

Original Article

Study on Social Capital in Female Students of Arak University of Medical Sciences, Central IranFateme Rezaei¹, Abedin Saghafipour^{2*}, Saeideh Babakhanloo³, Nazanin Soltani⁴, Abolfazl Mohammadbeigi⁵¹Department of Social Medicine, Medical School, Jahrom University of Medical Sciences, Jahrom, Iran²Department of Public Health, Faculty of Health, Qom University of Medical Sciences, Qom, Iran³Department of Public Health, Faculty of Health, Arak University of Medical Sciences, Arak, Iran⁴Student Research Committee, Qom University of Medical Sciences, Qom, Iran⁵Department of Epidemiology and Biostatistics, Faculty of Health, Qom University of Medical Sciences, Qom, Iran.

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ABSTRACT

Received 20.08.2018
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Published 01.02.2019**Key words:**Social Capital;
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Iran**Introduction:** Social capital refers to the norms and social organization that makes people to cooperate for gaining reciprocal advantages. Focusing of its importance on health, the aim of this study was to evaluate social capital in the female students of Arak University of Medical Sciences, central Iran.**Method:** A cross-sectional study was done on 359 female students of Arak University of Medical Sciences in the fields of medicine, public health, nursing, laboratory sciences, anesthesia and operation room using simple random sampling in 2018. Bullen Social capital questionnaire was used for data collection. Data analysis was performed using one-way ANOVA, t-test and Pearson's correlation coefficient.**Results** The results showed that among all the social capital issues, the highest average (57.18 ± 91.81) is professional communication and the lowest average (33.19 ± 93.49) is participation in social activities. Also social capital showed a significant association with variables such as educational level ($p=0.01$), marital status ($p=0.03$), first (mother) language ($p=0.01$), and family size ($p=0.03$).**Conclusion:** Considering that social capital has a significant association with variables such educational and demographic, interventions by stakeholders may increase the social capital.**Introduction**

Nowadays, health outlooks have become more widespread and special attention has been devoted to non-medical determinants. Each of these determinants, either alone or through impact on each other, greatly affects the health status and causes injustices in health conditions (1). Social capital is well known as one of the important social determinants of health that has attracted much attention (2). It includes characteristics of social life, social organization,

norms and trust that enable participants to work together to more effectively pursue common goals (2, 3). For instance, in states of the United States where the level of social capital is low, death rates are higher than those with a higher level of social capital (4). Social capital can strengthen cooperation and, simultaneously, expand mutual support in communities and nations. Therefore, it can be a valuable tool for combating many social deficiencies in modern societies, such as crimes that are inseparable from them, contrary to the view of those who

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emphasize the general interest of the social networking community (5). Social capital has three dimensions: social organizations, which are the social relations and interactions of individuals, and are regarded as a constituent part of social capital; the norm of cooperation which is the criterion of social capital; and trust, which is one of the essential elements for the strengthening of cooperation and it is obtained as a result of the predictability of the behavior of others that embody personal trust and generalized trust (6). Previously, the relationship between social capital and academic success has been studied. For instance, in a study significant correlation between social capital and academic achievement of students has been proved (7). In addition, a positive relationship between social capital and academic performance of Chinese students have been reported by researchers (8). More than these, it was proved that students with high social capital show a greater interest in continuing education than students with lower social capital (9). The result of a study showed that there is a significant role of social capital in creating happiness (life satisfaction) (10). It has also been shown that there is a positive and significant correlation between social capital and academic achievement of students (11). The findings of a study in Taiwan showed that social capital can cause health-protective behaviors in an influenza pandemic (12). In a study conducted in Tehran, it was shown that social capital of students is related to variable of ethnicity (13). Considering that social capital affects the relations between students and their trust and can be effective in their academic achievement and that so far no study has been done to study social capital in students of Arak University of Medical Sciences, this study aimed on social capital among female students in Arak University of Medical Sciences, central Iran.

Methods

This cross-sectional study was conducted on 359 female dormitory students in Arak University

of Medical Sciences in 2018. A random sampling method was used for sampling. The following formula was used to determine the sample size.

$$n = \left(\frac{Z_{1-\frac{\alpha}{2}} \cdot \delta}{d} \right)^2$$

The type I error (α) was 95%, accuracy (d) was 1.45 and standard deviation (δ) was 13.72. The inclusion criteria were determined of being student in one of the fields of Arak University of Medical Sciences and the exclusion criteria were included being guest student. The Bullen social capital questionnaire was used to collect data (14). Its reliability and validity was confirmed (Cronbach's alpha=0.79) (15). The questionnaire was unnamed, after coding, it was placed on the students in order to complete it. The social capital questionnaire includes 33 questions in eight domains: 1) participation in local groups; 2) pioneering in social activities; 3) social trust; 4) relations with neighbors; 5) relations with friends and family; 6) capacity to accept differences, 7) valuing life; 8) professional communication. Also, a question about the economic situation was self-concept. The questions of each dimension have four options and the score assigned to each question varies from 1 to 4. The questionnaire used in this study has eight domains, scores in each domain is computed and aggregated. Because of the number of questions in the domains is different, after calculating the mean of each domain, all domains are scaled to 100, so that there is a possibility to compare the domains (16). The dependent variable in this study is the various domains of social capital and independent variables including age, family size, educational level, marital status, economic status and first (mother) language. The company participated in the study with informed consent. Individuals were asked about a study of explanations that their personal information would remain confidential and their answers to the questions in this questionnaire would not create any problem

or liability for them. Participants were entered in the study with informed consent. For data analysis, independent t-test, one-way ANOVA and Pearson correlation coefficient were used by SPSS software version 16 and at the significance level of 0.05. This study has completed its review and approval process at Arak University of Medical Sciences, Iran.

