews (Braun & Clarke, 2006; Pandey, 2019)

**Participants**

The main participants were the community-dwelling aged 60 living in Isfahan (the third-largest city in Iran). Seniors choose based on the UN criteria, and that aging in Iran begins five years earlier compared with advanced countries (Kowal & Dowd, 2001). These participants were selected purposively from three aging groups: young-old (60-74 years), old (75-90 year), and old-old (+90 years) based on Brunner and Suddarth's classification (Hinkle & Cheever, 2018). Based on the principle of maximum variation in sampling (Bonsu et al., 2019)
Participants came from a heterogeneous group with different experiences and perspectives (occupations, marital statuses, number of children, and different settings: retirement homes, physicians' offices, city parks, older adults' workplaces, health centers, and mosques). We arranged the interviews according to participant preferences: their homes, parks, mosques, etc. In total, 39 participants, aged 60-97 years, who volunteered, consented, and had below inclusion criteria participated in the study: (1) able to speak Farsi, (2) Good cognitive function and obtaining a score of seven or higher on the Persian version of the Abbreviated Mental Test (AMT; Bastani & Beigi Boroujeni, 2019; Piotrowicz et al., 2019), (3) Completing a written informed consent form, including audiotaping and transcription of the interview. No identifying information was included in the analysis or presentation of the findings. Signed consent forms were kept separately from the audio files and transcripts to ensure confidentiality was always maintained.

**Instruments**

**Interview**

A semi-structured interview protocol was prepared to know the perceptions of the seniors about active aging. The researcher created open-ended questions, based on the literature (Thanakwang, 2014), and in consultation with professionals who work with older adults, targeted active aging. The interview items were prepared in Persian (i.e., the native language of the participants) to prevent any possible language hindrances.

**Data Collection**

In this study, data were collected from February to June 2020. To collect data for the present study, the researchers developed a semi-structured interview protocol that addressed salient aspects of the active aging strategies. Our in-depth interviews were conducted in February 2018 and March 2019.

We interviewed Persian face-to-face, semi-structured with the open-ended question during each interview. We started with general and primary questions, including Please tell me about your life? Tell me about your one day/week? During the interview, we asked additional questions, when needed, for exploring the ideas expressed by the participants "What do you do to be active? According to the participant's willingness, the interview lasted an average of 85 minutes in length (30 to 140 minutes) and ended when participants became fatigued. The interviews, which were conducted and audio-recorded by the researchers, were transcribed verbatim.

The “Interviews” were recorded using a Lander LD-71F voice recorder. Written field notes and memos were included in the analysis (Mihas, 2019). Audio recordings were destroyed prior to April 1, 2019.

**Data Analysis**

Thematic analysis was done by the first author (FRD) to analyze the interview data and the senior' descriptive statement. Therefore, Thematic Analysis (TA) procedures were adopted to identify concepts, categories, and themes from the gathered data (Terry et al., 2017). The researcher has clearly defined and named themes and the sub-themes. We organized the transcripts of all the interviews and followed an iterative coding process to develop codes at three levels: codes, categories, and themes. First, the authors coded the data individually and
shared their codes. We continued this iterative process until a consensus arrived across authors regarding the codes generated.

The initial codes were intricately linked to the data; for example, “Exercise can preserve something of our early strength even in old age,” “A good walk will do more good for an old people than all the medicine and pharma in the world,” etc., in subsequent levels of coding, we linked the first level of code to second-level categories. For example, the codes mentioned above were connected to the second-order category, “physical activity.” We then organized the group of second-order categories to the themes that emerged. For example, three second order categories (i.e., “physical activity,” “healthy eating habits,” “avoiding tobacco and addictive substances use,” and “monitoring their health”) were grouped to preventative self-care. By adopting a healthy lifestyle and monitoring their health, the seniors cared for their health. The seniors became concerned about their self-care, their independence and social health. Subtheme “preventative self-care” along with “Independence seeking” and Independence seeking were grouped to theme preventive strategies. We have listed the first order codes, second categories and themes in Table 2.

The thematic analysis conducted in this study used the following steps:

