Original Article

Study of the relationship between quality of life and socioeconomic status in Isfahan at 2011

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ABSTRACT

Background: Quality of life (QOL) is one of the health indexes for which many efforts have been made to define and measure during the last four decades of the 20th century in many countries. This paper is aimed at studying the QOL in relation to socioeconomic status of the general population of Isfahan in 1390. **Materials and Methods:** We applied a descriptive-analytical and sectional method. In this research, 385 women and men over 15 years of age from 14 regions of Isfahan's municipality were studied using multi-stage quota sampling. We examined QOL using the SF-36 standard questionnaire, along with two domains of mental and physical health and eight subscales within the validity domain of 65–90%. Social (81%) and economical (70%) status was also measured by the questionnaire instrument in both objective and subjective domains after confirming the validity and reliability of the instruments. The given data were analyzed by SPSS 17 software and using descriptive and statistical tests. **Results:** The indicators of QOL showed that a score deviation of the SF-36 questionnaire in physical health (SD = 2.31) and mental health (SD = 3.22) domains was obtained from the population. Of the eight subscales, bodily pains and limitations on functioning as physical and mental had an inverse relationship with socioeconomic status. However, physical health, mental health, social activities, public health, and vitality had a significant positive relationship, including different strengths and weaknesses, with socioeconomic status. Also, sexuality and housing status had no relationship with QOL. **Conclusion:** There is a direct and significant relationship between quality of life and socioeconomic status variables in Isfahan.

Key words: Health, quality of life, socioeconomic status

INTRODUCTION

The concept of quality of life (QOL) was considered as a field of research from the beginning of the 1960s. The priority focus on Baer' report in US presidential committee on the outcomes of bioenvironmental programs is QOL.[1] This term is usually used to describe people's thoughts of well-being. However, QOL has been defined in different ways. For example, QOL definition is available to everyone.[2] Freedom, having a sense of purpose in life, success in work, family or social life, self-esteem, respect and physical well-being are considered as the broad definitions of QOL.[3]

QOL is experimentally measured within both subjective and objective domains. The subjective QOL is related to inner processes and individual judgment and appraisal of living status.[4] According to Diener, it is a democratic and people-oriented definition because it is the individual who is asked to assess his life and identify whether he is lucky or not. Such a definition of a good life is called "a feeling of mental

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Access this article online	
Quick Response Code:	Website: www.jehp.net
	DOI: 10.4103/2277-9531.171806

This article may be cited as: Keyvanara M, Khasti BY, Zadeh MR, Modaber F. Study of the relationship between quality of life and socioeconomic status in Isfahan at 2011. J Edu Health Promot 2015;4:92.

well-being" that is sometimes named "a feeling of happiness" in academic conversations.[5] However, subjective indexes focus more upon material needs and participating in activities and inter-individual relationship.[4]

Researchers investigating this field of a positive psychology have noticed the relationship of this constituent with some variables like individual characteristics such as age, marital status, education, earning, and employment status so far.[6] Ferrans believes that self-satisfaction, family status, socioeconomic sources, and most importantly, emotional and mental status have a major role in QOL.[7] Evans and Cope consider QOL dimensions as physical, mental, social, family, economic, entertainment, and spiritual domains; the physical domain has been defined as having the ability to do activities and daily tasks. The mental domain takes consider the psychological facets of health such as depression, fear, anger, happiness, and peace.[8] Schalock considers that QOL domains refer to a set of factors that cause a feeling of personal well-being.[9] Esmaeilzadeh and colleagues in their study entitled "Assess quality of life among Iranian married women residing in rural place" showed that rural residents smoke more and have a lower level of education, higher level of physical activity, higher level of good self-reported dietary habits, and lower long-term health problems than urban residents.[10]

