

## IMPACT OF SOCIAL SUPPORT ON THE LIFE SATISFACTION OF ELDERS IN IRAN

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**Abstract.** *The aim of this study is to measure life satisfaction of elders and to examine the impact of social support on life satisfaction. Diener and Biswas Diener (2001) mentioned that in a human nature approach, having one's biological needs met, engaging in interesting activities, and having the presence of social support are seen as necessary and sufficient for high subjective well-being (SWB). Whereas life satisfaction is one of SWB components, this theory has been used in this research. Effects of instrumental, informational, emotional, and appraisal support on life satisfaction of elders in Iran were tested by analyzing data collected from a random sample of 384 persons aged 65 and over who participated in the spring of 2007 survey. The mean of life satisfaction in sample obtained 16.5 with standard deviation of 3.49. Multiple regression (stepwise) was used to determine whether social support (also entered demographic variables in regression) influence elder's life satisfaction. Findings reveal that appraisal support (adequacy of support or the degree of satisfaction with support from children and relatives) directly improves elder's life satisfaction ( $R^2 = 0.883$  and  $Beta = 0.438$ ). There was a relationship between emotional, instrumental and informational support, age, number of children and education with life satisfaction of elders. The results show psychological importance and benefits of social support. This research suggests that because of these benefits of social support, policy makers, beside making policies with the purpose to improve elder's welfare should also have to reinforce traditional culture.*

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**Keywords:** life satisfaction, social support, appraisal support, elders, demographic variables.

## 1. INTRODUCTION

Rapid increase in the number and proportion of old people is one of the most significant population dynamics in the twentieth century. How does the proportion of elders increase? It is mainly the result of demographic transition and the shift to lower fertility and mortality, leading to "evolution in the age structure of the world population"(United Nations, 2001, p. 37).

"Aging is a continuous process of growth and decay; both of them start at birth and continue throughout life" (Sabelli and Suggerman, 2003, p. 777). Vicki (2000) defined aging as the transition of the human organism after the age of physical maturity in a way that the probability of survival decreases, and it is accompanied by regular transformation in appearance, behavior, experience, and social roles (Vicki, 2000).

It is estimated that the old population in the world will reach to 21% in 2050. Old population in developed countries will increase from 18.3% in 1995 to 31.2% in 2050 and in developing countries it will increase from 7.3% in 1995 and will reach to 19.2% in 2050 (Binstock and George, 2001). It indicates that the increase of old population in developing countries is faster than in developed countries. Alvarez (1998) stated that we view elderly as helpless and these old peoples adopt this view of themselves and they become society's burden. With the increasing of the old population, society, government at macro level and family, friend, and relatives at micro level, have to prepare facilities and conditions due to they satisfied with their lives and do not consider that time is over. Most researchers and professional agree that life satisfaction should be a major component of any comprehensive conception of "adjustment" or "mental health" (Sells, 1969). Many literature present different operational definitions of the terms psychological health and psychological well-being (McAuley and Rudolph, 1995). Psychological well-being is considered to be a multifaceted phenomenon (Gauvin and Spence, 1996) particularly in aging population (McAuley and Rudolph, 1995).

Diener et. al. (1985) argued that life satisfaction refers to a cognitive judgmental process. But in 1999 Diener and his colleague placed life satisfaction in a category. They regarded life satisfaction as a category of subjective well-being (see Table 1). Carr (2004) in his book, *Positive Psychology*, assumed that subjective well-being is synonymous with happiness and finally defined it as a positive psychological state that is characterized by a high level of satisfaction with life, a high level of positive effect and a low level of negative effect.

**Table 1**  
**LIFE SATISFACTION IN CATEGORY OF SUBJECTIVE WELL-BEING (SWB)**

Pleasant effect	Unpleasant effect	Life satisfaction	Domain satisfaction
Joy	Guilt and shame	Desire to change life	Work
Elation	Sadness	Satisfaction with current life	Family
Contentment	Anxiety and worry	Satisfaction with past	Leisure
Pride	Anger	Satisfaction with future	Health
Affection	Stress	Significant other's views of one's life	Finances
Happiness	Depression		Self
Ecstasy	Envy		One's group

Source: Diener, et. al. (1999), p:277.

