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Measuring Happiness and Self-perceived Social Health of Iranian Medical Students

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Abstract

Background: Based on WHO (World Health Organization) definition of 'health' as an asset, not merely the absence of disease or disability, positive health indicators has fast become a key concern of health system.

Objectives: The aim of the study was to assess self-perceived social health and happiness of Iranian medical students.

Methods: This cross-sectional study was conducted at a public medical school in 2015. The target population of the study was all students from three educational levels (basic science students, externs and interns). Social health was assessed by a scale in three domains named as 'community', 'family', and 'friends and relatives', containing 33 questions with a series of declarative items providing a total score of social health ranging from 33-165. To measure happiness a 40 item questionnaire was used. Responses to each item were given on a five-point Likert style scale. The score of items were added up to provide the whole score of happiness ranging from 40 to 200. The study protocol was approved by executive and ethical research board of the institution.

Results: A total of 150 students were participated with mean age of 23.2 (SD=2.3), of whom 56% were females. The mean of self-perceived social health score of medical students was 102.8 (95% CI: 100.0-105.6). Happiness score of medical students was 144.0 (95% CI: 140.4-147.5) in a range between 104 and 188. Pearson correlation coefficient between social health and happiness was 0.68 (P-value<0.001).

Conclusion: It was attained that positive health indicators of Iranian medical students are not favourable and should be improved by different population-based interventions. It requires social and educational Iranian policy-makers to make appropriate attempts to enhance social health and happiness level of medical students, especially who are living in dormitory.

Keywords: Happiness, Iran, Medical, Positive health, Self-concept, Students

1. Background

Assessment of positive health indicators is a fundamental property of new public health (1, 2). Since WHO defined 'health' as an asset, not merely the absence of disease or disability, positive health indicators has fast become a key concern of health systems (3). In other words, a positive health indicator assesses different aspects of health as more than absence of symptoms or diseases using one or a collection of questions. Examples could be scales which map degree of physical agility, energy, optimism or life satisfaction (4).

There is no consensus on the definition and dimensions of positive health globally (5). Many indicators such as 'quality of life', 'self-perceive health status', 'happiness', 'mental health', 'social welfare' has been suggested to measure positive health (5). Positive health empirically determines health assets by identifying predictors of health and disease over conventional risk factors. Biological health assets might contain, for instance, cardiorespiratory fitness, or high levels of HDL cholesterol. Subjective health assets might consist of optimism, a sense of meaning, positive emotions, and life satisfaction. Functional health assets might consist of meaningful career, a satisfying marriage; network of friends and family members (6).

Each indicator has its advantages and drawbacks. It seems that the main focus of 'health professionals' is quality of life; the works of WHO are good illustrations. However, the concept of happiness is the main area of interest of psychologists. On the other hand, sociologists emphasize on the social welfare. Therefore it is reasonable to consider positive health as a broad concept and not adhering to restricted aspects (7-11).

A sequence of studies on social health and happiness in national, provincial level has been done by the first author in collaboration of Iran Ministry of Health and National Institute for Health Research in recent 8 years. It began with defining dimensions of Iranians' social health dimensions, development of scales to measure social health and happiness, and finally measuring positive health indicator in a national survey (12-15). These studies along with other investigation have resulted in major changes in high-level governmental body. For instance, 'National social health policy' has been approved by Cabinet after approval in 'National High-level Council of Social Affairs' (June 2017).

To date, few studies have been carried out about positive health indicators of special populations such as students in Iran. Evaluation of positive health of medical students is necessary due to their future responsibility. High positive health status of medical students would lead to being more effective in their job (16).

2. Objectives

The aim of recent study is to broaden this area of research toward special populations and comparing it with results in provincial and national level. Therefore, we decided to design a study on medical students as a targeted population to assess two main positive health indicators; self-perceived social health and happiness, and their determinants.

3. Methods

The study was performed at Shahid Beheshti Medical University (SBMU), in Tehran (Capital of Iran), in 2015. In Iran, the medical degree course is 14 terms (seven years). Medical students receive teaching on basic science courses in first two years of education, then as extern in their 3rd, 4th, and 5th year, and finally in 6th and 7th years as intern. The target population of the study was all students from three levels except students who disagree to participate.

The sample size based on estimates of previously conducted studies was calculated as 150. The number of subjects was 64, 43, and 43 from basic science, extern and intern students, respectively, which were selected proportional to population size. In each grade (basic science, extern, intern), convenience sampling method was taken from students in the common room of the college. Eligibility criteria required only medical students who agreed to participate in the study. A self-administered questionnaire was given the participants after explaining the aim of the study and taking informed consent.

