

Comparison and Evaluation of Motivation and Attitude of Medical Students at Basic Sciences and Internship phase on Cheating in Exams at Shahid Beheshti University of Medical Sciences in 2012

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Abstract

Background and Purpose: There is much evidence that the prevalence of academic misbehaviors is increasing in universities. This study examined the motivation and attitudes of medical students of Shahid Beheshti University of Medical Sciences on cheating and its frequency.

Methods: The study is a survey of medical students' of Shahid Beheshti University of Medical Sciences attitudes on cheating and Data was analyzed using Chi-square and McNemar's test.

Results: One hundred and sixty medical students participated in this study. The mean and standard deviation of students' age was 22.69 ± 2.29 years. Basic Sciences and internship students' attitudes on three cheating behaviors, including cheating from others ($P=0.028$), helping other students to copy answers during exams ($P=0.001$), and recording false reports deliberately to facilitate assignments were significantly different ($P=0.0001$). The students' highest motivation for cheating was fear of failing in the exam (79.3%) and difficulty of the course (77.5%).

Conclusions: The results showed that there were a higher number of interns than basic sciences students considered two behaviors of helping others to cheat and copying from one's hand as cheating. It seems that policy-making in universities must be in a way that the problems of educational program, attitude and environment get more attention. In this regard, medical ethics education, reduced stress and pressure associated with medical education, fair and decisive punishment for dishonest people and appropriate resource allocation should be carried out for exam's environment control.

Keywords Motivation, Attitude, Medical Students, Cheating

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Introduction

There is much evidence on the prevalence of cheating and other forms of unacceptable behaviors in many areas of education (1). This phenomenon is a common and usual incident, an interesting and important topic among researchers of ethics, psychology, sociology and medical education sciences (1,

2) and indicates the importance of the issue and its impact on the educational system. Cheating is generalized to many issues, but in this study we mean, cheating in exams and academic dishonesty. Cheating in exams is a dishonest behavior that means considering the work of others as their own through copying the exam's answers from another person, unauthorized note, and etc. (1, 3).

Prevalence of cheating phenomenon in universities is a serious damage to education in the society and reduces the motivation of students and wastes and consumes energy in paying attention to the immoral act of cheating; it is also more likely to infect their

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job to immoral issues in future. On the other hand, cheating will flaw the results of evaluation that is a way for ensuring the learning process and identifying the strengths and weaknesses of education, so that an evaluation with a high percentage of cheating, cannot judge the success or failure of students (4).

Foreign studies have explored the causes and consequences of cheating (5-7) and its impact on other cases such as reducing the sense of responsibility (8). The phenomenon of cheating can be caused by the shortcomings of the educational system; thus, cheating can be due to inefficient educational system. In case of correct understanding of the motivation and students' viewpoints on this behavior, the necessary measures can be taken to prevent it and change the educational system and improve the quality of evaluations. The aim of this study was to pay more attention to the viewpoints of Shahid Beheshti University of Medical Sciences' medical students on cheating on exams and their understanding of seriousness of types of cheating behaviors and comparing attitudes and motivation of the students of basic sciences with internship phase in types of cheating behaviors.

Methods

This descriptive cross-sectional study was conducted in the School of Medicine of Shahid Beheshti University of Medical Sciences during the academic year 2011-2012. The participants of the study included 80 medical students of basic sciences and 80 intern students.

A questionnaire with closed multiple choice questions was used based on the research objectives, which was designed using literature review and based on articles with a content validity ratio (CVR) between 83% and 95% for each question. Reliability of the questionnaire, using Test-Retest, showed Kappa coefficient of over 94% in all cases. After ensuring students of anonymous questionnaire and voluntary participation in

the assessment, the questionnaires were distributed among medical students of basic sciences and internship. Ethical approval was obtained from Ethics Committee of Shahid Beheshti University of Medical Sciences. To analyze the data, descriptive and analytical statistical methods were used. The descriptive analysis was performed through concentration and distribution indices such as mean, standard deviation, percent and etc. and analytic statistics through chi-square and McNemar's exact tests.

Results

In this study, 160 male and female students participated with a mean age of 22.69 ± 2.29 years. They were assessed in two groups of basic science and internship. There was a significant difference between two groups in terms of gender ($P=0.03$). Female participants were more than males. There was no significant difference between the two groups in term of students' residency location and their parents' level of education.

The students of basic sciences and interns were investigated in terms of their viewpoints on seven types of cheating behaviors. The results are given in table (1).

As can be seen in the table above, the attitudes of basic sciences and internship students toward copying behavior (cheating exams' answers from someone, pamphlets, books) were significantly different ($P=0.028$). So that 73 intern students (90%) and 59 students of basic sciences (72.8%) deemed this behavior as cheating.

The attitudes of students of basic sciences and internship on the behavior of helping other students to copy answers during exams was significantly different ($P=0.001$). So that 65 intern students (81.2%) and 43 students of basic sciences (53.8%) deemed this behavior as cheating.

