

A Comparison between Patients' and Residents' Perceptions of Patient Centeredness and Communication Skills among Physicians Working at Jordan University Hospital

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Abstract

Aim: This research aims to evaluate patient-centeredness and communication skills from the patients' point of view and that of the physicians' point of view and compares the two outcomes. **Methods:** This was a cross-sectional study with a convenient sample of 418 patients and 94 residents. Instrument of the study was a structured questionnaire that aimed to evaluate patient centeredness and communication skills of the residents. **Results:** Residents gave themselves a significantly higher score than the score given to them by patients in most studied aspects such as the extent to which the doctor discussed the patient's problem, the extent to which the doctor explained the problem, the doctor introduced himself, the doctor greeted the patient properly and others. The only aspect for which patients gave residents higher score than that residents gave themselves was the extent to which the doctor asked the patient about what is expected to be done (ECG, CT scan, giving antibiotics, ...). **Conclusion:** A transformation from doctor centered approach to patient centered approach is needed.

Keywords

Communication Skills, Patient-Centeredness, Residents

1. Introduction

The Institute of Medicine (IoM) considers patient health care to be patient centered if it is "respectful of and responsive to individual patient preferences,

needs, and values and ensures that patient values guide all clinical decisions” [1].

Patient centered care can have a number of definitions in the literature, and different authors focus on various aspects of this kind of patient care. However, it is common among all references that patient centered care means the kind of care that is individualized to each patient, and takes into account the whole person during the treatment process [2] [3].

Another vital aspect of patient care is the patient-doctor communication. It is well known that good patient-doctor communication has a strong effect on treatment outcomes including symptoms management. This kind of communication can make a consultation either succeed or fail to deliver the expected outcomes [4].

The challenge lies in measuring the levels of patient-centeredness and communication skills among health care providers, as there should be some clear definition of patients’ needs in this regard. It should be taken into consideration that patients have certain image of the “good doctor”, and they build this image based on what they expect from their physicians like perceiving health care provider’s empathy [4] [5].

For the purpose of improving the health services delivered to patients, it is important and of vital role to assess the levels of patient centeredness and communication skills not only from the patients’ perspectives, but also from the perspective of health care providers. This can pin point the gap between the needs of the patients and the perceptions of health care providers [6].

The results of such a study may have their own positive effect on patients, society, and health care systems and may provide baseline data for health care planners and for further research in his field.

Up to the authors’ knowledge, this will be the first research in Jordan that addresses the issue of evaluating patient-centeredness and communication skills of physicians. This research aims to evaluate patient-centeredness and communication skills from the patients’ point of view and that of the physicians’ point of view and compares the two outcomes.

2. Methods

This was a cross sectional study with a convenient sample of 418 patients; and 94 residents working at Jordan University Hospital, Amman, Jordan.

Instrument of the study was a structured questionnaire that aimed to evaluate patient centeredness and communication skills of the residents. Two versions of the questionnaire were used. The first one was directed to the patients and consisted of two parts: the first one about general socio-demographic characteristics of participants, including age, gender, education level and medical insurance. The second consisted of 12 questions evaluating patient centeredness and 13 questions evaluating communication skills. Doctors’ version of the questionnaire consisted also of two parts: the first part comprised general information about the doctor such as level of residency, and the year and country of graduation as

an MD (Medical Doctor). The second part included the same 12 questions evaluating patient centeredness and 13 questions evaluating communication skills. The questions were rephrased to help doctors to self evaluate themselves. Items of the questionnaire were based on Patient Perception of Patient Centeredness questionnaire [7] and on the Membership of the Royal College of Surgeons (MRCS) candidate instructions and guidance notes, MRCS part 3 Communication Skills [8]. Since the tool was already used before in the literature no validity or reliability testing were repeated. Modifications were carried out to enhance content validity of the questionnaires based on the experience of researchers. The questionnaires were tested (pilot study) on 10 doctors and 30 patients before starting the field work. According to this pilot, few changes were taken.

The questionnaires were distributed and collected after filling by a trained research assistant in the following departments of the hospital: Cardiology, Dental clinic, Dermatology, Diabetes clinic, Endocrinology, Ear nose and throat clinic, Emergency clinic, Family Medicine, Gastroenterology, Medicine, Nephrology, Neurology, Neurosurgery, Obstetrics and gynecology, Oncology, Ophthalmology, Orthopedics, Pediatrics, Rehabilitation, Respiratory, Surgery and Urology. Selection criteria of patients included patients visiting the different clinics who were able to read and fill in the questionnaire. Face to face interviews were needed in few patients who were illiterate. Data collection lasted from June to October, 2013. Sample size was predetermined based on consulting an epidemiologist to be 500 for patients and 100 for residents. However, 418 patients and 94 residents successfully completed the questionnaires.

