

## **The Effect of Physicians' Country of Education–Domestic versus Foreign–on Patients' Satisfaction from Clinic Interviews**

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### **ABSTRACT**

Despite their undeniable significance, communication skills have not been included in the medical curriculum in Iran yet, while they have already secured their position in the medical education of the West. Bearing in mind the presence or absence of such instructions in various medical curricula, the current study was carried out to find out whether physicians with medical education from the West (the USA and England), with training on physician-patient communication, were more successful in achieving patient satisfaction than those with domestic education lacking such training. A sum of 528 patients (referring to both groups of physicians) were asked to complete a questionnaire dealing with key features of successful communications. The results were unexpectedly against the study's hypothesis ( $p < 0.05$ ) which envisaged greater communication achievements for doctors with foreign education with training on communication skills during their medical education.

**Keywords:** 1. Medical Education 2. Communication skills 3. Clinic interviews.

### **1. Introduction**

Physician-patient communication is an undeniably significant skill in medicine (Smith, et al. 1998), serving as the vehicle for doctor-patient communication in nearly all medical circumstances (Lipkin 1987; Stoeckle & Billings, 1987). The communication has proved to be considerably more effective in collecting the data required for diagnostic purposes than all other means of collecting data, such as physical examination and laboratory information (Smith et al. 1998; Hampton, Harrison, Michell, Prichard & Seymour, 1975). The interview, according to Smith and his colleagues (1998) "... establishes more diagnoses than physical examination and laboratory data combined" (118). It is the most important means of obtaining information from the patient to develop the data required for therapeutic purposes and is "... the primary means for transmitting information from physician to patient" (ibid, 118). Thus, given the effectiveness of communication in enhancing doctor-patient relationship on the one hand and the significance of exposing residents to communication skills training programs on the other, it seems logical to assume that physicians who have undergone more training in communication skills during their medical education to be considerably more successful in achieving patient satisfaction than those who have been deprived of such training. This implies that medical curricula with more instructions on communication skills are more successful in achieving patient satisfaction than those with little or no such instructions. In line with this logic, we

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carried out a search to find out if there are any noticeable differences in relation to the level of instructional courses in communication skills among universities in Iran versus those in the US or other countries of the West. The search indicated that the curriculum designed for medical students in Iran lacked any specific training on communication skills, whereas the programs considered for the universities in the West and in the US had already included such instructions in their medical curricula. Such inclusion is indicated in various studies as Hulsman and his colleagues' report (Hulsman et al., 1999), maintaining that "since the early nineties all medical schools have offered some kind of communication skill training" (p.655).

So having made sure of the presence of a significant difference in communication instructions between Iranian universities and those in other countries (particularly the USA and UK, where our foreign graduates had obtained their degree), we classified the specialist doctors working in Shiraz into three groups, depending on whether they had carried out their medical education in "Iran" (without any instructions on communication skills), "abroad" (mainly the USA, where instructions on communication skills form part of the curriculum) and both "Iran and abroad" (with communication training limited to part of students' education abroad).

Here, keeping in mind the differences in various curricula in terms of the presence or absence of communication instructions, and assuming that more instructions during academic education can lead to physicians' greater success in clinic interviews, the researchers carried out the current study to investigate the following question:

Are the physicians who have graduated from universities with training in doctor-patient communication (e.g. foreign graduates in this study) more successful in achieving patient satisfaction from clinic interviews than those deprived of such background instructions?

## 2. Methods

**Sampling Procedure:** One limitation in sample selection that might work as a drawback in this study was that the physicians with medical education "abroad" turned out to be significantly fewer in number than those with domestic education. Here the researchers had two options available namely: (1) to ignore having a random sample by simply selecting rather equal numbers of physicians from among the three groups, regardless of lack of balance in their total numbers, or (2) to adopt a random sampling procedure by selecting the subjects accidentally, in proportion to their total number in each group.

Each of these two methods of sample selection would have its own advantages and disadvantages. The first option (i.e. the same numbers from each group) would lead to similar numbers of subjects in each sample, but could damage the external validity of the study. The second option (i.e. a selection that is random and in proportion to the total number of physicians in each group) could enhance the external validity of the study while, at the same time, it could lead to a sample size smaller than expected, for the foreign graduates in particular, because their total number was significantly smaller than that of those with domestic education. Bearing in mind the benefits and drawbacks of each of the two sampling methods, the researchers adopted the second method, with randomization procedures, as the study's preferred method of subject selection, resulting in selection of samples of physicians and patients, which is discussed below.

