



## A Sociological Perspective of Aging vs Alzheimer's Disorders in Developing World

**Mohammad Taghi Sheykhi\***

*Professor Emeritus of Sociology, Alzahra University, Tehran, Iran*

**\*Corresponding Author:** Mohammad Taghi Sheykhi, Professor Emeritus of Sociology, Alzahra University, Tehran, Iran.

**Received:** May 06, 2019; **Published:** June 14, 2019

### Abstract

The phenomenon of aging is boosting more than ever before. It needs updated supervision to find its cause and effect image. Sociology as a mother science monitors the two phenomena as emerging and clashing. Many of the modern developing countries have laid the necessary infrastructures contributing to aging. Aging by itself causes increasing issues as material, non-material, Alzheimer's disorders etc. Under such circumstances countries need to build the necessary infrastructures to solve the emerging problems including the Alzheimer's disorders. Due to change in lifestyles, aging people's expectations and standards are changing too. However, the necessary means for such a huge change is not advancing at the same rate. Medically speaking, aging needs geriatrics, its own sociology and psychology. Decades earlier, aged people were reckoned as those 60 years and above, but currently, they are people with 65 years of age and over. For example, the ratio of those 65 and above doubled in India between 1995 and 2015, as it did so for Iran in the same years. Therefore, the Asian developing countries need to multidimensionally invest on their aging people with emerging needs and disorders. Consequently, sociology as a mother science has come into being to explore and solve the challenges and social issues of the increasing aging people.

**Keywords:** Aging; Alzheimer's Disorders; Sociology; Geriatrics; Infrastructures

### Introduction

The paper reflects an image of Alzheimer's disorders in the world. The world's elderly people are facing Alzheimer's disorders within the emerging aging people leaving behind various issues. Aging in Iran is also in parallel with poverty and health deficiency. People are getting aged before becoming rich. Aging as a new part of life needs more scientific study, and the practice of plans to modify the issue.

Issues stemming from family relations, food services, retirement, and economic well-being and Alzheimer's disorders of the aging population are sociologically appearing in the present article. Age-related topics are studied, and the demographic profiles highlight the relevant issues of the phenomenon. We will see how aging affects the quality of life in all areas. Asia, with a larger population, and larger young population structure, will experience aging even faster than the West. While aging is in process in Asia, food services

and Alzheimer's disorders services move slowly. However, per capita income, financial resources of the elderly etc. all affect the quality of life and food services of the aging population too.

Population aging as an unprecedented phenomenon in human history is increasingly observed in the developed and the developing world—leaving behind social, economic, health, food problems and Alzheimer's disorders [1]. Currently, increase in the proportions of the elderly (60 years and older), accompanied by declines in the proportions of the young age groups (under the age of 15), have created various problems, or are potentially responsible for challenges in different dimensions. According to projections, by the year 2050, the number of older persons in the world will exceed the number of the young for the first time in history [2]. Such a scenario will lead to new food and other challenges in human life. However, by 1998, this historic reversal in relative proportions of the young and the old had already taken place in more developed regions [3].

Aging appearance is impacting all age groups in different societies irrespective of race, religion, nationality etc. Such a phenomenon quality of life in a wide spectrum. Such a phenomenon has pervasive social and economic consequences. Such ageing people eventually face Alzheimer's disorders, unemployment, loneliness, poverty and the like. Moreover, housing and the related arrangements appear as problematic for the growing aging people.

According to UN estimates, the world added approximately 600 million older people to its population at the turn of the century, i.e. almost 3 times the number it had in the mid of the 20<sup>th</sup> century. However, by the mid of the 21<sup>st</sup> century, the world aging people will again triple --reaching 2 billion. Such a great change in population structure, needs more attention, more relevant resources, more food and appropriate planning [4].

Though the industrial countries experienced a great change in age structure before the developing countries including the Asia continent, yet, these countries are experiencing aging in a quick way because of access to the developed science and technology. Such a development will increasing the proportion of aging people in Asia to 20% by 2050 [5]. The emerging upcoming change will be in need of adequate infrastructures to be on a position to respond the needs of the appearing aging population, their life quality, their disorders appearing out of Alzheimer's disease.

