Original Article

Access this article online

Quick Response Code:

Website: www.jehp.net

DOI: 10.4103/jehp.jehp_45_18

Status of observance of structural standards in rehabilitation centers and nursing homes

Malihe Foruoghi, Mahrokh Keshvari[1], Saeeid Sadeghi[2], Parvaneh Abazari[3]

Student Research Center, School of Nursing and Midwifery, Isfahan University of Medical Sciences, [1]PHD in Nursing, Assistant Professor, Isfahan University of Medical Sciences, Isfahan, Iran, [2]PHD in General Psychology, Director General of Welfare Organization of Isfahan Province, [3]Nursing and Midwifery Care Research Center, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran

Address for correspondence:
Dr. Parvaneh Abazari, Nursing and Midwifery Care Research Center, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: abazari@nm.mui.ac.ir

Received: 21-02-2018
Accepted: 11-06-2018

Abstract:

INTRODUCTION: The purpose of this study was to determine the status of observance of structural standards in rehabilitation centers and nursing homes.

MATERIALS AND METHODS: This cross-sectional descriptive study was carried out on 12 centers of the nursing homes of Isfahan city during 2016–2017. The tool was a check. To complete the checklist, the direct observation of the environment and the review of existing documents were used. Data were analyzed by descriptive statistics and frequency distribution.

RESULTS: The findings of this study shows that of 11 standards ofworkforce standards regarding to health expert presence, nurse presence, therapist and extracurricular instructor presence, have been observed innone of the centers, and the presence of social worker/psychologist in 50% of the centers. Of the 21 standards relating to the physical environment, eight standards have not been met in any of the centers. Of the 25 standards relating to the general conditions of building, 4 standards have not been met in any of the centers. Of the 10 standard relating to the equipment and supplies which are needed, 3 were not observed in any of the centers. Of the 10 standards relating to the required services, except one, standards have been met in all centers. Of the 10 standards relating to the general provisions, 7 are met in all centers of both types.

CONCLUSION: According to the findings, a significant percentage of standards have not been met in any of the aging centers or just met in some of these centers. It is hoped that the results of this study will enable authorities to promote standardization of nursing homes and rehabilitation centers.

Keywords:

Elderly, nursing homes, rehabilitation centers

Introduction

The world's population is unexpectedly aging and getting old. According to the definition of the World Health Organization, people are known as elders at the age 65 or older.[1] This age group has the fastest growth among the world's population with an increase in life expectancy.[2] According to EU estimates, the proportion of the population over the age 60 will be 30% in 2025 and 34% in 2050.[3] At the same year, 31.5% of Iran's population will be elderly.[4] According to the official results of the last census, the statistics indicate an increase in the population of elderly people aged over 65 from 7.5% in 2011 increased to 1.6% in 2016.[5] This increase in the middle age population (30–64 years old) is also evident, so that their share of the entire population of the country has reached 8.44%, and in total, more than half of the current population of the country (51%) are middle-aged and elderly.[6]

Providing security for aging course and getting old and self-care measures are important indicators of care for the elderlies in sociologists' viewpoints.[7] The issue of taking care and providing comfort and welfare for the elderly in the community finds new and wider dimensions every

How to cite this article: Foruoghi M, Keshvari M, Sadeghi S, Abazari P. Status of observance of structural standards in rehabilitation centers and nursing homes. J Edu Health Promot 2018;7:95.

day, and the statistics show that the elderly population is constantly and increasingly is in need of full nursing care in physical, psychological, social, economic, and cultural aspects.[8]

In our country for many years, the Iranian family was one of the best families for accepting the elderly, so that the findings of Ahangarzadeh Rezaee and Khalilzadeh study (2005) showed that in 2004, fewer <20% of teachers agreed to sending elderlies to the nursing homes.[9] On the other hand, the study results show a more joy and quality in the sleep of elderlies who are staying at their own homes rather than staying at the nursing homes,[10,11] but with specific social conditions such as urbanization, modernity, change in traditional values, economic changes in the field of employment, housing, enough income, increased costs, cultural changes in the field of customs and traditions,[12] contradiction of the value system of the new and old generation and the lack of readiness to accept elderly care caused the family to be unable to properly play its roles and responsibilities toward the elderly.[13] Under such circumstances, children are usually in trouble to find the best way to take care of their parents and this situation gets worse when one of the parents has passed away, so that decisions about maintaining and taking care of them at home or at nursing homes have always been a controversial issue between children.[14]

The basis of thought about founding a nursing home can be summarized in two words: the comfort of the others and the well-being of the elderly. About the welfare and comfort of people around them, we can say that many elderly people are facing difficulties, problems, and physical and mental illnesses which cause taking care of them to become a discomfort to the family.[15]