**Physicians:** Name and address of specialist doctors working in Shiraz were obtained from local medical societies. They were then classified into three groups depending on their place of education, with the different amounts of communication instructions, as follows: "Iran", "abroad", "Iran and abroad". Physicians carrying out all

their medical education in their native country (Iran) were labeled "Iran"; those having graduated from the USA or other countries in the West formed the second list called "abroad"; those with medical education from both Iran and a country abroad (e.g. the USA) were known as "Iran & abroad".

The rationale behind this classification was to have a sample representing doctors from three different university education backgrounds in terms of training in communication skills, while the number of physicians randomly selected from each group was in proportion to their total number in each group. Altogether, 54 physicians (of all the specialist doctors working in Shiraz), serving as representatives of the three educational backgrounds, were randomly chosen. Then the research assistants referred to each of the physicians' clinics in person to explain the objectives of the study and seek their consent to allow 10 patients to complete the questionnaire individually after their clinical interview with the physician.

The reason for choosing a total of 54 physicians was to have a sample of nearly 500 patients, because 10 patients per physician were supposed to complete the questionnaire. A sample size bigger than this could make data collection too difficult while something smaller might not have been sound enough to present a rather accurate picture of the points under study.

The reason for selection of 10 patients per physician was that this number is roughly similar to that of many other studies on physician-patient communication (e.g. Roter, et al. 1995; Linfors & Neelon 1981). Roter and his colleagues' study on physicians' interviewing skills "was conducted with 69 primary care physicians and 648 of their patients", indicating an average of 9 patients per physician. The inclusion of more than 10 patients per physician in the sample would add to the cost of the data collection procedure, making it difficult for the researchers to cope. Besides, keeping in mind that the questionnaire was intended to be completed by a total of nearly 500 patients, the selection of 10 patients per doctor, would make it possible to have patients' feedback from many more physicians, belonging to three different educational backgrounds.

**Patients:** A sample of 528 patients completed the questionnaire. Patients were randomly chosen and their verbal consent was obtained to fill out the questionnaire soon after their clinical visits, while they still were in the physician's waiting room. Patients were approached following their clinic visit and were asked to complete the questionnaire, after being told about the objectives of the study and the confidentiality of their responses (table 1).

**Setting:** The study was carried out in Shiraz, a big city with over one million people in Southern Iran. The city has good medical facilities with a sufficient number of well-qualified medical staff, including over 700 specialist doctors either working at Shiraz University of Medical Sciences as faculty members or running their own private surgeries, receiving patients with all sorts of complaints each day.

**Tasks:** "The communication satisfaction questionnaire" (CSP) used (see the "Appendix") was developed by the author based on the key principles of successful interactions. The principles that served as the basis for developing the questionnaire had been proposed by psycho-socialists and clinical psychologists, such as Kaplan & Sadock (1998). The questionnaire contained 15 items, each with a five point scale, ranging from 1 (very rarely) to 5 (usually). The items, forming patients' satisfaction measure, started with some warm-up issues and continued to include items to build rapport, encourage patients' response, allow patients to talk, and respond to their emotions. Sufficient instructions for the completion of the questionnaire were included to ensure that each patient clearly knew what to do.

To support the content validity of the questionnaire, the researcher generated all items based on careful review of the themes and opinions important to patients and psychological models to successful communication (e.g. Kaplan & Sadock, 1998). The reliability of the questionnaire was also assessed using the Cronbach's alpha, which is frequently used to measure internal consistency of questionnaires. The reliability alpha turned out to be 0.87, showing that the questionnaire was sufficiently consistent in measuring patients' satisfaction with clinic interviews.

**Data Analysis:** An average of nine patients completed the CSQ questionnaire for each physician, following their clinical visit. The scores for each patient were added up and the mean indicated satisfaction rate. The average of 3.5 or over (out of 5) indicated patient satisfaction while values below this baseline were supposed to indicate dissatisfaction. The cut-off point to satisfaction (i.e. 3.5 out of 5) was decided upon a consensus reached, following the author's consultation with a number of medical doctors, statisticians and other faculty members, who were familiar with the objectives of the study and with the questionnaire designed to investigate these objectives. The overall impression of research assistants, shaped as the result of their direct contact with patients filling out the questionnaire, was also considered in deciding upon the baseline score for patient satisfaction.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS version 9.1). A set of descriptive statistics was used to describe results numerically (table 1), followed by Chi-squares adopted to investigate the significance of the results (table 2).