Researchers have also studied the role of important social variables like the status one is in. Brennan and colleagues studied the relationship between socioeconomic status (SES) and QOL in a population-based study on Australian men and concluded that men from lower and upper SES groups have lower QOL compared to their counterparts in the middle SES group.[11] Hemingway and colleagues studied the relationship between SES and QOL (using the SF-36 public health questionnaire) in the urban population of Great Britain and found that there was a satisfactory improvement with age in public mental health, the role of feelings, vitality, and social performance scale among women and men. Women in some age groups had a lower QOL than men on a general scale and it influenced their physical activities, the role limitation due to physical problems and bodily pains. The study shows that individuals with low SES do not take part in many social and health activities.[12] Thumboo and colleagues also studied QOL of urban Asian population and found that the effect of their nationality and SES had no significant relationship. In this study, QOL of Chinese, Malians, and Indians was measured using the SF-36 questionnaire in Singapore to specify the population, SES, mental characteristics, and other related indexes. QOL of Chinese is threatened by high duration of education and QOL of Indians are threatened by serious health problems. If an individual is supported by a family, QOL would increase, and it would decrease when the person has critical medical conditions.[13] However, in this research, QOL of citizens of Isfahan, the second largest city of Iran, in the domains of mental and physical health, and its relationship with SES is considered.

MATERIALS AND METHODS

We applied a descriptive-analytical and sectional method in which 385 people over 15 years of age were investigated from 14 regions of Isfahan using multi-stage quota sampling. Of 14 regions, 8 regions were chosen randomly and according to sample size, men and women of each region who were over 15 years of age and willing to participate in this research were questioned randomly. Generally, there are two kinds of instruments to study QOL:

- General instruments that are applied in the population
- Disease-specific instruments that are focused more on the domains associated with illness (with special conditions).

These two instruments do not stand in contrast to each other and might be suitable in different conditions.[14] Gathering instruments consisted of two parts in the research:

The SF-36 standard questionnaire that contains 36 questions employed for data collection of QOL. This questionnaire translated into Persian by Montazeri and colleagues (2004), and its validity and reliability have been probed in some researches. In the study, the Cronbach's alpha coefficients for eight dimensions were within the domain of 65–90%. Physical health with 10 questions (90%), physical role with 4 questions (83%), bodily pains including 2 questions (83%), general health with 5 questions (71%), vitality containing 4 questions (65%), social performance with 2 questions (74%), emotional role including 3 questions (84%), and mental health with 5 questions (77%) indicate a good inner stability of the domains.[15]

- SES questionnaire employed for data collected in both subjective and objective domains. In this study, being objective means an individual's assessment of judgments of others about them and their status. Subjective and objective domains of individual economic status were also measured by the variables of ownership (housing, vehicle, and furniture), job (employment status, occupational title, and job levels), and earning. Also, subjective and objective domains of individual societal status were evaluated by education (respondents' education, academic degree, and occupation of their parents and spouses if married), measurement of one's class, and how they spend free time. The context of the questionnaire also contained field variables such as age, gender, marital status, and marital duration and adjusting variables like individual and family health status of respondents. Validity and reliability of this instrument were verified too. SPSS 17 software was used to analyze the information. Correlation coefficient tests, *t*-test, and variance analysis test were applied to study the relationship of QOL domains with SES and some field variables.

RESULTS

Among 385 individuals who participated in this study, 59.22% were men and 40.77% were women. They also questioned

in terms of health and illness rates [Table 1]. Most of the individuals (28.8) had a diploma and the illiterate people made the lowest sample size (3.1). Two hundred and forty-nine respondents were married (82.3) and 116 were single (30.1). Twenty-six individuals of the sample were divorced or their spouses had expired. In terms of housing status, most respondents owned a private house with yards and lived in neither a new house nor an old house. The respondents were also categorized according to illness types and 26 diseases were identified among them. Some of them suffered from a joint illness. Existence of a mental and physical disease in a respondent's family was an important factor in determining the QOL, as it was observed among 73 respondents who mostly suffered from illness [Table 2].