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventive strategy</td>
<td>1- Preventative self-care 1- Physical Activity</td>
</tr>
<tr>
<td></td>
<td>2- Healthy Eating Habits 2- Avoiding tobacco and addictive substances use</td>
</tr>
<tr>
<td></td>
<td>3- Monitoring their health</td>
</tr>
<tr>
<td></td>
<td>2- Positive interaction with others</td>
</tr>
<tr>
<td></td>
<td>3- Independence seeking</td>
</tr>
<tr>
<td>Coping strategy</td>
<td>1- Ceasing or modifying previous behaviors</td>
</tr>
<tr>
<td></td>
<td>2- Adjusting living environment</td>
</tr>
<tr>
<td></td>
<td>3- Using assistive devices</td>
</tr>
<tr>
<td>Internal self-control strategy</td>
<td>1- Feeling hopeful about the future</td>
</tr>
<tr>
<td></td>
<td>2- Creating happiness</td>
</tr>
<tr>
<td></td>
<td>3- Appeal to spirituality and transcendence 1- Appeal to spirituality</td>
</tr>
<tr>
<td></td>
<td>(Belief in divine fate, Thanksgiving, Religious behavior and worship)</td>
</tr>
<tr>
<td></td>
<td>2- Transcendence (Self-transcendence, Accepting the mysteries of life)</td>
</tr>
<tr>
<td></td>
<td>4- Adjustment to change</td>
</tr>
<tr>
<td></td>
<td>5- Acceptance of death</td>
</tr>
<tr>
<td>Opportunity exploiting strategy</td>
<td>1- Time Management</td>
</tr>
<tr>
<td></td>
<td>2- Going beyond stereotypes</td>
</tr>
<tr>
<td></td>
<td>3- Teaching-learning activities 1- Knowledge Development</td>
</tr>
<tr>
<td></td>
<td>2- Learning activities (Improving previous skills, learning new skills,</td>
</tr>
<tr>
<td></td>
<td>Learning modern technology, Creating Artworks)</td>
</tr>
</tbody>
</table>
Stage I: Familiarizing with the Data. This process, which can begin during the data collection, involves transcription, reading, and re-reading the data to obtain initial ideas. After listening to the audio files several times, initially, each interview was transcribed using Word 2013 in Persian (the mother tongue of the participants). The researchers were sensitive to different data elements, implying any meaning patterns.

Stage II: Generating Codes In this step, the researcher systematically generates initial codes from the data, which can act as building blocks of the analysis. The analysis process was a line-by-line reading of the transcript and identification of the significant phrases and words (open coding was identified through line-breaking), extracted using the New Comment. Along with coding, the initial codes were categorized based on a continuous comparison of similarities and differences in various parts of the data. Particular questions would be written in the left column of the sheet if a part of the interview was ambiguous, and the participant was asked these questions. In this study, the researchers developed codes and stayed focused on coding the whole dataset before constructing themes.

Stage III. Searching for Themes. The themes developed at this stage are not fixed, and they are open to change. The codes developed in the previous stage construct the initial themes, and the relevant data for each was gathered. The themes developed at this stage are not fixed, and they are open to change. The codes developed in the previous stage construct the initial themes, and the relevant data for each was gathered. Therefore, coding, the entire team began the collaborative process of developing, testing and reviewing candidate themes. This was an iterative process that involved returning to the interviews to test if the emerging themes worked in connection with the coded extracts as well as across the entire data set. This step involved revisiting the research questions, coding extracts and definitions of themes generated, as well as making connections between the data and literature.

Stage IV. Reviewing Potential Themes. The themes developed in the previous stage are further refined. The researchers read the data extracts supporting each of the themes and reviewed and refined the individual themes.

Stage V. Defining, Naming, and Analyzing Themes. In this stage, the researcher has clearly defined and named themes and the sub-themes. The data analysis progressed iteratively, moving back and forth between the theoretical concepts and empirical data, exploring emergent themes, and ascertaining recurring patterns.

The final themes arrived at through brainstorming sessions amongst the authors. Saturated themes and related sub-themes were then identified by the authors by making connections among codes, writing memos, and having iterative discussions with the research team.

Stage VI. Producing the Report. In this final stage, the researcher uses the narratives, data extracts, and arguments to further support the direct and indirect relationships among the themes. We ensured the study's trustworthiness through various method (Larsson et al., 2019). Member and peer checking techniques were used to enhance the findings' dependability and confirmability. Accordingly, participants and two external qualitative researchers were asked to check the congruence between participants' experiences and the findings.

Member checking, prolonged engagement in the study, and maximum variation in sampling established credibility. For instance, the authors used member checking by sharing some of the final themes with the two participants to see if they confirmed their accuracy. To check the reliability of the study, researchers carefully checked the transcripts for probable mistakes. In addition, the researchers as coders in the study continually shared their analysis to follow a consistent approach for coding. Finally, we clearly described participants’ characteristics, study process, sampling, location, and research limitations to enhance the transformability of data. The Research Ethics Committee of Isfahan University of Medical
Sciences approved the study (no. 395911), and the participants were assured of “confidentiality” in this study.

Results

This qualitative study aimed to explore personal active aging strategies in a specific context. Following a directed thematic analysis procedure, we conducted semi-structured individual interviews with 39 seniors (men and women) between the ages of 60-97 years with a mean of 74.28 years who volunteered and consented to participate in the study (Table 1). Participants were selected with purposeful sampling. Data collection and analysis were concurrent. We used directed content analysis to analyze the data from interviews, written narratives, and field notes. (Chatterjee, 2021). We stopped data collection when no new concept was added, and data saturation occurred.