Diener and his colleague's (1999) note, researchers can study a narrow definition of subjective well-being because they can gain a greater understanding of specific conditions that might influence well-being in the particular domains (Diener et al., 1999). In many studies have been concluded that people assess the quality of their lives not in terms of their absolute level of material resources, but relative to social norms prescribing the level of resources which they ought to have. This means that social support influences on life satisfaction of elders (Easterlin 1974; Duncan, 1975; Campbell, Converse, and Rodgers, 1976).

Since Cobb's (1976) definition was written, social support has been defined as emotional, instrumental, informational, and appraisal assistance provided informally by family, friends, neighbors, colleagues, self-help group, peers and professionals (cited in House and Kahn, 1985). According to Vciel and Baumann (1992) the concept of social support has become immensely popular in mental health research. They suggested that the notion of social support postulates "beneficial environmental (social) conditions that may modulate and even compensate for the effects of environmental stress" (p.1). Many researchers have done considerable works on defining social support and its constructs. Stewart (1993) combines various constructs of social support and defines it as interactions with family members, friends, peers, and health care providers that communicate information, esteem, aid, and reliable alliance. These communications improve abilities, moderate the impact of stressors, and promote healthy behavior (Stewart, 1993).

About Iran, the population of this country was 65,397,521 in July 2007 with life expectancy at birth was 70.56, birth rate was 16.57 per 1000 population and death rate was 5.65 per 1000 population. Table 2 shows the age structure of Iran.

**Table 2**  
**AGE STRUCTURE OF IRAN, 2007**

Age group	Male	Female	Percent
0-14	7,783,794	7,385,721	23.2%
15-64	23,636,883	23,088,934	71.4%
65 years and over	1,701,727	1,800,462	5.4%

Source: <https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html>

Related to national income, according to preliminary estimates, Iranian economy kept its upward trend in 2006 and 2007. Gross domestic product grew by 6.2 percent at constant 1997/98 prices, up by 0.5 percentage point. Non-oil GDP, with 0.2 percentage point rise, reached 6.6 percent.

Meanwhile, growth in the value-added of "oil" and "manufacturing and mining" sectors along with some services sector such as "trade", "transport, storage, and communications" were main reasons behind the increase in production in the review year. The shares of the value-added of "agriculture", "oil", "services", and "manufacturing" groups in GDP were 0.7, 0.3, 3.4 and 1.7 percentage points, respectively.

Preliminary estimates indicated that private and public consumption grew by 6.2 in 2006 and 7.4 percent in 2007 (at constant 1997/98 prices). Moreover, the findings reveal that gross fixed capital formation showed a decline of 1.8 percentage points when compared with the growth of the previous year. The declining growth pace of gross fixed capital formation in machinery is attributable to a slowdown in growth rate of imported capital goods. Also, the attenuation of the growth rate of gross fixed capital formation in construction sector was due to the deceleration of private sector investment in this sector in the review year (Central Bank of the ISRI, 2006/07).

In Iran, especially in areas with smaller population and more traditional culture, respecting the elderly is highly valued as a result of religious belief and Islamic ethics. Therefore, entrusting the elders to the care of nursing homes is not the best alternative, neither for the household members who have to do it nor for the aged peoples. Besides, it is not still a commonly accepted practice in our society from social and traditional points

of view. Therefore, of the total aged population of the country, less than 0.1% in 1986 and less than 0.2% in 1996 were living in institutional/collective households that are mostly called '*Khane-ye-Salmandan*' (home for the aged peoples).

In rural areas, where households live more conventional lives and traditional principles are more closely observed and problems associated with industrialization are less rampant than in urban areas, the proportion of the elderly in institutional households is much smaller than in urban areas. In 1996, about 0.18% of the aged in urban areas lived in institutional households. Corresponding proportion for rural areas was 0.15 percent (see table 3 for more information).

