

Social Skills and Student Organization Activities: A Cross-sectional Study Among Medical Students of Tehran

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Abstract

Background: Lack of effective training and practice of social skills in childhood in many communities necessitates finding costless solutions to improve these skills in adulthood. Healthcare staff may especially benefit from such advantages regarding their professional needs. Organized activity involvement can improve children social competence; such relationship, however, is not well known in adults. As the first step, the association of university student organization activity involvement and social skills level was evaluated in medical students.

Methods: In this analytical cross-sectional study, a total of 205 female and male medical students from any grade and ethnicity, were selected by stratified random sampling from medical schools of two main universities of medical sciences of Tehran, the capital of Iran. Social competence of students was assessed by using Social Skills Inventory along with history of involvement in student organization activities and outside university group activities.

Results: A statistically significant difference between social skills scores of students with and without a history of involvement in university student organization activities was detected ($p=0.028$). In students with such history, a positive correlation was found between social skills scores and total hours of participation in activities ($r=0.206$, $p=0.035$). A significant difference was also found between social skills scores of students involved and not involved in group activities outside the university ($p<0.001$).

Conclusion: Medical students taking part in organized activities had significantly more social skills scores—the more active they were, the more social competence they reported. Future longitudinal researches can investigate causality and may suggest organized activity involvement for adults who experienced no effective social skills training in childhood which is a common problem in developing communities.

Keywords: Cross-sectional studies, Medical students, Organizations, Social skills

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Introduction

Social skills are known as a subcategory of social competence and a practical substitute for its assessment (1,2). They seem to be protective factors against human interpersonal disturbances (3) therapeutic options for many mental conditions (4,5), and necessary tools for professional services of healthcare staff (6). Along with their therapeutic benefits, the importance of these skills in healthy individuals' daily lives has been the point of attention. Deficient social competence of young adults is associated with academic failure (7), difficult relationships with strangers (8), and inadequate psychological well-being (9). For healthcare providers, it has been linked with poor outcomes such as higher perceived stress (10), stress-coping problems (11), and patient dissatisfaction (12). On the other hand, more socially competent individuals have shown more successful academic (13), management (14), and business (15) achievements. More patient satisfaction (16-18), diagnosis efficiency (17), and shared decision-making and rapport (19) are also reported by physicians with higher social competence. These facts demonstrate the importance of equipping physicians and other healthcare staff with social and other soft skills especially regarding current trends in patient-centred approach and bedside manner of healthcare professionals.

Efforts have been made to discover the determinants of developed social skills. Genetic factors (20), parenting styles (21,22), school environment and teachers (21,23), and even nutrition (24) are all known to contribute to social skills development. Organized activities, such as after-school programs, are also recognized to enhance the social competence of school-aged children (25). However, a few studies have investigated the relations between attending organized activities and social competence in adult populations. A study in the United States documented the improving effect of taking part in organized activities on building friendship of young adults (26). Such association is not studied in any Iranian population according to the literature review. In Iranian healthcare staff, similar to some other communities (27), communication skills are more studied and other aspects of social skills are neglected. Iranian medical interns' limited knowledge about communication

skills was detected in 2005 (28). Nevertheless, no study on the evaluation of Iranian medical students' social competence has been found.

Finding solutions to improve social skills in adulthood is an important step. It may especially help people who were deprived of learning these skills in childhood effectively-for example, many adults of today's developing countries (29). Healthcare staff may especially profit from such advantages regarding their professional needs. In this article, the term "student organization activity" is used instead of "organized activity" as in our accessible population, some activities did not completely meet recognized features of organized activities (30). This study aimed to investigate the association of attending student organization activities and perceived social skills in an adult population of Iranian medical students. This, along with giving an estimation of their social competence, may consolidate the evidence of associations between organization activity involvement and social development in adults.