Demographically speaking, in 2000, the median age for the world was 26 years. The country with youngest population is known as Yemen, with a median age of 15 years, and the oldest is known to be Japan, with the same indicator of 41 years. By 2050, the world median age is projected to have increased by about 10 years i.e, to 36 years. The country with the youngest population at that time is predicted to be Niger in Africa, with a median age of 20 years, and the oldest is expected to be Spain, with a median age of 55 years by that year [2]. Such a change will give a different perspective to the aging population as far as their quality of life is concerned.

Elderly aging as a new phenomenon is rising, and hence it is predicted that those aged 80 years or more are increasing annually for 3.8 percent, totaling more than 1/10 of the World older inhabitants [5]. Under such a great age change, 1/5 of the aging population will remain at age 80 and beyond by the year 2050. Under such conditions the dependency burden on age groups (15-64) will be heavy and remarkable.

Similarly, due to high age in sex ratio of those at the age of 80 and above, nearly 2 men for every 5 women, more specific plans need to be operationalized in order to protect the rights and quality of life of such potentially vulnerable people [5].

So far as the income is concerned, countries with higher per capita income tend to have lower rates of the elderly participation, and on the contrary, to a greater extent, older people participate in labor markets in the less developed regions including Asia largely due to the limited coverage of retirement schemes, and the small incomes when provided [4]. Therefore, many have to work even at the ages not suitable and recommended for their physical conditions, which eventually leads to poor quality of life among them.

According to estimates, almost half of all the people 60 years and above in the less developed regions including Asia have been declared as illiterate by the year 2000. Only about 1/3 of older women and three fifths of the older men could read and write at basic level, whereas in Europe, literacy has almost approached full coverage expect in some countries [4].

In assessing the elderly in developed world, increasing attention has been focused on their lifestyle and quality of life [6,7]. Satisfaction of life is associated with the degree to which different people feel they achieve their aspirations and wishes, and have access to appropriate necessities including food, morale and happiness. Such characteristics extensively activate the older aging people.

### Method of Research

Methodology used in the present article is of qualitative type. In that, various paradigms for finding facts have been used. Qualitative research usually studied the people in their natural settings. In finding facts for the research, the researcher engaged in careful data collection and thoughtful analysis of what was relevant. In the documentary research applied in the present article, printed and written materials were widely regarded. The research was performed as a qualitative library type in which the researcher had to refer to relevant and related sources.

### Scope of the issue in Iran

Alzheimer's disease being an aging problem across the world, is the result of dementia in Iran as well. According to statistics, one in ten of the Iranian people is afflicted with the Alzheimer's disorders

[4]. There are more than 700000 Alzheimer's patients in the country [4]. Under such circumstances, there are no responsible institutions in the country to look after such growing patients.

Iran has been described as a high-risk country as far as Alzheimer's disease is concerned. According to "World Life Expectancy" in 2014, Iran's ranking stood 30<sup>th</sup> among 116 countries with an indicator of 7.75. In the same table, Finland had the indicator of 53.77 standing at the top of the table as far as Alzheimer's disease is concerned. Based on Alzheimer's official site, a large number of people in US is involved with Alzheimer's disease. Out of 5.4 million people afflicted with Alzheimer's is US, 5.2 million are over 65 years of age [8].

### Old age crisis

At the same time the retirement age is decreasing in parts of the developing world because of increasing numbers of younger people emerging and looking for occupations. On the contrary, in the Western world, specifically in the European Union because of increasing number the elderly and shortage of young people to enter production sector, the scenario has contributed to absorbing young guest workers and immigrants from the developing world.

To ensure that, financial support continues to protect the old, and promotes economic growth, countries need to consider comprehensive pension reforms. Based on estimates, over the next 25 years, the proportion of the world's population over 60 will nearly double, i.e. from 9 percent to 16 percent. However, populations are aging much faster in developing countries than they did in industrial countries. As today's young workers near retirement around the year 2030, 80 percent of the world's old people will live in what today are developing countries (mainly Asian) [5]. More than half will live in Asia, and more than a quarter in China alone [9]. These countries need to develop their old-age systems quickly, and make them sufficiently resilient to withstand rapid demographic change.