The word nursing home is used to define organizations that serve individuals with chronic diseases and physical defects. The focus of care is on people who do not need to be hospitalized, but unable to take care of themselves, i people who are not able to stay at home due to physical health and mental health problems or functional disabilities. On the other hand, transferring to such centers in studies is described as one of the most difficult experiences that elderly people face with, and admission to nursing homes triggers mental consequences such as feeling rejected, mental stress, depression, instability, loss of home, and the chance of contact with family and friends, so that among the various displacements, the transition to the nursing home has been recognized in texts as the most influential transition for the elderly.[16]

The issues and needs of the elderly were first introduced in 1982 at the International conference of Old-Age in Vienna, and since 1999, every year, the first of October was named the International Day of the Elderly,[17] and at the 2nd International Elderly Conference in Madrid in 2002, warning the developing countries about the newfound old age phenomenon calls for serious measures to be taken to achieve them in three main axes: elderly and social development, elderly and health, elderly and empowerment development.[18] In this regard, according to the country's legal clause of establishing a welfare organization (approved on June 14, 1980), one of the duties of the organization is the responsibility of taking care of the elderlies in need. In this regard, the welfare organization is responsible for numerous financial services, provision of the necessary equipment, providing credit facility for construction, purchase or rental of a building, equipping and launching maintenance centers for applicants to establish these centers, and monitoring the performance of the nursing homes.[19] In Iran, many care programs have either not been implemented or are still in the state of planning,so that even the wealthy elderlies are not able to use the services.[20] However, considering the issue of aging as an essential and necessary element in the development process at the community level, the rights of the elderly are important, and in several clauses, the constitution pays to some issues such as the principle of dignity, human worth, and respect for the needs of society for different businesses for all individuals that the government is required to provide it for all segments of society. It is not possible to develop and predict the country's economic, social, cultural, and political future, regardless of the elderly population, and any kind of damage in this regard can cost a lot.[21]

The first Iranian nursing home was founded in Rasht in 1966, and the first nursing home in Isfahan was Sadeghie's nursing home in 1975. On June 25, 2002, at the same time, as ratification of the establishment of nursing homes by the Council of Deputies of the Welfare Organization, standards for the elderly homes were announced and enforced. The guidelines for rehabilitation and elderly care boarding centers include the dimensions of workforce, physical space, general conditions of the building, equipment and supplies in need, required services, and general regulations is according to three types of nursing homes.

Based on searches in scholarly and authoritative internal and external texts, no research over the past decade of standards advocacy has found a study that demonstrates the evaluation of the rate of fulfilling all areas of standards in nursing home centers. Studies have mostly been focused on the psychological factors of elderly people in nursing homes, or the study which was done in the city of Mashhad was focused on architecture. On the other hand, no such studies have been conducted in Isfahan province, which doubles the necessity of this study.

According to the report of the United States Centers for Disease Control and Prevention (2013), failure to comply with standards will lead to accidents and injuries in the elderly. For example, the fall in the elderly living in a nursing home is twice as high as the elderly living in the community (the most common causes of the fall in these centers are the presence of wet steps with steep gradients, lack of ambient light, lack of suitable bed height and insecure wheelchairs , and the absence of protective fences near the elderly beds). Physical abuse of the elderly (physical harassment), increased lumbar disc (due to physical changes in aging process), bedsore and how to care for it, nutritional needs in the elderly and, most importantly, intense deficiency of Vitamin D in this stratum are very important as a high-risk group.[22]

The Iranian family is one of the best families for admitting the elderly in its kind. However, special social conditions such as urbanization, modernity, change in traditional values, the contradiction of value system of the new and old generations, and the lack of preparation to accept elderly care play a role. It causes the family to be unable to properly play its roles and responsibilities toward the elderly. In such a situation, the elderly may be exposed to family members misconduct and its consequences.[23]

Farzanegan *et al.* (2012) stated that fitting the environment of the centers and designing the sanatorium space with home conditions and avoiding the maintenance of the elderly in the crowded rooms, along with improving the quality of services, can be effective in the reduction of the elderly's feeling of degradation.[16] Imani *et al.* stated that the proper sanitation space and it's standardization, as well as the provision of cares needed, provide the background for changing the attitudes of the elderly and their families to nursing homes and rehabilitation centers.[24]

Heidari *et al.* stated that nursing home in accordance with the health-care system can be useful in improving the state of nursing homes services in Iran, in accordance with the cultural dimensions of Iranian society and the provision of appropriate substructure.[25]

Ungar *et al.* stated that the fall in elderly people, especially elderly people living in a nursing home, is frequent, so multistep interventions are needed to assess the risk of falling. The American Elderly Association Guidelines outline the changing environmental hazards, educational paths, foot protectors, and proper use of maintenance tools (wood, walker) as the effective elements of a multistage intervention program.[26]

