Original Article

Assessment of unhealthy days of urban marginal inhabitants and effective factors in Mashhad, Iran

Maliheh Ziaee[1], Lida Jarahi[2*], Mohammad Khajedaluee[3], Ehsan Taghian[4]

[1] Community Medicine Specialist, Psychiatry and Behavioral Sciences Research Center, Mashhad University of Medical Science, Mashhad, Iran

[2] Associate Professor in Community Medicine, Faculty of Medicine, Mashhad University of Medical Science, Mashhad, Iran

[3] Professor in Community Medicine, Faculty of Medicine, Mashhad University of Medical Science, Mashhad, Iran

[4] MD, Mashhad University of Medical Science, Faculty of Medicine, Mashhad, Iran

Corresponding author and reprints: Lida Jarahi. Associate Professor in Community Medicine, Faculty of Medicine, Mashhad University of Medical Science, Mashhad, Iran.

Email: jarahil@mums.ac.ir

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Abstract

Background: The concept of the quality of life (HRQOL) related to health and its determinants contain aspects of quality of life that clearly affect people's physical or mental health. One of the newest ways to assess the health and also the quality of life-related to health is the self-assessed health of the individual. The aim of the present study was assessment of unhealthy days, self-reported health status, and its influencing factors on residents of the marginal part of Mashhad, Iran.

Methods: In the current cross-sectional study, 580 citizens of the marginal regions and slum areas of Mashhad city were enrolled through cluster sampling method using governmental health care services divisions. The Persian version of the questionnaire CDC HRQOL-4 was used to measure the unhealthy days. Data was analyzed using SPSS, version 11.5, running ANOVA, chi-square, and t-tests. P-value of less than 0.05 was considered as statistically significant.

Results: In the present study, 359 persons (61%) were women and the mean age of participants was 32.6 ± 11.51 years. The means of unhealthy days, physically unhealthy days, mentally unhealthy days, and days with dysfunction were found to be 7.2, 2.8, 4.1, and 1.7 days, respectively. The unhealthiest days (physical and mental) were seen in unemployed people and the best to excellent health days were seen in housewives.

Conclusion: Unhealthy days and days with dysfunction were reported higher in slum inhabitants, especially female, low literacy, and housewife participants. Providing the education and employment facilities for people who live in marginal city areas might decrease the unhealthy days.

Keywords: Health; Mashhad; Unhealthy days; Urban Marginal Inhabitants

Introduction

The concept of the quality of life, related to health and its determinants, contains aspects of quality of life that clearly affect people's physical or mental health. At the individual level, this concept includes a feeling of physical and mental health and its related issues, including

health hazards, individual functional status, social support, and socioeconomic status. At the community level, life quality related to health includes resources, conditions, policies, and interventions that affect the feeling of health in a population as well as its performance (1). The health system has considered it necessary to pay attention to health promotion and prevention, comprehensive justice in provision and distribution of resources, and the realization of health and the benefit of individuals from healthcare based on their needs and their ability to pay as priorities, particularly in relation to health inequalities (2). Health, according to the definition of the World Health Organization, is providing complete physical, mental, and social welfare. To assess health, different standards and various tools, such as traditional mortality variables, disease-catching variables, and even biochemical variables, have been suggested (1–3).

Recently, health-related quality of life (HRQOL) is increasingly being used as a consequence in clinical trials and research by checking the care quality and effectiveness of interventions. These measures are useful and important supplements to biologically and physiologically examine one's health status (3). One of the newest ways to assess the health and also the quality of life-related to health is the self-assessed health of the individual. It has been proven that self-assessed health status is much stronger than health objective variables in terms of mortality prediction (1,3). Measuring health-related quality of life is important for informing the management and offering information for decision-making in politics. Interviews or self-report questionnaires can be used to measure the absolute differences in the quality of life between patients at one point of time or longitudinal changes in the quality of life of patients over a period of time. There are two basic methods available for measuring the quality of life: general tools, that provide a summary of health-related quality of life, and special tools, that focus on the problems associated with a disease (3). In a meta-analysis, conducted as the prediction of mortality, it was revealed that the risk of death in people who reported their health status as weak in the form of self-reporting was twice more than that of the people who reported their health status as excellent (4).

On the other hand, living on the margins is one of the most important issues in urban communities, which affects people's health as a result of the social and economic conditions prevailing in these areas (5). Marginalization is because of uneven development, problems of urban planning, dealing with effects instead of causes, and the economic class division. Villagers and migrants are usually marginalized in large cities due to the disproportionate and unfair distribution of facilities and economic problems, lack of support from local businesses, or natural disasters such as floods, drought, and insecurity. They gradually reside in the contiguous or separated places of the large cities that have less healthcare, welfare, and education facilities and are less secure; their inhabitants also have numerous economic and employment problems.

