Original Article

Self-Actualization: Self-Care Outcomes among Elderly Patients with Hypertension

Abstract

Background: This study aims to analyze the experiences of older patients with hypertension to realize the outcomes of their self-care behaviors for controlling hypertension. **Materials and Methods:** This is a qualitative research with a conventional content analysis approach. The participants consisting of 23 people were selected through purposive sampling. Data were collected through semi-structured interviews until data were saturated. Granheim and Lundman's conventional content analysis was applied to analyze the data. **Results:** After data analysis, four main categories including self-efficacy, active lifestyle, spirituality, and stress management were obtained. These categories show the experience and outcomes of self-care behaviors among elderly patients with hypertension. **Conclusions:** Awareness of the elderly of their potentials and role in disease control in addition to relying on the power of spirituality provides positive results in hypertension management. Self-actualization of the elderly resulted in resisting against the destructive effects of internal and external stress and moving in the direction of growth. Health professionals should be vigilant to encourage and promote education about the importance and advantages of self-care for elderlies.

Keywords: *Achievement, aged, hypertension, Iran, self-care*

Hanieh Gholamnejad[1], Ali Darvishpoor-Kakhki[2], Fazlollah Ahmadi[3], Camelia Rohani[4]

[1]Student Research Committee, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran, [2]Department of Medical-Surgical Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran, [3]Department of Nursing, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran, [4]Department of Community Health Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Introduction

Currently, developing countries such as Chile, China, Russia, and Iran are more likely to face the phenomenon of aging population growth.[1] Iran, with 9.27% of the elderly population, has passed the first phase of aging.[2] Hypertension is the most common disease reported around the world.[3] The overall prevalence of hypertension in the elderly has been reported about 40.5%.[4]

Hypertension is the most important and most common modifiable risk factor for cardiovascular disease (CVD), also the leading cause of mortality among adults worldwide.[5] Management and effective self-care of hypertension have a vital role in prevention and reduction of complications such as the number of strokes (by 30%–40%),[6] renal failure, heart cardiovascular complications (by 20%–25%),[6,7] and improving the health of the elderly or people with hypertension.[8] Self-care programs in CVDs result in a decrease in the impact of risk factors such as cholesterol level, obesity,[9] and an increase in the quality of life.[10] In addition, they are associated with increased self-esteem among elderly.[11] Self-care can empower individuals and allow them to have more control over their health independently from their health specialists.[12] Self-care strategies concentrate on the different individual needs to achieve a sense of wholeness and health, including spirituality and creativity.[13] Self-care refers to the activities done by people to promote their health, prevent diseases, limit illness, and maintain their health.[14] Self-care is one of the keys to self-actualization. Individual creativity, quest for spiritual enlightenment, pursuit of knowledge, and the desire to give to and/or positively transform society.[15] Autonomy, sense of humor, and being socially compassionate[16] are examples of self-actualization. Recognition of these factors from the perspective of patients and based on their experiences will lead to more precise understanding of the outcomes which can lead to production of knowledge in this field. Accordingly, qualitative studies can be conducted for a true understanding of the behaviors, lifestyles, knowledge, attitudes, feelings,

How to cite this article: Gholamnejad H, Darvishpoor-Kakhki A, Ahmadi F, Rohani C. Self-actualization: Self-care outcomes among elderly patients with hypertension. Iranian J Nursing Midwifery Res 2019;24:206-12.

Received: July, 2018. **Accepted:** January, 2019.

Address for correspondence:
Dr. Ali Darvishpoor-Kakhki, Vali-Asr Avenue, Cross of Vali-Asr and Hashemi Rafsanjani Highway, Opposite to Rajaee Heart Hospital, P. O. Box: 1996835119, Tehran, Iran.
E-mail: darvishpoor@sbmu.ac.ir

Access this article online

Website: www.ijnmrjournal.net

DOI: 10.4103/ijnmr.IJNMR_95_18

Quick Response Code:

beliefs, values, and experiences of these patients.[17] Given the importance of self-care in improving and promoting the health of the elderly and prevention of long-term complications of hypertension, this study was conducted to explain the experiences of older patients with hypertension from different geographic regions of Tehran to realize the advantages of their self-care behaviors for controlling hypertension.

