

Original Article

Measuring Self-perceived Social Health of Iranians; Finding from Iran Social Health Survey

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Abstract

Background: The novelty of the study is to measure self-perceived social health of Iranians as one of the main dimensions of health.

Materials and Methods: This cross-sectional study was conducted in all provinces of Iran in September 2014 with 10500 participants to measure self-perceived social health on a scale from 33 to 165 arranged in three areas; family, friends and relatives, and community. Area of "family" was measure in a range from 6 to 30; area of "friends and relatives" was from 9 to 45; and area of "community" was from 19 to 95. The psychometrics of scale was examined in separate previous study.

Results: From a total of 10500 participants, 10244 fulfilled questionnaire (Response rate= 97.6%). 49.2% of participants were male. Mean of the total social health score was 99.91; area of "family" was 22; area of "friends and relatives" was 27.6; and area of "community" was 51.2. The main factors negatively influences on social health were low house size, unemployment, being divorced or widow and being at the age of 18-30. There was no significant relationship between social health score and educational level.

Conclusion: It is magnificently attained that standardized social health rate in the present study was 3.9% lower than the rate has been estimated in comparison to similar previously conducted study in three big cities of Iran, two years earlier. Area of "community" is also the main accountant for this drop. To continue monitoring the social health of Iranians, we recommend conducting the next rounds every 3-5 years.

Keywords: Self-perceived, Social Health, Iran, Survey, National

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Introduction

The concept of social health appears quite simple while literature review of related studies brings up diversity in definition and conceptualization¹. Based on definition of world health organization (WHO), health is defined as individual well-being in three dimensions; physical,

mental and social- not merely absence of illness², identifying social health as a key component of an individual's overall health³. This revolutionary definition changes our view on health from focusing on exclusive physical signs and symptoms to a holistic approach⁴. There is growing body of literature indicating that social health along with other similar determinants, such as

social capital, and social cohesion, should be the concern of not only the health sector but also other public sectors such as education, politics, economy, and culture⁵. For example, the higher level of social health leads to the higher gross domestic product (GDP) and the lowest rate of crime and political conflicts⁶⁻⁹.

However "social health" is not a straightforward idea, which is not easily defined¹. Examining different evidence shows no standard and interdisciplinary definition and measurement scales for social health tending to vary according to research objectives. Two broad approaches to assessing "social health" have been outlined¹⁰. The first emphasizes that the social health is a dimension of individual health focusing on subjective aspects. The second considers social health as "healthy community" in which "equal opportunity and access to the services and goods is avoidable, essential to full functioning as a citizen"¹¹. Considering two main approaches, the focus of our study is on the first view defining social health as "that dimension of an individual's well-being concerning how he/she gets on with other people, how other people react to him/her, and how he/she interacts with social institutions and societal mores"¹¹. Similarly, individual social health is the part of individual's health that reflects the internal responses such as feelings, thoughts and behaviors to different stimulants that shows how he/she is satisfied or unsatisfied with the social environment¹². Individual social health could be conceptualized in two dimensions; social adjustment and social support. The social adjustment represents the satisfaction from social functions and roles and social support includes the quality of the individual's relationships and how a person could trust in people to meet his/her needs¹³.

Several developed countries and international organizations, like the Organization for Economic Co-operation and Development (OECD) continuously monitor social health status of populations in different ways¹⁴⁻¹⁶. In Iran, few studies have been conducted towards measuring social health or similar indicators in national and provincial level. The most similar study has been conducted two years before recent study using similar scale, but limited to three big cities of country¹⁷. Other related studies have focused on special populations such as university students. Therefore, the survey of Iranian national social health was conducted with a population-based approach in September 2014 led by "social health office" of Ministry of Health in NBM

collaboration with Shahid Beheshti University of Medical Sciences, one of the medical universities affiliated to Ministry of Health. This manuscript represents main findings of conducted survey.

Absolutely, monitoring the social health of the nation and provinces would be a valuable instrument in the hands of governmental and community policy-makers of different sectors- not merely health sector- to make best decisions¹⁸. In fact, social health indicators represent how several sectors- health, social affair, education, and even security- interact with each other, so allow us to monitor the well-being of the community in an effective way¹⁹⁻²⁰.

Social health measures are going to be one of the main milestones of social and developmental policy-making in spite of that it is not part of the way medicine is practiced now^{21,22}. A large number of fundamental determinants of health, such as economic status, unemployment and political circumstances have an initial effect on social health indicators versus negative physical health indicators such as mortality and morbidity²³. A broad range of evidence shows that the people with higher level of social health, are more likely both now and later to be healthier, more productive, and more socially connected^{22,23}.