### Challenges emerging

In old-fashioned societies, work and family structure were inter-related. Contacts and relations within various age groups were so close, and there was a shared dependence between the elderly and the younger or groups. Such close links and exchange of functions between generations ensured the survival of the aging groups of people where there were no other forms of guaranteed social support in old age. The type of network allowed the elderly

to have enough authority and participate in family functions based on family division of labor. However, industrialization and the process of social change in both Asia and Europe have led to social differentiation of age groups with reference to economic functions, official retirement and other such conditions [4].

At the present time, due to the emergence of societies in various technical, educational and scientific conditions, young age groups capable of serving themselves. Under such new conditions, the aging people do not play their previous roles any more. They depart from the family, i.e. not carrying out the role of the grandparents, and the younger generations tend to less require the support of the elderly [10].

### Socio-economic effects of aging

The likely damaging economic and social aspects of aging is appearing unprecedentedly with more emphasis on the Asian countries. Most prominent among the concerns that are being voiced with respect to aging is how to fund social security programs in the face of increasing numbers of retired persons, and how to pay for rising health care costs generated by the elderly people [11]. These concerns have at times, led to the conclusion that population aging is bound to be more a catastrophic drain on economic resources. Actually speaking, while the Western (European) countries are and will continue to be rather well equipped to handle the present and projected increase in the older population with their routine needs, yet the emergence of the elderly social problems such as Alzheimer's disorders is something more recent.

Demographically, the changing world of the present time has widely contributed to change in aging style too. As the world population increased by two billion in the last quarter of the twentieth century; climbing to six billion at the end of 20<sup>th</sup> century, the necessary resources have not changed/increased in the same way to respond the growing aging people with a focus on the Asian continent. As projected, the population will increase by another 2 billion during the first decades of the 21<sup>st</sup> century, and as nearly all the increase has been, and will be in the developing countries including Asia, aging problems will emerge more acutely, including Alzheimer's disorders than ever before in the [12].

As we are living in a world with high population change, we must be more planning-minded and careful/considerate. As the traditional demographic groupings of countries are breaking down, more socio-economic problems of the aging populations

are emerging. Over the next 25 years, increases in population in South Asian and the Middle East are expected to be larger than the past quarter of the century. In contrast, in European countries, and in East Asia, population growth has slowed or stopped, and rapid population aging has become a serious concern [13]. Aging increase accompanied by increasing in mobility and urbanization, they are widely influencing social and economic outlooks of a large number of countries.

### The elderly vulnerability

Deteriorating environmental conditions and extreme events do not affect all countries and populations in the same way. Hence, many factors contribute to their vulnerability including poverty, poor health, Alzheimer's disorders, low levels of education, gender inequality, lack of access to resources and services, and unfavorable geographical locations. All these, somehow or the other affect the elderly people more in Asia rather than the West. Under the conditions wherein the populations in general are socially disadvantaged or lack political voice, the elderly people in particular are also at greater risk. The elderly people have shortage of capacity to protect themselves from the present and upcoming social and environmental harms including polluted water and air, different catastrophes, and the negative consequences stemming from environmental change, biodiversity etc. [14].

### The older widows

The aged members, especially old women face a serious situation in today's family structure. The demographic scenario of aging indicates a rise in the longevity of women [15]. Due to the increase in the proportion of the elderly people in societies, increasing proportion of both widows and widowers too, are likely to appear. To compare the proportions of widows with the widowers, the percentage of the former outnumber the latter since women usually marry earlier than men, and as a result, they outlive their spouses. Consequently, women have the chance of longer life after the age of 60 and beyond. The chance of remarriage for men in their later life keeps the proportion of widowers lower than the widows almost everywhere. However, the consequences of widowhood leading to isolation, loneliness and Alzheimer's disorders are more faced by the women rather than men.