Materials and Methods

This is a qualitative research with a conventional content analysis approach done in 2017. The information was directly gathered from the participants. According to the participants' point of view, codes, subcategories, and categories were created using an inductive process.[18] Semi-structured interviews were used to collect the required data. Twenty-three participants were interviewed through purposive sampling. Inclusion criteria were age more than 60 years, history of diagnosed hypertension for at least 6 months and confirmed by cardiologist or nephrologist, taking administered antihypertensive drugs, and the ability to communicate with a researcher. Subjects suffering from debilitating diseases such as cancer or cognitive disorders were excluded. All interviews were conducted in a quiet and private room in the clinics or participants' houses for the older people and families or in the office of the therapeutic team members by prearrangement. The average duration of interviews was 40 min, and all interviews were conducted by the same interviewer. To achieve the maximum variance, the samples were selected from different age groups, with different levels of education and work experience, and from different geographic regions of Tehran. The main questions of interviews from elderlies included the following: What changes have you observed in your life after getting your disease under control? What are the outcomes of self-care in your lifestyle? What effect does disease control have on your beliefs? and from specialists and family members, What outcomes did you observe in hypertensive elderly taking good care of themselves? What changes did you observe in the lifestyle of the hypertensive elderly taking care of themselves well? Moreover, specific questions were asked based on the answers of interviewees during the interviews (Can you explain it more?). Interviews were continued until data saturation. Thus, in the two last interviews, no novel idea or category was obtained. The interviews were recorded and then typed in Microsoft Word by the first author immediately after the interviews, and then studied several times to obtain a general understanding. The authors used MAXQDA11 software to manage the data. Granheim and Lundman's conventional content analysis was applied to analyze the data.[19] The texts of the interviews were divided into semantic units and the primary codes were determined. Next, the codes were placed under subcategories and categories based on their similarities and differences. Finally, the themes representing the hidden content of the interviews were created.[19] Four Guba and Lincoln's criteria including credibility, transferability, dependability, and conformability were used to evaluate accuracy of the findings from this research.[20] To ensure the validity of the data, in addition to providing sufficient time for data collection, long-term involvement with data, and immersion in them, we tried to apply conflation of data collection method, semi-structured interviews, integration into data sources, integration of research sites, sampling in health clinics, mosques, physicians' offices, and observing maximum diversity in sampling, which means interviewing people from different geographical areas of the city with different levels of education and in various specialties and different job positions. To increase the credibility and dependability of the data, member checks with four older people with hypertension and peer checks with two PhD students were used. In addition, sufficient time was allocated to collect the data (9 months, October 2016–June 2017) and manage it over a long period of time, as well as being immersed in the data.

Ethical consideration

The present qualitative research was approved by the Ethics Committee of Shahid Beheshti University of Medical Sciences under the code of IRSBMU.PHNM1395-675. All study participants provided informed and written consents. For illiterate participants, the consent form was read and they fingerprinted their consent forms.

Results

This study evaluates the experiences and perceptions of the elderly and key participants in the self-care concept and its outcomes in the elderly hypertension. The demographic characteristics of the study participants are presented in Table 1.

In this study, self-actualization in the course of disease was extracted as the main outcome. It includes 4 categories and 12 subcategories [Table 2]. Self-efficacy, active lifestyle, spirituality, and stress management are the main categories.

Self-efficacy

This category is composed of three subcategories of self-esteem, attempt to preserve the independence, and purposeful life.

Self-esteem

This subcategory suggests that most of the elderly are not stressed after being informed of hypertension and they believe in their ability to dominate and control the disease. More confidence in their ability to exercise self-care behaviors results in a greater endeavor to do them by the elderly. One of the participants said, "*When I was first informed about my hypertension, I was not scared at all. I had faith in myself and I knew I would be able to control the disease" (p. 4)*.