While there is main information gap, recent study is an attempt to make portray of Iranians social health. It should be noted, considering special aspects of Iranians culture, locally developed scale with acceptable validity and reliability has been used.

Methods

Iran social health survey' was conducted in a cross-sectional approach across the country in September 2014. Our manuscript is based on main finding of this survey. All people aged more than 18 years old were eligible to participate in the study. A total of 10500 participants were selected from all 31 provinces. Considering clustering effect and predicted non-response rate, sample size was calculated based on estimates resulted from previously performed a pilot study in Tehran in 2013 with 800 participants. A sample of each province was proportional to the population size announced by National Statistics Center considering that the sample size should not be less than 230 in each province. Sampling in provinces was carried out in 3 strata; center of the province, a randomly selected city with population more than 20000 people other than the center of

province, and a randomly selected village of the province. Gender and age distribution was proportional to the total population distribution in each location corresponding to reports of the National Statistics Center. Social health assessed by a scale in three domains named as “family”, “community” and “friends and relatives” consisting of 33 questions with a series of declarative statements. The participants were asked to indicate their view on each item. Five options are provided: “very high,” “high,” “moderate,” “low,” and “very low” (the five point Likert type scale). Items were scored by assigning a value of five for “very high” to one for “very low”. The scale provides a total score of social health ranging from 33 to 165 calculated by summing all 33 items. The higher score indicates higher social health level. The ranges of sub-scores for the domains of “family”, “friends and relatives”, “community” are 6-30, 8-40, 19-65, respectively.

The psychometric of the scale employed to assess social health has been assessed in previously conducted study has been highlighted in detail in a previously published manuscript²⁴. In brief, face and content validity has been assessed through both qualitative and quantitative approaches. Cronbach's alpha for internal consistency of total scores was estimated to be 0.86. Cronbach's Alpha for internal consistency of three different domains of social health was estimated to be 0.91, 0.77 and 0.78. Intra-class Correlation Coefficient (ICC) as the reliability indicator achieved through a test- retest approach on 100 samples was 0.91. The corresponding values of the reliability indicator of three different domains were calculated as 0.69, 0.80 and 0.67.

To complete questionnaire, primarily the method was explained to participants and then respondents filled out forms by themselves. For illiterates, the questionnaire was read completely. The respondents informed their consent verbally. Each question included a series of declarative statements and each respondent's answer to questions based on a five-point Likert type scale.

To minimize intra-rater error, all interviews were trained how to administer interview. All of them were professional interviewers with sufficient experience in previous similar surveys. Through meeting with interviewers, attempts were made to harmonize interview approach. It should be mentioned that the interview phase of study was carried out by Iranian Students Polling

Agency (ISPA), a well-functioning and established institute with valuable experience in conducting social surveys.

To analyze data, the descriptive statistics were used to display the key features of participants. Student t test was employed to compare positive health between males and females and One-Way ANOVA to compare means between age groups considering Bonferoni post-hoc test. Grant for the ISHS was awarded by the Mental and social health, department of Ministry of Health and University of Shahid Beheshti of Medical Sciences upon the approval of the survey protocol by the university's Ethics Committee.

Results

From a total of 10500 samples, 10244 participants fulfilled questionnaire (Response rate= 97.5%), of which 39.0%, 33.2%, 20.3% and 7.5% were between 18-30, 31-45, 46-60, and >65 years old, respectively. The mean and standard deviation of respondents' age were 37.9 and 14.3 respectively. 5040 (50.8%) were female and 5204 were (49.2%) male.

Table 1 shows the statistics of social health score and its three domains, including number of respondents, mean and standard deviation.

Horizontal bar chart with sorted mean score of 31 provinces regarding to social health total score is displayed in figure 1. As could be seen from the figure, Guilan, West Azerbaijan and Mazandaran as three north provinces of Iran achieved three top ranks.

The rank of Tehran province, including Tehran city as capital among 31 provinces is 21. Province of North Khorasan places in the last rank.

The relationship between different demographic factors and social health score has been examined and summarized in table 2. The analysis showed that there was no significant association between sex and social health score. The score was higher in people aged 45-61 than 18-30 ($PV < 0.01$). There was a direct relationship between house size in square meter of usable floor space and total social health score. It slightly increases from 93.6 when the house size was less than 50 square-meters to 102.4 when the size was more than 200 square-meters (Table 2).

Table 1: Estimates of total score of social health and its three domains.

	N	Min	Max	Mean	Std. Deviation
"Community" domain	10244	19	95	51.2	15.0
"Family" domain	10244	6	30	22.8	5.3
"Friends and relatives" domain	10244	8	40	26.0	6.8
Total social health score	10244	33	165	99.9	21.9

In regard to marital status, analysis showed that the social health score was significantly lower for individuals who are divorced or widow in comparison with married or never-married singles. As well as, people who are unemployed achieved lower scores compared with other occupational groups (approximately 5-6%). There was no significant relationship between total social health score and other demographic indicators such as educational level and place of living (rural or urban).

