

Socioeconomic status and quality of life in elderly people in rural area of Sari-Iran

Samad Rouhani¹, Parsa Zoleikani²

¹. Department Corresponding author Assistant Professor, Department of Public Health; Psychiatry & Behavioral Sciences Research Center, Mazandaran University of Medical Sciences, Sari, Iran. Hospital Management Research Center, Tehran University of Medical Sciences, Tehran, Iran.

². Student Research Committee; Health Staff of Sari District Health Center, Mazandaran University of Medical Sciences, Sari, Iran
samad.rouhani@gmail.com

Abstract: There are many reports particularly from developed countries that show a relationship between socioeconomic status and health of individuals. Among a wide range of socioeconomic variables it seems that income, education, and occupation are more important factors that might change health of people. Many of studies carried out to assess the relationship between socioeconomic status and health status focused on narrow health indicators that measure a single feature of health status such as morbidity and mortality. In this study we employed a specific instrument of quality of life measurement (LEIPAD) to measure the quality of life of elderly people. It was a cross-sectional study carried out in rural area of Sari the capital city of Mazandaran province. A sample of 130 elderly people over 60 years from both sex were interviewed on their doorsteps randomly. Inferential statistics and ANOVA were used to analyze the data using SPSS software package. The quality of life of respondents in overall was better on core scales than moderator scales. Among domains of core scales, physical functioning scale and social functioning scale had better status. Among socioeconomic variables age, marital status, income and literacy had significantly affected the quality of life of elderly people both in terms of core and moderator scales. It is recommended that appropriate intervention needs to assist vulnerable groups particularly elderly people in rural area to improve the quality of their life.

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1. Introduction

There are many reports particularly from developed countries that show a relationship between socioeconomic status and health of individuals (Banks et al., 2006; Bassuk et al., 2002; Marmot, 2004) indicating a better health for higher socioeconomic status compared with lower socioeconomic group. Among a wide range of socioeconomic variables it seems that income, education, and occupation are more important factors that might change health of people (Lynch et al., 2000; Mustard et al., 1997). This happens because different health behavior, range of obesity, and inequality in medical treatment, poor perceived health status of different socioeconomic groups can vary their mortality rate (Bassuk et al., 2002). In developing countries, in particular, studies that show socioeconomic variables and health status are relatively limited. This limitation is more evident when it comes to specific vulnerable groups such as elderly people (Qin, 2007).

A series of theories have been proposed to explain the influences of personal and socio-environmental factors on subjective attitudes toward aging that most of them focus on the individual's adaptability to aging. Political economy perspective

highlights the socio-structural influences on aging. It emphasizes the relationship between socioeconomic determinants and older people's quality of life. It argues that social resources are distributed unequally on the basis of gender, class, and race due to political and economic forces. For instance, in the social context of developing countries in particular, female and rural older persons are less likely to have pension and public medical care and consequently, they are economically disadvantaged and are more likely to have bad quality of life. Political economy perspective also allows policy-makers to offer policy interventions to improve quality of life (QOL) of older adults (Qin, 2007).

Population aging is a global issue that draws attention from academic, political, and economic fields. It not only is characterized as a social issue in developed countries where it has been most prevalent, but also recognized as a social problem faced by more and more developing nations. Therefore, research in this area could be important for developing countries such as Iran as the findings of such investigations could provide invaluable evidence for policymakers and stakeholders to boost their infancy social security programs in dealing with vulnerable groups.

Many of studies carried out to assess the relationship between socioeconomic status and health status focused on narrow health indicators that measure a single feature of health status such as morbidity and mortality (Huguet et al., 2008). In recent years experts recommend the use of more comprehensive indicator of health status measurement that are known as Health Related Quality Of Life (HRQOL) measures that can show health status and functional level of individuals. The World Health Organization's Quality of Life (WHOQOL) Group has defined the concept of QOL as "an individual's perception of their position in life, in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (WHOQOL-Group, 1993). Accordingly, when focusing on the multidimensional nature of QOL and how it is affected at the end of life, we should consider the profound influence of social and cultural factors (Qin, 2007). There are a wide range of internationally recognized generic and disease specific quality of life or health status measurement tools. Also there are age group specific instrument of quality of life measurement such as KEEDSCREEN for children and LEIPAD for elderly people. In this article we report the quality of life of elderly people and its relationship with socioeconomic factors.