Table 1: Demographic and clinical characteristics of participants

No.	Age (years)	Sex	Education	Duration of diagnosed HBP (years)
1	71	F	College	15
2	68	F	elementary	12
3	65	F	High school	16
4	77	F	Master's degree	18
5	33	F	Nurse PhD student	-
6	38	F	Bachelor of nursing	-
7	75	F	College	15
8	41	F	Bachelor of nursing	-
9	60	F	Illiterate	1
10	66	M	High school	15
11	62	F	Middle school	10
12	54	F	Cardiologist	-
13	40	F	Cardiologist	-
14	77	F	Illiterate	10
15	61	M	Illiterate	17
16	42	F	Gerontologist	-
17	62	F	Elementary	7
18	69	F	Illiterate	6
19	68	M	Elementary	30
20	68	F	Elementary	18
21	40	F	Diploma	-
22	24	M	Diploma	-
23	42	F	Diploma	-

HBP: 130 or higher, 80 or higher

Table 2: Categories and subcategories of self-actualization

Subcategory	Category	Theme
Self-esteem	Self-efficacy	Self-actualization
Attempt to preserve the independence		
Having a purposeful life		
Having fun	Active lifestyle	
Keeping fit		
Strengthening social interactions		
Trust in God	Spirituality	
Satisfaction		
Benediction		
To keep calm	Stress management	
To escape from tension		
To be patient during the problems		

Attempt to preserve their independence

This subcategory shows that the elderly rely on their own ability, insist on doing their own personal and daily tasks independently to escape from dependence, and prevent homestay due to the illness. For example, participants stated that, "*My children insist on helping me, but I refuse. I want to be independent*" (*p*. 2).

"*We must accept the truth that in this busy world nobody can make time for you. You are responsible for your life*" (*p*. 3).

Having a purposeful life

The elderly said that a daily schedule prevents them from monotony and depression and increases their motivation to continue their life, to feel useful, and to be more self-interested. For example, one of the participants stated that, "*I have a plan for my days. If I have a problem that is important to me, I do not wait until tomorrow; I solve it as soon as possible*" (*p*. 7).

"*I solve puzzles every day. I do not want to get Alzheimer's*" (*p*. 1).

Active lifestyle

This category is divided into three subcategories: having fun, keeping fit, and strengthening social interactions. These subcategories are described as follows:

Having fun

According to the results of this study, elderly entertainment is composed of spending time with favorite things, walking around, and going outdoors. Recreational activities play an important role in improving one's understanding of health and life expectancy. For example, one of the participants said, "*I love working with flowers. I am having fun with them*" (*p*. 20).

Keeping fit

The results showed that it is important to maintain a suitable physical appearance for most of the elderly. Most of the elderly are interested in maintaining a suitable weight and keeping fit to avoid the negative effects of obesity on disease control. One of the participants stated that, "*After retirement, I gained weight. I decided not to eat dinner. After some months, I lost my extra weight*" (*p*. 1).

Strengthening social interactions

Walking with friends or spending time in companionship with peers and friends, meeting friends daily, hiking with friends, and chatting with them are among the issues mentioned by participants for strengthening their social interactions. "*I have some friends from the mosque. I sometimes speak with them. It makes me happy. All humans need to talk*" (*p*. 14).

Spirituality

"Trust in God," "satisfaction," and "benediction" are the introduced subcategories, which are explained in detail along with quotes in this section:

Trust in God

Connecting to a greater power like God and trusting him, and passing the affairs of life, children, and problems to God were cases referred by the participants. This solution is used by most of the elderly of this research, "*I do not worry about my disease, I put everything in God's hands*" (*p*. 9).

Satisfaction

When the participants believed in God, they felt good and expressed their satisfaction with the present situation. Praying and being satisfied with God's commands were the strategies used by the participants, "*I am proud of myself because I accept everything in my life even my son's passing. I think praying helps me to remain calm*" (*p*. 15).