Research shows that widowhood appears as an effect of marital dissolution worldwide. Apart from divorce, it in most cases happens as a natural event due to the death of a spouse. In both

cases, women tend to suffer longer term of negative social and economic consequences, while men do not [16].

### Theoretical context of aging

As people age, they face different sets of expectations and responsibilities, enjoy different rights and opportunities, and possess different amounts of power and control. Consequently, transitions from one age status to another are societally important [17]. They are often marked by rites of passage, and public ceremonies, i.e. full of ritual symbolism that record the transition being made. Weddings, retirement dinners, funerals etc. are all examples of rites of passage in an industrial society. It is somehow or the other different in different societies.

Also, historical or cultural differences in age structure create different contexts for social action by individuals and groups. Changes in age structure also bring about problems of functional integration. Different proportions of age groups in a population affect power too, such as age for voting etc. Discussion of the meanings of age connotation in different societies is different from one culture to another.

In general, age molds the mobility of people towards different statuses and roles, and consequently, the duties and merging responsibilities that move with them. Such a process is different from one place to another place.

As the aged lost out to younger groups with new technical and institutional resources, the meaning of: to retire changed from "to withdraw from public notice "to be no longer qualified for active service" [18]. To be old comes to mean to be cast away; that is, to have almost nothing, and to be dependent on whatever someone might give you (in old age). Conflict theory comments on the way the elderly people react to the changing values – leading them towards poverty and deprivation. They consequently consolidate into a powerful force for further social security.

The conflict perspective emphasizes that power, privilege and other resources are limited, and that they are distributed unequally among the various groups in the society. As it pursues its own interests and values, each group comes in conflict with the others. Thus, say conflict theorists, whenever you examine a social problem, you should look at the distribution of power and privilege, for social problems center around the conflicting interests and values of a society's groups [19].

### Asian outlook

Asian aging is an issue of concern as far as various sections of governments are concerned. Such government sectors deal with increasing needs of the aging people. Despite the fact that the elderly people expect to be respected, it does not happen so in many societies. Under the conditions of rural migration to cities followed by industrialization and changing patterns employment, and the emerging lifestyle among the younger population, the elderly people are almost facing increasing social loneliness, isolation and many more emerging challenges such as Alzheimer's disorders in many region of Asia, especially in county sides. From a socio-psychological point of view, these isolated people in a community such as a large city feel alienated [20].

However, in some countries such as Thailand, the elderly people are valued for their contribution to society and are encouraged to remain active [21]. In addition to many other roles played by the seniors, most of the older persons in Thailand play a leading role in religious observances by supervising and providing information concerning religious activities to younger members of the family and community. They also transmit their traditions and culture to the younger generations.

While in the developed countries retirement is expected to be the period to enjoy personal and leisure activities, in the developing Asian countries, the elderly are still preoccupied with their basic livelihood. As social welfare and health insurance in many developing Asian countries have limited resources, the individual financial resources play a significant role to enhance and improve one's quality of life [22]. Under such a scenario, the elderly in developing Asia financially remain dependent on others. To illustrate it more thoroughly, they psychologically and physically depend more on others rather than the state, or the relevant agencies.

Very few of Asian countries have infrastructures enough to help their unable and the elderly people with Alzheimer's disorders. One of the countries well functioning in the course is known to be Singapore – wherein the strong financial resources have helped the aging population, and thereby enhanced their quality of life in different ways [23].

Modern values in different parts of the Asian continent have widely affected the lives of the aging people due to great change in the structure of family, increasing mobility within the family networks, etc. Such factors have contributed to increasing segmentation of families, and consequently shortage of time to invest in aging groups of population.

However, as explored, still majority of the elderly wish to live with their adult children. There is clear evidence showing the familialism and family-feeling among the elderly in most parts of Asia. As observed, modernization is seen a paradoxical phenomenon in Asia since it is eroding the traditional support system [24].

However, today the elderly people have come into the agenda of many Asian countries as it happened in the West previously. Similarly, Asia too needs to develop enough literature on the topic. It is becoming the region where the majority of the elderly people is concentrated. That is to say, the majority (52%) of the world's senior citizens (people 60 and over) live in Asia; four in every fifteen are concentrated in Eastern Asia including China, and one in six inhabit South-central Asia including India [25]. Similarly, about one in fifteen live in South-east Asia including Indonesia, and Western Asia includes the rest.