Table 1
Socio-Demographic Characteristic of Participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Number (Total=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young old (60-74)</td>
<td>10</td>
</tr>
<tr>
<td>Old (75-89)</td>
<td>16</td>
</tr>
<tr>
<td>Old old (over 90)</td>
<td>13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>11</td>
</tr>
<tr>
<td>Literate (reading and writing)</td>
<td>6</td>
</tr>
<tr>
<td>Elementary school</td>
<td>7</td>
</tr>
<tr>
<td>Middle school</td>
<td>6</td>
</tr>
<tr>
<td>Diploma</td>
<td>6</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>2</td>
</tr>
<tr>
<td>Illiterate</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>17</td>
</tr>
<tr>
<td>Widowed</td>
<td>11</td>
</tr>
<tr>
<td>Divorced</td>
<td>3</td>
</tr>
<tr>
<td>Single</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Living with whom</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living independently</td>
<td>5</td>
</tr>
<tr>
<td>Living with spouse</td>
<td>7</td>
</tr>
<tr>
<td>Living with son and family</td>
<td>5</td>
</tr>
<tr>
<td>Living with unmarried child</td>
<td>6</td>
</tr>
<tr>
<td>Living with caregiver</td>
<td>2</td>
</tr>
<tr>
<td>Living with an older –relative</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>16</td>
</tr>
<tr>
<td>Retired</td>
<td>9</td>
</tr>
<tr>
<td>Employed</td>
<td>8</td>
</tr>
<tr>
<td>Retired (Returning to work)</td>
<td>6</td>
</tr>
</tbody>
</table>

Based on the experience of seniors, we identified four categories: 1-preventive 2-Coping 3- Internal self-control, 4- Opportunity exploiting strategies (Table 2). Seniors are subjected to changes throughout their life. They experienced changes personally or observed them in older people. They implement appropriate strategies considering their sound
understanding of these changes. Perception of changes related to aging is more important than the volume of changes. The preventive strategy was used more frequently by the young old. When threats occurred, the participants actively tried to cope with changing environments or behavior. They used one or more strategies when faced with the threats of aging. Self-control against changes and possible threats was one of the active aging strategies. This strategy was employed along with other strategies or alone to accompany the passing of life, especially when other strategies were not effective. Along with psychological control and coping strategies, the participants tried to spend their lives in the best way through living opportunities. This matter is not seen in active aging models known in the literature to the best of our knowledge.

**Theme 1: Preventive Strategies**

In the face of age-related health changes, the elderly sought to prevent physical, mood, and cognitive threats from change. Preventative self-care, Positive interaction with others, and seeking independence were preventive strategies used by the seniors.

**Preventative Self-Care**

The seniors became concerned about their physical and social health. By adopting a healthy lifestyle and monitoring their health, the seniors cared for their health.

**Physical Activity.** Some seniors believe that physical activity will make them feel healthy. Participants' physical activity ranged from simple walks in parks to professional sports. Younger seniors prefer traveling and exercising, but stay-at-home seniors prefer to solve crossword puzzles. Some seniors believed that walking was not enough physical activity.

Participant 68 years stated, "I use park fitness equipment in the morning, and sometimes one of my friends stands in the middle, and we stand around him as a means of support." Another Participant 76 years old explained, "The houses had courtyards, we had healthy food, we lived healthily, now I have energy, and now I have energy, and I can do my work."

**Healthy Eating Habits.** Seniors believe that healthy eating habits maintain their health. Observing the effects of poor nutrition on peers led participants to pay more attention to their nutrition, especially those suffering from chronic diseases.

Participant 91 years old said, "Our neighbor had a heart attack, my blood sugar was high, and he did not observe it. Some time ago, I saw him in the park at the end of the alley with his pocket full of chocolates. I saw him. I was scared, I am a little high in sugar, and I have to pay more attention to my food."

Participant 82 years old explained, "From the beginning of my life, I’ve always been careful not to eat too much. When you get old, you can’t eat everything because you get sick easily. “Of course, their eating habits depended on the economic status of their family and the expectations of others. Participant 61 years old explained, "I eat chicken rather than red meat, though it can cause harm. I’ve heard fish is good, but it is too expensive for me to afford."

**Avoiding Tobacco and Addictive Substances Use.** Some older adults had used addictive substances and tobacco to relieve chronic pain and illness; however, they encountered increased physical and mental issues resulting in social stigma from family and society.

Participant 72 years old stated, "I remember my dad used to smoke opium when I was a child until I grew up and wanted to see what he was smoking. Everybody had rejected him."

Of course, some participants likened smoking to a "way out of trouble." They used drugs in search of children leaving home, reducing the quantity and quality of social
communication compared to adolescence, and enduring the physical pain caused by chronic illness. Participant 91 years old said, "I have nothing to do, I'm not far away, I thought enough, and I did not reach the result, I'm tired, I'm smoking them."

**Monitoring Their Health.** All participants felt a sense of commitment and responsibility for their health, had seen a doctor at least once to control their illnesses and used chemicals or traditional medicines. Traditional strategies were prevalent among the participants due to their cost-effectiveness. Participant 63 years old stated, "I have blood tests periodically. I take care of my health; I take care not to get sick."

**Positive Interaction with Others**

The seniors were trying to have consistent and positive relationships with their families and communities by providing restraint, patience, dignity, and well-adapted communication when dealing with others. They avoided loneliness, social isolation, and loss of valuable roles. Positive interaction and compatibility with others have led them to maintain their family and social networks while developing a communication network with their peers and younger generations. Providing advice to others, especially younger generations, was an example of effective interactions.