Benediction

The participants said that benediction reduces the fears and stress and creates a sense of security through religious practices such as praying and praising God. The elderly subjects mention their experiences in this field as, "*Sometimes, when I feel anxious, I take my rosary and utter the Salavat. It helps me feel relaxed. I speak with God and feel calm*" (*p*. 17).

Stress management

This category consists of three subcategories: to keep calm, to escape from tension, and to be patient when there are problems.

To keep calm

Most of the elderly try to choose a calm lifestyle away from tension to avoid recurrence of attacks and relapses of the disease. They often try to keep calm by not getting angry and anxious. Some participants said, "*I never let anything make me anxious. I don't feel stressed*" (*p*. 10).

To escape from tension

Having a life without stress is the second category of this analysis. Actions like avoiding stressful environments, negative thoughts, remembering bitter memories of the past, and ignoring sad issues are some strategies used by most of the elderly in this study. "*My wife passed away last year. When I think about her, I feel sad. Therefore, I try to avoid thinking about her*" (*p*. 11).

Patience during difficulties

Patience when facing disease and problems, not exaggerating the issues, and taking life easy were the most common strategies used by elderly. "*I always say this is life. I take life easy. If my disease cannot be treated, why am I making myself sad*" (*p*. 4).

Discussion

The aim of this research was to analyze the experiences of the elderly with hypertension to understand the outcomes of self-care and its aspects in Tehran. In this study, self-actualization in the course of disease was extracted as the main outcome. Self-actualization, according to Maslow, represents growth of an individual toward fulfillment of the highest needs; those for meaning in life, in particular.[16] Individual creativity, quest for spiritual enlightenment, pursuit of knowledge, being realistic, acceptance, problem centering,[15] autonomy, sense of humor, and interpersonal relations[16] are characteristics of self-actualizing people. It is not necessary for anyone to have all these qualities.[21] In this research, our participants have some characteristics of self-actualizing people.

The results showed that our participants were people with high self-efficacy. Being realistic, acceptance, and problem centering were the characteristics of our participants that is in line with other studies.[15,22] Receiving the diagnosis and adapting one's life to disease requires strength, willpower, and determination of the patient. Our participants showed that they have high self-esteem. They were trying to apply the necessary measures for the effective control and treatment of their illness. But most of the Ecuadorian elderly have low self-esteem and self-confidence,[23] which might be due to the cultural differences in different countries. In Iranian societies, owing to its old traditions and cultures, elderly people are highly respected and thus their self-confidence is positively affected. Elderlies with a high self-confidence level are more engaged in self-care activities.[24] One study showed the positive and direct effects of self-care behaviors on the elderly's self-esteem.[22] Receiving the diagnosis and adapting one's life to disease requires strength, willpower, and determination of the patient. Resilience is key to better management of disease and its consequences.[25] Self-esteem will contribute to psychosocial strengths and enhance their quality of life.[26] The elderly with high self-confidence believe that they can create some changes toward improving their illness and increase their health level and vice versa,[27] and therefore, self-esteem is among the main components in therapeutic compliance and performing self-care issues. To attempt to preserve the independence is the other extracted subcategory which similar to other study results shows that 70% of elderly were completely independent.[26] But in Japan the proportion of dependency at an advanced age group was too high.[28] Positive feelings of being independent when growing old were seen in relation to earlier experiences of life.[29] Autonomy is one of the traits of self-actualized persons.[16] The elderly expect to continue the management and authority they have gained so far in the rest of their life. Those who live in their homes keep their health status by employing various self-care measures, doing their daily chores, and trying to live independently as much as possible. The elderly prefer to keep their autonomy and emphasize on independently doing their expected indoor and outdoor functions.[30] Having a purposeful life is the last subcategory. In our study, the elderly prevent monotony and depression by planning and creating different goals and motivations such as planning to solve the problems and managing life. Experiencing purpose in life was also described as being happy in everyday life and thinking positively in every situation. In one study, having enjoyable hobbies, managing the household, and maintaining friendships were mentioned as

contributing to experiences of purpose in life.[29] Having a goal and planning to achieve it gives the person a sense of life and puts him on the path of movement.