Region 2 was better than the other regions in terms of mental health (4.18). Inhabitants of regions 13, 6, and 14 were in excellent condition in terms of emotional role, but regions 1 and 3 had more problems. Vitality subscale (4.02) was not good, as regions 2 and 12 experienced the highest vitality and regions 1 and 6 had the least. Social activities (2.88) of the residents of regions 1 and 2 and, of course, those of regions 9 and 11 were good and average. Physical health (2.53) was in the range of average to good, such that that the residents of regions 1 and 3 were in very good condition and the inhabitants of the other regions experienced a similar situation more or less, but region 5 was different or, in other words, in a weaker condition than the other regions. Physical role (1.84) of the inhabitants of region 13 was strong. However, it was the same among some respondents of region 2.

Bodily pains (1.70) were in the range of average to strong; the residents of regions 9 and 1 were in very good and poor condition, respectively. Most respondents experienced similar conditions as in the previous year in terms of public health. The inhabitants of regions 1 and 2 were in better and worse condition, respectively. QOL mean distribution in different regions of the city is as follows. Regions 11 and 12 had the

Table 1: Distribution of respondents by region and health status

Region	Sample size			Healthy		Patient	
	Male	Female	Total	Frequency	Percent	Frequency	Percent
1	8	9	17	7	1.8	10	2.5
2	11	1	12	11	2.9	1	0.3
3	17	6	23	12	3.1	11	2.9
4	15	12	27	17	4.4	10	2.5
5	16	15	31	24	6.2	8	2.1
6	21	2	23	19	4.9	4	1.0
7	35	31	66	42	10.9	21	5.4
8	22	21	43	34	8.8	9	2.3
9	12	2	14	9	2.3	5	1.3
10	22	20	42	24	6.2	17	4.4
11	13	7	20	8	2.1	5	1.3
12	12	10	22	17	4.4	5	1.3
13	13	9	22	19	4.9	3	0.8
14	17	13	30	21	5.4	9	2.3
Total	228	157	385	264	68.57	118	30.64

Table 2: Distribution of respondents according to the disease

Name of disease	Frequency	Percent	Name of disease	Frequency	Percent
Lumbar disk	16	4.2	Blood pressure	3	0.8
Gastrointestinal disease	13	3.4	Rheumatism	3	0.8
Knee pain	12	3.1	Increase in Cholesterol	3	0.8
Migraine	11	2.9	Neck pain	3	0.8
Cardiovascular	8	2.1	Infertility	2	0.5
Anemia	6	1.6	Disability	2	0.5
Neurological disease	6	1.6	Epilepsy	2	0.5
Depression	5	1.3	Skin disease	2	0.5
Uterine disease	5	1.3	Obsession	2	0.5
Poor eyesight	5	1.3	Breast cancer	1	0.3
Kidney disease	4	1.0	Constipation	1	0.3
Prostate disease	4	1.0	Illness in a family	73	19.0
Asthma	3	0.8	Diabetes	8	2.1
			Total	130	33.8
			No response	255	66.2

highest QOL and regions 8, 14, 5, 7, 9, 13, 6, and 2 had an average QOL. In regions 4 and 10, people experienced a low QOL and the respondents of regions 1 and 3 did not have a good QOL. Comparison between social status and economic situation, the data showed their social status is better than their economic situation. Region 11 had the highest social status and was followed by regions 5 and 13. Regions 5, 11, and 13 also reported a good status in terms of economic index [Table 3]. Also, the relationship between QOL and SES was determined in the research [Table 4].

DISCUSSION AND CONCLUSION

The aim of this research is to study the relationship between QOL and SES among the people of Isfahan. The findings show that there is a direct correlation between SES and QOL; in other words, there is a positive and significant relationship between QOL and SES variables. The findings of this study are similar to the results obtained from other countries and societies.[6,7,12] The findings are also in concordance with Brennan and colleague's[11] finding that men from lower and upper SES groups have lower QOL compared to their counterparts in the middle SES group in Australia. There are no studies showing the relationship between SES and QOL in Iran, but there are some giving the relationship between some social factors and QOL. Zamanzadeh and colleagues[16] concluded that there is a relationship between instrumental social support and QOL. They also found a relationship between social capital and QOL. Nejat and colleagues[17] showed that the scores of psychological health, social relationships, and environmental condition in a group of patients, formed by WHO, were similar or higher than people

