Social Factors Affecting Education Quality of Iranian Medical & Dental Students

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Abstract

Purpose: Positive social behavior of student is an important factor in the integrity of educational quality. Unbalanced behavior can disrupt the progress of students in learning. The present study evaluates the effect of social factors on education quality of dental and medical students.

Materials & Methods: This descriptive cross-sectional study was conducted on 227 randomly selected students (109 dental and 118 medical). The questionnaire contained three domains of cultural collectivism, self-concept, and social adjustment adapted from California Test of Personality. It also included demographic questions like; field of study, gender and home city of residence. Data was analyzed using SPSS (version#19) software. Pearsons' correlation coefficient and independent *t*-test were used at the P-value of 0.05.

Results: Generally, girl students showed higher cultural collectivism (P=0.028) and social adjustment (P=0.04). On the contrary, boys were better in self-concept behavior (P=0.34). Home city of residence evidenced with no significant effect on any aspects of social attitudes of subjects. Pearsons' correlation coefficient test showed a weak correlation between cultural collectivism and self-concept (r=0.134, P=0.04) and between cultural collectivism and social adjustment, as well. (r=0.252, P=0.001) Independent t-test showed a significant difference between male and female students concerning cultural collectivism and social adjustment. Reliability of cultural collectivism, self-concept and social adjustment scales ranged from very good to moderate, α=0.83, α=0.63, and α=0.54 respectively.

Conclusions: The results of this study indicated that female students show better cultural collectivism and social adjustment skills. It also proved that home city of residence has no significant effect upon social behavior of either medical or dental students.

Key words: Social behavior, Quality of education, Cultural collectivism, Self-concept, Social adjustment

Introduction

Intelligence is an important factor in learning process. This essential requirement for education can be affected by many social factors, positively or negatively. College students after a high competition for entering university simultaneously expose to a new challenging social environment. University atmosphere is mostly flourished with the presence of young generation. By definition, according to UNESCO, the young generation is referred to the period of 15-25 years of life. This generation is the most susceptible group in societies [1,2]. This phase of life comes with more independency and obviously requires more decision-making for students. Definitely, not all students can manage or cope with every situation. Occasionally, a student can be defeated by a variety of social problems [3,4].

In Middle Eastern culture, high school students are relatively in an established state of behavior with their school and family members. Entering college suddenly disrupts this balanced status with more freedom, resulting in some confusion. Students sometimes encounter major challenges and, therefore, they are socially forced to adapt themselves with this new educational family. In fact, they spend the third period of their life in university and go through the process of socialization by becoming a member of new academic groups and professional associations. Such membership usually gives them a sense of safety and security [5].

However, some vague assumptions or realities about courses, college environment, rules & regulations, professors' or classmates' attitude may create stress and tension in students. Such emotional pressures and educational ambiguities may push some students towards less acceptable, even antisocial behaviors or other forms of psychological disturbances. They may end up choosing wrongful decisions in order to gain back their normal mental state! These students definitely need a professional counseling and emotional attention. A alarming study in the United States showed that about 93% of students who became substance abuser picked up the habit after entering university [6]. Brent showed that suicide was the third major cause of death among European young adults aged 18-24 years and the second cause of death in universities [7]. A survey of year 2011 in US reveals that 1/3 of college students felt so depressed that they could not function properly in their studies.

A fellow of low-level social adjustment usually has a certain degree of mental disorder [8]. One's personality is a collection of his/her self-concept, attitude, dreams, and beliefs. In a suitable environment, this personality will provide the person to manifest his creativity and show his positive inner nature [2]. The self-concept of a person without good social skills does not form a positive social behavior. Such people may show unstable or abnormal behavior in various situations. On the contrary, having a positive self-image and perception of one's self will result in better social adjustment [9,10].

According to American Psychiatric Association, one of the important aspects of social behavior is the absence of signs and symptoms of "psychological disorders" or "mental

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diseases" [11]. Such condition is indicative of an acceptable level of mental health. Therefore, having socially adjustable behavior means having good mental health. Social behavior focuses on three areas of cultural collectivism, self-concept, and social adjustment. The following is the definition of related terminologies:

A1. Cultural collectivism: It stresses the priority of group goals over individual goals. This focuses on the importance of cohesion within social groups. Collectivists usually focus on family or work environments and place the collective interest of group before their own individual rights.

B1. Self-concept: A multi-dimensional structure refers to an individuals' perception of "self" in relation to any number of characteristics, such as body image, gender, racial identity, age, socioeconomic level, and many others that distinguish the person from others in the society. In fact, it is a collection of beliefs about oneself [13].