Active lifestyle is the second category extracted in this work. Having fun improves the sleep pattern, makes people calm, heals their pains, and helps them escape from loneliness. Entertaining themselves with interests such as plants/gardening, walking around, going outdoors, and making relations with younger individuals are of the common forms of having fun among the participants that is in line with the result of another study.[31] But in India photography, birdwatching, and card playing are the most common recreational activities for seniors,[32] and the Swedish elderly tend to participate in travel tours, communities, studying, and athletic activities.[33] Considering the relatively low economic status of the Iranian elderly, they tend to have activities that are low cost and require no specific facility. Keeping fit shows the willingness of the elderly to maintain their ideal weight. Weight loss of about 5%–10% has remarkable effects on their hypertension level.[34] This finding is inconsistent with the results of Findlow and Seymour[35] who reported that only one-third of overweight elderly make some effort to deal with this problem. Other studies also found that only 40% of the elderly suffering from hypertension cared about their weight loss and keeping fit.[36,37] Since this study was conducted in Tehran, which has considerable cultural differences with other cities, the difference between the results of this work and those of our study, which was done in a smaller city with a high cultural difference compared with Tehran, can be justified. Strengthening the social interactions and communicating with peers, as the third subcategory, presents the interest of the elderly for interacting with others. having interpersonal relations is one of the characteristics of self-actualized persons.[16] The results of this study showed that our results for this subcategory contradict those of Robert and Dunbar[38] who reported that the elderly have less tendency to create friendly relations since keeping such communications requires investing and making further effort. However, in Canada activities with family or friends were the most common.[39] When elderlies are asked to describe their close friendships, they express their common interests, sense of belonging, and opportunities to exchange their secrets, all of which become stronger with the passage of time.[40]

Spirituality is the third category extracted in this work. Spirituality is mentioned as one of the characteristics of self-actualization.[16] Based on age, religion, culture, and health status, spirituality in human life is reflected in different forms.[41] Spirituality causes calm, vitality, and compatibility with chronic disease in the elderly.[42] In our study, trust in God was a way to deal with hypertension that is line with the result of one other study,[43] but another research[44] showed reliance on God's help was not generally associated with health-related quality of life. Faith is conceptualized as the individual's strength of belief in a higher power.[22] Satisfaction is the second subcategory that showed participants accept their diseases and condition. In other studies, the majority of elderly were dissatisfied.[45,46] This difference can be related to the personality of the participants. In our study, participants have a high level of self-confidence, but in the mentioned study the self-concept of elderly is low. Praying is the most common form of benediction in our study. In one study, 45% of participants were introduced to the religious community and participated in religious activities in the process of chronic disease management.[26] The elderly people spent most of their time praying.[46,47] Considering the many religious activities conducted by Iranian elderly compared with the Swedish ones, and the findings of the study by Rocha and Ciosak[25] conducted in Brazil, it is observed that many of the elderly did not view faith and religious beliefs as a positive mechanism for dealing with illnesses and did not consider any positive benefits for them. Such an issue can be attributed to the lack and scarcity of religious programs in these countries. Iran is one of the largest Islamic countries and a religious and Islamic culture dominates the society. Thus, it is not surprising that the participants of this study perform religious practices such as praying to reduce their anxieties and stress and to provide mental peace.

