



## The impact of education on graduate students of health education in Tehran University of Medical Sciences (TUMS)

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### ABSTRACT

The main aim of this study is assessing the impact of education about interpersonal communication skill on graduate students of health education in Tehran University of Medical Sciences (TUMS). This is a semi experimental interventional research. The samples include total 20 health education students in medical university of Tehran. (They selected with Census sampling). The educational program were done in two groups (10 students) and educated by lecture and Group discussion. To collect data use triploid questionnaire including demographic information, knowledge and attitude by the research units in the two pre-test and posttest (4 week after education) completed, has been used. The data were analyzed by SPSS computer software. For analysis of data use statistical test includes: Mann-whiney u and chi-square and Wilcox on-signed rank. The results of research showed that knowledge of health education Students before and after training in two groups (lecture and Group discussion) significant differences existed ( $p < 0/05$ ) and after education, the result showed positive correlation between increase attitude and knowledge in group discussion and lecture. The result of this study showed that both methods increase the level of attitude and knowledge of interpersonal communication skills ( $p < 0/05$ ). Discussion group method is a way for activate student and increase of deep thinking skills, and can stabilize learning in mind. In this research, the level of learning in health students after group discussion is significantly more effective than lecture method. Therefore this way advice to teachers and planning education must be done more research about this method.

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### 1. Introduction

The caliber of communication between physicians, consumers, staffs, and Medical and health students in health system is a key component of health care quality. Various reviews of trials show that skillful communication is related to improved outcomes, including better ratings in the following areas: patient satisfaction, therapy compliance, symptom resolution and in some cases even physiological measures (Griffin et al., 2004). Studies conducted exclusively in General Practice or health Medicine and teaching in university, also demonstrate that communication skills are especially important for improving outcomes, including adherence to staffs or physician's advice, patient satisfaction and improved health status

(Beck et al., 2002). Specially, analysis of complaints about physicians' behaviors shows that the most common categories reported by consumers relate to communication and interpersonal skills (Wofford et al., 2004). Furthermore, communication problems constitute a major factor in malpractice litigation (Beckman et al., 1994). So this research, represent good reasons for everybody who work in health system to give special attention to acquiring competence in communication skills. However, despite specie training in communication skills, young student (medicine or health) performance of these skills remains inferior (Kramer et al., 2004). This therefore raises the question: What are the best ways to teach good communication skills to students to Benet their patients? An abundant body of evidence exists in medical educational research affirming that communication skills can be taught (Aspegren, 1999) and that communication skills training can result in some changes that are retained

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for several years (Maguire et al., 1986). However, training in communication skills has not produced uniformly positive results (Bensing and Sluijs, 1985). These connecting results therefore present the challenge and opportunity of summarizing, analyzing and clarifying the available evidence in this area. The scope of this review will be restricted to the discipline of general practice and to the period of vocational training. We regard General Practitioner and Family Doctor as synonyms intended to describe doctors who have undergone specific postgraduate training in general practice, thereby following the European definition of General Practice/Family Medicine. The differences in the ways that health care systems and medical education are organized in different countries create difficulties in uniformly defining the term 'vocational training'. We adhere to the description of Hindmarsh and colleagues, who state that the term 'vocational training' in the general practice context is generally used to refer to postgraduate specialist training and assessment, which commonly, but not uniformly, leads to membership of health education students in Tehran University of Medical Sciences. We therefore expect that these results will be valuable for curriculum planners when searching for methods to improve the communication skills of health care trainers (Kurtz et al., 2005). In the last decade, efforts to synthesize the available evidence regarding the communication skills of students, as well as its teaching, learning and assessment abound (Kramer et al., 2004). Such research offers a framework for understanding the meaning of the phrase 'improving the communication skills in the health care system. Finally the main of this study is assessing the impact of education about interpersonal communication skill on graduate students of health education in Tehran University of Medical Sciences (TUMS). This educational intervention contrasts with the traditional or instructional method of learning communication skills in (lecture and group discussion).

## 2. Materials and methods

This is a semi experimental interventional research. The samples include 20 health education students in medical university of Tehran. All students (20) received interventional education and they were assessed for level of knowledge and attitude before delivery of the education communication skills programmed, to collect data use triploid questionnaire (including demographic information, knowledge and attitude). A pre-tested multiple choice question paper was administered to assess baseline knowledge and attitude regarding interpersonal communication skills. Then the educational program was done in two groups. (10 students) educated by lecture and other group (other 10 students) educated by group discussion, and after 4 week period of interventional education, they assess with A post-test. The data were analyzed by SPSS computer software. For analysis of data use

statistical test includes: Man-Whitney u and chi-square and Wilcoxon on-signed rank. For the purpose of this research, we distinguish seven components within the framework. Interventions to improve communication skills can then be described by lying in each component of the framework. For each of these components, one or a mix of the possible alternatives can be applicable within an intervention, as follows:

### 2.1. Teaching content

The teaching of communication skills in the clinical consultation may focus on different content, leading to the following subdivisions. An initial distinction can be made on the basis of teaching that focuses on general communication skills compared with a focus on specific communication skills (such as conveying bad news, or skills to deal with patients with a specific problem). Second, the teaching content can focus on specific verbal or non-verbal aspects of communication skills. Third, teaching can focus on some or on all of the different communication tasks possible in a clinical consultation. According to the Kalamazoo consensus, for example, seven essential sets of communication tasks can be identified:

- (1) Build the doctor-patient relationship;
- (2) open the discussion;
- (3) Gather information;
- (4) Understand the patient's perspective;
- (5) Share information;
- (6) Reach agreement on problems and plans;
- (7) Provide closure (Brunett et al., 2001).