More social participants had broader connections, and these connections helped the individual receive the necessary material and spiritual support from friends, neighbors, and others when needed. Participant 72 years old said:

I do not want to be isolated like some people when I grow old. I want to stay in the community. I like people who are older in the community. They are in contact with friends and family and do not imprison their own house.

Participant 88 years old stated:

Having a friend in this day and age is valuable, being with friends makes a person enjoy his life, and in order not to be alone at this age, I try to communicate with my friends and family. I am social, and I am satisfied with my communication.

**Independence Seeking**

Independence and self-reliance were an active effort to prevent dependence. Relying on their inner strength helped seniors maintain their actual independence and prevented potential conflict with family members. This strategy helped them to preserve their dignity in the family and society. Participants who were lonely, widowed, and separated from their children had to rely on themselves to maintain their internal integrity and independence. For many participants, the loss of functional independence was described as "the saddest experience."

Participant 69 years old explained, "I try to stand on my own two feet. Even if I have a guest, I do most of the work myself before the children help me." Participant 73 years old used the term "sparrow in a cage" to describe the lack of decision-making opportunities and constraints, said:
My bride grumbles when she wakes up. She treats me like I do. I do not know anything. I have lived an independent life, and now I have to wait for them to decide what to buy, what to wear or not to wear. Oh, this is life.

Theme 2: Coping Strategies

Seniors tried to control their behavior or situation actively. These strategies were, directly and indirectly, effective in countering threats. Ceasing or modifying previous behaviors, adjusting the living environment, and using assistive devices for age-related deterioration were strategies used by the seniors to cope with age-related change.

**Ceasing or Modifying Previous Behaviors**

When faced with change, the seniors stopped or modified their behavior. This approach could be temporary or permanent and help the seniors maintain their physical and mental health. Assigning some behaviors to family members and modifying previous activities by dividing them into light, heavy, necessary, and unnecessary were among the topics mentioned in this section.

Participant 95 years old talked:

I used to walk to my relative’s home, but I can't walk much anymore. I can no longer stand up in the kitchen and do my work. I have to sit down on a chair to ease my pain. Whenever I get sick, I rest, I can't work when I am sick.

Elsewhere, the participant 80 years old talked about leaving some household chores, such as ironing and lifting heavy objects, to her children, saying, "I was distraught when I tried to move a device. I handed over the help to the children. I was relieved to help them."

**Adjusting Living Environment**

Based on changes in the aging experience, seniors regulate their living environment. This included changes in their environment, making changes at home (getting rid of excess furniture) placing personal items for easier access.

Participant 76 years old said, "Our previous house was very big and old. I’d told my spouse I couldn't clean the house anymore as I was suffering from back pain. We sold that house and bought a smaller one." They place personal items within their access, move to a place of residence fitted to their physical abilities, and use facilities to fit the changing experience of their lives. Participant 84 years old said:

I can’t do this hike. The doctor told me to be careful not to break my leg. I can’t lay on my legs. I’m just sitting on the bed. My phone is here. There are things around me. The radio is at my side to stand less."

**Using Assistive Devices**

The seniors used walkers, eyeglasses, and crutches to correct degenerations faced over time, maintain their independence and experience active aging.

Using a wheelchair helped a person work at home and outside the home. The 93 year old participant said:
I take my hand, I go to my wall, I go to the kitchen, I pick up some food. Sometimes I move around the house in a wheelchair, and I go out without a wheelchair. I fell to the ground. I was stubborn, and I was dead.

Participant 86 years old stated:

Most of my activities are sitting, which is appropriate for my condition, but if I need to walk, I have a cane, so I hold the cane until I can keep my balance. If it is not a cane, someone should hold my hand and take care of me so that I can walk independently.

**Theme 3: Internal Self-Control Strategies**

This strategy helped seniors to be active mentally. This strategy was used along with other strategies or alone to accompany the passing of life, especially when other strategies were not effective.

This strategy could be applied before any threats due to age-related changes to prevent or after the threat for self-control and to prevent related threats from being realized.

This subcategory described feeling hopeful about the future, creating happiness, appealing to spirituality and transcendence, adjusting to change, and accepting death. Avoiding negative memories had helped the women to keep a positive mood. Having no negative perspective on aging may enable psychological self-control against aging-related threats. In this way, the women not only preserved their previous life process but also maintained their mental health, providing an enjoyable and dynamic life for themselves.

**Feeling Hopeful about the Future**

Hope was an effective mental strategy for the seniors to deal with the age-related changes. Hope was a valuable strategy to motivate them and give them some interest in life. With hope, individuals were directed toward keeping up with their passing lifetimes by controlling the threats that had led to their departure from the way they were living.

Participant 78 years old 5 said, "Well, illnesses occur as we get older. I won’t be demoralized. I won't accept disappointment. A life without hope will make you sick, and the darkness of life will overtake you. Life can be wonderful if you have hope."

