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ARCHITECTURE | REVIEW ARTICLE

A systematic review to compare residential care facilities for older people in developed countries: Practical implementations for Iran

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Abstract: The existing nursing homes in Iran cannot meet the psychological, social, and physical needs of older people. A majority of vulnerable individuals do not receive good-quality housing and a pleasant home environment. Therefore, this study aimed to determine the structure of purpose-built, modified housing, self-contained dwellings, residential care, and nursing homes for older people in Iran and around the developed countries. A systematic review was carried out to explore all the relative objects published in Persian and English during 1994–2016. The following databases were investigated: ProQuest, PubMed, Scopus, SID, Magiran, and Irandoc. Then, the results were screened independently by two reviewers using predefined inclusion criteria. Moreover, the resources were analyzed in terms of basic features, patterns of care, type of services, personnel, and facilities. Various settings such as sheltered housing, extra care housing, nursing home, residential facilities, retirement community, and foster nursing homes were approached. We concluded that the care services provided to the elderly of Iran have quantitative and qualitative deficiencies due to non-compliance of these centers with international standards.

ABOUT THE AUTHOR

Dr. Matlabi (PhD, The University of Sheffield, 2010) is an associate professor of the Department of Health Education and Promotion at the Tabriz University of Medical Sciences. His research focuses on quality of life, group dynamics, management of care settings, elderly health, and instructional media & technologies for learning. He spent his career implementing and valuating health promotion projects in the local community. This contradiction between training and practice has informed him on why promoting health is possible, but difficult.

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PUBLIC INTEREST STATEMENT

Due to social structural changes and the rapid increase of the older population in the coming decades, and also the reduction of family support, development of care services for older people in Iran is essential. Nursing home is the only long-term care facility, which has not been developed according to the international standards. Therefore, this study aimed to determine the structure of purpose-built, modified housing, self-contained dwellings, residential care, and nursing homes for older people around the developed countries. A systematic review was carried out to explore all the relative objects published in Persian and English during 1994–2016. Various settings such as sheltered housing, extra care housing, nursing home, residential facilities, retirement community, and foster nursing homes were approached. We concluded that the care services provided to the elderly of Iran have quantitative and qualitative deficiencies due to non-compliance of these centers with international standards.

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1. Introduction

Currently, Iran is experiencing a transitional phase of population age structure to aging. The population over 60 years has increased from 7.2% in 2006 to 8.2% in 2011 (Khosravi, Alizadeh, Torkashvand, & Aghaei, 2014). It is also anticipated that the Iranian elderly population would increase to 10.5% in 2025, and 21.7% in 2050 (Danial, Motamedi, Mirhashemi, Kazemi, & Mirhashemi, 2014). The prevalence of disability through chronic diseases among the older persons is higher than other age groups. Furthermore, with the growth of the older adult population, the number of frail and disabled people who require regular care increases. The rise of the older adult population also leads to increased demand for long-term care services (World Health Organization [WHO], 2012).

One of the problems associated with aging of population is providing care services to older persons. In Iran, traditionally, extended family has been responsible for older people's caregiving. Currently, the nuclear families constitute of 73% of the Iranian households. However, the family support has recently decreased and delivering care services to older people has been transferred to the government (Safdari & Mohamadiazar, 2013). Changes in family structure, along with factors such as urbanization, growth of women's employment, divorce, and economic problems, can decrease delivering care services by families. Accordingly, due to changes in family attitude about care of older adult, the use of nursing home settings as only full-time long-term care facility for older people in Iran has been proposed as an essential replacement and a social reality. Therefore, qualitative development of full-time residential care facilities (RCF) to the older people seems to be required (Zeinalhajlu, Amini, & Tabrizi, 2015). In addition, dependent older adults, older people living alone, and childless older couples imply the appropriate interventions for care and welfare of the older persons (Shoaei & Nejati, 2008). On the other hand, the inappropriate inner and outer physical spaces may increase the older adult's disability and result in transferring them to the nursing home settings (Shahbazi, Mirkhani, Hatamizadeh, & Rahgozar, 2008).