In this study, we used self-perceived social health questionnaire which was designed and standardized by Abachizadeh and their colleagues in Social Health Office of Ministry of Health. Psychometrics of the scale has been stated elsewhere (13). To measure happiness, a validated questionnaire which has been developed in National Institute for Health Research (NIHR) of Iran was used (psychometrics of happiness questionnaire has been stated in other manuscript) (14).

Self-perceived social health was assessed by a scale in three domains named as 'community', 'family', and 'friends and relatives' containing 33 questions with a series of declarative items. The participants were asked to state their view on each item. Five options was: 'very high', 'high', 'moderate', 'low', and 'very low' (the 5-point Likert scale). Items were scored by assigning a value of one for 'very low', five for 'very high'. The scale by summing all 33 items provided a total score of social health ranging from 33-165. The higher total score indicates higher social health level. The ranges of sub-scores of the domains of 'community', 'family', 'friends and relatives' was 19-65, 8-40, 6-30, respectively. To measure happiness a 40 item questionnaire, including both positive and negative worded were used. Responses to each item were given on a five-point Likert style scale. The score of items were added up to provide the whole score of happiness ranging from 40 to 200. Higher score indicated higher level of happiness. The demographic questions assessed participant's characteristics containing gender, age, place of living, marital status. The psychometrics of both scales; social health and happiness, has been assessed and stated in two previously published manuscripts (13-14).

SPSS (Statistical Package for the Social Sciences) version 18.0 was used for statistical analysis. Categorical variables were reported as frequency and percentage and numerical variables were reported as a mean (standard deviation). Independent two-sample t-test and one-way ANOVA were used to compare means of different groups considering data distribution and type. The significance level was set on a p-value <0.05. The study protocol was approved by executive and then by ethical research board of Medical Faculty of Shahid Beheshti University of Medical Sciences.

4. Results

All students (150 people) accepted to participate and completed the questionnaire who was mostly females 56%. The mean (SD) age of the respondents' was 23.2 (2.3) years. From the total of 150 participants, 64 (43.3%), 43 (28.6%), 43 (28.6%) were basic science students, externs, and interns, respectively.

4.1. Self-perceived social health scores

The mean of self-perceived social health score of medical students was 102.8 (95% CI: 100.0-105.6) in a range between 73 and 144. The histogram of the social health score is displayed in figure 1. The mean

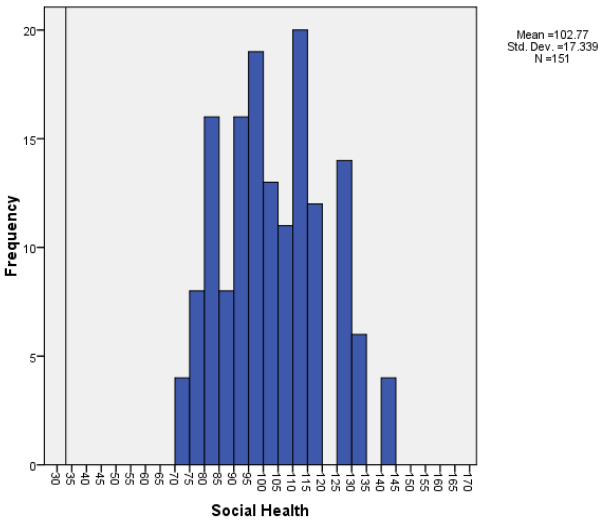

Figure 1. Distribution of total self-perceived social health scores among all participants

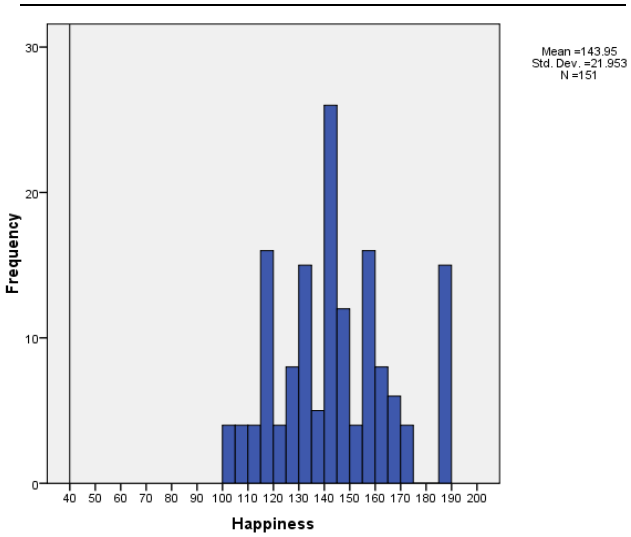

Figure 2. Distribution of total happiness scores among all participants

(SD) score of the domain of 'family' was 25.6 (3.5); domain of 'friends and relatives' was 29.3 (4.3); and domain of 'community' was 47.7 (12.8).