Seniors were hopeful about the progress of science and technological innovation to improve their lives in the future.

Participant 64 years old stated, "When I see old people in nursing homes, I say I will finally end at? I will be sad; however, I have my own set of hopes. I don’t know what will happen tomorrow. Then, I shouldn’t be depressed."

**Creating Happiness**

Happiness was a valuable strategy to motivate seniors in life. Participation in happy, friendly, and family communities and reviewing happy memories within intimate communities gave the participants joy. Using this strategy, women did not feel changes in the current trend compared to before. Creating an enjoyable situation brought the women satisfaction and psychological health.

Participant 96 years old explained, "I don't attend mourning ceremonies. I'm looking for the programs that make me happy."

Participant 76 years old said:
I have been looking for things since my youth that keep me happy and well. I do not even wear dark clothes because of my grief and mourning. I love traveling and music. I go to my friends. I enjoy being with my family. And friends, two days of life, why should I grieve when my life ends with grief.

**Appeal to Spirituality and Transcendence**

Reliance on a superior power (God) enhances one's mental capacity, especially in the context of Iranian society. Based on their spiritual interests, the participants optimized their spiritual path by taking specific actions and practicing spiritual activities. These actions included helping poor people, responding to help requests, and supporting charities. Aging made them feel that they must pay attention to their afterlife. It deals with age-related changes throughout life—belief in the divine fate, thanksgiving, and religious behavior and worship are categorized under spirituality. Self-transcendence, accepting the mysteries of life, and positive solitude described the transcendence subcategory.

**Appeal to Spirituality: Belief in Divine Fate.** Reliance on God and the Imams would help seniors overcome the problems of their lives. Participant 82 years old said, "It was trusting in God that helped me cope with the illness. The doctor said I had lymphoma. I said trusting in God. Maybe God wants to test me with difficulties."

**Thanksgiving.** Thanksgiving focused seniors’ attention on the present moment rather than the past or future. Thanksgiving is a time to be grateful for all the things we have, all the experiences we’ve come across, and all the blessings we’ve been given. Participant 70 years old stated:

Every night I go into the yard, look up at the sky and say: thank you my Lord, for all you’ve given, for all you haven’t given and for all you’ve taken. Whatever you’ve given is your blessing, whatever you haven’t given is due to your wisdom and whatever you’ve taken is a test.

Participant 84 years old explained:

When asked if my cup is half-full or half-empty, my only response is that I am thankful I have a cup. We can only be said to be alive in those moments when our hearts are conscious of our treasures.

**Religious Behavior and Worship.** This strategy includes prayers, attending mosques and religious sessions as well, and reciting certain verses of the Holy Qur’an. This strategy would discharge negative emotions.

Religious behavior facilitated social bonding. Most religions have some thematic principles that make them similar, namely concepts of God and love, honesty, altruism, miracle workings, and peacekeeping. Worship facilitates social communication with family and friends. Participant 90 years old said:

I start my days relying on God; I send blessings upon the Prophet and his family. I may forget some things, but I always repeat the last verse of Surah Baqarah that God advised the Prophet to recite never to forget anything.
Transcendence. Transcendence comprises Self-transcendence, belonging to a country, accepting the mysteries of life, and positive solitude.

Self-Transcendence. Many respondents expressed a state of constant change and development, and the concepts included self-awareness and charitable behaviors. Many participants stated that they discovered aspects of themselves that they had not noticed before when they thought about themselves. Charitable behaviors helped participants choose a path in life that would make them feel satisfied, calm, and ready for the afterlife and feel active.

Participant 77 years old stated, "Although I can't walk, I am a benefactor. Money doesn't matter. I consider others more than myself. The only thing that makes me happy is to feel like I do have an impact in people's lives."

Participant 48 years old commented on her mother's human experience:

My mother is very positive; she always seeks to help others. She walks down the street and sees someone who is not well. She tries to communicate with him and help him. The association does good deeds. This benevolence has made him enjoy his life and not think about the problems of his age.

Accepting the Mysteries of Life. Some seniors look at the world from a higher perspective and accept the mysterious aspects of life rather than finding a reason for each phenomenon.

Participant 74 years old explained, "I used to be an analyst who thought that everything happens for a reason. But I ruined my life. Now I think I should enjoy the beauty of life."

Some participants mentioned at least one purpose that continues to give their lives meaning and purpose. The responses varied from family influence on religious factors and being active in society. Participant 91 years old stated, "That if you have no goal, you’ll live in vain. You must have a role in the world before you die."

Positive Solitude. Most participants were more selective in their choice of companions and preferred to spend time with people they already knew instead of making new friends.

Participant 81 years old said:

I would like to put everything aside and enjoy solitude. The number of friends hasn't changed, but my form of communication has changed. I used to get together with my friends and talk nonsense. Without solitude, life is meaningless and superficial.

Some participants had a positive attitude towards loneliness and silence and enjoyed it. Of course, the two participants who lost their spouses and children did not want to be alone; they considered it equivalent to grief and wanted to be in the group.