Participants used strategies such as avoiding stressful places and negative thoughts as well as having patience toward the illness and life problems and not exaggerating them as some stress management strategies. Stress management is one of the health behaviors in the elderly.[48] There is a direct relationship between self-esteem and stress management.[49] The results of Izadirad *et al*.[49] also showed that the elderly prefer peaceful activities to keep calm. Other studies have shown that elderly used abdominal breathing, massage therapy, progressive muscle relaxation, music therapy,[50] look and focus on good things,[51] and Tai Chi[52] as stress management techniques. However, Barati *et al*.[53] concluded that stress management is very poor in old people. Lack of required knowledge about stress control skills and not applying such skills are of the main reasons of poor stress management in these participants. Barati *et al*.[53] carried out a study in subsidiary villages of a remote city, and according to the conditions in Iran, the lack of educational resources and specific advice on stress management and control, problem-solving, and improvement of life skills for the elderly in the villages and, on the other hand, the low level of elderly literacy in rural areas and the inability to study and learn skills may justify the low level of stress management among participants in this study. Considering the fact that this study was carried out in a large city of a religious country, the probability of generalization of the results to other elderlies is low. The results of the study can be used to help the elderly to increase their motivation for self-care behaviors. The limitations of time and access to

maximum variance of participants from other cities may affect the generalizability of the results due to the cultural differences.

Conclusion

The findings of this study could draw a clear image of the self-care experiences of the elderly suffering from hypertension and their consequences. These elderly maintain hope in the struggle with their illness, effectively control their thoughts and actions, and pass and enjoy this period with a sense of capability, hope, joy, and spirituality. The self-actualized elderly resist against the damaging effects of internal and external stresses (as the inseparable component of their lives) and take necessary steps toward their flourishing. It is notable that management and regulation of thoughts toward resisting internal and external stresses contribute to the self-actualization of the participants. At the end, it is recommended to develop care plans or design educational programs to institutionalize a culture of fun for the elderly to teach positive psychology to prevent the occurrence and deepening of the elderly problems. Health professionals should be aware that under the positive effects of self-care behaviors, the level of health will increase. Subsequently, medical expenses will be reduced.

Acknowledgements

This article is part of a PhD dissertation in nursing at Shahid Beheshti University of Medical Sciences, Tehran, Iran (Register Number is 2488984). The authors wish to express their gratitude to all the elderlies for expressing their true perceptions. They would also like to thank all participants whose participation resulted in the production of this article.

Financial support and sponsorship

Shahid Beheshti University of Medical Sciences, Tehran, Iran

Conflicts of interest

Nothing to declare.