Schüssler and Lohrmann stated that the care and nursing care problems (blockage of veins, malnutrition, dementia, urinary incontinence, falls, and movement limitations) occur for the residents of nursing homes, some of these accidents are due to inappropriate conditions of nursing homes, so that they can be prevented by meeting standards.[27]

Chaves stated that the satisfaction of the elderly in nursing homes is important from two aspects of standardization and communication. The standard aspect is influenced by the physical spaces and the conditions governing it and the communication aspect influenced by personnel communication and health education for the elderly. At the end, he suggests that in nursing homes, organizational investmentsand the equipping of health centers should be done with human and material resources.[28]

Individuals over 60 years of age in Isfahan Province account for 11% of the total population of the province, and according to the Statistical Center of Iran (2006), this province is one of the oldest provinces in the country. Since the characteristics of the structure of the nursing home are effective on providing the elderly's physical safety and preventing accidents, the useful measures that can be taken are to identify the structural and process problems of these homes. Hence, the fitting of the environment of the centers and the design of the sanatorium with home conditions and avoiding their maintenance in the crowded rooms, along with improving the quality of services, can be effective in increasing the quality of life of the elderly.

Considering what has been stated, healthy aging is the right of all human beings andthis increases the importance of the aging phenomenon and the prevention of aging problems and ultimately providing better nursing careto this vulnerable population especially in nursing homes, and considers the rise of self-efficacy level and psychological dimensions of the elderly among the goals of community health-care practitioners. Therefore, this study was designed and implemented to document the compliance of the structural conditions of the nursing homes with the standards of the welfare state in Isfahan.

Materials and Methods

This descriptive cross-sectional study was conducted with the aim of determining the percentage of observing the structural standards of the rehabilitation and maintenance centers of the elderly in Isfahan during 2016–2017. The study community consisted of 13 centers in three categories (Type 1, 2, and 3) operating under the supervision of the welfare organization. Sampling was as census and criteria for entering the study included being located in the geographical area of Isfahan and establishment was with the permission of the welfare organization. Based on this, 12 centers were investigated

and a center was excluded from the study due to the closure.

The data gathering tool included a questionnaire containing general questions related to the characteristics of the entire center including the number of elderly people covered, the year of establishment, brigade and type of center's general information, and the checkout list prepared by the welfare organization to measure the percentage of compliance with structural standards. The checklist has three parts and six domains with 135 items. Of the 135 items, 81 were for Type 1, 81 for Type 2, and 83 for Type 3 (55 of 135 in all three brigades were in common).

The first part of the checklist was the specific standards for workforce and physical space in each type of center (Type 1: Workforce included 11 and physical space including 15 items, Type 2: Workforce included 9 and physical space including 17 items, Type 3: Workforce included 10 and the physical space including 18 items).

The second part of the checklist related to the general condition of the building was 25 items, the equipment and supplies in need 10 items, the required services 10 items, and the general provisions of the 10 items jointly for all types of centers and nursing homes. The status of each area was determined according to the two-valued criterion: Yes = 2, NO = 1. The researcher will use the direct observation to complete the checklist and review existing documents. After receiving an introduction letter from the college of certified nurse-midwife, Isfahan University of Medical Science, the researcher referred to the management of nursing homes centers (Types 1, 2, and 3). After presenting the letter and explanation in relation to the research objectives to the authorities and obtaining their consent and cooperation, the checklist was completed to determine the level of structural standards observance. The researcher started to analyze the standards one by one with observing, reviewing the documents according to the checklist prepared by the welfare organization and based on the type of center, and by visiting the study site (nursing home) in person, every day for 3 h.

Results

The nursing homes were included 12 centers (8 Type 2 centers and 4 Type 3 centers), a charity, and 11 private centers, all serving 24 h a day. The frequency distribution of staffing standards observation for nursing homes is presented in Table 1.

Findings of Table 1 show that of 11 workforce standards, 3, 5, 9, and 10 standards are not met in any of the centers and the number 2 standard of workforce is observed in <50% of the centers.

Percentage of the physical space standards observance in the nursing homes is shown in Table 2.

The findings of the study indicate that of the 21 standards related to the physical environment in the nursing homes, 8 of the standards were not observed in any of the centers, and 5 of the standards of physical space in all nursing homes were met.

The findings of Table 3 indicate that of 25 standards for the general conditions of building, 8 have been fully complied with, 4 standards have not been met in any of the centers, and 5 in <50% of cases.

The findings of Table 4 indicate that of the 10 standards in the equipment and materials in need, 4 were observed in all centers and 3 were not observed in any of the centers.

The findings of Table 5 indicate that of the 10 standard service requirements, except one, standards have been met in all centers.

The findings of Table 6 indicate that of 10 cases, 7 cases in all centers of both nursing home types in Isfahan have been 100% observed.