Participant 75 years old stated:

I was always in the service of others. If someone was sick, it was as if I was in pain with them. I sympathized with everyone, but now I like to be more alone, alone with myself, think about my life, and read books or listen to music.

Adjustment to Change. Aging is accompanied by many changes, such as changes in living arrangements (smaller families) and work patterns. Adjustment helps an individual maintain his/her independence and provide compatible interaction with others. Some older adults could adapt to these changes, but others could not.
Participant 76 years old explained, "I get scared when I think about old age. I'll kill myself if I become bedridden when I get old. I can't come to terms with it at all."

Non-adaptation to change threatened the participants' mental health and diverted the individual from the path of struggling in life and being active. The 83-year-old participant, for whom physical health was significant, said: "I am afraid of the day I become disabled. If I become disabled, I intend to kill myself and make my life easier. I cannot cope with being disabled and eating."

Acceptance of Death

The study findings showed that the participants who believed in the mystery of life were not fearful of death's pain and experienced less anxiety about it.

Participant 82 years old with a physical disability said, "Now that death is close, I'm not afraid, dying isn't difficult, it is a rebirth. Death means God."

The study found that a sense of closeness reinforced acceptance of death to God, not closeness to death. Participants who were thankful for their lives rated death anxiety less.

Participant 90 years old, who lost his wife and child in the accident, said, "The death of a loved one is difficult, but I coped with it. Little by little, I could find myself. Finally, death happens to everyone."

Theme 4: Opportunity Exploiting Strategies

Along with internal self-control strategies, seniors tried to pay attention to new life opportunities. Some participants considered aging as an opportunity rather than a period of inactivity.

This strategy could be used if a person was not threatened or once she achieved self-control and coped with the threats. If threats and the bitterness of life were prevalent, individuals would engage deeply with them, as they would have no opportunity to optimize their passage of life. After realizing psychological self-control and coping with life threats, the participants found the opportunity to optimize their lives through time management, going beyond stereotypes, and teaching-learning activities described in this subcategory.

Time Management

Some of the participants in the present study tried not to confine themselves to the common negative perceptions of society as disabled people but to move beyond them and be active.

Going Beyond Stereotypes

Going beyond stereotypes that have a primarily negative view of old age and the elderly and not rejecting these stereotypes was part of the enthusiastic attitude of the participants that allowed him to expand his scope of activities.

Participant 74 years old stated, "If you think that some things do not suit your age, why not sit at home." Participant 90 years old stated, "Look at his age. But I do not care about these things, I do my job, a person who should not give up until he dies." Participant 57 years old who volunteered to visit the nursing home twice a week, said:

While I am here, I have come to an interesting point. Their movements are slower, and they are not very interested in medical work and taking care of
themselves. They are stressed as if they do not want to be alive. However, unlike those who ignore people's words, they are happier and more willing to survive and listen to whatever you tell them.

Teaching-Learning Activities

Teaching-learning activities were part of the participants' operational experience. These activities included teaching activities, interest in new experiences, strengthening previous skills, doing creative literary, and artistic, and learning new technology activities.

Knowledge Development. The Participants searched through books and social networks for health information. Participant 63 years old stated:

I have a laptop and can search. Whenever my doctor prescribes a medicine or test, I'll search on the Internet. Or I’ll ask others in the park. I’ll ask about everything: economics, social issues, and even health issues. Sometimes I read a newspaper.

Learning Activities. In addition to improving previous skills, the participants learned and were taught new skills and modern technologies to keep themselves active.

Improving Previous Skills. Some participants pursued their previous interests and skills, which they had previously abandoned because of their busy life.

Participant 85 years old said, "I was taking care of my husband until he died. I have more free time now. I can go to art classes just like I enjoyed doing when I was young."

Some participants sought to enhance learning and nurture skills and talents they had already learned and stagnated over time. The elderly stated in their interviews that they kept themselves active by pursuing their interests and practicing in the fields in question. Participant 66 years old, who pursued theater as a teacher, said:

Apart from my main job, which was teaching physics, I have been very interested in theater since I was almost a child, and almost from a young age, studying my field, which was completely different. I followed, but then I had to let him go. Now I went to him again.

Learning New Skills. Some participants believed that aging is not a time for isolation and their experience gained during life helped individuals optimize their remaining lifetime. Participant 93 years old stated, "I have free time now, I’d like to go to English classes and take coaching swimming courses, these activities make me feel young." Participant 71 years old stated, "I write poetry. Of course, I started too late because I was interested. I retired in 1986, I tried to write, but I started writing professionally around 1990."

Learning Modern Technology. Modern technology was a strategy used for talking to their relatives and grandchildren and for consulting. Of course, many seniors were unable to align themselves with the requirements of modern life. Lack of knowledge and skills for using modern technology threatened their independence:

I've been living in Isfahan for 50 years. I don't know how to use an ATM and withdraw my pension. I have nobody to help me with my work. Once I gave
my card to somebody and asked her to withdraw my pension for me. She withdrew money from my bank account for herself. It bothered me.