Results

Three hundred fifty-nine students participated in the study. Their average age of

21.34 ± 2.48 years old (min 18 and maximum 45 years old).

Table 1 shows the demographic details of the participants. Most of the participants (93.87%) were single. In term of educational level, we found that 3.64% at the upper diploma level, 79.38% at the bachelor science level, 1.94% in the Master of Science and 15.04% in the PhD level. Most of the participants (83.29%) spoke Persian. The economic status of 61.84% of participants was suitable from their point of view.

Table 1. Baseline characteristic of the students studied in Arak University of Medical Sciences in 2018

Variables		N	%
Marital status	Single	337	93.87
	Married	22	6.13
First(mother) language	Persian	299	83.29
	Non-Persian	60	16.71
Economic status	Suitable	108	30.08
	Moderate	222	61.84
	Weak	29	8.08
Educational level	Upper diploma	13	3.64
	Bachelor of science	285	79.38
	Master of science	7	1.94
	PhD	54	15.04

The findings showed that among all the social capital issues, the highest average (57.18±91.81) is professional communication and the lowest average (33.19±93.49) is participation in social activities (Table 2, 3, 4).

Table 2 shows the results of independent t-test, one-way ANOVA and Pearson correlation coefficient. There was a significant relationship between the education level and the domains of valuing life (P = 0.01), capacity to accept differences (P = 0.04), relations with neighbors (P = 0.03), and social trust (P = 0.04). The scores of valuing life, relations with neighbors, social trust, participation in social activities, pioneering

in social activities and professional communication in students with upper diploma were higher, but the score of capacity to accept differences in Master of Science students was more.

There was a significant relationship between marital status and relations with friends and family (P = 0.03), and valuing life (P = 0.01) domains, and married people got more scores in their relationship with friends and family (Table 3). There was a significant relationship between the mother language and the relations with neighbors (P = 0.01). Also, students whose

mother language was not Persian had an average score for social trust than those who spoke Persian (Table 3).

The results of Pearson correlation test showed that there was no significant relationship between age and any of social capital domains. The results of this study showed that there was a significant relationship between the family size

and participation in social activities (P = 0.01) (Table 4).

The results of One-way ANOVA analysis revealed that there was no significant statistical relationship between none of the social capital domains and economic status (05/0 <P) (Table 5).

Table 2. Relationship between Social Capital domains and educational level in Arak University of Medical Sciences students in 2018

Educational level	Upper diploma	Bachelor of science	Master of science	PhD	P value
Total Score	67.13±0.65	48.35±11.65	53.70±0	49.89±14.05	0.20
Valuing life capacity to accept differences	52.5±56.28	39.1±12.42	40.7±47.14	49.3±7.33	0.01
Relations with friends and family	53.7±84.42	42.1±96.31	61.10±90.58	46.3±9.04	0.04
Relations with neighbors	54.5±70.25	53.1±17.25	50.9±79.95	55.2±55.78	0.86
Social trust	57.5±43.77	44.1±7.29	56.8±19.33	43.2±70.40	0.03
Participation in social activities	48.4±20.41	37.0±5.91	35.7±23.35	34.1±81.77	0.04
Pioneering in social activities	43.3±58.40	33.1±65.15	29.7±93.25	33.2±59.75	0.31
Professional communication	63.4±7.62	54.1±71.01	62.7±85.10	57.1±53.93	0.15
	83.3±33.33	56.3±29.13	80±0	56.5±29.67	0.14

Table 3. Relationship between Social Capital domains and marital status and mother language in Arak University of Medical Sciences students in 2018

Social Capital factors	Marital status			Mother language		
	Single	Married	P value	Persian	Non-Persian	P value
Total Score	48.46±11.77	61.34±12.33	0.04	48.99±13.08	51.15±9.48	0.60
valuing life capacity to accept differences	40.23±31.60	53.28±78.60	0.01	41.24±58.17	38.23±88.90	0.43
relations with friends and family	43.22±98.64	47.23±47.55	0.48	43.22±36.13	48.25±33.04	0.12
relations with neighbors	52.20±95.79	62.23±62.64	0.03	53.20±62.92	53.21±14.94	0.87
social trust	44.19±39.02	50.20±0.44	0.18	43.18±67.64	50.20±0.77	0.01
participation in social activities	37.15±27.30	34.15±24.57	0.37	36.14±70.93	39.17±0.13	0.28
pioneering in social activities	33.19±87.36	34.21±84.76	0.82	33.19±52.48	35.19±92.55	0.17
professional communication	55.16±25.92	60.16±90.10	0.12	55.16±5.50	58.18±33.68	0.17
	57.18±57.75	61.22±66.02	0.68	55.17±0.70	66.20±66.10	0.06