While 33 items of social health scale has been scored

from one to five in a Likert style scale, paying attention to different items showed that the items concerning with family support subjects such as "being satisfied with of relationships with family members", "emotional support", "support at the time of disability" achieve the highest score (>4). On the other hand, items concerning with community support subjects such as support of "social organizations at the time of economic or health problems" achieve the lowest scores (<2.5).

Assessing the relationship between different

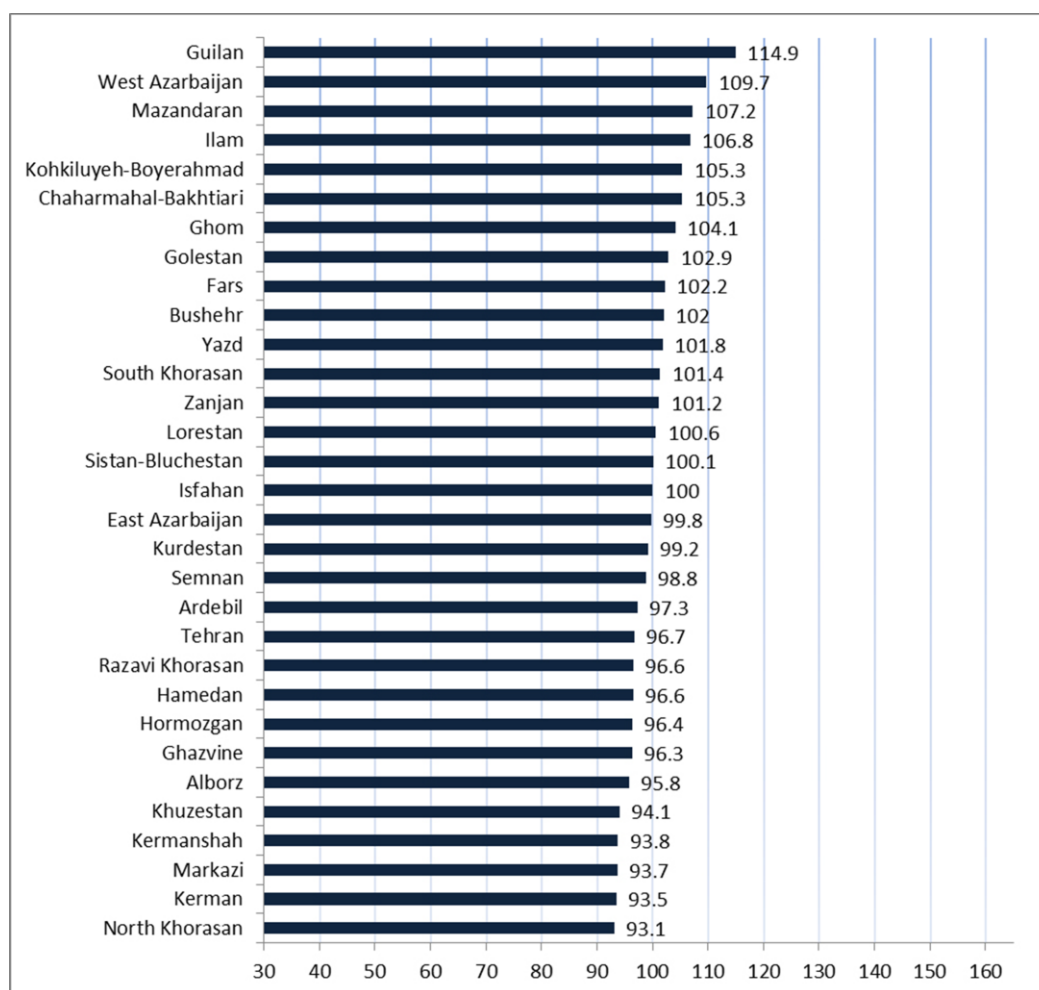
**Figure 1.** Social health score of 31 provinces of Iran.

Table 2: Demographic characteristics and social health scores of respondents.