C1. Social adjustment: This characteristic in social relationship is usually achieved by appropriate behaviors, thoughts, and emotions that are necessary for optimal social growth. It results in manifestation of social skills in order to adjust with environmental changes [14].

A2. Cultural collectivism score: The subject gains from the cultural collectivism section in the questionnaire adapted a score from the Mortazavi study [15].

B2. Self-concept score: This score is calculated for a subject from the self-concept domain questionnaire adapted from the Adult Sources of Self-Esteem Inventory (ASSEI) questionnaire [16].

C2. Social adjustment score: The subject gains a score from the social adjustment section of questionnaire that has been adapted from the California Test of Personality [17].

A3. Cultural collectivism index: That domain of questionnaire included eight questions adapted from the Mortazavis'study for assessment of cultural collectivism [15]. Each question entitles a score of 1 to 6. Score"1" was given to the answer choice "strongly disagree" while the score of "6" was given to the answer choice of "strongly agree". Therefore, the higher the total score, the higher the cultural collectivism skill of the student will be.

B3. Self-concept index: The ASSEI questionnaire is used for the measurement of this index. This domain includes nine questions rating the answers from the score of "zero" to "ten". Zero is equal to "unimportant', while "10" is equal to "extremely important".

C3. Social adjustment index: California Test of Personality is used for the assessment of this index. This domain included 90 "yes" or "no" questions. A "yes" answer was allocated as score "one", while a "no" answer scored as "zero". The total score is indicative of the social adjustment skill of the person. Thus, the higher the total score, the greater the persons' social adjustment will be.

Not many studies have focused on the role of culture in formation and evolution of the level of self-concept of youngsters. However, numerous studies have evaluated the effect of culture on personality and its different aspects. One of the main aspects of one's personality is how he/she copes with society [18]. Self-concept unveils as main criteria in how someone behaves. A person with a positive self-concept shows a more appropriate behavior in a society than those with a negative self-concept [10,18]. Knowing one's self-concept plays a significant role in his/her social adjustment. Therefore, keeping an educational environment safe and healthy is essential for academic performance of students. This should be considered as the main priority for educational authorities [1,20].

This study was conducted to evaluate the role of social factors affecting education quality of Iranian medical and dental college students. It also evaluates the relationship between 3 variables of cultural collectivism, self-concept and social adjustment among the named students of Shahid Beheshti University of Medical Sciences. It further assesses their relation to factors like gender, place of residence, and field of study. It should be noted that, according to the Ministry of Health, Shahid Beheshti University is one of the top five higher educational centers in Iran. The "dental school" of university has a long glorious academic history and offers diverse training programs at different educational and research levels. It is the top ranked academic dental institute (among 52 nationwide schools) and located in the capital city of Tehran, I. R. of Iran.

Materials and Methods

This descriptive cross-sectional study was based upon a data gathered from the interview of 250 students who were randomly selected for this study. Out of which, 227 entered the study (109 dental and 118 medical students) with the age range of 18-27 years. Twenty-three students were excluded because of insufficient data in their questionnaires. The samples comprised of 115 females (50.66%) and 112 males (49.34%), the 227. The dental students were 109(48.01%) and 118 (51.98%) were medical students. 130 were born in Tehran (57.27%) and 97 were from other cities nationwide (42.73%).

The data was collected from a questionnaire, which focuses on 3 domains of cultural collectivism, self-concept for adults and social adjustment, adapted from California Test of Personality. The questionnaire also contained demographic characteristics of subjects (gender, place of residence and field of study). Students were thoroughly informed concerning the study format. An individual participant providing the confidentiality of information signed a consent form.

Sample size was calculated using the below formula, where "N" is the least number of samples for each group of dental or medical students. Accordingly, Z=1.96 at the confidence interval of 95%, "σ" (variance) =11, and minimum expected difference (d) is 2 between two groups.

$$N=\frac{Z^2\sigma\alpha^2}{d^2} = N=\frac{(1.96)^2(11)^2}{2^2} = 115$$

Data was analyzed using the SPSS software (version 19). Pearsons' Correlation Coefficient analysis (partial) was used for better perception and understanding of correlation of indices with each other. The independent t-test was employed for evaluation of the difference between the means. Levine's test also described and evaluated the equality of variables.

Results

Students filled out 227 questionnaires. The mean scores of

all three criteria of social behaviors gained by the "female students" were generally higher than of "male students" (*Table 1*). The result was 40.21 in cultural collectivism, 73.22 in self-concept, and 57.74 in social adjustment for girls. For boys, the values were 38.36 in cultural collectivism, 71.72 in self-concept, and 55.22 in social adjustment.