2. Material and Methods

It was a cross-sectional study carried out in rural area of Sari the capital city of Mezandaran province in northern Iran. LEIPAD questionnaire was used for measuring quality of life of elderly people. A sample of 130 elderly people over 60 years from both sex were interviewed by trained interviewers on their doorstep randomly in 2011. Data collection was continued until we have reached the predetermined sample size. Half of the sample was chosen from mountain area and the second half from plain area. This questionnaire was used in earlier studies among Iranian population (Mohagheghi et al., 2007; Hesamzadeh 2004; Abedi, 1999). LEIPAD consists of 49 items, 31 of which can be grouped into seven 'core instrument scales'. Another 18 items can be grouped into a further five scales, referred to as 'moderator scales'. Each item in the instrument assesses responses along a scale of 0 (best condition) to 3 (worst condition). Some items of the 'moderator scales' have dichotomy answers so their score is 0 or 1 (55). Collected data were coded and entered in excel program. Inferential statistics and ANOVA were used to analyze the data using SPSS software package.

3. Results

There were 130 respondents of which 58 were male and 62 female. The average age of participants was 71 minimum and maximum of 61 and 90 years respectively. Table 1 show socioeconomic characteristics of respondents.

Table 1. Socioeconomic characteristics of a sample of elderly people living in rural area of Sari Iran 2011.

| Variables/ frequency | Number | Percent | |
|--|------------------------|---------|------|
| Sex | <i>Male</i> | 58 | 44.6 |
| | <i>Female</i> | 72 | 55.4 |
| Age | <i>60-65</i> | 36 | 27.7 |
| | <i>66-70</i> | 37 | 28.5 |
| | <i>71-75</i> | 26 | 20.0 |
| | <i>76></i> | 31 | 23.8 |
| Marriage | <i>Couple</i> | 90 | 69.2 |
| | <i>Single</i> | 40 | 30.8 |
| Source of income | <i>Pensioner</i> | 48 | 36.9 |
| | <i>Self employee</i> | 82 | 63.1 |
| Income category (Iranian Rials) | <i>2000000<</i> | 49 | 37.7 |
| | <i>2010000-4000000</i> | 52 | 40.0 |
| | <i>4010000></i> | 29 | 23.3 |
| literacy | <i>Illiterate</i> | 121 | 93.1 |
| | <i>Literate</i> | 9 | 6.9 |
| Location | <i>Mountain</i> | 69 | 53.1 |
| | <i>Plain</i> | 61 | 46.9 |

As table above indicates most of respondents were female, from different age and income categories, living as couple, self employed, illiterate, living in mountain area.

Health status of participants including core instrument scales and moderator scales are presented in table 2. As a matter of cultural norm two questions related to sexual behavior of respondents were

ignored reducing the domains of core scales from seven to six items.

Table 2. Health status of a sample of elderly people living in rural area of Sari Iran 2011

| Quality of life domain / Frequency | | Mean (St.D) | Percent |
|------------------------------------|--|-------------|---------|
| Core Instrument Scales | Physical functioning scale 0-15 | 8.8 (3.2) | 58.7 |
| | Self-care scale 0-18 | 14.6 (3.3) | 81.1 |
| | Depression and anxiety scale 0-12 | 7.7 (2.8) | 64.2 |
| | Cognitive functioning scale 0-15 | 10.0 (3.1) | 66.7 |
| | Social functioning scale 0-9 | 5.3 (1.8) | 58.9 |
| | Life satisfaction scale 0-18 | 11.2 (3.0) | 62.2 |
| Subtotal 0-87 | | 57.6 (12.2) | 66.3 |
| Moderator Scales | The perceived personality disorder scale 0-6 | 4.1 (1.5) | 68.3 |
| | The anger scale 0-4 | 3.5 (0.8) | 87.5 |
| | The social desirability scale 0-3 | 1.9 (0.9) | 63.3% |
| | Self esteem scale 0-3 | 2.9 (0.4) | 96.7 |
| | Trust in God scale 0-3 | 2.0 (0.2) | 66.7 |
| Subtotal 0-19 | | 14.4 (2.6) | 75.8 |
| Total 0-106 | | 72.0 (13.8) | 67.9 |

As table 2 shows the quality of life of respondents in overall was better on core scales (66.3%) than moderator scales (80.0%). Among domains of core scales, physical functioning scale and social functioning scale had better status (about 59%) compared to other domains. Among domains of moderator scales self esteem scale (96.7%) had worst

status where the social desirability (63.3%) and trust in God (66.7%) had the best status. We further analyzed domains of core scales moderator scales and total scales for finding any possible association between those variable with socioeconomic factors indicated in table 1 running one way ANOVA test as. The results are presented in table 3.