References

1. World Health Organization [Internet]. Number of People over 60 Years Set to Double by 2050; Major Societal Changes Required. Website 2015. Available from: http://www.who.int/world-health-day/2012/toolkit/background/en/index3.html. [Last cited on 2015 Sep 30].
2. Amar.org [Internet]. Tehran: Statistical Center of Iran. Website 2016. Available from: http://www.amar.org.ir/Portals/0/Files/abstract/1390/n. [Last cited on 2016 April 19].
3. Lozano R, Murry CH, Lopez A. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: A systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012;13:2095-128.
4. Chinnakali P, Mohan B, Ravi PU, Arvind KS, Rahul S, Kapil Y. Hypertension in the elderly: Prevalence and health seeking behavior. N Am J Med Sci2012;4:558-62.
5. Gunes ARIK, Burcu Balam Y. Hypertension in older adults-geriatrician point of view. J Gerontol Geriate Res 2014;3:100-82.
6. Bromfield SG, Bowling CB, Tanner RM, Peralta CA, Odden MC. Trends in hypertension prevalence, awareness, treatment, and control among US adults 80 years and older, 1988-2010. J Clin Hypertens (Greenwich) 2014;16:270-6.
7. Briasoulis A, Agrawal V, Tousoulis D, Stefanadis C. Effects of antihypertensive treatment in patients over 65 years of age: A meta-analysis of randomised controlled studies. Heart 2014;100:317-23.
8. Darvishpoor Kakhki A, Abed Saeedi J, Delavar A. Diseases of old people referring to elderly centers of Tehran. Payavard Salamat 2013;7:14-20. [In Persian].
9. Chatziefstratiou A, Giakoumidakis K, Brokalaki H. Cardiac rehabilitation outcomes: Modifiable risk factors. Br J Nurs 2013;22:200-7.
10. Lee CS, Moser DK, Lennie TA, Riegel B. Event-free survival in adults with heart failure who engage in self-care management. Heart Lung 2011;40:12-20.
11. Hemmatimaslak M, Hashemloo L. Effect of implementing Orem's self-care program on the self- esteem of elderlies based in residents of Nursing home in Urmia. IJMSN 2012;1:11-15. [In Persian].
12. Minac ME, Feng MC. Assessment of activities of daily living, self-care, and independence. Arch Clin Neuropsychol 2016;31:506-16.
13. Star KL. The Relationship Between Self-Care Practices, Burnout, Compassion Fatigue, and Compassion Satisfaction among Professional Counselors and Counselor-in-Training [Dissertation]. Kent State University; 2013.
14. Hinkel JC, Cheever KH. Brunner & Suddarth's Textbook of Medical-Surgical Nursing. 13th ed. Philadelphia, PA: Lippincott; 2014.
15. Schacter L, Gilbert T Wegner M. Human Needs and Self-Actualization. 2th ed. New York: Worth, Incorporated; 2011.
16. Dsouza J, Gurin M. The universal significance of Maslow's concept of self-actualization. J Humanist Psychol 2016;44:210-4.
17. Taormina RJ, Gao JH. Maslow and the motivation hierarchy: Measuring satisfaction of the needs. Am J Psychol 2013;126:155-77.
18. Polit DF, Beck CT. Nursing Research: Principle and Methods. 9th ed. Philadelphia, PA: Lippincott; 2012.
19. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today 2004;24:105-12.
20. Polit DF, Beck CT. Essentials of Nursing Research: Appraising Evidence for Nursing Practice. Philadelphia, PA: Lippincott; 2014.
21. SaeedniaY. Generating a scale measuring hierarchy of basic needs. Sciences 2011;15:3084-94.
22. Bagheri-Nesami M, Goudarzian AH, Mirani H, Jouybari SS, Nasiri D. Association between self-care behaviors and self-esteem of rural elderlies; necessity of health promotion. Mater Sociomed 2016;28:41-5.
23. Chedraui P, Pérez-López FR, Mendoza M, Leimberg ML, Martinez, MA, Vallarino V, *et al.* Assessment of self-esteem in mid-aged women. Maturitas 2010;66:77-82.
24. Klainin P, Qunnapiruk L. A meta-analysis of self-care behavior research on elders in thailand: An update. Nurs Sci Q 2010;23:156-63.
25. Rocha A, Ciosak A. Chronic disease in the elderly: Spirituality and coping. Rev Esc Enferm USP 2014;48:78-93.