Independent t-test showed a significant difference between males and females in cultural collectivism. (P=0.028) (*Table 2*). In terms of social adjustment, the mean score gained by girls was significantly higher than male (57.74 vs. 55.22) (P=.046). In self-concept domain, although the mean score of girls was higher than of boys (73.22 vs. 71.72), this difference was not statistically significant. (P=0.344) Overall, it can be concluded that the female group was more socialized and showed a greater social adjustment in the academic atmosphere.

Students whose home residence was in cities other than Tehran had a greater means of cultural collectivism (40.17 vs. 38.76) and social adjustment (58.07 vs. 55.59). Nonetheless, concerning the home city of residence, none of the groups had any priority to another statistically, concerning the self-concept behavior. (72.51 vs. 72.60) (*Table 3*) Independent *t*-test showed that home city of residence had no considerable effect on any of the 3 under-study social behavior domains. In this regard, P-value for cultural collectivism was 0.097, for self-concept was 0.958, and for social adjustment was 0.075 (*Table 4*).

Regarding the field of study, the results revealed that social behavior indices among medical students were higher than of dental students. The score of cultural collectivism was "39.84 vs. 38.65" and the score of self-concept was "73.93 vs. 70.78" but the score of social adjustment was almost similar (56.18 vs. 56.93) between the two groups (*Table 5*). Independent t-test demonstrated that there was no significant difference between two college student groups in the cultural collectivism (P=0.167) and social adjustment indices. (P=0.56) However, medical students gained a significantly higher score in self-concept character. (P=0.04) (*Table 6*).

Concerning the relation within social indices, the Pearson's correlation coefficient test showed a positive significant relationship between "social collectivism" and "self-concept" of students. (r=0.134, P=0.04) This implies that the more socialized student, the greater his/her social adjustment in the society will be. The Pearsons' correlation coefficient test did not show a positive correlation between the "self-concept" and "social adjustment" indices. (r=0.037, P=0.63)

Discussion

There are numerous factors, which can play a significant role on academic performance of college students [7,9,16,17,18,21,22]. Positive social behavior is one of the important bases of success for daily life activity. Some studies have proven a significant positive association between

Table 1. *Frequency & statistical values of social behavior indices based upon gender differences.*

Variables / Index	Gender	No.	Mean	Std. Dev.	Std. Error
Cultural Collectivism	M	112	38.36	6.40	0.60
	F	114	40.21	6.21	0.58
Self – Concept	M	111	71.72	11.10	1.05
	F	113	73.22	12.53	1.17
Social Adjustment	M	85	55.22	8.88	0.96
	F	90	57.74	7.71	0.81

Table 2. *Analysis of relationship and evaluation of social behavior indices based upon gender differences according to the independent T- test and Levine's test statistical analyses.*

Statistical Test / Social Behavior Parameters			Cultural Collectivism		Self – Concept		Social Adjustment	
			Equal variables	Unequal variables	Equal variables	Unequal variables	Equal Variable	unequal variables
Levine's Test	F		0.502	-	0.111	-	2.066	-
	Level of Significance		0.479	-	0.739	-	0.152	-
T-test For Equality at Means	T-index		-2.207	-2.207	-0.948	-0.949	-2.008	-2.000
	D f		224	223.51	222	219.68	173	166.52
	Sig. (2- tailed)		0.028	0.028	0.344	0.344	0.046	0.047
	Mean Dif.		-1.85	-1.85	-1.50	-1.50	-2.52	-2.52
	Stand. Error		0.83	0.83	1.58	1.58	1.25	1.26
	95% Confid. Interval	u.	-3.50	-3.50	-4.62	-4.61	-4.99	-5.00
		l.	-0.198	-0.198	1.61	1.61	-0.043	-0.032

Table 3. *Frequency & statistical values of social behavior indices based upon the city of residence of dental & medical college students.*

Variables / Index	Residence	No.	Mean	Std. Dev.	Std. Error
Cultural Collectivism	Tehran	130	38.76	6.64	0.58
	Other cities	90	40.17	5.86	0.61
Self – Concept	Tehran	129	72.60	11.51	1.01
	Other cities	89	72.51	12.45	1.31
Social Adjustment	Tehran	101	55.59	7.33	0.73
	Other cities	69	58.07	9.74	1.17

Table 4. *Analysis of relationship and evaluation of social behavior indices based upon city of residence according to the independent T- test and Levine's test statistical analyses*.