**Table 1: Demographic features of the patients under study.**

Patients	Type	Frequency	Percent
Sex	Female	343	65
	Male	185	35
Education	Illiterate	21	4
	Primary school	68	13
	High school	293	55.5
	Associate level	42	8
	Bachelor	90	17
	Master	8	1.5
	Ph D	4	0.7
	Marital status	Married	348
	Single	179	34
Economic status	Very good	40	7.5
	Good	205	39
	Satisfactory	232	44
	Poor	37	7
	Very poor	16	3

**Results:** At the baseline the mean difference for all the variables combined was statistically highly meaningful ( $p < .001$  with satisfaction rates of 51.9% and 48.1% for the dissatisfied and satisfied respectively), indicating the significance of physicians' place of education or, more specifically, the effect of type of education offered in various educational settings, on patient satisfaction. The results, however, were against the study's hypothesis, which envisaged greater success in achieving patient satisfaction with doctors receiving more training in communication skills during their medical education. That is, although physicians who had undergone their medical education in Iran had received no formal training in communication skills during their university

education, their patients turned out to be significantly more satisfied ( $p < .001$ ) than foreign graduates having undergone more training in communication skills while pursuing their medical education in the US or other countries of the West (Table 2).

**Table 2: Patients' satisfaction rates with three groups of physicians classified based on their country of education.**

Physicians' country of education	Patients seen	Dissatisfied	Satisfied	P value
Overall results	528	51.9%	48.1%	$P < .001 (X^2 = 27.08, df = 2)$
Iran	418	47.1%	52.9%	$P = 0.24$
Abroad	34	91.2%	8.8%	$P < .001$
Iran & abroad	76	60.5%	39.5%	$P < .06$

As for individual variables, patients' satisfaction rates were shown to be 52.9% ( $p = .24$ ), 8.7% ( $p < .001$ ) and 39.5% ( $p < .06$ ) with physicians having graduated from Iran, abroad or Iran & abroad respectively; that is, the results, regarding the three types of education separately, manifested a continuum on which, in terms of level of patient satisfaction with clinic communication, physicians with domestic education, i.e. "Iran", occupied the most satisfied end, those with foreign education, i.e. "abroad", occupied the least satisfied end, and doctors with "Iran and abroad" education fell somewhere in between (Table 2)

**Table 3: Patients' satisfaction from physicians with medical education in "Iran" versus theirs from both "abroad" and "Iran & abroad" together.**

Physicians' country of education	Patients seen	dissatisfied	Satisfied	P value
Iran	418	47% (n=197)	53% (n=221)	$P < .001$ $(X^2 = 18.21, df = 1)$
Both abroad and Iran & abroad together	110	70% (n=77)	30% (n=33)	

### 3. Discussion

The researcher's suitable access to a good number of physicians with different educational backgrounds enabled him to investigate the possibility of a link between physicians' place of education (with or without training in communication skills) and patient satisfaction, which proved to be statistically significant ( $p < .001$ , table 2); that is, the difference in patient satisfaction with clinical interactions was shown to be statistically meaningful, depending on whether the physicians had carried out their medical education in Iran or in other countries where such instructions have secured a place in medical education (Hulsman, et al. 1999). This finding can be interesting in that, although medical education in Iran includes significantly less training in communication skills than what is reported to happen abroad (Hulsman, et al. 1999), patients' satisfaction from physicians graduating from universities in Iran was shown to be significantly higher than that from their colleagues obtaining their degrees from universities abroad (mainly the USA or UK), which seems quite interesting. Why then did the foreign graduate doctors with more training in communication skills obtained the worst record, with 91.2% of their patients dissatisfied. This might imply the little effect of formal instructions in communication skills.

Of course, such negligible impact of training effect on communication behavior has already been reported in a number of studies (Hulsman, et al., 1999). In a review of fifteen papers on the effects of numerous training programs, Hulsman and his

colleagues "... present an overview of efforts made in the past decade to improve the communication skills of physicians in their clinical years" (656). According to this review, "... positive training effects on the physicians' communication behavior are found on half or less of the observed behaviors. Studies with the most adequate designs report the fewest positive training effects" (655). If so, then it is not odd to find out that physicians receiving more instructions in communication skills during their medical education abroad fail to bring about patient satisfaction.