The aim of the present study was the assessment of unhealthy days, self-reported health status, and its influencing factors on residents of the marginal part of Mashhad, Iran, in 2014.

Methods

The present cross-sectional study was carried out to examine the days without health and its related factors in the population covered by healthcare centers in Mashhad margins in 2014. First, the marginal areas of the city of Mashhad were specified on the basis of municipal areas, and then five centers were randomly selected from the list of healthcare centers. The sample was determined as comprising 581 people, according to the formula of estimating the mean of one quantitative trait in one society and also based on the pilot study. Participants were selected based on the cluster

sampling method from an adult population inhabiting marginal areas in Mashhad healthcare centers by visiting their living locations.

Inclusion criteria of the present study were residency in the margins of Mashhad city for at least two years and an age of more than 12 years. Health connectors of the healthcare centers were used for questioning. Health connectors were justified and explained in one or more sessions with reference to carrying out the design and filling out the questionnaire. In visiting, the questionnaires were filled out for the adult members in the family after obtaining their informed consent. The Persian version of the CDC HRQOL-4 questionnaire was used to measure the unhealthy days in the past month. In the first part of the questionnaire, participants' demographic characteristics were assessed. The validity of the questionnaire was examined using the opinions of four community medicine specialists, while the reliability of the questionnaire was assessed by determining Cronbach's alpha to be 0.75. Data was analysed using SPSS software 16 (SPSS Inc., Chicago, IL, USA. We used Chi-square tests for qualitative data, t-test, and ANOVA for quantitative data in the two groups and more than two groups, respectively, and Pearson and Spearman tests for correlation coefficients. The significance level was considered $P < 0.05$.

Results

From among the pool of 581, 515 responded to our questionnaire. A total of 326 (63.3%) participants were female and 189 (36.7%) male. The mean age of participants was 32.69 with SD: 11.51 (31.5 in women with SD: 10.8 years and 34.9 in men with SD: 12.3 years). About 31.1% of the participants (183) were in the age group below 25 years, 45.2% (266) in the age group 25–40 years, and 22.7% (134) in the age group of 40 years and above. Also, 75 participants (12.7%) had university education and 497 (84.4%) were married. The mean age of marriage was 18.7 with SD of 4.7 years for women and 21.9 with SD of 5.2 years for men. The mean of the number of family members was 4.1 with SD=1.9.

The mean of unhealthy days of the participants, in general, was 7.18 with SD=1.35, which was 2.79 in the physically unhealthy days' domain with a standard deviation of 6.3, 4.13 on mentally unhealthy days with SD=7.89, and 1.73 on dysfunction days with SD=4.77.

In addition, 371 of participants (63%) reported their general health status as good to excellent, 125 (21.2%) moderate, and 22 (3.7%) weak.

Table1. Relationship between self-reported General health status and demographic variables in participants

Variable	Group	Good to excellent health status	Poor to intermediate health status	P*
Sex	Female	228 (62.1)	98 (66.7)	0.19
	Male	139 (37.9)	50 (33.3)	
Education	Illiterate	24 (6.5)	27 (18.4)	<0.001
	Below high school	108 (29.4)	59 (40.1)	
	High school	93 (25.3)	36 (24.5)	
	Diploma	82 (22.3)	18 (12.3)	
	College education	61 (16.5)	7 (4.7)	
Job	Unemployed	16 (4.3)	20 (13.6)	0.001
	Governmental Employee	30 (8.2)	7 (4.8)	
	Worker	72 (19.6)	25 (17)	
	Student	25 (6.8)	5 (3.4)	
	Housewife	156 (42.4)	78 (53.1)	
	Self-employed	69 (18.8)	12 (8.2)	
Marital status	Single	45 (12.3)	12 (8.2)	0.22
	Married	319 (86.4)	129 (88.4)	
	Divorced/widow	5 (1.3)	5 (3.4)	

* Chi-square Test

The relationship between the participants' self-reported health status and the demographic characteristics are shown in Table 1. The mean of physically and mentally unhealthy days and the mean of days with functional limitations in the past month with regard to demographic characteristics are given in Table 2.