Participant 62 years old stated, "After the midlife crisis, there is a time when older people like to play a role in society because they think they're forgotten.” Participant 73 years old stated, "Or they do not welcome it very much, so they want to put on new phones to follow the example of young people. They think that if they do not do these things, they will be excluded from society."

**Creating Artworks.** This strategy helped older people improve their abilities and reduce stress. These included the creation of visual graphic arts, literature (story and poetry), participation in theater performances, and playing music. Some seniors had even won prizes or earned income by selling their work.

Participant 82 years old stated:

I don't waste my time sitting idle and waiting to die. I write poems and stories. One of my books which is the story of my life and memories was published. I’ve already sold some copies. I was an instructor and a theatre director at the Armenian Church in Esfahan. I have managed a lot of plays and been awarded a UNESCO prize.

Participant 31 years old spoke about his father's interest in music and stated, "My noble father was always smiling until the last moments of his life, and he made us and those around him happy.” Participant 32 explained, “He played the instrument and sang, and we played the instrument. How happy he was."

Many participants actively managed their time at home by creating literary works, including collections of memoirs, poems, stories, and personal notes. Participant 92 years old, who had an amputated spinal cord injury and lived in a nursing home said, "I have been writing down my memories for many years.” Participant 94 years old said, "I write everything down. Later, if the children want to know what their father was like, they can read it. I also read books. I go and buy newspapers and books. I come and read.”

**Discussion**

There is limited literature on active aging, Contrary to successful aging. The strategies introduced in the present study encompass all the criteria and strategies presented in the other studies.

These strategies are not seen in active aging models known in the literature to the best of our knowledge. In our study, active aging was a dynamic process attained through multiple strategies. These strategies have been used together or sequentially to help the senior deal with life. The seniors prevented threats by seeking independent behaviors, preventive self-care behaviors, and positive interactions with others. In the past, in Iranian health culture, prevention was not an important matter. Thus, the elderly rarely uses prevention strategies before aging. In recent years, they were based.

In new health policies, prevention is much more critical. Loss of independence was one of the elderly senior's most significant concerns. For this population, health is directly related to independence and the capacity to do things. Maintaining independence promotes a sense of self-worth and well-being. According to (Kahana & Kahana, 2018), preventive strategies are used prior to the occurrence of stressors in order to overcome or reduce negative consequences (Kahana & Kahana, 2018). Physical activity intervention in the elderly prevented cognitive decline (Zhao et al., 2018) and depressive symptoms (Radino & Tarantino, 2022). Boudini
points to three critical principles of active aging: fostering adaptability, supporting emotionally close relationships, and removing structural barriers related to age or dependency (Boudiny & Mortelmans, 2011).

When faced with change over time, coping strategies are used. According to activity theory, active aging encompasses replacing the lost roles and age-related losses and changes to maintain a positive sense of self (Principi et al., 2018). SOC model recommended replacing achievable goals (Boucher & Dahlke, 2019). When goal-related tools are no longer available, re-selection of goals and optimization strategies are used to compensate for declines. The older people compensated via using technologies such as hearing aids, wheelchairs, and eyeglasses (Schilling et al., 2012). This indicates the need for more effective community-based rehabilitation. Of course, our country faces limitations (low insurance coverage and production of rehabilitation equipment; Mousavi et al., 2019).

In the present study, involvement with age-related changes and their psychological consequence provided the context for using internal self-control strategies, including feeling hopeful, adjusting to change, accepting death, and appealing to spirituality and transcendence. These mechanisms were a kind of psychological control when facing external demands and the basis of success in the modern world (DeLisi, 2014; Finley & Schmeichel, 2019). The results of our study are following studies that referred to the strategies used in the elderly: patience (Hassani et al., 2017), positive thinking (Blevins & Troutman, 2011), religious orientation (Naik et al., 2019), active engagement (Liu et al., 2019) and avoidance (Bagheri-Nesami et al., 2010).

feeling hopeful will lead to the acceptance of age-related changes, help the seniors to predict the outcomes of their behavior, and accept individual and social roles (Lee et al., 2019; Zhang, 2012). Recent research has shown that when people get old, they become happier despite declining functional (physical and cognitive) capacities (Lee, 2018). Of course, some studies have reported an increase in negativism in older adults (Luchesi et al., 2018) or an inverted U-shaped pattern (Lobos et al., 2016). Aging is a natural process accompanied by a change in worldview. In the present study, the seniors continue life by appealing to spirituality and transcendence. Spirituality flows throughout life and is strengthened in aging (Lucchetti et al., 2019). Based on the religious context of the Iranian society, spirituality was the most valuable strategy for active aging, used by women more than men. Spiritual beliefs and activities are proactive, adaptive behaviors that optimize life's passage in the active aging process and supply provisions for the Hereafter (Ajam Zibad et al., 2016). “Transcendence” entails a positive view of aging and beyond positivism's materialistic perspective. Tornstam believes that seniors have a chance to grow and achieve wisdom. Wisdom can result in understanding the meaning of life (George & Dixon, 2018). In the present study, the participants considered charitable activity (without “expecting” compensation) as an innate human attribute that inspired them to be active. Forgiveness might reduce stress and anxiety and lead to psychological well-being (Chen et al., 2019; Rasmussen et al., 2019). Flood theory emphasizes adaptation to negative change. In this model, maintaining physical health and physical activity were preventative strategies.