4.2. Happiness scores

Happiness score of medical students was 144.0 (95% CI: 140.4-147.5) in a range between 104 and 188. The histogram of the happiness score is shown in figure 2.

The analysis of social health score and happiness in different groups regarding to gender, marital status, and place of living is presented in table 1.

The correlation between the happiness and total social score (and its domains was conducted).

Pearson correlation coefficient of happiness with total social health score was calculated as 0.68 (P-Value <0.001). The correlation coefficient of happiness with the three domains, 'family', 'friends and relatives' and 'community' was 0.78, 0.62, and 0.93 respectively (All P-values <0.001).

Table 1. The comparison of social health and happiness scores of medical students

		N (%)	Social health score Mean (95% CI)	P Value	Happiness score Mean (95% CI)	P Value
Gender	Male	67 (44.4%)	104.4 (97.8-106.5)	0.697	145.9 (140.7-151.1)	0.322
	Female	84 (55.6%)	103.3 (99.6-106.9)		142.4 (137.5-147.3)	
Place of living	Home	60 (39.7%)	107.1 (104.0-110.1)	<0.001	152.6 (148.4-156.8)	<0.001
	Dormitory	91 (60.3%)	96.2 (91.3-101.1)		130.8 (126.1-135.5)	
Marital status	Married	127 (84.1%)	105.9 (98.6-113.1)	0.340	157.3 (147.5-167.1)	0.001
	Single	24 (15.9%)	102.2 (99.1-105.2)		141.4 (137.8-145.1)	

5. Discussion

The current study found the mean of self-perceived social score of Iranian medical students as 102 (minimum and maximum possible values were 33 and 165). The only factor which was associated with higher social health score was living at home (versus living in dormitory). The other factors such as gender, marital status was not significantly associated with social health. The obtained results of students are similar to estimates of 'Iran Social Health Survey' which measured mean of social health of Iranians as 99.9 (15). Profound assessment and giving more attention to separate areas demonstrates that the score of 'family' and 'friends and relatives' domains are approximately 12% higher than the national estimates; but regarding the 'community' domain the average is 6% lower (15). A possible explanation for this might be stronger social networks of such students along with their higher expectations from community resulting in lower score of 'community' domain.

Regarding happiness, the achieved estimate of medical students (144.0) is very close to the estimate of a study has been conducted in Tehran city (capital of Iran) and measured happiness of people living in Tehran as 143.9 (14). In addition, living in home (versus dormitory), and being married was the main factors which were significantly associated with happiness of students. Results of a multi-central study, which assessed social well-being indicators of Iranian, Italian and American students are to some extent consistent with our study when it concludes that there was no significant difference between sex and social well-being of students. But the findings of this multi-centric study do not support the positive role of marriage on positive health factors (17).

Similarity of the scores of positive health indicators of students with general population is not generally expected. According to the existing literature, the level of positive health indicators usually is higher in people aged 18-30 (14). Work overload and stressful occupational environment may be an explanation. Surprisingly, we generally expect higher level of happiness in females, but the results of our study in not consistent with these findings of other studies (18-19). The results of our study areconcurrent with other study which has been assessed social well-being status of Iranian nursing and midwifery students as not satisfactory

and concluding important implications for policy makers to design and conducting programmes to promote social well-being of students (16).

At first view, the achieved estimate of social health of medical students seems to be favourable considering the fact that the estimates are approximately in the middle of distance between possible minimum and maximum of the scale; for example, the estimated social health level of 102 is in the middle of distance between 33 and 165. However, most of studies which have estimated the positive health indicators in developed countries demonstrated estimates, which are closer to maximum level (15). Regarding to the happiness, this event is more significant. Therefore, we can conclude that social health and happiness level of Iranian students is to some extent unfavourable.

In this study, a number of limitations should be considered. Firstly, the sample is limited to one university in capital of Iran with students might have different socioeconomic characteristics. We also assess only social health and happiness as positive health indicators whereas the positive health is a broad concept including quality of life, optimism and so on. Therefore, more broadly research is required to determine the positive health status of Iranian medical students.

This research extends our knowledge of positive health indicators of Iranian medical students. The key strength of the study was using a previously tested scale from the aspects of validity and reliability. On the other hand, sampling from only one faculty was the main limitation of the study (13). In addition, inherent limitations of a cross-sectional study should be considered, especially while interpreting associations between factors and investigated positive health factors as outcome measures.

6. Conclusion

Low level positive health indicators of students who live in dormitory and nearly lower estimates in comparison to results of developed countries are the main findings. It requires social and educational Iranian policy-makers to make appropriate attempts to enhance general social health and happiness level of medical students, especially who are living in dormitory. It certainly leads to higher productivity and satisfaction of future physician who are important human assets of Iranian community.

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Conflicts of interest

We have no conflict of interest to declare.

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