Materials and Methods

Study design and population

This analytical cross-sectional study was carried out in Tehran, Iran, in 2013. The social skills level of medical students in two main medical universities-Iran University of Medical Sciences and Tehran University of Medical Sciences-was compared regarding two groups of students with and without a history of engaging in activities of university student organizations. Medical students attending the two top-rated universities were from many different provinces of the country, and a small number of students were from other countries. The sample can be considered as representative of medical students attending universities of the city Tehran. All of the students, Iranian and non-Iranians, could be included in the study.

Sampling method

Stratified random sampling was used, and a sampling frame comprising all medical students in the two universities was stratified by usual university semesters. Students were selected in each semester by using random number generator. The sample size was calculated by comparing two means.

Assessment

After making a phone call to the randomly selected students and describing the aims and conditions of the study, an e-mail was sent to them that contained a link to the online data collection form. For students who didn't complete the form in one week despite initial verbal agreement, a text message and then a phone call were planned to remind them and solve any possible problem in opening the form page. In the form, demographic and baseline characteristics as well as the social skills inventory were included. The students were asked to specify whether they have a history of being an active member in any university student organization or not. The activity duration of students from such backgrounds were also evaluated; they were asked to specify the number of months of activity involvement and to estimate the number of hours they spent in activities per week, which resulted in the estimated total hours of activity for each student. Moreover, they were asked to describe whether their activities had mostly been individual, pair, or in groups. Furthermore, all the participants were asked to specify whether they had any group activities outside the university or had any experience of having a job; it helped us to understand any substantial difference in previous familiarity with group interactions between participants with and without activity history in university organizations.

Social skills inventory

Riggio and Carney designed this self-description inventory in 1989 and evaluated its reliability by using the test-retest method. He reached a Cronbach's alpha of 0.81 to 0.96 (2). The Persian version of the inventory was used in this study which has been validated and a Cronbach's alpha of 0.82 is reported (31). The social skills inventory contains 90 multiple-choice items that determine six social skills subscales including emotional expressivity, emotional sensitivity, emotional control, social expressivity, social sensitivity, and social control. The sum of all these subscales constructs the individual's total social skills score. The participants responded on a five-point Likert scale from 'not at all like me' to 'exactly like me'. The scores can potentially range from 90 to 450 in which higher scores show higher social skills level. The estimated time to fill out the questionnaire is 30-45 min (2).

Statistical methods

To analyze the obtained data, SPSS Statistics for Windows, version 16 (SPSS Inc., Chicago, Ill., USA), was used. Mean and Standard Deviation (SD) were used to describe numerical variables and relative frequency percentages to describe the nominal or categorical variables. The series means was used to handle missing values, which were 2.3% of all obtained data. Chi square test was applied to compare categorical outcomes and independent-samples t-test to compare quantitative outcomes between two groups as the main objective of the study. Spearman correlation was used to investigate the probable association of social skills scores and total hours of activity involvement in university student organizations, which was not normally distributed. The level of statistical significance and statistical power were considered to be 0.05 and 80%, respectively.

Ethics

The Ethics committee of Iran University of Medical Sciences approved the study protocol, and the Declaration of Helsinki principles was observed. The students gave informed consent for this study. A limited number of demographic questions were listed in the online form. The data file remained anonymous, and the identities of students were protected by means of unique identification codes in order to protect the privacy of their records.

Participants' involvement

An interview was conducted at the beginning of the conceptual phase with a few medical students; they were interested in estimating their social skills level and preferred to complete such inventories at home and therefore the online questionnaire was prepared. At the end of the project, along with an appreciation message, social skills scores of participants were sent to each of them confidentially.