Different studies have indicated that the current care systems for meeting older adult care requirements in less developed countries are designed in a weak and inefficient manner, and are less capable to meet diverse needs of older persons (WHO, 2012). In Iran, residence of older adults in foster nursing homes is increasing, and since the most of the elderly care institutions have been remodeled to nursing homes, they lack the sufficient standards and have been unqualified to meet the most psychological, social, and physical needs of older people (Nasiri, Foroughan, Rashedi, Makarem, & Jafari Mourjan, 2016). Regarding the increase in multiple chronic difficulties among older people and to achieve successful aging, the care services need to be developed in proportion to the individual requirements (WHO, 2012).

Since, there is no nursing home facility in Iran to meet the diverse needs of older adults and subsequently reduce the negative social and economic consequences of the aging, the development of a purpose-designed model for older adults based on scientific findings is essential (Khosravi et al., 2014; Peyrovi, Mortazavi, & Joolaee, 2012). In the meantime, using scientific findings and valuable experiences about care development for older people and quality of life initiatives are inevitable. To the best of our knowledge, no comprehensive study has been conducted on examining and comparing different types of residential care settings among older people around the developed countries and Iran. Accordingly, the present systematic review was designed and performed with the purpose of identifying diverse types of RCF for the older adults. By considering the domestic needs and conditions of Iran, we may take a step forward in localizing the pattern of care.

2. Method

As part of a larger systematic review, this study aimed to determine the structure of purpose-built, modified housing, self-contained dwellings, residential care, and nursing homes for older people around the developed countries.

2.1. Search strategy

An initial systematic search was conducted on ProQuest, Scopus, PubMed, Irandoc, Magiran, and SID to explore all the relative objects published in Persian and English during 1994–2016 using the following keywords: aged care, nursing home, extra care housing (ECH), sheltered housing (SH), assisted living (AL), residential facilities, retirement housing, housing, elderly, older, senior, aged, administration, organization, features, structure, and care setting standards.

2.2. Inclusion criteria

All papers addressing the characteristics of residential care settings and older adults' care services were included and analyzed. The specific features aiming this study were service packages, staffing, and amenities in different kinds of care settings. We scheduled a search strategy by identifying the major elements of our questions, and translated natural language terms to subject descriptors, MeSH terms, or descriptors. Then, we observed results, abstracts, and full text of articles to view the comparison RCF in Iran and developed countries and outcome elements. Articles were excluded if they were unrelated to the topic and written in language other than English or Persian.

2.3. Study questions

What residential care settings (RCSs) are utilized to delivering long-term care to older people in Iran?

   What RCSs are utilized to deliver long-term care to older people in developed countries?

   What services are delivered to older adults in RCSs in Iran?

   What services are delivered to older adults in RCSs s in developed countries?

   What skilled and unskilled staffs are employed to provide older adults' care services at RCSs in Iran?

   What skilled and unskilled staffs are employed to provide older adults' care services at RCSs in developed countries?

   What amenities and facilities are utilized in different kind of RCSs in developed countries?

2.4. Assessment

Systematic reviews are essential to summarize evidence relating to efficacy and safety of health care interventions accurately and reliably. A critical appraisal resource was applied to improve steps of the research process by using preferred reporting items for systematic review and meta-analysis protocols. It consists of a 27-item checklist and a 4-phase flow diagram. The checklist includes items deemed essential for transparent reporting of a systematic review. Furthermore, the results were screened in multi-step, based on the relevance of title, abstract, and context independently by two reviewers using predefined inclusion criteria. An expert author was also involved with the aim to identify additional studies. References of retrieved articles and reviews on the topic were also examined to identify other possible relevant studies. The aim, objectives, and research methods are summarized in Table 1.

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Table 1. The aim, objectives, and research methods	
Aim	Determine the structure of purpose-built, modified housing, self-contained dwellings, residential care, and nursing homes for older people around the developed countries and Iran.
Objectives	• Utilize the types of residential care settings (RCSs) for older people in Iran.
	• Utilize the types of RCSs for older people in developed countries.
	• Identify the available services for older adults in RCSs in Iran.
	• Identify the available services for older adults in RCSs in developed countries.
	• Identify the skilled and unskilled staffs for delivering care services in RCSs in Iran.
	• Identify the skilled and unskilled staffs for delivering care services in RCSs in developed countries.
	• Utilize the amenities and facilities in different kind of RCSs in developed countries.
Method	• Systematic review.