		Number	Mean (SD) of social health score	P Value
sex	male	5040	100.3 (21.9)	0.08
	female	5240	99.6 (22.0)	
age	18-30	3998	98.9 (21.9)	<0.01
	31-45	3392	100.1(22.0)	
	46-60	2071	101.2 (21.4)	
	61 and higher	766	100.7 (23.3)	
Educational status	no formal education	1141	99.5 (22.7)	0.237
	a degree lower than diploma	3031	99.7 (21.7)	
	diploma degree	3124	99.0 (22.6)	
	university degree	101.0	101.0 (20.9)	
city	City (Center of province)	5413	98.9 (21.8)	0.456
	City (other than Center of province)	1623	101.2(22.3)	
	Rural area	3208	100.8 (22.0)	
Occupational status	employed	4139	101.7(20.6)	<0.01
	housewife	3489	99.1 (22.1)	
	student	1012	101.6 (21.4)	
	retired	590	102.7 (22.3)	
	Unemployed	931	94.5 (20.9)	
Marital status	Single-never married	2462	98.9 (21.7)	<0.01
	Divorced	222	93.7(24.1)	
	Widow	429	93.57(23.4)	
	married	7045	100.8(21.7)	

demographic and socioeconomic factors with different domains is summarized below:

- Domain of "family": only significant reverse relationship of social health score with being "divorced or widow" was found.
- Domain of "friends and relatives": there was only significant relationship with educational level. The score slightly increases from 24.7 in illiterates to 27.8 in people with a university educational degree.
- Domain of "community": there is no difference between male and female. Age had a significant effect on "community" domain while the score increases from 49.7 for people aged 18-30 to 53.7 for people aged >60. The educational level had the reverse effect. It decreases from 52.7 in illiterates to 48.6 in people with university degree. The effect of enhancing house size on this domain is significant. It increases from 48.0 when the

house size is less than 50 square- meters to 52.9 when the size is more than 200 square-meters.

Discussion

This field study estimates self-perceived social health of Iranians in a quantitative way. If we standardize the achieved estimates to be in a scale between zero and 100, the standardized estimate of self-rated social health will be 49. The standardized estimates of the areas of "family", "friends and relatives" and "community" will be 70, 56, and 42 respectively. It seems the main decrease in self-rated social health occurs due to low score of "community" area. On the other hand, the results show desirable situation of the scores of "family" area. It seems the main source of perceived social support is family as the nearest social layer while the outer layers such as social institutions and organizations don't play their role properly. The high scores of questions of "family" area against the low score of items of the "community" area are consistent with this conclusion.

Study finds showed that there was no significant gender inequity. It seems that the reasons are rooted in increasing educational level and social participation of Iranian females in recent years. Assessing the association of other demographic factors with social health score showed the relationship between low social health score when the house size was small; individuals are divorced, widowed, or unemployed. The higher educational level was not a predictor of higher social health scores. It may be rooted in higher social expectations of these people. Similarly, the social health score is lower in people who are 17 to 30 years old. Our findings don't show any special geographic pattern of distribution of social health score, which are not consistent with socioeconomic status of provinces indicating that social health is a complex concept could not be simply predicted according to general social indicators such as income level. The mentioned findings are mostly consistent with the previously conducted surveys in three big cities of Iran (Tehran, Urmiah, and Isfahan), two years before recent survey. Comparing standardized social health score of two conducted surveys shows a mild downward trend estimated to be 3.9 percent decrease in social health scores. This trend seems to be significant in spite of different sample population (the whole country against three big cities).

Employing the newly developed local scale of social

health in this survey makes comparing results with other countries difficult; however, it provides opportunity to compare different provinces with each other and extract trends in different years. The psychometric properties of the developed social health scale has been demonstrated in detail elsewhere

Social health is a complex concept needed to be examined in multiple dimensions¹. As we mentioned in the first part of the manuscript, we focus on an individual based aspect of social health. So if we want to gain a clear image of social health and to interpret the trends properly, it is necessary to consider another aspect of social health and its related indicators such as poverty, unemployment, illiteracy, etc²².

Raymond Bauer, in 1966, defined social indicators which may be used to measure social health as “statistics, statistical series, and all other forms of evidence that enable us to assess where we stand and are going with respect to our values and goals”²⁵. In 1987, Miringoff proposed the social health as an indicator of social policy in the institute of the "innovations in social policy", Fordham university²⁶. After that, since 1995 social health and making it as a quantitative indicator, was entered in diffident social and development studies especially in more developed communities²⁷⁻³⁰. Our research in a similar way attempts to clarify different social signals. The results of the study could be useful not only for the policy-makers of not only health sector but also other sectors such as politics, economy, social welfare, and education. For example, the higher income level would be the consequence of higher level of social health.

Conclusion

Monitoring of social health is one of inevitable activities of government to make better decisions^{20,31-32}.

Our recommendation is to do the similar surveys each 3-5 years to detect the main social health trends of the country as many developed countries to provide a valuable instrument in the hands of different sectors to make evidence based policies. Certainly, the best way to achieve this goal is the establishment of a sustainable social health surveillance system.

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