Verbal consent was taken from patients and residents who agreed to participate in the study. The study was approved and funded by the Deanship of Academic Research in the University of Jordan, and approved from the Research Ethical Committee at the University of Jordan and Jordan University Hospital.

SPSS version 17 was used for data entry, cleaning, and analysis. Simple descriptive statistics and independent samples t-test were applied. A p value of less than 0.05 was considered significant at the 0.05 level.

3. Results

Table 1 shows the general characteristics patients included in the study. The highest percentage of participation was from the 20 to 29 years age group (27.5%). Mean age of participants was 41.2 with a standard deviation of 19.4 years. Most participants were females (70.5%). More than one third (37.2%) had a high school education, and around one third (32.9%) had a bachelor degree. The vast majority of patients had a medical insurance (92.3%).

Table 2 presents the general characteristics of residents included in the study. The highest percentage of participants (36%) was in their first year of residency. Around a half (51.9%) graduated as medical doctors between the years 2006 and 2010, and 45.5% graduated between the years 2011 and 2015. The vast majority of residents (81.8%) graduated as medical doctors from Jordanian universities.

Table 1. General characteristics of patients.

| Age group (years) | n | % |
|--------------------------|----------|----------|
| Less than 20 | 23 | 5.6 |
| 20 - 29 | 113 | 27.5 |
| 30 - 39 | 71 | 17.3 |
| 40 - 49 | 74 | 18.0 |
| 50 - 59 | 55 | 13.4 |
| 60 or more | 75 | 18.2 |
| Total | 411 | 100.0 |
| Gender | | |
| Male | 123 | 29.5 |
| Female | 294 | 70.5 |
| Total | 417 | 100.0 |
| Educational level | | |
| Illiterate | 19 | 4.6 |
| High school | 154 | 37.2 |
| Diploma | 73 | 17.6 |
| Bachelor | 136 | 32.9 |
| Post graduate | 32 | 7.7 |
| Total | 414 | 100.0 |
| Medical insurance | | |
| Yes | 383 | 92.3 |
| No | 32 | 7.7 |
| Total | 415 | 100.0 |

Table 2. General characteristics of residents.

| Residency year | n | % |
|------------------------------------|----------|----------|
| Year one | 27 | 36.0 |
| Year two | 14 | 18.7 |
| Year three | 18 | 24.0 |
| Year four | 14 | 18.7 |
| Year five | 2 | 2.7 |
| Total | 75 | 100.0 |
| Year of graduation | | |
| Before 2000 | 1 | 1.3 |
| 2001-2005 | 1 | 1.3 |
| 2006-2010 | 40 | 51.9 |
| 2011-2015 | 35 | 45.5 |
| Total | 77 | 100.0 |
| Country of graduation as MD | | |
| Jordan | 63 | 81.8 |
| Other | 14 | 18.2 |
| Total | 77 | 100.0 |

Table 3 compares patient centeredness scores between patients and residents (Higher scores indicate better patient centeredness). Residents gave themselves a significantly higher score (3.7) than the score given to them by patients (3.3) regarding the extent to which the doctor discussed the patient's problem ($p = 0.000$). Additionally, residents gave themselves higher scores than the patient gave them for the following aspects: the extent to which the doctor explained the problem (residents' score = 3.5, patients' score = 3.3, $p = 0.004$), the extent to which the doctor explained the treatment (residents' score = 3.5, patients' score = 3.2, $p = 0.005$), the extent to which the doctor listened to what the patient had to say (residents' score = 3.5, patients' score = 3.3, $p = 0.032$), the extent to which the doctor discussed personal, family, work or studying issues that might be affecting the patient's health (residents' score = 2.8, patients' score = 2.4, $p = 0.000$), the extent to which the doctor discussed patient's concerns and anxieties about the complaint (residents' score = 3.2, patients' score = 2.8, $p = 0.000$), and the extent to which the doctor asked about the expectations of the patient about the causes of the complain (residents' score = 2.9, patients' score = 2.5, $p = 0.002$). The only aspect for which patients gave residents higher score than residents gave themselves was the extent to which the doctor asked the patient about what is expected to be done (ECG, CT scan, giving antibiotics, etc.) (residents' score = 2.6, patients' score = 2.9, $p = 0.006$).