Statistical Test \ Social Behavior Parameters			Cultural Collectivism		Self – Concept		Social Adjustment	
			Equal variables	Unequal variables	Equal variables	Unequal variables	Equal Variable	unequal variables
Levine's Test	F		1.72	-	0.87	-	10	-
	Level of Significance		0.19	-	0.35	-	0.002	-
T-test For Equality at Means	T-index		-1.62	-1.66	-0.054	-0.053	-1.89	-1.79
	D f		218	205	216	179	168	118
	Sig. (2- tailed)		0.105	0.097	0.957	0.958	0.060	0.075
	Mean Dif.		-1.416	-1.416	0.087	0.087	-2.47	-2.47
	Stand. Error		0.86	.84	1.64	1.66	1.31	1.38
	95% Confid. Interval	u.	-3.12	-3.09	-3.14	-3.19	-5.06	-5.21
		l.	0.297	.259	3.32	3.37	0.109	0.257

Table 5. *Frequency & statistical values of social behavior indices based upon field of study (dental vs. medical).*

Index \ Variables	Residence	No.	Mean	Std. Dev.	Std. Error
Cultural Collectivism	Dental	108	38.65	7.12	0.68
	Medical	117	39.84	5.54	0.51
Self – Concept	Dental	108	70.78	11.83	1.13
	Medical	115	73.93	11.67	1.80
Social Adjustment	Dental	79	56.93	7.27	0.81
	Medical	95	56.18	9.25	0.94

Table 6. *Analysis of relationship and evaluation of social behavior indices based upon field of study according to the independent T- test and Levine's test.*

Statistical Test \ Social Behavior Parameters			Cultural Collectivism		Self – Concept		Social Adjustment	
			Equal variables	Unequal variables	Equal variables	Unequal variables	Equal Variable	unequal variables
Levine's Test	F		5.07	-	1.28	-	4.20	-
	Level of Significance		0.025	-	0.25	-	0.042	-
T-test For Equality at Means	T-index		-1.402	-1.38	-2.002	-2.001	0.58	0.59
	D f		223	201.9	221	219	172	171
	Sig. (2- tailed)		0.162	0.167	0.04	0.04	0.56	0.55
	Mean Dif.		-1.18	-1.18	-3.15	-3.15	0.74	0.74
	Stand. Error		0.84	0.85	1.57	1.57	1.28	1.25
	95% Confid. Interval	u.	-2.85	-2.87	-6.25	-6.25	-1.78	-1.72
		l.	0.48	0.49	-0.048	-0.047	3.27	3.22

cultural collectivism and self-concept [9,12]. This study showed a weak association between social adjustment and self-concept attitudes of the participants (P=0.63, r=0.037). This was opposite to the findings of Flook and of the Ray studies [3,19].

It should be mentioned that there is no consensus on the positive role of gender on self-concept of students. According to this study, no effect was detected from gender on self-concept character. (P=0.34) while some other studies concluded vice versa [12,18,23]. Nevertheless, female students presented a significantly better cultural collectivism in the academic environment (P=0.028), as so Triandis revealed in his study [24]. Furthermore, social adjustment of females was significantly greater than of males. (P=0.04) Social behavior analysis of students showed a positive significant association between cultural collectivism and social adjustment (r=0.252, P=0.001).

Concerning the city of home residence, this study did not reveal any association between cultural collectivism of students residing in the capital city of Tehran and of those from other cities. (P=0.09) This was similar to Zulligs' study but contradictory to the findings of Bohnerts' [8,5]. In terms of self-concept attitude, the city of residence had no effect on the social behavior of students, (P=0.95) although another study reached to opposite conclusion [9]. No difference was detected between the two sample groups in relation to the social adjustment index (P=0.075), neither in this study nor in Bongs' [9].

From the viewpoint of academic field, this research found a significant difference only between self-concept character of medical and dental students (P=0.04) but not in cultural collectivism (P=0.16) or in social adjustment character (P=0.55). However, Mortazavi and colleague in his study in 5 universities used 2-way analysis of variance and demonstrated a significant association between cultural collectivism and self-concept [15].

Conclusions

Overall, considering the results of the present study, it can be stated that socialized people show a better social adjustment in community. This study showed a significant positive correlation between cultural collectivism and social

adjustment but such correlation was not detected between self-concept and social adjustment. Girls generally show better social adaptation than boys do in academic environments. Finally, the city of home residence has no effect on cultural collectivism, self-concept and social adjustment of both medical and dental students.

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