Such a phase of development has widely been the result of success in population planning since the beginning of 1980s. Increasing life expectancy as a result of improving health care and change in living standards, has contributed to change and increase in old age in different societies. The change is more observed in the Western world than in the developing world. However, since 1970s increasing number of South-east Asian societies have gradually started to build the necessary infrastructures to change their population age structure from young to old populations. Such a change needs plans for food habits and medical services with special reference to the growing elderly people.

It is noted that since 1950s, life expectancy of men has increased by 20 years or more in Indonesia, Republic of Korea and Thailand, and by 15 years in Japan. While the number of women has even increased more dramatically [26], these developments have eventually resulted in an accelerated increase in the proportion of the elderly people in almost all parts of Asia, but with some fluctuations.

Asia				Europe			
(Region)	Percent 65+			(Region)	Percent 65+		
Country	1995	2005	2015	Country	1995	2005	2015
Asia	5	6	8	Europe	13	16	17
Armenia	7	11	11	Denmark	15	15	19
Azerbaijan	5	7	6	Finland	14	16	20
Iraq	3	3	3	Ireland	11	11	13
Jordan	3	3	3	Norway	16	15	16
Lebanon	5	6	7	Sweden	18	17	20
Saudi Arabia	2	3	3	Britain	16	16	17
Turkey	4	6	8	Austria	15	15	18
India	3	2	6	Belgium	16	17	18
Iran	4	4	8	France	15	16	18
Nepal	3	4	6	Germany	15	18	21
Pakistan	3	4	4	Luxembourg	13	14	14
Sri Lanka	4	6	8	Holland	13	14	18
Indonesia	4	5	5	Switzerland	15	16	18
Singapore	7	8	12	Czech Rep.	10	14	18
Thailand	4	7	11	Hungary	14	16	18
Viet Nam	5	7	7	Poland	11	13	16
China	6	8	10	Romania	11	14	15
Japan	14	20	27	Russia	11	13	14
Korea, North	4	8	10	Italy	16	19	22
Korea, South	5	9	14	Portugal	15	17	20
Taiwan	7	9	13	Spain	14	17	18

**Table:** Comparative Aging Indicators of Asia and Europe in Selected Countries in Three Periods (%)

Source(s): World Population Data Sheet(s)1995, 2005 and 2015.

**European outlook of aging**

The establishment of individual and universal mandatory pension rights has come to be known as an efficient way to eradicate poverty in old age among both women and men. Health promotion and well-being of these people in Europe are among the issues which have been of priority and well attended in Europe as compared with Asia in the course of the twentieth century [27].

“Modernization” which first occurred in Europe, was a multidimensional concept. It was divided into four distinct elements:

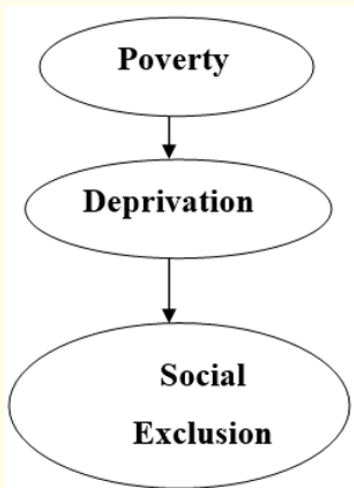
- Economic modernization (industrialization),
- Political modernization (democratization),

- Societal modernization (realization of freedom and equality), and
- Cultural modernization (the move towards rationalism).

All these four dimensions affected the elderly lives somehow or the other. The process of modernization still advancing, is changing the lives of the elderly in almost all the European countries, namely, changing their quality of life [28].