Table 4 compares communication skills scores between patients and residents (Higher scores indicate better communication skills). Residents gave themselves significantly higher scores than the scores given to them by patients for the following aspects: the doctor introduced himself (residents' score = 3.1, patients' score = 2.2, $p = 0.000$), the doctor greeted the patient properly (residents' score =

Table 3. Comparison of patient centeredness scores between patients and residents (Higher scores indicate better patient centeredness).

| | Patients mean (SD) | Residents mean (SD) | p value |
|--|--------------------|---------------------|---------|
| To what extent was your main problem discussed today? | 3.3 (0.9) | 3.7 (0.5) | 0.000 |
| How well do you think your doctor understood you today? | 3.4 (0.8) | 3.4 (0.5) | 0.562 |
| How satisfied were you with the discussion of your problem? | 3.2 (0.9) | 3.2 (0.6) | 0.814 |
| To what extent did the doctor explain this problem to you? | 3.3 (0.9) | 3.5 (0.6) | 0.004 |
| To what extent did the doctor explain treatment? | 3.2 (0.9) | 3.5 (0.6) | 0.005 |
| To what extent did the doctor explore how manageable this treatment would be for you? | 3.1 (1) | 3.1 (0.7) | 0.981 |
| To what extent did you and the doctor discuss your respective roles? (who is responsible for making decisions and who is responsible for what aspects of your care?) | 2.8 (1.1) | 2.9 (0.8) | 0.201 |
| To what extent did the doctor listen to what you had to say? | 3.3 (0.9) | 3.5 (0.6) | 0.032 |
| Regarding today's problem, to what extent did the doctor discuss (personal, family, work or studying) issues that might be affecting your health? | 2.4 (1.2) | 2.8 (0.8) | 0.000 |
| To what extent did your doctor discuss your concerns and anxieties about your complaint? | 2.8 (1) | 3.2 (0.6) | 0.000 |
| To what extent did your doctor ask you about your expectations of the causes of your complaint? | 2.5 (1.1) | 2.9 (0.8) | 0.002 |
| To what extent did your doctor ask you about what you expect him to do for you (ECG, CT scan, giving antibiotics, ...)? | 2.9 (1.1) | 2.6 (0.8) | 0.006 |

Table 4. Comparison of communication skills scores between patients and residents (Higher scores indicate better communication skills).

| | Patients mean (SD) | Residents mean (SD) | p value |
|---|--------------------|---------------------|---------|
| The doctor introduced himself to me. | 2.2 (1.2) | 3.1 (1) | 0 |
| The doctor greeted me properly. | 3.4 (0.9) | 3.6 (0.5) | 0.002 |
| The doctor listened to me properly. | 3.4 (0.8) | 3.6 (0.6) | 0.018 |
| The doctor responded to my thoughts, feelings and questions in an appropriate way. | 3.2 (0.9) | 3.4 (0.7) | 0.187 |
| The doctor showed empathy for my situation. | 3.1 (1) | 3.4 (0.6) | 0.001 |
| The doctor presented to me enough facts about my situation. | 3.1 (1) | 3.3 (0.6) | 0.027 |
| The doctor used an easy language that I have understood (not jargon or medical terms). | 3.4 (0.8) | 3.6 (0.6) | 0.003 |
| The doctor let me talk about my complaint as much as I needed to talk. | 3.3 (0.9) | 3.2 (0.7) | 0.513 |
| The doctor checked that I have understood everything he said. | 3.2 (0.9) | 3.2 (0.6) | 0.614 |
| The doctor explained my treatment options, their benefits and risks. | 3 (1.1) | 3.2 (0.7) | 0.011 |
| The doctor offered me support and reassurance. | 3.1 (1) | 3.2 (0.8) | 0.581 |
| The doctor summarized the main points of the interview and ensured that all your questions were answered. | 2.9 (1) | 2.9 (0.8) | 0.551 |
| The interview was organized and logical. | 3.2 (0.9) | 3.1 (0.6) | 0.2 |

3.6, patients' score = 3.4, $p = 0.002$), the doctor listened to the patient properly (residents' score = 3.6, patients' score = 3.4, $p = 0.018$), the doctor showed empathy for the patient's situation (residents' score = 3.4, patients' score = 3.1, $p = 0.001$), the doctor presented enough facts about the situation (residents' score = 3.3, patients' score = 3.1, $p = 0.027$), the doctor used an easy language (residents' score = 3.6, patients' score = 3.4, $p = 0.003$), and the doctor explained the treatment options, their benefits and risks (residents' score = 3.2, patients' score = 3, $p = 0.011$).

4. Discussion

Up to the authors' knowledge this will be the first paper that evaluates patient centeredness and communication skills of physicians working at a teaching hospital in Jordan. Moreover, it allows the evaluation to be carried out from the perspectives of both patients and physicians.