Results

A total of 205 students aged 17-28 years (mean=22.25, SD=2.04) participated in this study giving a response rate of 70.4%. As many as 125 of them (61%) were female and 17 (8.3%) were married. Seventy-eight students (38%) had a history of student organization

activity involvement; of them, 13 students (17.3%) described their experience as individual or pair activities, while others described their experience related to group activities. The median of the estimated total hours of their activity involvement was 192 hours (Interquartile range was 92.00 to 361.64 hrs). Among all students, 107 (53.8%) had experienced some group activities outside the university and 82 (40.6%) had job experiences. No demographic or baseline characteristic was significantly different among the two study groups (Table 1). There were also no significant differences between groups regarding how satisfied they were with their family relationship, friendship quality, and their marital and job satisfaction. The mean social skills score was 283.86 (SD=26.13)

with a range of 220-355. A statistically significant difference between the social skills scores of two groups of study was detected ($p=0.028$); higher social skills level was associated with having a history of student organization activity involvement. Considering the time of involvement in activities, a small significant correlation was also found between estimated total hours of activity and students' social skills scores by using Spearman's correlation test ($r=0.206$, $p=0.035$). Students with organization activity history in the university had significantly higher scores in two social skills subscales, namely social expressivity and social control (Table 2). Students who had experienced any kind of group activities outside the university showed significantly

Table 1. Demographic and baseline characteristics of study groups

	Without student organization activity history N=127	With student organization activity history N=78	p-value
Mean age (SD †)	22.11 (2.84)	22.78 (2.01)	0.071
Mean family size (SD)	4.60 (1.09)	4.42 (1.10)	0.282
Gender (Frequency)			
Female	83	42	0.101
Male	44	36	
Marital status (Frequency)			
Single	117	71	0.782
Married	10	7	
Out of university activities (Frequency)			
No	60	32	0.294
Yes	62	45	
Job experience (Frequency)			
No	75	45	0.694
Yes	49	33	

† Standard deviation

Table 2. Means of students' subscales and total scores of social skills inventory (Standard deviations in parentheses)

	Without student organization activity history N=127	With student organization activity history N=78	p-value
Emotional expressivity	45.48 (7.13)	45.76 (5.37)	0.742
Emotional sensitivity	44.97 (6.64)	46.74 (6.65)	0.066
Emotional control	46.51 (8.93)	46.41 (8.08)	0.935
Social expressivity	44.24 (10.34)	48.58 (9.10)	0.003*
Social sensitivity	46.70 (8.23)	44.92 (8.54)	0.140
Social control	52.81 (9.60)	56.53 (8.76)	0.006*
Total social skills score	280.72 (27.11)	288.97 (23.77)	0.028**

* Statistically significant difference ($p<0.01$).

** Statistically significant difference ($p<0.05$).

more social skills scores (mean=291.66, SD=25.16) compared with students who did not have such history (mean 275.04, SD 25.20, $p<0.001$). Students with any experience of having a job also exhibited significantly more social skills level (mean=289.74, SD=26.22) than students without such experience (mean=279.95, SD=25.61, $p=0.009$). Figure 1 illustrates social skills level differences in students with and without a history of activity involvement in university student organizations, out of university activities, and job experience.

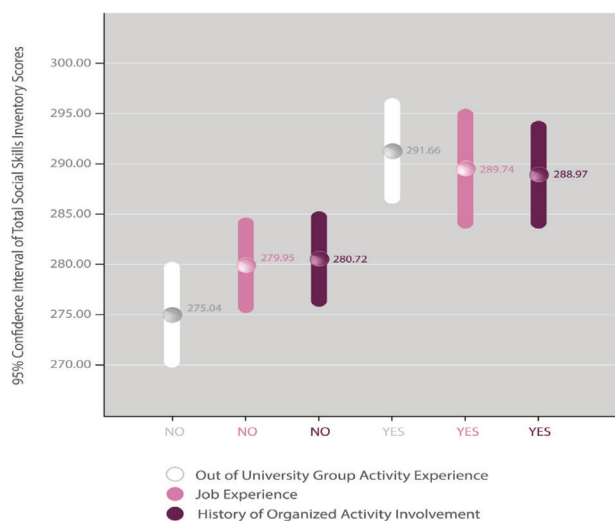


Figure 1. Mean of total social skills scores \pm 95% confidence interval in students with and without a history of involvement in university student organizations, out of university activities, and job experience.

Students with individual or pair activity history in university organizations showed less than average social skills scores (mean=280.84, SD=19.79) than students with group activities (mean=290.70, SD=24.77), although this difference was not statistically significant. There was no statistically significant relationship between social skills scores and students' age ($p=0.927$), gender ($p=0.722$), or marital status ($p=0.273$).