3. Findings

This study aimed to determine the structure of purpose-built, modified housing, self-contained dwellings, residential care, and nursing homes for older people around the developed countries. We found 13,054 references through the searches. Of these, 74 studies fulfilled our inclusion criteria. Various settings such as SH, ECH, nursing home, residential facilities, retirement community, and foster nursing homes were approached. The specific features aiming the study were summarized in Tables 2–7.

3.1. Assisted living

AL, a term used in the United States, refers to homes where services such as care and managed supports are provided in the residential centers. AL aims to assist physically and mentally frail older adults in a place far from the institutes and strict regulations. In AL settings, care services are delivered to the older adults who require significant levels of assistance in daily activities except those who need constant nursing care (Jones, Howe, Tilse, Barlett, & Stimson, 2010).

3.1.1. AL basic features

Improving quality of life; improving individual's independence and dignity with an emphasis on privacy through residence at independent homes; creating an atmosphere similar to the home for facilitating aging in place; providing support and care services such as health care, social support, and recreational activities; providing tele-care and tele-health services by multiple systems such as emergency alarm for help, smoke alarm sensors, flood detector, and vital sign monitoring sensors for measuring the physiological parameters and tele-consultation services with caregivers using audio and video technologies (Allen, 2012; Camarinha-Matos, Rosas, Oliveira, & Ferrada, 2015; Dutton, 2010; Jenkens, Carder, & Maher, 2005; Just, De Young, & Van Dyk, 1995; Wilson, 2007; Wink & Holcomb, 2002; Zimmerman & Sloane, 2007).

3.1.2. Variety of services and facilities in assisted living

The services available in the AL are as follows: personal care services such as assistance to older adults in activities of daily living and instrumental activities of daily living, nursing, and medical cares; provision services such as meals, housekeeping, social support services, recreational and sport activities, occupation in life, supervision full-time oversight and on-site management, remote monitoring, emergency call response, transportation services, training and counseling services,

Table 2. Available services at assisted living facilities

Authors	Personal care	Nursing care	Nutrition services	Home care services	Social support	Supervision	Medical care	Transportation	Counseling	Rehabilitation services	Palliative care	Preventive care services	Alternative medicine
Just et al., 1995	*	*		*	*	*	*	*	*				
Mollica, Wilson, Ryther, & Lamarche, 1995	*	*	*	*	*	*	*	*	*	*		*	
Hawes, Rose, & Phillips, 1999	*	*	*	*		*							
Mollica et al., 1995	*	*	*	*	*	*	*	*	*			*	
Hawes, Phillips, & Rose, 2000	*	*	*	*		*		*			*		
Heumann, Winter-Nelson, & Anderson, 2001	*			*		*							
Kraditor, Dollard, Hodlewsky, Kyllo, & Sabo, 2001	*	*	*	*	*	*		*	*	*	*		
Mulvenna et al., 2011		*							*				
Wilden & Redfoot, 2002	*	*	*	*	*	*	*	*					
Wink & Holcomb, 2002	*	*	*	*	*	*		*					
Kovner & Harrington, 2003	*	*	*	*	*	*	*						
Hawes, Phillips, Rose, Holan, & Sherman, 2003	*	*	*	*			*	*					

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Table 2. (Continued)

Authors	Personal care	Nursing care	Nutrition services	Home care services	Social support	Supervision	Medical care	Transportation	Counseling	Rehabilitation services	Palliative care	Preventive care services	Alternative medicine
Salmon, Thompson, & Sims, 2003	*		*	*	*		*			*			
Sloane et al., 2003	*	*	*	*			*	*			*		
Mollica, 2003					*		*			*			
Chao & Dwyer, 2004	*	*	*	*	*	*	*						
Mitty, 2004	*	*	*	*							*		
Hawes et al., 2005	*	*	*	*		*					*		
Lee, 2006	*	*	*	*	*	*		*					
Mitty & Flores, 2007	*	*	*				*		*				
Hyde et al., 2007			*	*			*	*				*	*
Zimmerman & Sloane, 2007	*	*	*	*	*	*	*	*					
Jones et al., 2010	*	*	*	*	*		*	*					
Allen, 2012	*	*	*		*	*				*			
Heumann, 2005	*	*	*		*	*		*	*	*			
Stachel, Bornschlegel, & Balter, 2012	*	*	*		*							*	
Jenkens et al., 2005	*	*	*	*	*	*	*	*					