The attitudes of students of basic sciences and internship on the behavior of recording deliberate false reports to facilitate the tasks was significantly different ($P=0.0001$). So that 14 intern students (17.5%) and 3 students

of basic sciences (40%) deemed this behavior as cheating.

Students of basic sciences and internship were also studied for the frequency of cheating behaviors. The results are given in table 2.

According to the above table, the frequency of cheating behaviors was significantly different in two groups in three of the seven

behaviors. So that there is a significant difference between two groups in cases such as helping other students to copy answers during exams ($P=0.02$), asking friends who have done the test to access the questions ($P=0.03$) and copying the reports of others with their own name in exam tasks ($P=0.0001$).

In addition, among all the studied students, 35

Table 1. Frequency distribution of students of basic sciences and interns in terms of their viewpoints on the type of cheating behaviors (n=160)

Viewpoints Behaviour	Basic Sciences			Internship			P value
	Cheating (%)	Unethical behaviour but non-cheating (%)	None (%)	Cheating (%)	Unethical behaviour but non-cheating (%)	None (%)	
Copying (cheating) exams' answers from others, pamphlets, books	59 (73.8)	7 (8.8)	14 (17.5)	72 (90)	3 (3.8)	5 (6.2)	0.028*
Helping other students to copy answers during exams	43 (53.8)	15 (18.8)	22 (27.5)	65 (81.2)	7 (8.8)	8 (10)	0.001*
Asking friends who have done the test to access the questions	24 (30)	15 (18.8)	41 (51.2)	25 (31.2)	14 (17.5)	41 (51.2)	0.97
Collusion with supervisors of exams or people who have access to the questions	60 (75)	10 (12.5)	10 (12.5)	61 (76.2)	10 (12.5)	9 (11.2)	0.97
Presence of another person in the exam	61 (76.2)	10 (12.5)	9 (11.1)	62 (77.5)	12 (15)	6 (7.5)	0.76
Copying reports of others with their own name in exam tasks	26 (32.5)	31 (38.8)	23 (28.8)	40 (50)	25 (31.2)	15 (18.8)	0.07
Recording false reports deliberately, in order to facilitate the tasks	14 (17.5)	49 (61.2)	17 (21.2)	32 (40)	22 (27.5)	26 (32.5)	0.0001*

* Significance=0.05

Table 2. Frequency distribution of cheating behaviors among students of basic sciences and internship (n=160)

Frequency of behavior Behaviors	Basic Sciences			Internship			P value
	0 times (%)	1-2 times (%)	3 or more times (%)	0 times (%)	1-2 times (%)	3 or more times (%)	
Copying (cheating) exams' answers from someone, pamphlets, books	16 (20.5)	25 (31.2)	37 (47.4)	19 (24.7)	31 (43.4)	27 (35.1)	0.25
Helping other students to copy answers during exams	20 (26)	20 (26)	37 (48.1)	13 (17.3)	36 (48)	26 (34.7)	0.02*
Asking friends who have done the test to access the questions	24 (3.6)	18 (23.7)	34 (44.7)	13 (17.8)	20 (26.8)	40 (54.8)	0.03*
Collusion with supervisors of exams or people who have access to the questions	73 (94.8)	2 (2.6)	2 (2.9)	64 (86.5)	5 (4.1)	7 (9.5)	0.1
Presence of another person in the exam	74 (96.1)	3 (3.9)	0	67 (90.5)	3 (4.1)	4 (5.4)	0.1
Copying the reports of others with their own name in exam tasks	17 (22.1)	32 (41.6)	28 (36.4)	39 (52.7)	20 (27)	15 (20.3)	0.0001*
Recording false reports deliberately, in order to facilitate in the tasks	41 (52)	22 (28.2)	15 (19.2)	(50.7) 37	21 (28.8)	15 (20.5)	0.1

students (22.6%) had never done copying (cheating) exams' answers from someone, pamphlets, books; 56 students (1.32%) had done it once or twice; and 64 students (59.8%) had done it three or more times. It means that repetition of cheating in most people who cheat was more than three times. The same ratio was observed in other behaviors.

The students were also studied for motivation and causes of cheating. It is worth noting that of all the studied students, 112 responded to the question on the causes of cheating, among whom, 62 were in basic science phase and 56 in the internship. The results are shown in table 3.

According to the above table, there was no significant difference between two groups in terms of motives and causes of cheating,

Table 3. Causes of cheating in the two groups of students (n=112)

Group	Basic Science (%)	Internship (%)	Total (%)	P value
The cause of cheating				
Fear from failing the exam	35 (56.5)	30 (60)	65 (58)	0.7
Earning a better grade	34 (54)	22 (44)	56 (50)	0.5
Preventing embarrassment in front of friends and family	8 (12.9)	6 (12)	14 (12.5)	0.8
Negligence of teachers	9 (14.5)	11 (22)	20 (17.9)	0.3
To get rid of the trouble of studying	20 (32)	13 (26)	33 (28)	0.4
Difficulty of the course	30 (48.4)	26 (52)	56 (50)	0.7
Importance of grade instead of level of knowledge	5 (8.1)	2 (4)	7 (6.2)	0.3

although, in general, the most common reason of students' tendency to cheat included fear of failing the exam (58%), difficulty of the course, and earning a better score (50%).