Another distinction can be made on the basis of the teaching focusing on some or on all of the consecutive phases of the clinical consultation. For example, the Calgary-Cambridge guide outlines via distinct phases in the consultation:

- (1) initiating the session;
- (2) gathering information;
- (3) physical examination;
- (4) Explanation and planning; and (5) closing the session (Kurtz et al., 2005).

### 3.2. Teaching and learning method

The methods used to teach communication skills may also vary. For example, we distinguish between the instructional or traditional teaching method, where the skills are taught by lecture or by demonstration beforehand, and the experiential method where trainees apply the skills and later receive feedback from the teacher (Aspegren, 1999). In the context of experiential learning, the introduction of patient feedback seems to be a promising method (Greco et al., 2001).

### 2.3. Teaching material

A distinction can be made between different teaching materials, for example, between text books and interactive media.

### 2.4. Teaching delivery format

The teaching can take place on a one to one basis, in small group or in large group settings.

### 2.5. Timing and frequency of the teaching

Teaching can have variable duration, can take place at different stages of the vocational training and may be organized for delivery at different frequencies.

### 2.6. Teachers

The teaching can be delivered by peers, medical academics, standardized patients or real patients.

### 2.7. Assessment

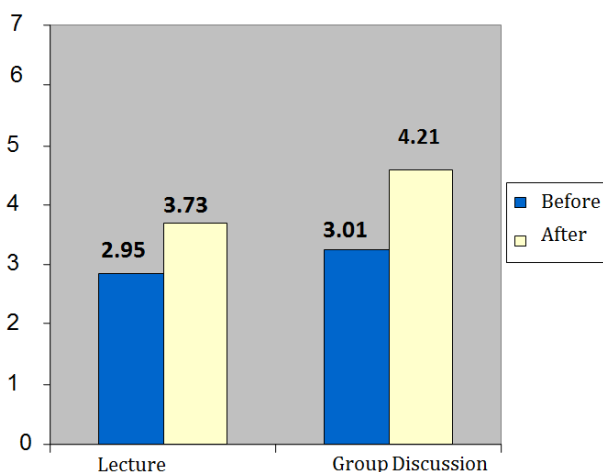
Improved communication skills measured at a longer time interval, for example, provides evidence of the persistence of the effects of training.

## 3. Results

The effectiveness of interpersonal communication skills education was studied in this research, in 20 health education students in medical university of Tehran. The results of research showed that knowledge of health education Students before and after training in two groups (lecture and group discussion) significant differences existed ( $p < 0.05$ ) and after education, the result showed positive correlation between increase attitude and knowledge in group discussion and lecture. In the other word, Education resulted in a significant ( $P < 0.001$ ) increase in knowledge and attitude on interpersonal communication skills in group discussion more than the lecture group. The result of this study showed that both methods increase the level of attitude and knowledge of interpersonal communication skills ( $p < 0.05$ ) but their initial mean education score increased significantly ( $P < 0.001$ ) from 61.3 (SD=10.65) to 67.3 (SD=13.77) in group discussion (Table 1 and Fig. 1).

**Table 1:** Knowledge of Students before and after training in two groups (lecture and group discussion)

		Frequency	Percent	Valid Percent	Cumulative Percent
Sex	Male	9	45.0	45.0	45.0
	female	11	55.0	55.0	100.0
	Total	20	100.0	100.0	
Age	20	22.00	31.00	26.6500	2.58080
	20	.00	7.00	2.1000	2.69307
work	student	11	55.0	55.0	55.0
	worker	9	45.0	45.0	100.0
	Total	20	100.0	100.0	
background	No married	13	65.0	65.0	65.0
	married	7	35.0	35.0	100.0
	Total	20	100.0	100.0	



**Fig. 1:** Comparing the level of attitude before and after training in two groups (lecture and group discussion)

## 4. Discussion

In our study, interpersonal communication skills education was effective in improving knowledge and attitude in students. These students did not receive any education messages outside our intervention, from university or during the period of study. Knowledge on communication skills increased

significantly following education ( $P < 0.001$ ). Discussion group method is a way for activate student and increase of deep thinking skills, and can stabilize learning in mind. In this research, the level of learning in health educational students after group discussion is significantly more effective than lecture method.

Therefore this way advice to teachers and planning education must be done more research about this method. Medical and health students or staffs should try promoting their knowledge in interpersonal communication skill.

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