Table 3. The association between socioeconomic variables and quality of life of elderly people living in rural area of Sari Iran 2011.

| Quality of life scales (%) | | TCS* | TMS* | TS* |
|---------------------------------|-----------------|-------------|-------------|-------------|
| Socioeconomic variables | | | | |
| Sex | Female | 56.8 | 14.5 | 71.3 |
| | Male | 58.6 | 14.1 | 72.7 |
| | P value | .427 | .419 | .584 |
| Age category | 60-65 | 63.6 | 14.9 | 78.5 |
| | 66-70 | 60.4 | 14.4 | 74.8 |
| | 71-75 | 58.2 | 15.0 | 73.2 |
| | 76> | 46.8 | 13.1 | 59.9 |
| | P value | .000 | .017 | .000 |
| Marriage | Couple | 61.4 | 14.9 | 76.3 |
| | Single | 49.0 | 13.1 | 62.1 |
| | P value | .000 | .000 | .000 |
| Source of income | Pensioner | 60.2 | 13.8 | 74.0 |
| | Self employee | 56.1 | 14.7 | 70.7 |
| | P value | .064 | .076 | .196 |
| Income category (Iranian Rials) | 2000000< | 54.1 | 14.4 | 68.5 |
| | 2010000-4000000 | 53.9 | 14.0 | 67.8 |
| | 4010000> | 61.8 | 14.4 | 76.2 |
| | P value | .001 | .754 | .005 |
| literacy | Illiterate | 56.8 | 14.4 | 71.1 |
| | Literate | 68.9 | 13.9 | 82.8 |
| | P value | .004 | .590 | .014 |
| Location | Mountain | 56.8 | 14.8 | 71.6 |
| | Plain | 58.3 | 14.0 | 72.3 |
| | P value | .468 | .072 | .764 |

*Total Core Scales % (TCS); Total Moderator Scales % (TMS) Total Scales % (TS)

As table above indicates among socioeconomic variables studied in this study age, marital status, income and literacy had significantly affected the quality of life of elderly people both in terms of core and moderator scales except for income and literacy that did not change moderator scales significantly. There was no association between sex, source of income, location of residency and quality of life of elderly people neither on core nor on moderator scales.

4. Discussions

In recent decades both the subject of elderly people and quality of life are the focus of many researchers world wide (Rouhani, 2012; Heydari, 2012). In one side this is because of the number of elderly people particularly in developing countries are increasing rapidly (Siegel and Doner, 2007; Mortazavi et al., 2012; Jogataee, 2005). For instance in the case of Iran where the number of total population will hardly doubled in 2050, for the same period the number of elderly people has estimated to be six fold (Mehryar, 2004). The other side is that after the successfulness of public health programs and services beside improvement in socioeconomic status of population particularly in developing countries, improvement in health status in terms of morbidity, mortality and length of life has progressed significantly. Putting it into another language, it means that nowadays the gap in terms of health of population is more evident where we take into account the quality of life rather than just the quantity of life.

Health related quality of life studies and quality of life measurement are increasingly carried out universally to indicate the subjective aspects of longevity as the traditional health indicators are failed to cover this important aspects of life (Rouhani, a, 2012; Rouhani, b, 2012). Quality of life measurement is also so important for elderly people as they are at the exposure of many socioeconomic and health conditions that could possibly be a potential risk to jeopardize the quality of their life and satisfaction. In one study in Iran authors find out that supporting elderly people in terms of psychological assistant is a prerequisite for a better quality of life for elderly people (Heydari et al., 2012).

In the near future elderly people from developing countries will account the majority of old age in the world with many of them living in rural area of these countries. Given the inequitable distribution of facilities and social support between urban and rural area of developing countries (Qin, 2007) it should be a big concern for public health policy makers when they think to improve the quality of life of people particularly vulnerable groups such as elderly people. In this study we have found that in the rural area of

Iran socioeconomic factors particularly coupling, income, literacy, and age are in particular important in determining the quality of life of elderly people. Correlation between quality of life of elderly people and socio-demographic factors was also found in different studies in Iran (Abbasimoghadam et al., 2009; Tajvar et al., 2008; Vahdaninia et al., 2005; Rafati et al., 2004; Bazrafshan et al., 2008; Herrera Ponce et al., 2008). These evidence need to be translated into appropriate programs to reach these vulnerable groups for adding life to their years (WHO, 2002). The finding of this study is different from another study in the same city that measured quality of life of elderly people in urban area and did not found any significant association between quality of life and socioeconomic status of elderly people. This difference between two studies could be a sign of inequitable distribution of social support between urban and rural area as highlighted by other authors in developing countries (Qin, 2007).

Given the finding of this research that revealed that socioeconomic variable as important factors in determining quality of life of elderly people in rural area and using the available evidence in the literature (Beyaztas et al., 2012; Aghamolaei et al., 2011; Aghanori et al., 2012), it is recommended that appropriate intervention needs to assist vulnerable groups particularly elderly people in rural area to improve the quality of their life.

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Corresponding Author:

Dr. Samad Rouhani
Assistant Professor, Department of Public Health; Psychiatry & Behavioral Sciences Research Center, Mazandaran University of Medical Sciences, Sari, Iran. Hospital Management Research Center, Tehran University of Medical Sciences, Tehran, Iran.
E-mail: samad.rouhani@gmail.com

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