Progress in general quality of life has contributed to the major “social risks” such as illness, accidents and impecunious old age to be protected in Europe on larger scale as compared with Asia. At the same time, while poverty is lower among the elderly people in Europe as compared with Asia, yet social exclusion is appearing in

the continent as a new concept. Poverty and social exclusion being central issues of social policy, so far as the elderly are concerned, they have been well addressed in Europe (Ibid, 1984). It could be illustrated as follows:



**Figure 1:** Poverty and Social Exclusion.

As administration revolution started earlier in Europe as compared with Asia due to the emergence of industrial revolution, aging issues, and the methods to solve them started earlier there, and in that continent with special reference to the Western Europe, and that highly contributed to uplifting of quality of life there. The whole process helped the vicious circle of aging to continue longer.

Some of the quality-of-life indicators as found [29], could be outlined as follows:

- Life expectancy,
- Availability of health care services,
- Availability of adequate food,
- Affordability of health care,
- Quality of health care,
- Quality of health control,
- Quality of housing,
- Affordability of housing,

**Aging vs family budget in Iran**

Improvement of food products is highly related to industries and industrial development. Therefore, linkage of industry and food is of prime importance. Food problem is also in association

with cultural change, adoption of new patterns of life, new lifestyles etc. Food futurology and projection is also a phenomenon which must always be taken seriously in the present changing world. One of the factors impacting food industry stems from climate change and shortage of water resources in countries like Iran. Therefore, new paradigms and strategies are required to be adopted [30]. Similarly, exploitation of the limited water resources being unreliable, is inevitable [31]. Despite the limited resources of water and food, wastage of food stuff is currently unprecedented; in many cases between 30 and 50 percent of food materials is wasted [32].

The paper explores how aging is advancing in Tehran as the capital city of Iran, simultaneously with increasing needs of the aging families i.e., an unprecedented phenomenon. Population aging which has mainly three causes: migration, longer life expectancy, and decreased birth rate, is confronting many unplanned and unpredicted issues such as Alzheimer's disorders, health and wellness challenges. This relationship requires revised budgeting to cope with the soaring needs of the elderly people in Tehran. Older people have different requirements from society and government as opposed to young people, and frequently differing values as well. The future of the aging families to 2030 requires improved budgeting system.

To conduct this research, some 500 elder men and women have been interviewed to find out their satisfaction versus their current rising needs. Factors responsible for the scenario include the amount of income, quality of care provided to them, and of their satisfaction with the policies used in favor of the aging people. Similarly, their satisfaction with the services provided to them against their rising needs were investigated. The way the needs of the elderly people are met vis-à-vis their running budget, is also problematic for those people [33-37].

**Conclusion**

There is a clear need for research on the type and magnitude of the conditions and problems of older people in relation to gender, age groups, food habits, physical and mental health status, Alzheimer's disorders, socio-economic status, and ability to continue to be productive. Research is also necessary on the enabling environment, the resources available in the family, community, society, and the state to care for older persons in a way that is conducive to making them independent, self-reliant and productive.

As far as older women are concerned, they particularly face greater risk of physical and psychological abuse due to discriminatory and societal attitudes, and the non-realization of the human rights of women. Women's poverty is directly related to the absence of economic opportunities and autonomy, lack of access to economic resources including credit, land ownership, and inheritance, lack of access to education and food services and minimal participation in the decision-making process. Poverty can also force women into a situation in which they are vulnerable to sexual exploitation. (Madrid International Plan of Action on Aging, 2000)

Many parts of Asia are still in their infancy with respect to the development of formal services. Hence, despite rapid social change, family caregiving for the elderly is still the dominant type of caregiving in Asia. Likewise, the profound, pervasive and enduring consequences of population aging presents enormous opportunities as well as enormous challenges for all societies. That is, a scenario which ever needs research, development, planning and investment.