Discussion

Determine and identifying the status of compliance with the standards of physical space, workforce, required services, equipment and accessories required, general regulations, general conditions of the building, workforce conditions, rehabilitation centers, and nursing homes are the first step in determining the challenges and planning to improve the conditions of these centers in order to provide a safer and healthier environment for the elderly living in these homes. The findings of this study suggest that nursing homes in Isfahan are far from comply with the national standards of welfare organization in terms of composition and number of workforce required. Based on the findings, about 40% of physical standards have not been observed in any of the centers and 42% in some centers. Sixteen percent of the general building standards are not observed in any of the centers and 52% observed just in some of the centers. Thirty percent of the standards of equipment and materials in need are not observed in any of the centers and 30% is partially met. 90% of the required service standards are observed in all centers. Thirty percent of the general regulations have not been observed in any of the centers and 70% are completely observed. Thirty-six percent of workforce standards have not been met in any of the centers and <50% are partly upheld.

In the culture of each society, the kind of dealing with the elderlies has a variety and disparity, so that

paternalism and perspiration are seen in societies. In Iran, although people adhere to some cultural and religious beliefs, and aging is still not so demographic, and the existence of positive cultural values in the family deprives a few elderlies of social protection, families do not welcome their elderly under every circumstances.[28] Therefore, in order to protect the elderly, who were once the productive force of community, steps must be taken to improve the quality of life. In some countries, such as the United States, Germany, Japan, and Norway, the best practices for the care of the elderly, whether in nursing homes

Table 1: Frequency distribution of workforce standards at 2nd and 3rd type centers of nursing homes in Isfahan city

Question (workforce)	Type 2				Type 3				Sum total
	Yes		No		Yes		No		
	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Percentage of compliance
Type 2: Center has a general practitioner, who preferably has a college degree in aging medicine, for 3 days a week	6	75	2	25	2	50	2	50	6.66
Type 3: The center has at least one full shift with a general practitioner, who preferably holds a university degree in aging medicine, at all days of the week									
Type 2: The center has a psychologist or social worker with at least a bachelor's degree, 2 days at a week	6	75	2	25	3	75	1	25	75
Type 3: The center has a psychologist, with at least a bachelor's degree, 2 days a week									
Type 2: The center has one hygiene expert	0	0	8	100	0	0	4	100	0
Brigade 3: A center has one hygiene expert, with at least a bachelor's degree, one-time-a-week									
Type 2: This center has a nutritionist	0	0	8	100	0	0	4	100	0
Type 3: The center has a nutritionist, with at least a bachelor's degree, once a week									
Type 2: This center has one nurse in the morning and evening shifts and two in the night shift	7	87.5	1	12.5	3	75	1	25	3.83
Type 3: This center has two nurses in every three shifts for every 25 people									

Contd...

Table 1: Contd...

Question (workforce)	Type 2				Type 3				Sum total
	Yes		No		Yes		No		
	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Percentage of compliance
Type 2: This center has a caregiver who has completed the theory and practical course for each of the 4 dependent elders, 8 half-independent elders and 15 independent elders in two shifts in morning and evening and one in the night shift	5	62.5	3	37.5	0	0	4	100	6.41
Type 3: This center has a caregiver for each 3 dependent elders, 6 half-independent elders and 10 independent elders per shift									
Type 2: This center has a physiotherapist, 2 days a week in one shift	6	75	2	25	4	100	0	0	3.83
Type 3: This center has a physiotherapist each day in a shift									
Type 2: This center has one person working as a therapist for 2 days a week and in one shift	0	0	8	100	4	100	0	0	0
Type 3: This center has one occupational therapist for 2 days a week in a shift									
Type 2: This center has one extra-curriculum trainer	0	0	8	100	3	75	1	25	0
Type 3: This center has one extra-curriculum trainer									
Type 3: The center has a social worker with at least a bachelor's degree, a day in a week	-	-	-	-	4	100	0	0	100

or at home, have been thought by the government. These measures include amenities for the health and well-being of the elderly. However, in Iran, due to the lack of complete adaptive studies and indigenization of the proper patterns of Western countries, the status of this group has not been well preserved in the society and has faced elders with many economic, social, medical, and family problems.[22]

The results of Nasiri's research (2016) from the study of 28 nursing home centers in Tehran showed that the physical fitness of the nursing homes did not follow the principles of comprehensive design, and in most of them, the living room and dining room did not have a desirable design. However, the kitchen, the management room, the laundry room, and the heating and cooling equipment were in a good condition.[5] The results of this study were

Table 2: Frequency distribution of the physical standards observance in 2nd and 3rd type nursing home centers in Isfahan