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Table 2. (Continued)

Authors	Personal care	Nursing care	Nutrition services	Home care services	Social support	Supervision	Medical care	Transportation	Counseling	Rehabilitation services	Palliative care	Preventive care services	Alternative medicine
Elkins, 2013	*	*	*	*	*	*	*		*				
Memon, Wagner, Pedersen, Beevi, & Hansen, 2014.						*	*						
Camarinha-Matos, Ferrada, Oliveira, Rosas, & Monteiro, 2014	*	*		*	*	*	*			*	*	*	
Camarinha-Matos et al., 2015	*	*			*				*	*	*	*	
Kisling, Paul, & Coustasse, 2016	*		*		*				*				

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Table 3. Available services at sheltered housings							
Authors	Personal care	Social support	Medical care	Rehabilitation services	Nutrition services	Homemaker services	Supervision
Jones et al., 2010	A	A	NA	NA	A	A	A
Egbu et al., 2011	NA	NA	NA	NA	NA	A	A
Iecovich, 2016	A	A	A	NA	NA	A	NA

Note: A: available; NA: not available.

rehabilitation services, palliative care, preventive services, and complementary therapies such as art, dance, music, and pet therapy. Moreover, service providers in AL comprise registered nurses and nursing assistance, personal care workers, social workers, rehabilitation therapists, nutritionist, and service coordinators (Elkins, 2013, 2013; Hawes, Phillips, Holan, Sherman, & Hutchison, 2005; Just et al., 1995; Kovner & Harrington, 2003; Mitty, 2004; Stachel et al., 2012; Wilden & Redfoot, 2002) (Table 2).

3.2. Sheltered housing

SH, a term used in England, are purpose-built houses for older people, which mix of private units and public facilities. Limited support and supervision are provided by the caregivers. These houses are common in a number of countries such as the Netherlands, Canada, Germany, and Israel. SH are also known as sheltered home in Singapore, and silver housing project in Japan (Jones et al., 2010). The amenities such as personal care services, medical services, social support services, meals delivery, housekeeping services, and rehabilitation services are provided at the sheltered housing schemes (Table 3).

3.3. Extra care housing

ECH, a common term in England, refers to housing schemes where extra services are provided to maintain the independence and ownership of mentally and physically frail older people which require additional care services. In these settings, full-time services are often provided by a multidisciplinary care team in order to meet the old adult's needs. These schemes are called very sheltered housing too. The provision of service in ECH is intermediate between sheltered housing and nursing home (Jones et al., 2010; Mckee, Matlabi, & Parker, 2012).

3.3.1. ECH basic features

Daily care and support services proportionate to the needs of older people; providing at least one hot meal per day; assistance to preserve and promote the older people's independence through accommodation in the independent housing units such as apartments or bungalows; support social participation of older adults through creating public facilities such as restaurant, cafeteria, hairdressing room; free access to the physical environment; assisted bathroom; equipped with an emergency alarm system and housing units connected to the central control station; using smart technology; accessible and purpose-built housing units for wheelchair users; specific care units for people with dementia and Alzheimer (Batty et al., 2017; Dutton, 2010; Egbu, Wood, & Egbu, 2011; Evans & Vallelly, 2007; Netten, Darton, Baumker, & Callaghan, 2011; Riseborough & Fletcher, 2003; Tinker et al., 2008).