Discussion

There is much evidence on the prevalence of cheating and other forms of unacceptable behavior in many areas of education. Many researchers believe that the prevalence of cheating has increased over time in different universities. In this case, there is general agreement that cheating should be minimized in professions that are based on honesty and deal with human life (1). In this study, we tried to find motivations, reasons and attitudes of medical students studying at Shahid Beheshti University of Medical Sciences about the different cheating behaviors and comparison between the two groups of basic sciences and intern students. All students agreed that this issue has not been considered well at their University. Providing educational programs that evaluate the attitude on cheating and control its consequences require more attention. The 100% response rate of the students in the present study showed the importance of cheating, confirmed by oral comments the students participating in this study.

Our study showed that, cheating behaviors had statistically significant difference in three of the seven behaviors. Most students considered copying from someone,

pamphlets, and books and helping other students to copy answers during exams as cheating, while students of basic sciences considered this behavior as an immoral act, they did not emphasize the seriousness of this behavior as an act of cheating. Also, intern students, but not students in the basic sciences considered helping other students to copy answers during exam as cheating. There was also a significant difference between the two groups regarding the view of deliberately recording false records in order to facilitate the tasks. Perhaps the most important finding of this study could be the change in the attitude of students; as interns with more years at university considered the mentioned three behaviors as cheating, while students of basic science considered these immoral, but not cheating.

According to the findings of Zajunc, emotions are preferred to thoughts and what we feel about ourselves will affect how we think and behave. In other words, our feelings play a causative role in our thinking and action. It seems that some expressed emotions affect behavior, before we have a chance to think about it (9).

It seems that this change of attitude on the cheating behavior is a positive point that is obtained after years of study and practical and clinical academic terms in medical students. Baird has also declared in his study that students with more years of study at university are less likely to commit cheating (10). Newstead also reported in 1996 that cheating will decrease with increasing age of

students and this difference is likely due to differences in motivation, because older students study for personal reasons (11). The results of this study relatively confirm the results obtained in our study. In our research, it became clear that this change in attitude have been shaped with increasing years of education.

According to the results obtained in this study, there was a significant difference in the frequency of cheating in three behaviors, including helping other students to copy answers during exams, asking friends who did the exams in order to access the questions, and copying report of others with their own name in exam tasks. It was also found that the cheating repetition in most people who cheat was more than 3 times. Crown and Spieler believe that if students come to the conclusion that cheating is common in universities, cheating and repeating it will be easier for them that will cause the prevalence of cheating (12). This finding seems to indicate that people will repeat the cheating behavior, if they cheat through adapting to this behavior.

Regarding the cause of tendency to cheat, there was no significant difference between two groups, but the most frequent causes of tendency to cheat in all students included fear of failing in the exam, difficulty of the course and earning a better score. It seems that the students consider this justification for cheating due to high levels of stress for earning the minimum scores for passing the exam and because their scores are considered for promotion to the next level. However, our findings are consistent with the results of Monica (1) that pointed out the fear of failing as the most common reason for participation of students in such behavior. But there is still controversy regarding the cause of students' tendency to various cheating behaviors and there is no clear theory in this context. Generally, most students have accepted that the reasons for cheating is unacceptable and they expose themselves to further problems and conflicts (13). It is important that students use cheating as a bypass to prevent failing in

the exams. Baldwin and his colleagues during their investigation found that cheating is affected by students' demographic characteristics (such as age, gender, mean score) and contextual factors (such as cheating among peers, acceptance rate of cheating, severity of the punishment considered for cheating) (14). Therefore, universities should found a systematic and institutionalized strategy to deal with the causes that lead to students' tendency to cheating.

Conclusion

With the results obtained in this study, it seems that policy-making in universities requires more attention to the problems and issues of educational programs, attitudes and environment. In this regard, more attention should be paid to education of medical ethics. First, the basics of ethics should be clarified and then the consequences of applying or not applying it should be explained in details in a specific order, from the first entry of students into the university, the ethics should be taught, as well as creating opportunities for students to practice the application of these concepts through reviewing the curriculum, reducing the stress and pressure associated with medical education and reducing the competition among students. Medical teachers should also seriously consider approaches that reduce stress and support students academically. The method of student selection should be based on pattern of honesty and screening should be performed. Fair punishment and serious dealing with dishonest people should be carried out by the university administrators and in order to use fear as a motivator of ethical behavior, universities should replace being afraid of being punished for cheating with the fear of failing the exam and hence increase the likelihood of being caught while cheating that needs to allocate large amounts of resources, such as controlling the exams' location or new methods.

Conflict of Interest

The authors declare that they have no competing interests.

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