When individuals use desirable degrees of basic adaptive processes (functional status, life satisfaction, and spirituality) and interactions between these processes, a fourth structure called gerotranscendence is created—materialism and logic change into a more meaningful and enlightened way thinking (Blevins & Troutman, 2011). The present study's preventive, coping and internal self-control strategies are consistent with the processes introduced by the flood model.

Although planning for the future decreases with age, seniors benefit from it (Ouweland et al., 2007; Wakasai et al., 2006). This enables the seniors to have a more productive life and engage in the activities of family, friends, and community and thereby remain independent.
Most Iranian adults had encountered limited educational facilities in the past years, but they made their lives enjoyable by doing activities and optimized life’s passage. Lifelong learning and acquiring an active intuition indicate ongoing social participation (Narushima et al., 2018). This strategy was not observed in other studies. Engaging in creative activities relieves anxiety and depression (Fancourt et al., 2019). Active learning maintains a healthy lifestyle and has been mentioned in numerous studies (Desjardins et al., 2019; Thanakwang et al., 2014). The U3A implemented national plans to support and develop lifelong learning programs for the elderly (Formosa, 2019a). In Iran, U3A was first launched in April 2012. The duration of the courses is planned as one-month terms. Participants need to be 55 years and older and have a high school diploma. They receive a "graduation certificate" at the end of the course (Tabatabaei & Roostai, 2014).

Moreover, new technology offers opportunities to improve memory and cognition and compensate for age-related losses (Anmarkrud et al., 2019). Some countries, such as Japan, have attempted to develop "on-site aging" (Lai, 2008) and bring technology into homes so that the seniors can experience positive aging at home and maintain their independence. As in other studies, the results of this study indicated that the seniors do not have enough awareness of new technology (Mitzner et al., 2010; Walker & Zaidi, 2019). About half of European seniors use the Internet only once a week. In Portugal, most of the seniors had never used a computer or a tablet (Davies, 2011). Finally, according to the World Health Organization, active aging experience and strategies varies across different cultural contexts (Fernández-Ballesteros et al., 2017). Coping strategies enabled active dealing with threats and reduced the need for self-control strategies, optimized life passage by using opportunity exploiting strategies. Therefore, personal active aging strategies should be promoted (Walker, 2019).

**Future Considerations for Policymakers and Planners**

Based on available statistics, one-tenth of the current population of Iran and one-fourth of its future (next 35 years) population are old. Much attention has been paid to this group in health development programs in Iran, but no framework for active aging strategies tailored to the social and cultural context has been designed for the elderly and health care providers. This study showed that “personal active ageing strategies” were performed by Iranian seniors. It is also important to remember that active aging strategies will not be achieved exclusively; physical environment, proper technologies, and equipment are solid predictors for active aging strategies among Iranian seniors. Considering seniors’ capacities and life opportunities and educating them on how to implement their life opportunities are influential factors. Policymakers should consider, design, and implement programs to empower older people to exercise internal self-control, cope with threats, and optimize aging opportunities. Teaching the strategies found in this study may help people in all age groups, particularly older people, strive to be in the line of life when faced with changes brought on by age so that they can age actively.

This study was performed on the seniors living in Isfahan, and it is recommended to conduct separate studies on the seniors from other cities to enable comparison. Although lack of generalizability is one of the weaknesses of qualitative studies, accurate description of the participants and maximum variation sampling in this study enable judgment by the readers. The human element in qualitative research is its weakness because it depends heavily on the researcher's skills, creativity, training, and intellect. Nevertheless, the researchers did their best to control it.
References


Conference on Serious Games and Applications for Health, IEEE SeGAH 2018, Vienna, Austria.


Author Note

Fatemeh Raeesi Dehkordi is a Ph.D. candidate of health education and promotion at Lorestan University of Medical Science, Lorestan, Iran.

Ahmad Ali Eslami (Corresponding Author) is Professor and Head of the Department of Health Education and Promotion, School of Health, Isfahan University of Medical Sciences, Isfahan, Iran. Please direct correspondence to Eslami@HLTH.mui.ac.ir or eslamiaa@gmail.com

Fereshteh Zamani Alavijeh is an Associate Professor in the Department of Health Education and Promotion, Isfahan University of Medical Sciences, Isfahan, Iran.

Hossein Matlabi is an Associate Professor in the Department of Health Education & Promotion, Tabriz University of Medical Sciences, Tabriz, Iran.

Mehdi Nakhodaeezadeh is a Ph.D. candidate of gerontology in the Department of Ageing, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

Acknowledgements: We thank all the individuals who participated in this research.

Conflict of Interest and Funding: The authors declare that there are no conflicts of interest. This research was supported partially by the Isfahan University of Medical Science.


Article Citation