Question (physical space)	Type 2				Type 3				Total sum
	Yes		No		Yes		No		
	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Percentage of compliance
Type 2: The center has a doctor and consultant checkup room with a total area of 12 m^2	3	5.37	5	5.62	3	75	1	25	50
Type 3: The center has a doctor's examination room with an area of 12 m^2									
Type 2 and 3: The center has a rehabilitation hall with an area of 24 m^2	1	5.12	7	5.87	2	50	2	50	25
Type 2 and 3: The center has a nursing station equipped with a locked up medicine shelf	8	100	0	0	4	100	0	0	100
Type 2: The center has an elderly room with the maximum capacity of 4 people and a minimum area of 6 m^2/person	2	25	6	75	0	0	4	100	6.16
Type 3: The center has an elderly room with the maximum capacity of 3 people and the minimum area for each elderly is 6 m^2	2	25	6	75	0	0	4	100	6.16
Type 2 and 3: The center has a managing director's room with a suitable area	6	75	2	25	4	100	0	0	3.83
Type 2: The center has a break and dressing room fitted with the number of employees	4	50	4	50	-	-	-	-	50
Type 2: The center has an meeting hall of 30 m^2	0	0	8	100	1	25	3	75	3.8

Contd...

Table 2: Contd...

Question (physical space)	Type 2				Type 3				Total sum
	Yes		No		Yes		No		
	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Percentage of compliance
Type 3: The center has a meeting hall of 50 m^2	0	0	8	100	0	0	4	100	0
Type 2 and 3: The center has an elderly dining room with an area of 30 m^2	0	0	8	100	0	0	4	100	0
Type 2 and 3: The center has a kitchen that has a space of 20 m2 for cooking and 12 meters for preparation and washing the ingredients	0	0	8	100	-	-	-	-	0
Type 2: A bathroom with a bath for every 12 people a service	0	0	8	100	-	-	-	-	0
Type 2: The center has a restroom for every 10 people	8	100	0	0	4	100	0	0	100
Type 2 and 3: The center has a bathroom and a restroom for the staff.	0	0	8	100	0	0	4	100	0
Type 2: The center has a swimming pool	0	0	8	100	0	0	4	100	0
Type 3: The center has a swimming pool and sauna and jacuzzi	8	100	0	0	4	100	0	0	100
Type 2 and 3: The center has a special food store	8	100	0	0	4	100	0	0	100
Type 2: The center has a special shelter for health and clothing accessories	8	100	0	0	4	100	0	0	100
Type 2: The center has a suitable launderette	0	0	8	100	1	25	3	75	3.8
Type 2: The center has a yard with trees and is suitable for every elderly at least 5 m^2									
Type 3: The center has a yard with trees and suitable for every elderly 7 m^2									

Contd...

Table 2: Contd...

Question (physical space)	Type 2				Type 3				Total sum
	Yes		No		Yes		No		
	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Abundance	Percentage	Percentage of compliance
Type 3: The center has a consultant room or psychologist and social worker with an area of 12 m^2	-	-	-	-	0	0	4	100	0
Type 3: Center has a private single room with an area of at least 9 m^2	-	-	-	-	1	25	3	75	25
Type 3: The center has a 2-person common room with an area of at least 12 m^2	-	-	-	-	0	0	4	100	0
Type 3: The center has a staff dining room with an area of 20 m^2	-	-	-	-	0	0	4	100	0

Table 3: Frequency distribution of the observance of buildings general condition in the centers of both types of nursing homes standards in Isfahan

Row	Question (general building conditions)	Yes		No	
		Abundance	Percentage	Abundance	Percentage
1	The elder's room has a window to an open space	11	91.7	1	8.3
2	Doors and windows are equipped by grid	12	100	0	0
3	Opening the window as 60°or having a shield	0	0	12	100
4	The layout of the rooms is convenient for the comfort of the elderly	0	0	12	100
5	There is a good instrument to call the staff, available to the elder like a bell	8	66.7	4	33.3
6	An elaborate lift design for moving the elderly if the elder is in the upper floors	2	16.6	10	83.3
7	The phone is accessible to the elderly	12	100	0	0
8	The threshold in the elderly's room is equal to the floor	5	41.7	7	58.3
9	The minimum entry width of the elder's room is 90 cm for walker or wheelchairs	10	83.3	2	16.7
10	The maximum capacity for public rooms is 6 people	1	8.3	11	91.7
11	The elderly room is located in basement	0	0	12	100
12	The elderly bed has dimensions of 200 cm in diameter at 80 cm	12	100	0	0
13	There are separate warehouse items	8	66.7	4	33.3
14	Rest rooms have both Iranian and European toilet	11	91.7	1	8.3
15	Bathrooms and rest rooms are available on each floor	12	100	0	0
16	All spaces of the center, including halls, rooms and rest rooms, are equipped with a handle for elderly people	4	33.3	8	66.7
17	Rest rooms, bathrooms, kitchens and floors of the rooms and the hall are washable and impervious to water and also are not slippery	0	0	12	100
18	The building is relatively calm and less polluting than the rest of the site	10	83.3	2	83.3
19	The building has enough light (sunlight), adequate air and no humidity	10	83.3	2	83.3
20	Drinking water is completely safe and drinkable	12	100	0	0
21	The building has a robust strength against potential accidents	4	33.3	8	66.7
22	Construction of the building has been carried out according to the rules and regulations of the Supreme Council of Urban and Architecture of Iran dated January 6, 1999	12	100	0	0
23	The safety of Immunization of thermal systems, refrigerants and electrical appliances has been considered	11	91.7	1	8.3
24	Garbage and sewage in all parts of the building has a full evacuation process	12	100	0	0
25	Independent building with courtyard	10	83.3	2	16.7