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Table 4. Available services at ECH facilities

Authors	Personal care	Nutrition services	Medical care	Home care services	Supervision	Counseling	Social support	Rehabilitation services	Transportation	Alternative medicine
Habell, 2001	*	*	*	*		*	*		*	*
Riseborough & Fletcher, 2003	*		*				*	*		
Reynold, 2005	*	*		*						
Tinker et al., 2008	*	*			*	*				
Darton et al., 2008			*		*	*	*	*		
Dutton, 2010	*	*			*	*				
Wright, Tinker, Hanson, Wojgani, & Mayagoitia, 2009	*	*		*	*					
Wanless et al., 2006		*	*	*	*					
Learning & Network, 2006	*	*	*		*			*		
Evans & Vallelly, 2007	*		*			*	*		*	*
Jones et al., 2010	*	*	*		*					
Netten et al., 2011	*	*	*	*	*					
Batty et al., 2017	*			*			*	*		

Table 5. Available services at NORC

Authors	Personal care	Social support	Medical care	Transportation	Nutrition services	Home care services	Nursing care	Rehabilitation services	Preventive care services	Counseling	Palliative care	Alternative medicine
Greenfield et al., 2013	*	*	*	*	*							
Sprigg, 2010	*											
Scharlach et al., 2011		*	*	*		*	*					
Xia et al., 2015	*	*	*	*	*							
Golant, 2008	*	*	*	*	*	*	*	*	*	*	*	*
Gelfand, 2006	*	*	*	*	*	*	*	*	*			
MacLaren et al., 2007	*	*	*	*	*	*		*	*	*		
Hu et al., 2017	*		*	*	*	*		*				

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Table 6. Available services at nursing homes

Authors	Nursing care	Medical care	Personal care	Rehabilitation services	Social services	Hospice care	Nutrition services	Transportation	Homemaker services	Education	Other therapy
Ribbe et al., 1997		*		*	*	*					
Weisman et al., 2004	*		*							*	*
Chu & Chi, 2008	*	*	*		*						
Kim et al., 2010	*	*	*	*	*						
Ishizaki et al., 1998	*	*		*							
Davis et al., 2007	*	*	*	*	*		*		*		
Molinari et al., 2009		*			*						
Cates, 1994	*	*	*	*			*				
Day, 2013	*	*	*	*							
Jones, 2002	*			*	*	*		*			
Rosewarne, 2002	*		*		*						

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Table 7. Available services at residential care settings

Authors	Nursing care	Personal care	Nutrition services	Social support	Medical care	Palliative care	Rehabilitation services	Psychosocial services	Bereavement services	Transportation	Home care services	Education	Pet, art, and music therapy
Rosewarne, 2002	*	*		*									
Trahan & Caris, 2002	*	*	*	*	*	*	*	*		*			
Kwong & Kwan, 2002	*	*	*	*	*						*		
Weisman et al., 2004	*	*										*	*
Brown et al., 2005						*	*	*	*				
Picardi et al., 2006	*		*										

3.3.2. Facilities and services available in the extra care housing

Facilities available in the ECH comprise health facilities (emergency center, optician room, therapeutic pool, and health care unit), recreational and exercise facilities including club and gym, cafeteria, lounge area, arts and crafts room, sauna and hot tub, prayer room, welfare facilities (public kitchen, public dining room, assisted bathroom, laundry, hairdressing room, restaurant, shops, and bakery), educational facilities (libraries, mobile libraries, computer room, and Internet), and other amenities such as lifts, guest room, living room, meeting rooms, and accessible environment for wheelchair users, respite care, and day care centers (Batty et al., 2017; Dutton, 2010; Darton et al., 2008; Egbu et al., 2011; Evans & Vallelly, 2007; Habell, 2001; Matlabi, Parker, & McKee, 2011; Netten et al., 2011; Riseborough & Fletcher, 2003; Tinker et al., 2008) (Table 4).

3.4. Naturally occurring retirement community (NORC)

Naturally occurring retirement communities (NORCs) are residential complexes, neighborhoods, or districts where older adults constitute at least 50% of the residents. In fact, the residential complexes or districts are not primarily designed for the older persons, and they are basically without health care, social, and other support services. However, the services and supportive care have been developed in order to meet various needs of the residents and aging in place (MacLaren, Landsberg, & Schwartz, 2007).