Table 4. Relationship between Social Capital domains and age and family size in Arak University of Medical Sciences students in 2018

Social Capital factors	Age		Family size	
	r	P value	r	P value
Total Score	0.11	0.45	0.05	0.72
valuing life	-0.09	0.07	0.01	0.41
capacity to accept differences	0.01	0.81	0.05	0.34
relations with friends and family	0.09	0.08	0.000	0.99
relations with neighbors	0.10	0.05	-0.05	0.34
social trust	0.005	0.92	0.06	0.25
participation in social activities	0.02	0.70	-0.12	0.01
pioneering in social activities	0.08	0.12	0.03	0.57
professional communication	0.05	0.70	0.09	0.51

Table 5. Relationship between Social Capital domains and Economic status in Arak University of Medical Sciences students in 2018

Economic status	Weak	Moderate	suitable	P value
Total Score	52.64±15.37	49.75±12.49	46.96±9.69	
valuing life	41.2±66.40	41.1±44.60	36.4±78.24	0.59
capacity to accept differences	44.2±95.10	44.1±59.50	38.5±31.04	0.34
relations with friends and family	54.2±32.01	53.1±30.39	52.4±49.60	0.88
relations with neighbors	43.1±45.93	45.1±61.22	42.4±75.15	0.53
social trust	39.1±25.54	36.0±18.98	35.3±86.11	0.21
participation in social activities	35.1±97.85	33.1±52.33	29.2±39.97	0.24
pioneering in social activities	56.1±35.56	55.1±58.15	52.3±87.24	0.61
professional communication	56.4±36.70	56.3±66.58	65.7±71.75	0.50

Discussion

Among the social capital domains, the highest average score obtained by students was related to professional communication domain and the lowest average was related to participation in social activities domain. In terms of relationship between educational levels and social capital, there was a significant relationship between the education level and

the domains of valuing life, capacity to accept differences, relations with neighbors, and social trust. The scores of valuing life, and social trust domains were higher than others in students with upper diploma. In other studies, it has been shown that students who attended higher education levels earned a higher average social capital score (15,16). But in a study conducted at Tehran University,

BSc students have a higher social capital than higher education levels (17). While PhD students are expected to increase their sense of social trust due to increasing their age and experience consequently. These students should have a higher status in the community and have a better life-span and therefore have a higher score in the valuing life, which was not the result of this study (15). Since recently PhD students are not fully confident about their occupational prospects, their feelings of social trust have diminished. In this present study we found that there was a significant relationship between marital status and relations with friends and family, and valuing life domains, and married people got more scores in their relationship with friends and family. Previous studies confirmed this finding (15,18, 19, 20). For instance, Rezaei et al have shown that there is relationship between marital status of students and relations with friends and family, and valuing life domains (15). The findings of this study revealed that there was a significant relationship between the mother language and the relations with neighbors. Also, students whose mother language was not Persian had an average score for social trust than those who spoke Persian. Previously scientific researchers have proofed the significant relationship between mother language and capacity to accept differences domains (13,21). In this study, the average age of students was about 21 years old. According to the results of Pearson correlation test, there was no significant relationship between age and any of social capital domains. While the results of numerous studies have shown that age has a significant relationship with some domains of social capital (19, 20, 22). For example, the study of Rezaei et al on Jahrom University of Medical Sciences students with same mean of age to our samples has shown that age has significant relationship with valuing life, relations with neighbors, social trust, and participation in social activities (15). It seems, absence of association between age and social capital domains is due to

today's high usage of students from social-virtual networks caused they were busy and decreased their relationship with others. Basically, as people grow older, they tend to be more in touch with others, such as relations with neighbors, and with age, family dependency and close relatives are less and one can have more trust in others. Also, at an older age, participation in social activities increases and a person becomes more willing to engage in social activities. It can be mentioned that as people grow older, they get more experience, and it caused increases the person's adaptability to the conditions of the society (17). The results of this study showed that there is a reverse correlation between the family size and the participation in social activities. Social capital is divided into two forms; intra-family and extra-family. In form of intra-family social capital manifests in relations between family members, especially between parents and children. In form of intra-family refers to the social network of the family outside the community and its relationship with other social institutions and members of the community, such as schools, social organizations, etc (23,24). One of the limitations of the present study is that the study was conducted only on female students and residents of the dormitory, so conducting research on students of both sexes, girls and boys, and students not residing in dormitories of the medical university can show more accurate results.

Conclusion

According to the findings, social capital of students is low in participation in social activities, so it may be possible to work together with other organs in order to increase student participation in social activities. Also, considering that social capital has significant statistical significance with demographic and educational variables, we can try to increase social capital through appropriate interventions by stakeholders.

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Conflicts of interest

The authors declare no competing interests.

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