Table 4: Frequency distribution of standards observance in equipment and supplies needed in centers of both types of nursing homes in Isfahan

Row	Question (equipment and supplies needed by the centers)	Yes		No	
		Abundance	Percentage	Abundance	Percentage
1	In the medical center including a thermometer, a 1 manometer, a barometer, a Stethoscope, a stretcher, a parathon examination bed, a medical scale, a suction, an oxygen capsule, a laryngoscopy resuscitation system, an endotracheal tube, an bag valve mask and the injectable drugs required, and dry heat, is available	12	100	0	0
2	In the center of the office supplies, including a convenient chair, an independent telephone line, a fax machine, educational and sports facilities, elder's medical records file, a bed and a wardrobe for bedding, kitchen utensils, dining table, suitable dresser or a suitcase for an elderly person	12	100	0	0
3	The center has a fire extinguishing system in accordance with the requirements of the center, the heating and cooling system is commensurate with the geographical area of the center	11	91.7	1	8.3
4	In center there are for audiovisual equipment	4	33.3	8	66.7
5	The center has emergency power system	4	33.3	8	66.7
6	The center has stainless steel or Chinese dinnerware set	12	100	0	0
7	The center has a fridge, freezer, oven and so on	12	100	0	0
8	In the center of the equipment of physiotherapy and occupational therapy include: TNS device and electric stimulation of galvanic and faradic, there are infrared device - ultrasound machine- Hot Pack tank and enclosures - Manual massager - Parallel and mirror - Shoulder wheel - fixed bicycle - monetary and enclosures - Wheelchairs - All types of canes - sculpting dough - and Versatile training device	0	0	12	100
9	If the center is type 2: In addition to the above equipment, it has a paraffin-frame and auxiliary equipment - a quadruple rack and a ramp-wall bar - a splint device for the Inter-Freshenal-Vacuum electric stimulator	0	0	12	100
10	If the center is type 3: In addition to the above equipment, there is a compressor therapy device - a Werpool machine in different sizes and hydrotherapy accessories in the pool	0	0	12	100

TNS: Terigeminal nerve stimulation

Table 5: Frequency distribution of standards observation in the nursing home centers of both types in Isfahan

Row	Question (required services)	Yes		No	
		Abundance	Percentage	Abundance	Percentage
1	Is the center providing 24 h care and nursing services?	12	100	0	0
2	At the center, controlling the vital signs, and any Injection and serum therapy is taken once a day	12	100	0	0
3	In the center, taking bathing twice a week, personal hygiene and personal grooming takes place for elders	12	100	0	0
4	At the center, proper nutrition (breakfast, lunch and dinner) is based on diets and programs approved by the organization for elderly	0	0	12	100
5	In the center, a type of season fruit is prepared daily for the elders	12	100	0	0
6	At the center, special clothing is provided annually for elder	12	100	0	0
7	In the center, washing clothes and linen ... .. is don twice a week	12	100	0	0
8	A GP is visited twice a week	12	100	0	0
9	Providing rehabilitation services (physiotherapy, occupational therapy, etc.,) twice a week	12	100	0	0
10	Extra programs and sports programs are done inside the center	12	100	0	0

somewhat consistent with the results of the present study, but in some respects, there were some differences that could be due to the difference in the management of the nursing homes, the location of the research, the allocated budget, and the attention of the authorities.