**Table 3**  
DISTRIBUTION OF POPULATION 60 YEARS AND OVER BY AGE, SEX AND TYPE OF HOUSEHOLD IN URBAN AND RURAL AREA, IRAN, 1996

Age group (years)	Total		Private settled households	Institutional households	Private unsettled households
	Number	Percent			
<b>Male</b>	<b>2,135,950</b>	<b>100.00</b>	<b>99.41</b>	<b>0.20</b>	<b>0.39</b>
60-64	753,502	100.00	99.29	0.27	0.44
65-69	577,189	100.00	99.40	0.17	0.44
70-74	463,018	100.00	99.53	0.14	0.31
75-79	192,898	100.00	99.62	0.15	0.23
80-84	47,081	100.00	99.49	0.21	0.30
85-89	35,182	100.00	99.51	0.16	0.32
90-94	19,977	100.00	99.07	0.57	0.36
95 years and over	20,103	100.00	99.22	0.19	0.59
<b>Female</b>	<b>1,842,177</b>	<b>100.00</b>	<b>99.60</b>	<b>0.13</b>	<b>0.27</b>
60-64	629,444	100.00	99.58	0.08	0.34
65-69	499,184	100.00	99.66	0.07	0.26
70-74	383,491	100.00	99.69	0.11	0.11
75-79	171,220	100.00	99.63	0.19	0.18
80-84	72,389	100.00	99.37	0.43	0.20
85-89	41,294	100.00	99.30	0.51	0.19
90-94	24,803	100.00	99.13	0.56	0.31
95 years and over	20,352	100.00	99.06	0.47	0.47

Source: <http://www.unescap.org/esid/psis/population/popin/profiles/iran/popin12.htm>

About educational condition of aged people in this country it is important to note that low literacy rate of the years before 1941 and lack of

any proper attention to the issue during the years immediately following those years particularly in rural areas now manifest themselves in the elderly aged 60 years of age and over. In 1986, only about 17 percent of the elderly population 60 years of age and over were literate. The proportion of literate males was more than three times that of literate females. In other words, literacy rate was 25 percent for aged men and 8 percent for aged women in that year.

In 2006, literacy rate of the elders increased by 6% over the year 1986 and reached 23 percent.

**Table 4**  
**LITERACY RATE FOR POPULATION AGED 65 YEARS AND OVER, IRAN, 2006**

Description	Illiterate	Literate	Rural literate	Urban literate
Literacy percentage Population 65 <sup>+</sup>	72.2	27.8	4.4	23.4

Source: Estimated from last census of Iran, 2006.

Literacy rate of the elderly in urban areas was more than five times that of the elderly in rural areas in 2006 (see table 4). Literacy rate is expected to increase among the elderly in coming years as a result of increased literacy rate among non-elders.

About labor force participation rate of aged people, data shows that it increased from 1980 to 2007 (see table 5). In 1980, labor force participation rate among the aged peoples was about 29% which increased to some 32% by the year 2007.

**Table 5**  
**LABOR FORCE PARTICIPATION 65 YEARS AND OVER BY SEX, IRAN, 2007**

Sex	1980	1990	2007	2010	2020
Female 65+	6.4	7.5	10.4	10.5	10.6
Male 65+	53.6	58.2	55.0	55.0	54.8
Total 65+	29.1	33.8	32.4	31.7	30.0

Source: United Nations, 2007.

This research attempts to evaluate life satisfaction of old people (65 and above) and the amount of social support they enjoy. Why is life

satisfaction of this group evaluated? The number of people aged 60 or above in the world was estimated 605 million in 2000. This number is projected to grow to nearly 2 billion in 2050, when it will be as large as the population aged 0-14 (United Nations 2001). In addition, "Asia's share of the older population will increase to 63 percent by 2050" (Minnes and Woodford, 2005, p. 41). "There are large differences in the level and pace of aging among the nations of the East and Southeast Asia like Japan that is the oldest country in the world" (Phillips 2000, p. 35).

According to the Census Center of Iran, between 1987 and 1997 the number of old people in Iran greatly increased from 1,771,614 to 3,978,127 (Iran's Census Center, 2002). It means that the pace of old population growth within 10 years was four folded and because of this reason the old people in Iran should be given special attention.

It is important to be investigated the causes that bring meaning to human life especially to frail and old people's life. Added years of life without meaning are indeed empty years. In addition, in our religion, there is a strong emphasis on respecting and caring for old people. Koran puts some obligations on us and in our behavior towards elders. In XXXI of Sure (Luqman), Allah says:

*And we have advised everyone to be good and kind to their parents, to your mother because she has endured travail and breastfed you for two years. First show gratitude to me and then your parents.*

In a country such as Iran, where Islam is pivotal, with such religious decree, it is important to evaluate the quality of the old people's lives. But in our society, unfortunately, these people and their needs are neglected.

The purpose of this study is to measure life satisfaction of elders and show the relationship between life satisfaction and social support in Iran.