Table 3: QOL domains and SES mean

Domains Regions	General health status	Mental health	Emotional role	Vitality	Social activities	Physical health	Physical role	Bodily pains	Public health	Quality of life	Social status	Economic status
1	3.41	4.61	1.58	4.55	2.67	2.78	1.85	2.25	3.37	2.95	3.57	2.78
2	2.75	3.86	1.66	3.61	2.70	2.47	1.63	2.45	2.78	2.79	3.77	2.74
3	2.91	4.33	1.63	4.29	2.97	2.95	1.90	1.93	3.31	2.91	3.78	2.86
4	3.14	4.21	1.7	3.86	2.90	2.73	1.86	2.01	3.30	2.73	4.13	3.28
5	2.71	4.42	1.84	4.41	2.85	2.12	1.88	1.43	3.18	2.76	4.01	3.08
6	2.56	4.42	1.91	4.41	2.76	2.29	1.91	1.19	3.22	2.82	3.84	2.78
7	2.96	4.06	1.84	3.96	2.83	2.47	1.87	1.74	3.13	2.73	3.82	2.92
8	2.79	3.95	1.68	3.73	2.93	2.57	1.70	1.97	3.04	2.70	3.81	2.87
9	2.50	4.32	1.88	4.19	3.03	2.56	1.58	1.00	3.17	2.83	3.61	2.83
10	3.33	4.32	1.71	4.05	2.91	2.73	1.83	1.83	3.27	2.67	4.22	3.23
11	2.92	4.06	1.84	3.86	3.03	2.36	1.80	1.23	3.20	2.75	3.54	3.14
12	2.72	3.98	1.69	3.70	2.91	2.42	1.79	1.88	3.14	2.69	3.77	3.02
13	3.09	4.23	1.98	4.28	3.03	2.43	2.00	1.11	3.29	2.76	3.88	3.17
14	2.80	3.98	1.88	3.86	2.91	2.55	1.85	1.51	3.06	2.71	3.66	2.82
Total	2.92	4.18	1.78	4.02	2.88	2.53	1.84	1.70	3.17	2.77	3.81	2.97

SES = Socioeconomic status

Table 4: Testing the relationship between QOL domains and SES

Coefficient domains	Pearson correlation coefficient (*r*)	Variance analysis (*f*)	*t*-test	Level of significance
QOL with SES	46%	-	-	0.000
QOL with age	−0.16	-	-	0.000
QOL with residence duration	0.08	-	-	0.080
Mental and physical health	54%	-	-	0.000
Public health with SES	20%	-	-	0.005
Physical health with SES	26%	-	-	0.000
Mental health with SES	32%	-	-	0.000
Social activities with SES	11%	-	-	0.001
Bodily pains with SES	−0.11	-	-	0.001
Physical role with SES	−0.14	-	-	0.005
Mental role with SES	−0.10	-	-	0.001
Vitality with SES	21%	-	-	0.001
QOL with employment status	-	1.44	-	0.02
QOL with marital status	-	1.10	-	0.03
QOL with housing status	-	0.173	-	0.098
QOL with gender	-	-	0.002	0.06

SES = Socioeconomic status, QOL = Quality of life

living in Tehran. However the results confirm the findings of this research.

The main limitation in this research was related to self-evaluation of the questionnaire. Although self-evaluated questionnaire is employed for surveys in many researches, it could have some bias because the respondents may not have evaluated themselves objectively.

According to the findings of this research, it is suggested to conduct a national survey to study the relationship between QOL and SES. This could help to understand the relationship between QOL and SES in rural/urban populations, women/men, people of different age groups, and so on in the Iranian provinces.

This research also suggests that to promote QOL, focus could beon the education level, income, wealthy, health, and values, and broadly, social class and SES.

Financial support and sponsorship
Social determinate of Health Research Center, Isfahan University of Medical Sciences.

Conflicts of interest
There are no conflicts of interest.

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