The findings of Heidari's research (2016) showed that the factors affecting the health of the system based on the treatment, cultural factors, and lack of infrastructure are the main barriers to providing health care in nursing homes in Iran. This is in line with the results of the present study. For example, workforce of this study is a part of the health system based on the treatment, the physical environment is part of the cultural factors and the general conditions of building, and equipment are a part of the lack of infrastructures in Heidari's study.[25]

Table 6: Frequency distribution of general regulations standards observance in the centers of both nursing home types in Isfahan

Row	Question (general provisions)	Yes		No	
		Abundance	Percentage	Abundance	Percentage
1	The acting license (exploitation license) is exclusively limited to the same city that is licensed for it	12	100	0	0
2	The naming of the center is in accordance with the regulations and the sentence: under the supervision of the Welfare Organization of the province .is written under the panel	12	100	0	0
3	A standard panel is installed in the right place	12	100	0	0
4	The operating license (acting license) and the license of the managing director are subjected to the customer's view	12	100	0	0
5	The list of specialized staff working in the center, their opening hours and their specialized fields at the office of the director of the center's office is displayed on a panel for customer's information	1	3.8	11	91.7
6	For all elders, there are medical and supporting files in accordance with the rules and the privacy principle	12	100	0	0
7	Elderly admission requirements, including the use of ECG and Radiological photos of the chest, are met	7	3.58	5	41.7
8	Tariffs in each field according to the regulations and the prehension center type and the costs panel is exposed to customers	0	0	12	100
9	All staff with a valid health card from the health centers of the Ministry of Health and Medical Education or Medical Sciences Universities	12	100	0	0
10	All regulations regarding commercials are observed	12	100	0	

The results of this study were similar to Ungar *et al*.,[26] Schüssler and Lohrmann,[13] and Chaves and Santos[27] studies. These studies also emphasize the existence of physical spaces appropriate to the needs of the elderly, the equipping of centers, and the need for compliance with standards.

In explaining the findings, it can be stated that the Iranian society is aging and leaving the elderly to institutions is more than ever accepted; in order to improvement of target areas, also to increase the quality of life in nursing homes and reduce dissatisfaction, National co-operation is needed and all organizations, should solve the problems of this section according to their mission.[5]

Aging is a process that does not escape for each of us. Therefore, comparative and initial studies should be provided to present instructions in accordance with the local and cultural status of each region; the responsible and accountable organization in this field is determined and finally will be implemented with a committed and compassionate management. The nursing staff and other people needed to take care of the elderly should be trained and supported in all emotional/financial aspects.

Furthermore, today's world-class technologies such as smart clothes should be studied for the care of the elderly,[28] and according to the use, should be produced and used inside the country. In this regard, not only the financial support but also the proper use of it should be considered. Elderly care centers should be studied around the world, including the nursing cares that welcome them on a daily basis and provide health-care services. Old age insurance is one of the categories that need to be studied and insure the elderly in this period for any medical treatment.

In this study, we were concerned with the fact that aging is a process for all segments of society; we were looking to be able to flip the nursing homes, though small. It is hoped that custodial organizations will be able to solve their problems and carry out their liability by reviewing processes, establishing appropriate communications, preparing guidelines, and planning projects from the years before they reach old age.

Strengths and weaknesses of the study

The weaknesses of this study can be seen in the limitations on the generalizability of the findings (the findings of this study can be generalized only to the nursing homes of the city of Isfahan) and the possibility of hypocritical answers in their own reports. Of course, the researcher tried to complete the self-report through direct observation of the environment and existing documents as possible. The focus of the study is solely on the assessment of structural standards and is one of the other weaknesses in this study. One of the strengths of this study was to perform a comprehensive assessment for the first time since introducing the standards to nursing homes. On the other hand, the cooperation and support of welfare management provided the opportunity for a complete assessment of all nursing homes in the city of Isfahan.

Conclusion

According to the findings, a significant percentage of standards have not been observed in any of the elderly

centers or in some of these centers. Structural deficiencies in nursing homes directly and indirectly endanger the physical, mental, psychosocial, and spiritual health of the elderly. Failure to match the physical environment of nursing homes with the standards of welfare causes residents of these centers at a serious risk. On the other hand, the lack of specialized care staff, such as nurses and doctors, can easily overcome the possibility of ensuring the safety and health of the elderlies in these centers. With conjunction to the fact that the goal of welfare organization of editing the structural standards of nursing homes and rehabilitation centers is to create safe and suitable environments for their citizens. Certainlythe first step to improve the structural standards of nursing homes and rehabilitation centers is identifying the barriers of achieving these centers to the defined standards.It is hoped that the results of this study will help authorities to plan for identifying these barriers and in the next step, planning to overcome the challenges and interventional compilation to promote the standardization of nursing homes and rehabilitation centers.