## 2. THEORETICAL VIEW

Recent years have witnessed an increase in research on subjective well-being and life satisfaction in other countries, especially in western societies (Diener, 2000; Diener, 1993; Diener, Suh, Lucas, and Smith, 1999; Diener, Emmons, Larson, and Griffin, 1985). Studies of support networks of the aging in the United States indicate that structural features of the network, such as size and gender composition and functional features of

the network sustain or improve the psychological and physical well-being of the elderly (Silverstein and Bengtson 1994; Minkler 1985; Eggebeen 1992; Hoyert 1991). Millward (1998) concluded that family and kinship networks are important sources of financial, practical and emotional support, and are available in varying degrees to the majority of the older population. Emotional support has also been found to be an important predictor of beneficial physical and psychological outcomes among older parents (Silverstein and Bengtson, 1994). But, to the best knowledge of the researchers, there is no any research done on this topic in Iran. There are some efforts done in the areas of aging and attitude of young people toward elders, but not on the social support for the elderly, and this was the most important reason for the researchers to investigate this area.

Although the construct of social support has been operationalized in a variety of ways, its basic underlying dimensions are often conceptualized as the structural, functional, and appraisal components of supportive relationships (Antonucci, 1990). One of the first to define and give meaning to the significance of social support was by Cobb (1976) who defined it as, information leading the subject to believe that he is cared for and loved, esteemed, and valued.

House and Kahn (1985) stated that there are four types of social support: (a) instrumental, in which physical assistance is rendered; (b) informational, the giving of advice or suggestions; (c) appraisal, or the affirmation and feedback needed, and (d) emotional, the caring or concern. Regarding appraisal, evidence suggests that the evaluation of the adequacy of support may be more important than structural or functional features of support networks in promotion of elder's well-being (Heller, Swindle and Dusenbury 1986; Wethington and Kessler 1986). These various types of social support have been seen as important during periods of life-changing or stress-producing events (like importance of social support in old people's life).

Friedman (1998) and Cobb (1976) defined social support as (a) emotional support (individuals in the family believe that they are loved and cared for), (b) esteem support (family members believe that they are respected and valued), and (c) network support (family members believe that they belong to a network of communication where mutual support and understanding is emphasized), d) appraisal support (information that allows family members to assess how they are doing well), and (e) altruistic support (information received from others for giving of oneself).



In some researches, it was found that quality of life increases such support (Loescher, Clark, Atwood, and Leigh, 1990). Some studies even indicated that the effect of social support on health would be positive (Hildingh, Segesten, Bengtsson, and Fridlund, 1994; Sharf, 1997). People who are in supportive relationships and social environments are generally healthier than those who are not.

Diener and Biswas-Diener (2001) argued that in human nature approach, having one's biological needs met, engaging in interesting activities, and having the presence of social support are seen as necessary and sufficient for high subjective well being (SWB). Furthermore, these necessary conditions for high SWB are seen as universal. Overall life satisfaction, or simply life satisfaction, has been defined as the global judgment of a person's life (Diener, 1984) and as mentioned before it is one components of SWB. Based on this viewpoint, this research aims to investigate social support as a variable that has a relationship with life satisfaction.

Many researchers have done considerable works on defining life satisfaction and social support. This research used House and Kahn's definition on social support and Diener and Biswas-Diener theory about life satisfaction and well-being. Therefore, it is tried to evaluate the impact of social support on the life satisfaction of elders in Iran.

### **3. RESEARCH METHOD**

In this research survey method which is based on quantitative approach was used. Respondents were old people (65 year and over) of Tabriz city. Tabriz is one of the metropolitan cities which located in the west of Iran. The majority of residents in Tabriz are Turkish and for collecting data it was important to be familiar with their language and culture. Because the researcher was from this area, this city was selected as our field research.

The data were collected throughout the spring in 2007 using a modified life satisfaction scale. Research instrument of this study was a questionnaire and face to face interview was used to collect data.

To analyze the data, descriptive and inferential statistics were used. All analyses were performed by using SPSS 11.5 (Statistical Package for the Social Sciences) and analysis procedures were guided by Pallant (2005).