Discussion

Participating in student organization activities showed a significant association with higher levels of perceived social competence in medical students. A small significant positive correlation between social skills level, and estimated total hours of participation was also detected among students who had such participation history. In other words, medical students

taking part in university organization activities reported significantly more social competence the more active they were, the more perceived social competence they showed. Similar pattern was detected about job experiences and out of university social activities; students with such backgrounds reported significantly higher social competence. In addition, the frequency of students who had experienced these two potentially confounding variables was not significantly different between main groups of the study; so the discovered association between activity at university and social skills is not distorted by them.

The significant association between student organization activities and social skills scores seems to be mainly related to "social expressivity" and "social control", the two statistically different subscales between two groups of study. None of the emotional subscales were significantly different between groups. It may suggest that students with and without activity history are the same regarding their emotional skills and the difference is specifically about their performance in social dimensions; the hypothesis which need further research. Differences between these subscales were investigated in some studies regarding other variables such as gender; for example, in one study, female dental students showed superiority in some of emotional and social subscales (32); in this study, however, all subscales were statistically identical between genders.

It has been proposed that involvement in some community settings is related to higher social competence in children. Improving effects of after-school programs or other organized activities on school-aged children's social development is evident in different studies including a meta-analysis (25,33-35). A handful of studies, however, have focused on adults to investigate such relationships (26). Findings of the current study were consistent with the results of Bohnert *et al*; they established the relationship of involvement in organized activities and more developed friendship as a measure of social adaptation across transition of students to college. Unlike our cross-sectional study, they carried out a prospective one and therefore concluded that organized activities do facilitate friendship development among students with the mean age of 18 (26). A wider range of adulthood ages from 17-28 were included in the

current study, and social skills as a measure of social competence was evaluated; both can give a broader picture of the issue. The positive correlation between more activity time and higher measured social competence found in this study was also similar to the known importance of persistent involvement for achieving social benefits of activities (36).

Social skills as a potential protective factor against mental disturbances of medical staff are evaluated in some research. A negative association between higher social skills level and mental health problems of healthcare staff is confirmed, and its improving effect on their performance is also identified (32,37,38). Most Iranian medical students participated in this study fell within normal or high cut-off points for a standard college population (2). It is similar to the findings of an investigation of dental students' social skills in New Zealand (32). In that study, female students showed significantly higher social skills levels (32), which is consistent with the inventory's initial examinations (39). This result, however, was not found in an assessment of surgical residents (40) and also in the current study in which female and male students' social skills scores were statistically identical. This finding may be understood with regard to Tavakol *et al's* investigation of 223 Iranian medical interns. Although those medical interns had deficient knowledge about communication skills, male interns had significantly more knowledge than females (28). These findings suggest that gender difference in Iranian medical students should be explored more to discover its background and to guide further curriculum developments.

This study according to English and Persian literature reviews was the first study that inspected Iranian medical students' social skills level and also the first one examining the association between perceived social competence and social activity in an Iranian population. The use of an online questionnaire improved the quality of assessments as participants

filled it up at their convenient time and place. Stratified random sampling also elicited more consistent data. As a cross-sectional study, it can not be inferred whether participation in activities develops social skills or higher social competence allows student to attend to more activities. A self-assessment measure was the main limitation of the study. Furthermore, social anxiety and other mental illnesses were not investigated which could theoretically be confounders. It may be helpful to understand the determinants and enhancers of social skills especially in adults and healthcare providers. It may be particularly critical to developing countries' young adults for whom training sessions for these skills in schools and universities are estimated to be limited and low quality (29) for example, today's Iranian adults have experienced no social or life skill training during their formal education.

Conclusion

Findings of this study demonstrated that involvement in student organizations activities is associated to higher social skills level in Iranian medical students, regardless of their out of university social or vocational experiences. Taking part in such activities can therefore be hypothesized as an efficient intervention to improve medical students' social competence.

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