### Bibliography

1. Cumming E and W E Henry. Growing Old: The Process of Disengagement. New York: Springer 1961" *Ageing and Society* 11.2 (1991): 217-220.
2. Population Newsletter. "UN Population Division, Department of Economic and Social Affairs". New York 27 (2001).
3. Kohli M. "Retirement and the Moral Economy: An Historical Interpretation of the German Case". *Journal of Aging Studies* 1.2 (1987): 125-144.
4. Sheykhi M T. "Demography: Issues and Indicators". Tehran, Enteshar Company (2015).
5. World Population Aging. United Nations, New York (2015).
6. Tinker H. "Improving the Quality of Life and Promoting Independence of Elderly People". London, HMSO (1983).
7. Hughes B. "Quality of Life in Peace". S Researching Social Gerontology, London, Sage (1990): 46-58.
8. TV Network 3 (2016).
9. Finance and Development. Washington DC., IMF Publications (1995).
10. Aleksandrova MD. "Problems of Social and Psychological Gerontology". Leningrad, University of Leningrad Press (1974).
11. Mullan Phill. "The Imaginary Time Bomb: Why Aging Problem is Social Problem?". New York, I. B. Tauris Publishers 20.6 (2000): 797-804.
12. Crimmins E M and D G Irgegneri. "Trends in Health among the American Population", in Anna M. Rappaport and Sylvester J. Scheiber (Eds.), *Demography and Retirement: The 21st Century*, Westport, CT: Praeger (1993): 225-253.
13. Population and Development Review. Population Council, New York 28.2 (2002).
14. Hayflick L. "How and Why We Age". New York: Ballantime (1996).
15. Desai N and U Thakkar. "Women in Indian Society". New Delhi, National Book Trust (2003): 85.
16. Neubeck K J. "Sociology". New York, McGraw-Hill Inc (1996): 478.
17. Keller S and others. *Sociology*, London, McGraw-Hill (1994).
18. Achenbaum W Andrew. "Old age in the New Land." *The American Experience Since 1970*, Baltimore, Johns Hopkins University Press (1978).
19. Henslin James S and other. "Social Problems". London, McGraw- Hill. Inc (1983).
20. Experts A Team. "Advanced Learner's Dictionary of Sociology". New Delhi, Anmol Publications (2000).
21. UNFPA. "Population Aging and Development". New York (2002).
22. International Federation on Aging (IFA). *Montreal Conference Selected Papers*, Montreal (2001).
23. World Population Data Sheet (WPDS). Population Reference Bureau, Washington DC (2017).



24. Cockerham W C. "This Aging Society (2nd ed.)" Upper Saddle River, NJ: Prentice Hall (1997).
25. Conception M B. "The Graying of Asia: Demographic Dimensions in: Added years of Life in Asia". Current Situation and Future Challenges, Bangkok. ESCAP (Asian Population Studies Series 141 (1996).
26. Human Development Report. New York, Oxford University Press (1997).
27. Nord E. "Cost-Value Analysis in Health Care: Making Sense Out of QALYs". New York: Cambridge University Press (1999).
28. Streib G and C F Bourg. "Age stratification Theory Inequality, and Social Change" in R.F.Thomason (Ed), Comparative Social Research, Greenwich, CT, JAI (1984).
29. Valencia Forum. "International Association of Gerontology, Co-sponsored by UNFPA". Madrid International Plan of Action on Aging (2002).
30. Sheyhi M T. "Industrial Sociology". 3rd ed. Harir Publications (2018).
31. Water and Food Security. WWW and FAO Stockholm (2012).
32. Gustaf son and Lundqvist J. "Food Supply Chain Efficiency "From Field to Fork": Finding n New Formula for a Water and Food Secure World". In a Jagerskog and T. Jonch Clasusen (EDs), Feeding a Thirsty World \_ Challenges and Opportunities for a Food Secure Future . Stockholm: Stockholm International Water Institute (2012): 31-38.
33. Gruyter W. "European Sociology". New York, ISA Publications (1993).
34. MIR. "Comparing Social Welfare Systems in Southern Europe". Florence Conference 3 (1997).
35. O'Rand., et al. "Concepts of the Life Cycle". *Annual Review of Sociology* 16 (1990): 241-262.
36. Population and Development Review. Population Council, New York 27.1 (2001).
37. World Population Data Sheet(s) 1995, 2005 and 2015, Population Reference Bureau, Washington DC.

**Volume 3 Issue 7 July 2019**

**© All rights are reserved by Mohammad Taghi Sheykhi.**