At the same time, we may not be able to over-generalize the effectiveness of communication instructions to include a variety of culturally and socially different circumstances. That is, instructions considered for trainees in one social setting may not function well in other settings like Iran. The prescription of identical instructions for numerous settings may just fail to yield the intended results. So variations involved in different socio-cultural setting of patients would require that the curriculum developers be flexible enough to pay due attention to such realities when planning for training instructions on doctor-patient interactions.

Another reason might be that there seems to be a big difference between theoretical perspectives on the one hand and practical achievements on the other. Theoretically, we may come to very intriguing views on communication enhancement, but when it comes to practice, it has been frequently noticed that things do not proceed as expected. So attempts have to be made to bridge the gap dominating theoretical perspectives on medical communication and the realities of the environment where such perspectives are to be materialized. Another explanation on why teaching such skills fail to yield the desired effect can be that, as Francke and his colleagues (1995) maintain, a course may change the attitude, knowledge and skill of the participants, but this does not necessarily involve behavioral changes unless they intend to change. Moorhead and Winefield (1991) also showed that change in attitude and knowledge does not necessarily involve behavior changes, if the intention to change is weak. Some studies (Putnam, Stiles, Jacob & James, 1988; Roter, et al. 1995) have reported physician's limited intention to change. This is a phenomenon well discernable in the current circumstance of medical profession in Iran. The authors' contact with numerous physicians and medical students indicate that they are pretty well aware of the importance of translating the learned skills into practice, but when it comes to practice, they practically fail to do so. Some are also reluctant to discuss psychological problems of their patients for various reasons. They have, for example, got so many patients to see that they find it practically impossible to discuss such issues. Some also believe that solution to psychological problems would involve more than they can afford. As for the underlying causes of such reluctance, numerous reasons, such as economic issues or socially motivated incentives to keep up with the bandwagon of profiteering can be pinpointed. Such incentives seem to be strong enough to dissuade our physicians from spending sufficient time listening to patients' worries. Some, for instance, maintain that the pay they receive per visit is significantly smaller than the amount their colleagues with similar specialties working in other countries obtain, while the minimum income they require for a decent life is similar to, or even greater, than many other countries. Such a logic, to the authors who are currently experiencing the realities of life in Iran, seems to be justifiable, to some extent.

As such, the general atmosphere which dominates the medical profession in many places and which influences medical communication seems to be rooted in a variety of factors, some of which deal with different types of financial incentives, ranging from justifiable activities to provide a decent life to efforts aimed at financial profiteering which could easily take precedence over other issues such as patient satisfaction. In

such a circumstance, many practitioners' personal gains tend to surpass their care for the patients' psychological concerns.

Nonetheless, the point here is the unique pattern of satisfaction that emerged from the results. That is, physicians having all their medical education abroad obtained the worst patient satisfaction record (with 91.2% of their patients dissatisfied), those with fully domestic education obtained the best record (with less than half, i.e. 47.1%, their patients dissatisfied), and those with both types of education fell somewhere in between (with 60.5% of their patients dissatisfied) (table 2). Satisfaction from those with medical education in Iran versus both abroad and abroad& Iran together also revealed a similar pattern, with dissatisfaction rates of 47% versus 7% respectively (table 2).

As the emerging pattern (table 2) indicates, the results negatively correlated with the level of training; that is, although foreign graduates received more psychological training on communication skills, their patients proved to be the most dissatisfied. Besides, the rate of dissatisfaction (i.e. 91.2%) was much greater than expected, showing that only about 8 out of every 100 patients referring to these physicians had been satisfied with their clinical interactions. This result can be more interesting if it is borne in mind that those with mixed education (i.e. domestic and foreign) occupy an intermediary position, whereas those with fully domestic education (with nearly no training in communication skills) obtained the best satisfaction record (table 2). As for the reason why this happened, a number of speculations seem likely causes, of which an apparently more justifiable one can be the physicians' long-lasting absence from their native socio-cultural context when they were pursuing their medical education in a foreign context abroad. During these years, normally lasting 10 years or more for most specialties, they have been fully abstracted from their native culture, including their fellow citizens, who serve as their would-be patients in their future career within their native homeland. Now given that the period when these physicians were pursuing their medical education has been of special significance in picking up socio-cultural ingredients required for performing successful interactions, and considering that some of these ingredients are mainly culture-specific and require the physician's personal presence in the culture in question, it seems logical to speculate that the physicians' long-term absence from their socio-cultural context deprived them of certain context-specific delicacies whose mastery, in addition to formal instructions, could guarantee success in medical interactions. If so, then the generalization could be extended further to conclude that neither formal instruction nor socio-cultural context could individually bring about success in medical interactions. Rather, maintaining the right balance by providing proper instructions within a socio-cultural context, where the prospective clients are to be received later, is of special significance.