3.4.1. Services available at NORC

The services available in NORC include personal care services, exercise, recreational and social interaction programs, social support services (friendly calling, friendly visiting, family member support, home modification, and social activities), health services (case management, rehabilitation services, behavioral and cognitive therapies, and medical equipment supply), transportation service, nutrition, consulting (financial, resource management, legal, medical, and nutrition), preventive care (vaccinations, screening programs), palliative and hospice care, home modification, and repair and maintenance services. Moreover, facilities at NORC comprise dining room, meeting room, conference room, TV room, gym, swimming pool, entertainment hall, ballroom, lounge area, business center, hairdressing room, and social clubs (Gelfand, 2006; Golant, 2008; Greenfield, Scharlach, Lehning, Davitt, & Graham, 2013; Hu, Xia, Buys, & Skitmore, 2017; MacLaren et al., 2007; Scharlach, Graham, & Lehning, 2011; Sprigg, 2010; Xia, Zuo, Skitmore, Chen, & Rarasati, 2015) (Table 5).

3.5. Nursing foster homes for elderly

This term is used in many countries to refer to the centers where in addition to the housing, support and nursing services are also delivered for older people who cannot live independently in their own houses. In nursing homes, the short-term services are provided to those who require nursing care, assistance in personal activities, and mobility (Hallberg et al., 2013).

3.5.1. Services available at nursing homes

Medical and nursing care (daily health care, emergency relief, chiropody, oral health services, mental health services, dialysis, intravenous therapy, assessment of vital signs, blood glucose monitoring, medication administration, pain management, wound care, physical assessment, and urinary incontinence care), personal care, rehabilitation (physical therapy, speech therapy, and occupational therapy), social support (family member support, respite care, and elderly adults and family members counseling), nutrition services, end-of-life care, transportation services, social cares, and training courses on dementia for family members. Service providers in nursing homes comprise nurses, nurse aid, general practitioner, rehabilitation specialists, social workers, psychiatrists, psychologists, dentists, and chiropodists (Cates, 1994; Chu & Chi, 2008; Davis, Marino, & Davis, 2007; Ishizaki, Kobayashi, & Tamiya, 1998; Jones, 2002; Kim, Kim, & Kim, 2010; Molinari, Hedgecock, Branch, Brown, & Hyer, 2009; Ribbe et al., 1997: Rosewarne, 2002; Weisman, Kovach, & Cashin, 2004) (Table 6).

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3.6. Residential care facilities (RCF)

This term is used in Australia, in which the accommodation services and support care services such as full-time nursing care are provided to older people who cannot live independently in their own houses. A large part of the costs is paid by the Australian government (Jones et al., 2010).

Services available in RCF include assistance in activities of daily living, nursing care (weight monitoring, vital signs, blood glucose monitoring, wound care, pain management, medication management, and intramuscular and intravenous injections nursing assessment), social support services (respite care, social activities, and family support), food delivery, medical and rehabilitation care, palliative care, psychological services, transportation services, housekeeping services, and training courses on dementia for nurses. Personnel providing service in RCF comprise physician, geriatrician, nurses, psychologists, rehabilitation therapists, and social workers (Brown, Grbich, Maddocks, Parker, & Willis, 2005; Kwong & Kwan, 2002; Picardi et al., 2006; Rosewarne, 2002; Trahan & Caris, 2002; Weisman et al., 2004) (Table 7).

3.7. Foster rehabilitation and elderly care in Iran

These centers provide care and rehabilitation services for eligible older people and are established by obtaining permission from the State Welfare Organization. The centers are divided into three types based on the physical conditions, personnel, delivery of health-care, and rehabilitation services. They include nursing services, medical services (visiting by general practitioner twice a week), rehabilitation services (physiotherapy and occupational therapy), personal care services, nutrition services, and exercise program. Facilities in the foster centers include rehabilitation room and clinical rooms, nursing station with a medicine cabinet, meeting and dining room, bathroom, laundry, and pool (State Welfare Organization of Iran, 2012).

4. Discussion

This study aimed to identify and compare nursing homes for the older persons in Iran with common kinds of older adult's RCF in developed countries. Review of literatures showed that a variety of care settings have been designed and implemented in other countries for long-term care of older people to achieve aging in place, maintaining and improving quality of life, and reducing residence and early hospitalization in nursing homes. However, the most common official patterns for long-term care for the older adults in Iran are nursing home centers, where different groups of older persons with various physical and cognitive conditions are kept in one center.