**Table 6**  
**AGE STRUCTURE OF ELDERS, TABRIZ, IRAN, 2006**

Age Group	Number of Women	Number of Men	Women + Men	Sample Size
65-69	13591	15032	28623	165
70-74	10839	12531	23370	135
75-79	3755	4289	8044	46
80-84	1592	1552	3144	19
85-89	802	657	1459	8
90-94		470	1022	6
95+		370	794	6
Total		34901	66,456	385

The sample size of the study was determined by using the Cochran formula which estimated 385. The sample was randomly selected from six different areas of Tabriz city. Based on the sample size, 200 males and 184 females contributed in this research (see tables 6 & 7).

**Table 7**  
**FREQUENCY OF RESPONDENTS BY SEX**

Gender	Frequency	Percentage
Male	200	52.08
Female	184	47.91
Total	384	100.0

To collect information, a questionnaire was designed and its questions asked from the sample.

The modified life satisfaction scale (Diener et al. 1985) was used to measure life satisfaction. All six items of the instrument were on five-point Likert scale (1=strongly disagree; 5=strongly agree). Item scores were summed, consistent with instrument recommendations (Diener et al. 1985), to provide a possible range of scores (6=lowest, 30=highest). Internal consistency of the life satisfaction items analyzed by using Cronbach's alpha with  $\alpha=0.85$  (Cronbach, 1951).

To measure social support, the Likert scale including twelve questions were used (1="strongly disagree" to 5="strongly agree"). Its reliability was confirmed based on  $\alpha=0.79$ .

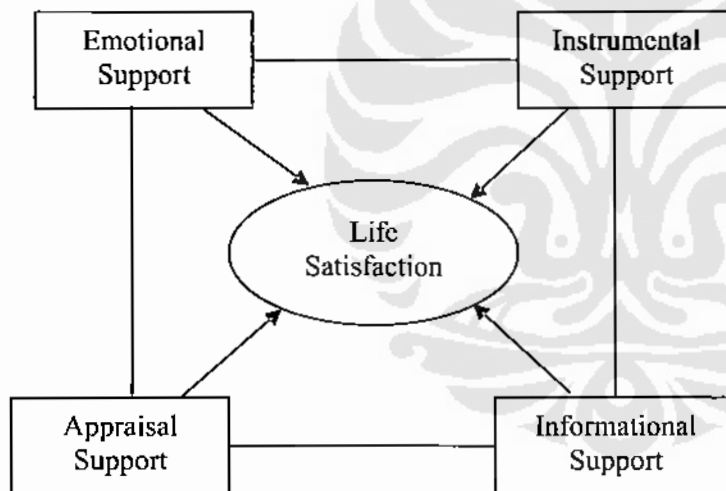
- Instrumental support: House and Kahn (1985) considered it to include the physical assistance rendered.
- Informational support: information leading the subject to believe that he is cared for and loved, esteemed, and valued (Cobb, 1976).
- Appraisal support: appraisal of social support represents the subjective evaluation of the adequacy of support or the degree of satisfaction with support.
- Emotional support: emotional support includes the ability to feel that one can turn to significant other for comfort and security and the feeling of being cared for by others (Cobb, 1976; Friedman, 1998). Social support indicators considers four components: instrumental, emotional, appraisal, and informational support.
- Operational definitions of these four kinds of social support have been done based on Likert scale. These scales which were designed on a five parts ordinal scale were given to the responders through face to face interview by researcher.
- Instrumental support: to evaluate this component three questions such as satisfaction from facility that they use, health care and accessing to every facility that they need were used.
- Informational support: this component assessed with considering three question: how much do you can get information about your age condition? how much do your kids consulting with you about their problems? And how much are you agree with this statement that, with passing time we isolated?
- Emotional support: for this component 3 questions were used: how much are you supported from your close relatives? how much do your kids pay attention to your needs? And in your opinion how much others pay attention to your condition and your feeling?
- Appraisal support: it was evaluated with three questions: how much do you satisfied with your relatives or kids support? how much did you wish the social support that you received to be increased? And how much do you feel that you are alone?

- Life satisfaction: life satisfaction refers to a cognitive, judgmental process. Judgments of satisfaction depend on a comparison of one's circumstances with what is thought to be an appropriate standard (Diener, Emmons, Larsen, and Griffin, 1985).

This research also investigates the effects of socio-demographic factors that include age, gender, marital status, education, and number of children on life satisfaction. Gender is dummy coded as 1 (female) or 0 (male). Marital status is coded as 1 (married) or 0 (other) and education and number of children measured in interval scale.