Acknowledgment

This article is the result of the research project number 395,756 which started after receiving the Code of Ethics from Isfahan University of Medical Sciences. It is necessary to thank the management and staff of the elderly care centers in Isfahan who have cooperated in this study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Sabharwal S, Wilson H, Reilly P, Gupte CM. Heterogeneity of the definition of elderly age in current orthopaedic research. Springerplus 2015;4:516.
2. Verma R, Khanna P. National program of health-care for the elderly in India: A hope for healthy ageing. Int J Prev Med 2013;4:1103-7.
3. Nabavi SH, Hatami ST, Norouzi F, Gerivani Z, Hatami SE, Monadi Ziarat H. Prevalence of fall and Its related factors among older people in Bojnurd in 2015. Iran J Ageing 2016;11:466-73.
4. Shahnazi H, Sobhani A. Study and comparison of different aspects healthy lifestyle of the elderly people residing in nursing homes, Isfahan, Iran. Iran J Ageing 2015;10:192-201.
5. Nasiri M, Foroughan M, Rashedi V, Makarem A, Jafari Mourjan B. Compliance to universal design criteria in nursing homes of Tehran. Iran J Ageing 2016;11:340-7.
6. Nazari SH, Rashedi V, Mohammadi H, Yousefi M. Relationship between cognitive status and activities of daily living among the elderly of nursing homes. J Kermanshah Univ Med Sci 2015;18:744-6.
7. Sheykhi MT. Elder Sociology. Tehran: Harir Publications; 2010.
8. Darvishpoor Kakhki A, Abed Saeedi J. 8. Adv Nurs Midwifery 2013;23:8-16. doi: 10.22037/anm.v23i82.6066.
9. Ahangarzadeh Rezaee S, Khalilzadeh H. Survey on teacher's idea about taking care of elder parents in Urmia in 2004. Urmia Nurs Midwifery Fac 2005;3:4.
10. Beyrami M, Alizadeh Goradel J, Ansarhosein S, Ghahraman Moharrampour N. Comparing sleep quality and general health among the elderly living at home and at nursing home. SIJA 2014;8:47-55.
11. Panah Ali A. Comparison between the level of happiness among the elderly living at home and that of senior home residents. SIJA 2011;6:49-55.
12. Ghaderi D, Mostafae A. A study on the relationship between religious orientations and quality of life among elderly men living in nursing homes and those living with their families in Tabriz. Salmand 2014;9:14-21.
13. Schüssler S, Lohrmann C. Change in care dependency and nursing care problems in nursing home residents with and without dementia: A 2-year panel study. PLoS One 2015;10:e0141653.
14. Aka J. Prons and cons of putting your aging parents in nursing home. Jachsonvill Home Care Elder 2013;30:45-63.
15. Bell SP, Patel N, Patel N, Sonani R, Badheka A, Forman DE, *et al.* Care of older adults. J Geriatr Cardiol 2016;13:1-7.
16. Farzanegan S, Fadaye Vatan R, Mobasheri M, Seraj R, Mansourian Y. Explanation people and their family care explanation of them. SIJA 2012;6 Suppl 1:52-7.
17. Heydari H, Shahsavari H, Hazini A, Nikbakht Nasrabadi A. Exploring the barriers of home care services in Iran: A qualitative study. Scientifica 2016;6 pages: 2056470. doi: 10.1155/2016/2056470.
18. Imani S, Torki Y, Zamani R, Ebrahimi SM. Elders' general self-efficacy and its affecting factors in Iran. Iran J Public Health 2014;43:1163-4.
19. Alizadeh M, Fakhrzadeh H, Sharifi F, Mohamadiazar M, Nazari N. Analytical performance of administrations in charge of ageing program in Iran. IJDLD 2013;13:74-81.
20. Larijani M, Tajmazinani AA. A study of factors influencing social exclusion of the elderly in Varamin city. J Appl Sociol 2015;26:15-16.
21. Safdari R, Alizadeh M, Mohamadiazar M, Sharifi F, Fakhrzadeh H. Comparative study of home care program in Iran with other developed countries. IJDLD 2014;13:439-46.
22. Razzaghi Z, Karimloo M, Rahgozar M, Aghamohammadzadeh N, Mahdizadeh A. Prediction of Vitamin D deficiency among Tabriz elderly and nursing home residents using stereotype regression model. SIJA 2011;6:31-7.
23. Khanlary Z, Maarefvand M, Heravi Karimoo M, Biglarian A. Study of the effect of social work intervention on the elderly abuse reduction. SIJA 2016;10:102-11.
24. Shrivastava SR, Shrivastava PS, Ramasamy J. Health-care of elderly: Determinants, needs and services. Int J Prev Med 2013;4:1224-5.
25. Heidari M, Ghodusi Borujeni M, Naseh L. Comparison of self-efficacy and loneliness between community-dwelling and institutionalized older people. Iran J Ageing 2016;11:142-51.
26. Ungar A, Rafanelli M, Iacomelli I, Brunetti MA, Ceccofiglio A, Tesi F, *et al.* Fall prevention in the elderly. Clin Cases Miner Bone Metab 2013;10:91-5.
27. Chaves C, Santos M. Patient satisfaction in relation to nursing care at home. Procedia Soc Behav Sci 2016;217:1124-32.
28. Bowles KH, Dykes P, Demiris G. The use of health information technology to improve care and outcomes for older adults. Res Gerontol Nurs 2015;8:5-10.