The majority of older people in Iran do not have a positive attitude toward nursing homes. They believe that staying and living in nursing homes is a rejection from the society. According to the viewpoints of older people, nursing homes are considered as a temporary accommodation to spend the rest of lifetime (Niazi & Babaiefard, 2012). Most nursing home facilities in Iran were previously homes that have been turned into a nursing home. Therefore, they are not sufficiently compliance with assisted features of a standard nursing home. In addition, nursing homes are not in an appropriate situation in case of having prayer room, library, dining room, living room, easy access to the yard, inclined surface, auxiliary railings, corridor color, sufficient light, furniture, appropriate windows, and alarm system in the bathroom (Nasiri et al., 2016).

In general, ECHs are new schemes that have been designed purposefully, and the rest of settings are sheltered housing that have been remodeled and assisted. Some other schemes in AL and ECH have been designed and created for people with specific needs such as people with dementia and learning disorders, in which specialized care and health facilities are provided according to the personal needs. In AL facilities, older adult's independence and ability to self-care are supported and AL facilities corresponded to changing needs of older adults. Applying comprehensive design features such as adjustable beds, accessible units for wheelchair users, accessible public spaces for wheelchair users, and handheld showerheads are examples of environmental adoption with the individual requirements (Elkins, 2013; Wilson, 2007).

Different studies were conducted to explore the satisfaction of older people who live in nursing homes in Iran. The least satisfying aspects were physiotherapy, psychological and counseling, health care services, training for taking medications, assistance for mobility, group activities, recreational and entertainment programs, exercise programs, leisure time activities, amenities to contact with friends and family, tourism programs, sports facilities, number of bathrooms in a nursing home, physical environment for recreation and walking, and environmental health and safety rules in nursing homes (Ghazi, Foroughan, Hosseini, Hosseinzadeh, & Askari, 2013; Niazi & Babaiefard, 2012; Sahebzamani, Mehrabiyan, & Asgharzadeh, 2009).

Satisfaction degree about older adult's requests has been very low, representing the little attention to their psychosocial needs. Older people do not have enough opportunities to comment on personal and communal issues; people's autonomy has not been supported and most of the times they deprived of choosing type of food, clothing, sleeping place, and the nursing home plans (Ghazi et al., 2013). This is while that care settings such as AL and ECH emphasize on the older adult's independence, authority, and choice. The list of supportive services in these centers give residents a sense of autonomy, and their decisions are supported as much as possible (Dutton, 2010; Hawes et al., 2005; Wilson, 2007). The priorities of people with Alzheimer are also respected, and they are permitted to choose the time and type of breakfast, clothing, and social and recreational activities (Hyde, Perez, & Forester, 2007).

In 2009, Lee and colleagues showed that physical environment, safety, security, as well as living in independent housing units in AL had a direct impact on older people's quality of life. In addition, they were satisfied with the caregivers because of their honesty, patience, and respect (Lee, Yu, & Kwong, 2009). Results of studies in Iran revealed that the quality of life and physical, mental, and social aspects of people living in nursing homes are lower than community-dwelling older people (Ghasemi, Harirchi, Masnavi, Rahgozar, & Akbarian, 2011; Mokhtari & Ghasemi, 2011). In societies where nursing homes are supported by governmental funds, favorable conditions are provided for the residents, and older adults have enough opportunities to participate in social, recreational, and entertainment activities.

Furthermore, in AL, the development of social environment has been noticed, and older people are assisted for establishing, maintaining, and developing social interactions. In addition, services are delivered proportionate to predictable and unpredictable needs of older adults, and enough recreation and social interaction opportunities are provided (Dutton, 2010; Hawes et al., 2005; Wilson, 2007).

In nursing home facilities of Iran, psychological and social care is inadequate and the need for recreational activities has been confirmed. The major entertainments of the older adults is talking to each other and walking in the yard, or spending many hours without anyone or group activities. This causes older adults' dissatisfaction with group activities, entertainment programs, and leisure facilities (Ghazi et al., 2013; Niazi & Babaiefard, 2012; Sahebzamani et al., 2009; Siam, 2002).