Drawing from the categories for social support, presented is a theoretical model that explains how the dimensions of social support and its consequences are proposed to influence the life satisfaction of the elders (Figure 1). It is hypothesized that the overall social support would be positively related to life satisfaction.

**Figure 1**  
**FRAMEWORK OF SOCIAL SUPPORT COMPONENTS IN RELATION OF LIFE SATISFACTION**



This research aims to measure life satisfaction of elders and evaluates the association of life satisfaction with social support. Based on the previous discussion therefore it is hypothesized that all social support components (appraisal, emotional, instrumental, and informational) have positive significant effect on life satisfaction of elders in Iran. In addition, socio-

demographic factors (age, gender, marital status, education, and number of children) have significant influence on life satisfaction of the elders in Iran.

#### 4. RESULTS

Life satisfaction of elders measured by a modified version of Diener and Colleague's, Life Satisfaction Scale. The questionnaire contains six scale-related questions and therefore 6 was the minimum score that one could gain and 30 was the maximum score. Quartiles were calculated and in first range of life satisfaction of elders was 16 or less, in the second range it was between 16 and 20, in the third range life satisfaction was between 20-23 and the fourth range it was 23 and over.

A description of sample characteristics and analytic variables is displayed in Table 8.

**Table 8**  
**CHARACTERISTICS OF ANALYTICAL VARIABLES OF ELDERS,**  
**TABRIZ CITY, IRAN, 2007**

<i>Variable</i>	<i>Mean</i>	<i>SD</i>	<i>Coding Scheme</i>
Social and demographic variables			
Age	70.04	4.82	65 to 87
Gender	0.45	0.53	0 ( <i>male</i> ), 1 ( <i>female</i> )
Marital status 0 (others), 1(married)	0.59	0.49	0 ( <i>other</i> ), 1 ( <i>married</i> )
Education	9.86	5.087	0( <i>illiterate</i> ) to 20
Number of children	3.80	2.048	0 to 9
Appraisal support	10.33	2.96	3 to 15, based on 3-item scale
Emotional support	9.81	2.82	3 to 15, based on 3-item scale
Informational support	9.68	3.04	3 to 15, based on 3-item scale
Instrumental support	9.66	2.99	3 to 15, based on 3-item scale
Life satisfaction	16.5	3.49	6 to 30, based on 6-item scale

Excluding cases with missing values on analytic variables, the sample size became 384. The average age of the respondents in the sample was 70.04 years old. More than half of respondents were male (55%) and majority (41%) were married. The mean of years of education was 9.86, and average number of the children was 3.8. The appraisal support scale score of this sample averaged 10.33 points, and emotional support averaged 9.81, informational support averaged 9.68, instrumental support averaged 9.66 points. The mean of life satisfaction was 16.5.

The correlation between life satisfaction and social and demographic factors was investigated using the Pearson Product-Moment correlation coefficient (see Table 9). Preliminary analyses were also performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

There is negative correlation between life satisfaction and age, number of children and positive relationship between life satisfaction and marital status, and education. In addition, there is strong positive correlation between life satisfaction and appraisal, informational, and emotional support. As a whole, all four social support factors and almost all socio-demographic variables turned out to be correlated with the elder's life satisfaction confirming hypotheses.

**Table 9**  
**CORRELATION BETWEEN LIFE SATISFACTION AND DEMOGRAPHIC VARIABLES AND COMPONENT OF SOCIAL SUPPORT, TABRIZ CITY, IRAN, 2007**

Variables	1	2	3	4	5	6	7	8	9	10
1	1									
2	-0.123*	1								
3	-0.213**	0.562**	1							
4	0.176**	-0.531**	-0.567**	1						
5	-0.033	0.026	-0.047	0.046	1					
6	-0.184**	0.662**	0.654**	-0.583**	-0.061	1				
7	-0.130*	0.622**	0.597**	-0.618*	0.018	0.533**	1			
8	-0.244**	0.629**	0.585**	-0.510**	0.045	0.507**	0.529**	1		
9	-0.150**	0.552**	0.509**	-0.502**	-0.036	0.679**	0.614**	0.691**	1	
10	-0.228**	0.695**	0.695**	-0.656**	-0.010	0.883**	0.827**	0.768**	0.725**	1

**Notes:**

- \* Correlation is significant at the 0.05 level (2-tailed).
  - \*\* Correlation is significant at the 0.01 level (2-tailed).
- 1= age, 2= marital status, 3= education, 4= number of children, 5= gender, 6= appraisal support, 7= emotional support, 8= instrumental support, 9= informational support, 10= life satisfaction.