As can be seen, there is a significant relationship between participants' jobs and the self-assessment of their health status. The unhealthiest days (physical and mental) were seen in unemployed people and the best to excellent health days were seen in the housewives. Also, a significant relationship was observed between participants' education and their self-assessed health status: those with higher education had worse reported health. Also, housewives reported more good to excellent health. Women, the unemployed, and the housewives reported unhealthier days and more days of dysfunction. The means of unhealthy days and dysfunctional days were only related to sex (Table 2).

Discussion

In the present study, a significant relationship was found between participants' jobs and education and general health status. The mean of unhealthy days and dysfunctional days has been linked to the participants' sex and jobs.

In our study, among the individuals studied in the marginal areas of Mashhad, 10.4% were illiterate, 32.3% had primary education, and 24.1% had secondary education certificate. In the study conducted on the margins of Esfahan, the level of education for 50% of the participants was below high school diploma and 35.4% had high school diploma (6).

In the current study, the largest age group was related to young persons with the age range of 25 to 40 years. Likewise, in a study conducted on the margins of Qom, 67% of those surveyed aged 30 to 50, which is the age of the people's active age (7)

Table 2. Mean of total unhealthy days (sum of physical, mental unhealthy days), and mean of dysfunctional days in subgroups of participants' demographic variables

Variable		N (%)	Mean of total unhealthy days in one month	Mean of dysfunctional days in one month
Sex	Female	326 (63.3)	7.33	2.08
	Male	189 (36.7)	4.5	1.15
	P		0.001*	0.03*
Education	Illiterate	46 (9)	9.04	2.14
	Below high school	170 (33)	7.44	2.19
	High school	122 (23.7)	4.39	1.16
	Diploma	112 (21.7)	5.46	1.47
	College education	65 (12.6)	13.64	3.8
	P		0.13**	0.44**
Job	Unemployed	40 (7.7)	8.5	2.9
	Governmental employee	35 (6.7)	8.1	2.17
	Worker	106 (20.6)	4.9	1.35
	Student	25 (4.8)	4.1	1.61
	Housewife	219 (42.6)	7.53	2.09
	Self-employed	90 (17.6)	4.28	0.63
	P		0.05**	0.1**
Marital status	Single	68 (12.9)	4.8	1.08
	Married	448 (85.2)	6.64	1.79
	Divorced/Widow	10 (1.9)	8	2.75
	P		0.62**	0.16**

*T-Test
**ANOVA

In the current study, 7.3% of the people were unemployed, 7.3% were employees, 19.7% were workers, and 43.4% were housewives. In another study conducted on residents of the margins of Hamadan city, 23.81% reported to be workers, 15.8% vendors, 7.3% shopkeepers, and 4.4% drivers (5).

The differences in the people's health status were found to be related to their socioeconomic status, for example, self-assessed health status has been related to participants' job and education. The socioeconomic status of individuals, or their social position and factors, such as income, education, job, and differences in health, are examined by variables like life expectancy, standardized mortality rates and ratios, and individuals' self-reported health. Higher socioeconomic status of people is associated with better health; this relationship is positive and progressive (2, 8).

In a study of marginalization in America, it was found that marginalized people suffered numerous health problems because of poverty, illiteracy, substandard housing, inadequate sewage disposal systems, and poor access to health services (9).

In another study carried out using CDC-HRQOL, it was shown that the number of physically unhealthy days increased in people aged above 65 years. Also, adults who were between 45 to 64 years old and had an annual income of less than 15'000 dollars reported more physically and mentally unhealthy days in comparison with older adults or younger adults in the same age group with higher incomes. Half the people in this group reported activity limitation and a third of them were not able to work. The same study showed that the number of healthy days reported in people 65 and older was potentially different, based on their socioeconomic levels and gender (10).

In a study conducted by HRQOL, to assess the health and quality of life of people living in America, it was shown that poor or bad health days increased in adults. Wom-en with Alaskan Hindi nationalities, people of other races, divorcees, the unemployed, those who are not able to work, people with annual income less than $15,000, and those with education lower than high school were observed to have low HRQOL. Older adults reported physically unhealthy days and days with more activity limitation and younger adults reported more mentally unhealthy days. Also, a seasonal pattern was seen in physically unhealthy days and all the unhealthy days (11).

In conclusion, unhealthy days were reported as high among slum inhabitants, females, people with lower education, and housewives together with more dysfunctional days in comparison with the other groups; however, it seems that those who have estimated their own general health as higher seem to have overestimated it. Also, unhealthy days were found to have a significant relationship with sex and job. The provision of the necessary facilities, education, and employment for people who live in marginal city areas could possibly decrease unhealthy days in high-risk groups.

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