It also follows from these comments that the instructions intended to enhance the quality of doctor-patient communication have to be in line with socio-cultural values of the community where the residents are to set up their careers later. Picking out training instructions from internationally well-recognized books and journals and taking them to the class, without modifying them based on socio-cultural requirements of the community in question, may not bear the fruit expected. Also according to "ethnography of communication" (Sherzer, 1977), in addition to the formal properties of utterances, the social contexts and the participants in acts of communication are of particular significance. To Sherzer (1977), communication here goes beyond an exchange of linguistic messages to include a socially meaningful episode in which the use of language plays a part only inasmuch as the social rules and functions are already agreed upon or are known by the participants in the communication interactions.

Interaction habits, shaped and developed over ages under the influence of other

intricate social relations, would gradually become an integral part of individuals' overall psycho-social behavior. If so, then the acquisition of new communication skills or modification of existing behaviors would tend to be remarkably difficult, requiring considerable effort. Even so, such modifications cannot be materialized overnight; rather, they have to be incorporated into the existing behavior and replace them gradually. The over-time progression of such pieces of behavior has been illustrated in Bowman and his colleagues' study (1992), which reports a continual improvement of communication behavior of the participants; it progressively and gradually manifested in physicians' daily clinical practice.

Meanwhile, courses like "Medical Ethics" and "Semiology" might also have contributed to domestically educated physicians' greater success in achieving patient satisfaction. Medical students educating in Iran have to pass these courses as part of requirements to become medical doctors. The courses have not been specifically formulated to teach communication skills, in the sense that is common in psycho-socialists' and clinical psychologists' approaches to physician-patient communication (e.g. Kaplan & Sadock, 1998). Nonetheless, they include a number of issues and topics that might partly contribute to successful administrations of physician-patient encounters. In Medical Ethics, a two credit course, for example, a set of principles that govern professional conduct in medicine are presented to the students, while in the Semiology course students get familiar with symptoms and their relation to diseases. In addition to principles of conduct and right behavior, both courses would involve a lot of student-physician interactions that could indirectly prepare students for their future encounters with patients.

To sum up, the results manifested in this study seem to be interesting as far as patient satisfaction from clinic interviews is concerned. However, owing to some limitations involved, the results should cautiously be generalized. One limitation was the study's lack of power to detect the effect of its own training on communication skills. The study was not essentially intended to set up its own training course. Another limitation was that our satisfaction measures were mainly confined to physician-patient factors and, therefore, may have missed a study on the availability, observance or logical distribution of other determinants of behavior, such as convenience of the appointment, waiting times, parking facilities, visit charges, etc. across various sample groups under study.

Another drawback, as was discussed in detail in the "methodology", deals with the study's limitation in choosing the right number of subjects to represent the group referred to as "foreign" graduates; physicians with all their medical education abroad were significantly fewer in number than those with domestic education. Limitations like these, which were beyond the researchers' control, might have negatively influenced the authenticity of the results to some extent. Nonetheless, despite the limitations indicated, the topic has shown to be stimulating enough to warrant more scholarly investigations. Future studies with more careful designs, particularly with a greater number of physicians with all their medical education abroad can shed more light on better ways of achieving patient satisfaction from clinic interactions with medical doctors.

#### **4. Conclusion**

Success in communication skills may require more than a set of formal instructions, of nearly the same ingredients, currently presented to the physicians of the future who are to set up their practice in social settings that are culturally very different from the setting where they had their medical education. Likewise, the overgeneralization of such instructions to ignore the variety of culturally and socially different circumstances may



also fail to bear fruit. Rather, to achieve a successful outcome in developing communication skills, due attention has to be paid to delicate socio-cultural features specific to each social setting.

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