To test the validity of the hypotheses regarding the predictive power of the four social support factors for determining life satisfaction, multiple regression was utilized. The normality, linearity, singularity, and homoscedasticity of the data were checked. As multiple regression is very sensitive to outliers (Pallant, 2005), the extreme scores were checked and it was observed that there were no extreme scores in the distribution of the

values. Then the correlation between the independent variables and the dependent variable was scrutinized. As expected, the correlation between the independent variables were lower than 0.7 (Pallant, 2005), indicating the lack of multicollinearity and there was at least some correlation (higher than 0.03 as suggested by Pallant, 2005) between the independent variables and the dependent variable of life satisfaction to justify the use of the regression analysis. The multicollinearity was also checked a second time through the tolerance and Variance Inflation Factors (VIF) indexes submitted in the coefficient's matrix produced by the SPSS in the regression analysis.

Having ascertained that none of the basic assumptions for using the multiple regression (with enter method) analysis is violated, the test was conducted giving us an  $R^2$  value of 0.885 with  $p = 0.000$ , indicates that 88% of the variance in the dependent variable (life satisfaction) could be explained by the independent variables (emotional, informational, appraisal and instrumental support and socio-demographic variables). The adjusted  $R^2$  value was also 0.882, guaranteeing the generalizability of the results obtained to the population of Tabriz city.

Then it was checked what was the contribution of each of the independent variables to the predictive ability of the model. In this stage stepwise multiple regression was employed and 9 variables that were significant at  $< 0.05$  was entered (Table 10).

**Table 10**  
**STEPWISE MULTIPLE REGRESSION FOR SOCIAL SUPPORT AND SOCIO-DEMOGRAPHIC VARIABLES, TABRIZ CITY, IRAN, 2007**

	Independent variables	R	R <sup>2</sup>	Standard Error	b	Beta	T	Sig
Step 1	Appraisal support	0.883	0.780	0.438	0.517	0.438	13.89	0.000
Step 2	Emotional support	0.922	0.850	0.240	0.297	0.240	7.322	0.000
Step 3	Educational scale	0.934	0.872	0.173	0.118	0.173	6.691	0.000
Step 4	Instrumental support	0.937	0.878	0.103	0.120	0.103	3.416	0.001
Step5	Number of children	0.939	0.881	-0.072	-0.122	-0.072	-2.907	0.004
Step6	Informational support	0.939	0.883	0.061	0.070	0.061	2.139	0.033
Step7	age	0.941	0.885	0.013	-0.035	-0.054	-2.7	0.007

## 5. DISCUSSION AND CONCLUSIONS

In this research life satisfaction of elders in Iran was measured. The result of the study show that the mean elder's life satisfaction Iran was 16.5. The mean of life satisfaction between 1999-2001 in Canada was 7.85, in United States was 7.66, in China was 7.42, in Mexico was 8.14, in India was 5.14, in Turkey was 5.61, and Russia was 4.65 (Diener, Lucas, 1999) It is important to note that life satisfaction scores were in the range of 1 to 10 in those surveys and in contrast life satisfaction in this research ranged from 6 to 30. Comparing these data, it can be concluded that the life satisfaction of Iran's elders was lower than the life satisfaction in Canada, United States, China, Mexico, and Turkey but it was higher than the life satisfaction in India and Russia.

The impact of social support on life satisfaction of elders was evaluated. It is important to pay attention to the resources of social support that one receives. In this research these supports were those that prepared by peer, family, relative, neighborhood, and so on and not by formal institutions.