In Iran, since nursing home settings are the only pattern of long-term care for the older people, those who reside to nursing homes, merely due to economic and family conditions, suffer from increased depression, life dissatisfaction, and unhappiness (Panah Ali, 2011). While in developed countries, the purpose of nursing home settings is providing a higher level of medical and nursing care to disabled and dependent people, reducing unnecessary hospitalizations, and referring to emergency unit, death with dignity, and caring for people after a surgery, injury, or serious illness. More than two-thirds of nursing home residents in the USA are affected by cognitive impairment, and there are some special care units such as sub-acute care, Alzheimer's skilled care, and end-of-life care. In Sweden and the Netherlands, people with dementia, psychogeriatric disorders, physical disability, and end-stage patients are admitted to nursing homes to receive services including personal care, psychological, rehabilitation, and life-time care (Ribbe et al., 1997).

Table 8. Comparison residential care facilities based on the literature review

Features	Residential care settings					
	Assisted living facility	Extra care housing	Naturally occurring retirement community	Nursing home Setting	Residential care Setting	Nursing home institution in Iran
Involving tenants in decision making	*	*				
Promotion of autonomy	*	*				
Promotion of privacy	*	*				
Promotion of independence	*	*	*			
Promotion of dignity	*	*				
Maintain quality of life	*	*	*			
Create homelike environment	*	*				
Safe and modified environment	*	*	*		*	
Allow older adults to aging in place	*		*		*	
Motivate social interactions	*	*	*			
Providing self-contained accommodations	*	*				
Providing support services	*	*	*	*	*	*
Providing health services	*	*	*	*	*	*

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Due to social structural changes and the rapid increase of the older population in the coming decades, and also the reduction of family support, development of care services for older people in Iran is essential. The locations of nursing homes should be planned to be close to the family environment, so the mental health and quality of life are preserved. The present research has been able to introduce the different features of long-term care setting for older people in Iran and some common RCF for older adults in developed countries. It seems the results of this study would help eliminate some deficiencies of care services in Iran for older people. Furthermore, the results may guide policymakers, providers, and stakeholders to create and implement a suitable and evidence-based structure in the care of older adults. The RCF based on the literature review are summarized in Table 8.

5. Conclusion

This study aimed to determine the structure of purpose-built, modified housing, self-contained dwellings, residential care, and nursing homes for older people in Iran and around the developed countries. We concluded that the care services provided to the elderly of Iran have quantitative and qualitative deficiencies due to non-compliance of these centers with international standards. The standardization of amenities will play a principal role in the further development of services. Currently, in Iran, many of needed services for the older people such as foster care in nursing homes, nursing care at home, rehabilitation services, and providing the assistive equipment of rehabilitation are not covered by Insurance organizations. This part of activities is associated with health status and quality of life. Thus, planning and interventions by the organizations like Ministry of Welfare and Social Security and Insurance Organizations is recommended.

Subsidies paid by the State Welfare Organization to the nursing homes have been equally considered for all different groups of disabled elderly people. Allocation of resources and payments of subsidies have not been noticed in older adult's conditions and requirements. This fact not only causes severe decrease in quality of services, but also prevents the development of a variety of long-term facilities for the older adults.

There is a need for doing quantitative and qualitative studies on the current status of nursing home institutions of Iran. Further research relating the satisfaction and dissatisfaction of older people in different types of care settings reviewed in present study would be beneficial. It is also suggested to explore the views and expectations of Iranian older adults about desirable RCF, required care services, and amenities. The results of this study can be beneficial to the researchers, students, and experts in the field of gerontology, especially in Iran. It is also helpful for planners and care services managers to arrange appropriate services and facilities to older individuals as target group.

6. Limitations

Among the restrictions of the present research, researchers did not access to the context of some resources. According to studies, no research has been conducted on the present situation of nursing home settings in Iran. Unfortunately, there is no profile of nursing homes, in which various features including the types of available services, the providers, welfare facilities, eligibility criteria, and design are described clearly. The information used to explain Iran's nursing home features was adopted from the national directives of nursing home facilities and some studies that have examined the satisfaction of the elderly people living in nursing homes.

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