26. Baker L, Gringart E. Body image and self-esteem in older adulthood. J Gerontol 2009;29:977-95.
27. Fekrizadeh Z, Khorsandi M, Roozbahani N. Self-efficacy of self-care behaviors of elderly patients with hypertension. J Sabzevar Univ Med Sci 2014;21:753-60. [In Persian].
28. Fukawa T. Dependency of the elderly and expectation of independent living at birth in Japan. Health Prim Care 2017;1:1-6.
29. Doba N, Tokuda Y, Saiki K, Kushiro T, Hirano M. Assessment of self-efficacy and its relationship with frailty in the elderly. Intern Med 2016;55:2785-92.
30. Darvishpoor Kakhki A, Abed Saeedi J, Delavar A, Saeed-O-Zakerin M. Autonomy in the elderly: A phenomenological study. Hakim 2009;12:1-10. [In Persian].
31. Tavares D, Matias TH, Ferreira P, Pegorar M, Nascimento J, Pavia M. Quality of life and self-esteem among the elderly in the community. Cien Saude Colet 2016;21:3557-64.
32. Bhawana Singh, Kiran UV. Recreational activities for senior citizens. J Humanit Soc Sci 2014;19:24-30.
33. Maddah SB. The status of social and leisure time activity in the elderly residing in Iran and Sweden. Salmand 2009;3:597-606. [In Persian].
34. Jalalvand SH, Farahani A. Study of relationship between physical activity and self- esteem, body appreciation and social physique anxiety among high school male and female students. SSRJB2011;2:27-37.
35. Findlow J, Seymour RB. Prevalence rates of hypertension self-care activities among African Americans. J Natl Med Assoc 2011;103:503-12.
36. Sadeghi M, Shiri M, Roohafza H, Rakhshani F, Sepanloo S, Sarrafrazadegan N. Developing an appropriate model for self-care of hypertensive patients: First experience from EMRO. ARYA Ather 2013;9:232-40.
37. Zinat Motlagh R, Sadeghi E, Eslami AA.Self-care behaviors and related factors in hypertensive patients. Iran Red Crescent Med J 2016;18:350-8.
38. Roberts SB, Dunbar R. The costs of family and friends: An 18-month longitudinal study of relationship maintenance and decay. Evol Hum Behav 2011;32:186-97.
39. Gilmour H. Social participation and the health and well-being of Canadian seniors. Health Rep 2012;23:2-12.
40. Rashedi V, Gharib M, Rezaei M, Yazdani AA. Social support and anxiety in the elderly of Hamedan. Iran Rehabil 2013;14:110-5.
41. Habibi M, Mazaheri MA, Dehghani S, Ashori A. Measurement model and psychometric properties of family communication scale (FCS) and family satisfaction scale (FSS) in Iranian families. J Fam Res 2014;10:313-29.
42. Bastani F, Pourmohammadi A, Haghani H. Relationship between perceived stress with spiritual health among older adults with diabetes registered to the association of diabetes prevention and control in Babol, 2013. Hayat 2014;20:6-18. [In Persian].
43. Lenze E, Hickman S, Hershey T. Mindfulness-based stress reduction for older adults with worry symptoms and co-occurring cognitive dysfunction. Int J Geriatr Psychiatry 2014;29:991-1000.
44. Bussing A, Recchia D, Baumann K. Reliance on god's help scale as a measure of religious trust – A summary of findings. Religions 2015;6:1358-67.
45. Chehregosha M, Bastaminia A, Vahidian F, Mohammadi A, Aghaeinejad A. Life satisfaction index among elderly people residing in Gorgan and its correlation with certain demographic factors in 2013. Glob J Health Sci 2016;8:41-50.
46. Beyaztas FY, Kurt G, Bolayir E. Life satisfaction level of elderly people: A field study in sivas, Turkey. J Pak Med Assoc 2012;62:221-5.
47. Amin A, Kumar S, Rajagopalan A, Rajan S, Mishra F, Kumar U. Beneficial effects of OM chanting on depression, anxiety, stress and cognition in elderly women with hypertension. Indian J Clin Anat Physiol 2016;3;253-5.
48. Gheibizadeh M, Parand Pourghane P, Mosaffakhomami H, Heidari F, Atrkar Roushan Z. Identifying determinants of stress among retired elderly. Geriatr Nurs2016;3:50-63.
49. Izadirad H, Masoudi G, Zareban I. Evaluation of efficacy of education program based on BASNEFF model on self-care behavoirs of women with hypertension. J Zabol Univ Med Sci Health 2014;6:42-51. [In Persian].
50. Papageorgiou F, Varvogli L, Oikonomidi T, Chrousos GP, Darviri C. An 8-week stress management program for older women: A pilot randomized controlled trial. Psychology 2016;7:829-35.
51. Wetherell JL, Hershey T, Hickman S. Mindfulness-based stress reduction for older adults with stress disorders and neurocognitive difficulties: A randomized controlled trial. J Clin Psychiatry 2017;78:734-43.
52. Fetherston CM, Wei L. The benefits of tai chi as a self-management strategy to improve health in people with chronic conditions. J Nurse Health Care 2011;3:155-64.
53. Barati M, Moghimbeigi A, Afsar A. Self-regulation behaviors of hypertension and related factors among hypertensive patients. J Fasa Univ Med Sci 2011;1:116-22. [In Persian].