Correlation was calculated and stepwise multiple regression models were employed by adding instrumental, informational, emotional and appraisal support and socio-demographic variables to predict the dependant variable variations. Investigating  $R^2$  it was revealed that 88% of dependant variable variations can be predicted by independent variables. Stepwise multiple regression method contained seven stages. In the first stage appraisal support was entered and gives  $R^2=0.780$  that outlined predictive ability of dependent variable (life satisfaction) and it means that 78% of life satisfaction variations could predicted by appraisal support. Its beta is 0.438 indicating that there is a direct relationship between appraisal support and life satisfaction. In the second stage appraisal support and emotional support were entered together and it was obtained  $R^2 = 0.850$  and  $\beta = 0.240$ . In the third stage education was entered and it was obtained  $R^2=0.872$  with  $\beta= 0.173$ . Then instrumental support was added and it was obtained  $R^2=0.878$  with  $\beta= 0.103$ . Adding number of children gave  $R^2= 0.881$  with  $\beta= -0.072$ . This beta indicated that there is negative relationship between number of children and life satisfaction. Entering informational support gave  $R^2=0.883$  and  $\beta=0.061$ . In last stage age was added to these variables and it was obtained that  $R^2= 0.885$  with  $\beta=-0.054$ . This indicated indirect relationship between age and life satisfaction. These findings show that age and number of children had indirect relationship with life satisfaction and other variables had direct relation with life satisfaction. Gender and marital condition were omitted



when they entered in stepwise regression. It indicated that the impact of these variables were very little and because of this in stepwise regression they were neglected. Some researchers concluded that these two variables had little impact on life satisfaction (e.g. Diener and Suh, 1998; Lucas and Goham 2000).

The results of the study show the major role of appraisal support in explaining life satisfaction of elders which was confirmed by other researchers (Heller, Swindle, and Dusenbury, 1986; Krause, Liang, and Gu, 1998; Wethington and Kessler, 1986). It is important to pay attention to indirect impact of satisfaction from instrumental, informational, and emotional supports on elder's evaluation of the adequacy of support (appraisal support) and it is possible that the impact of these variables influences elder's evaluation of the adequacy of support.

The results of study indicate psychological importance and benefits of social support and demographic variables. According to the findings, this research suggests that with the benefits of social support, policy makers have to reinforce traditional culture beside of policy making with the purpose of the improvement elder's welfare, because based on of the findings, emotional support is more important for elders than instrumental or informational support. It is useful to increase life satisfaction of aging to receive support from children, relatives and neighborhoods.

As a whole it seems important to mention that governments and people should remember aged peoples and sponsored them with those support programs related to their health, nutrition, housing, earning of income, and their participation in social, cultural, and recreational activities. Therefore, in planning for supportive and recreational programs, following recommendations should be taken into consideration.

### **5.1 Primary needs**

Since living with family members, kids and receiving support from them is important for elders, therefore it should be needed to pay attention to old people and their needs such as health care, nutrition, housing and so on.

## 5.2 Financial support

With economic difficulties old people view themselves as a helpless one and they adopt this view that they are society's burden. Financial support from government will be useful to increase their life satisfaction.

## 5.3 Housing

Having a suitable housing unit is an undeniable requirement for everybody even more for old people. The cause is that their activities is at home most of the time.

## 5.4 Institutional supports

In Iran, old people have enjoyed a privileged and powerful position in respect of honor and reverence. But, this system is collapsing under the influence of modernism and the mentioned position is now being questioned. Therefore, it is important to design some institutional supports for elders to help them for adapting themselves with those changes which occurring inevitably.

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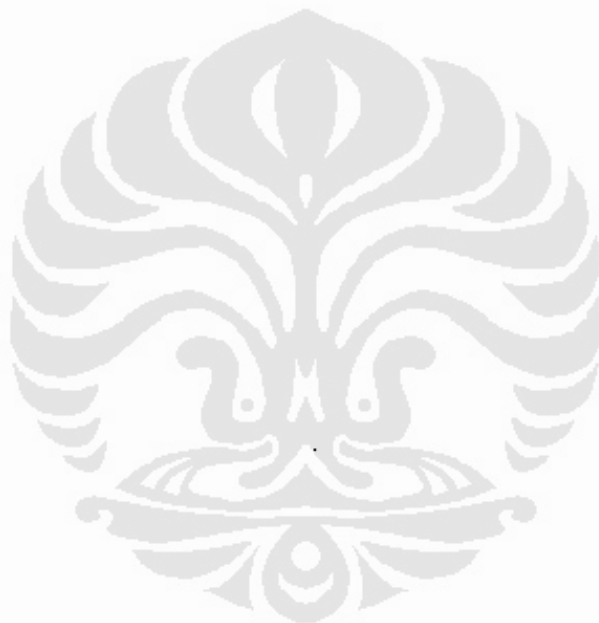
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