Mean age of patients participating in the study was 41.2 with a standard deviation of 19.4 years. This is found to be comparable to the mean age of participants, 41.1 with a standard deviation of 11.2 years, in the study by Epstein *et al.* [2]. However, it was less than mean age of participants reported by Clayton *et al.* and Schatrner *et al.* [4] [5]. Participants in the current study were chosen so that they represent six age groups. This heterogeneous mix of several age groups was intended by the researchers to get a more representative and objective evaluation of the targeted aspects of patient centeredness and communication skills.

Most of the residents included in the study were relatively new graduates (not older than 2006 graduates). This is in contrast with the work of Locker *et al.* whose sample included physicians whose median year of graduation was 1980. On the other hand, most physicians in the current study (81.8%) were Jordanian

graduates, while others were international students. This is comparable to the sample of the study by Lockyer *et al.* in that most of their sample (73.2%) were Canadian graduates (graduates of the same country in which the study was conducted) [9].

Several aspects of patient centeredness were rated significantly higher by residents than by patients in the current study. These included the extent to which the patient's problem was discussed, the extent to which the doctor explained the treatment, the extent to which the doctor explored how manageable is the treatment for the patient, the extent to which the doctor listened to what the patient had to say, the extent to which the doctor discussed personal, family, work, or study issues that might be affecting health of the patient, the extent to which the doctor discussed the patient's concerns and anxieties about the complaint, and the extent to which the doctor asked about the patient's expectations about the causes of the disease. In the literature, the researchers did not find published work that have discussed exactly the same aspects of patient centeredness from two perspectives comparable to what has been done in the current study. However, there was an agreement among most of the studies on the importance of delivering patient centered health care [10]. On the other hand, in spite of the debate on whether self assessment (or self rating) is a reliable judgment compared to feedback gained from external resources, it remains an important source of feedback especially for physicians [9] [11]. These findings suggest that there is a need for some exploratory research work to figure out the reasons behind this significant difference in rating of the previously mentioned aspects of patient centeredness. Based on results of such an exploration, interventions can be targeted to improve the service delivered to patients so that it can be more patient centered. Interventions can come in the form of courses for teaching physicians patient centered approach, and such courses have shown positive effects on practice [12]. This can lead to achieving the ultimate goal of gaining patient satisfaction which is found to be highly associated with patient centered behaviors [13].

In contrast, there was only one aspect of patient centeredness that was rated significantly higher by patients than by residents. This was the extent to which the doctor asked the patient what does he/she expect the doctor to do (ECG, CT scan, giving antibiotics ...). This is counted in favor of the residents as they attempt to explore the expectations of their patients. It is well established that meeting patients' expectations can improve patients' satisfaction [14].

As for communication skills, the following items were rated significantly higher by residents than by patients: the doctor introduced himself to the patient properly, the doctor greeted the patient properly, the doctor listened to the patient properly, the doctor showed empathy to the patient's situation, the doctor presented enough facts, the doctor used easy language, and the doctor explained the treatment options.

Differences in the way patients and doctors perceive the medical interview are well established in the literature [6]. However, it should be taken into considera-

tion that the ultimate goal is to provide health service that is tailored to satisfy the patient [4].

A review of doctor patient communication by Ha and Longnecker showed that listening attentively and showing empathy are some examples of skillful communication [15]. Since these two skills were rated significantly lower by patients in the current study, this indicates that doctors need to improve such skills.

With regard to presenting enough facts, when first year medical students were asked to assess their own communication skills in the study by Zick *et al.*, this was their number one observed strength. More than a half (54%) stated that they elicited information and covered important topics [16]. However, this item was rated significantly lower by patients in the current study. A possible reason for this might be the tight schedule of physicians and being responsible to see a large number of patients, which may reduce the chance to provide enough facts. Even though, this should not be an excuse, since it is a right for the patient to have enough facts about his/her condition.

Using language a patient can understand (under the item sharing information) was considered an essential element of patient physician communication by the Kalamazoo Consensus Statement [17]. The statement also focused on checking for understanding and encouraging questions under the item “sharing information”, which includes explaining treatment options.

Using an easy language and explaining treatment options were rated significantly lower by patients in the current study. This again addresses the need to empower the doctors with these skills.

This study was limited by the relatively low response rate of residents. Additionally, the study was conducted in a single teaching hospital so the results may not be generalizable to all teaching hospitals, further research is needed.

5. Conclusions

Several aspects of patient centeredness and communication skills were rated significantly lower by patients than by residents in the current study. This addresses a need for some interventions to improve the patient centered medicine and communication skills. These interventions might come in the form of specialized training courses that are directed towards teaching doctors how to be patient centered and how to acquire the necessary communication skills that can ultimately improve health outcomes and patient satisfaction. A transformation from doctor centered approach to patient centered approached is needed.

Further studies of this issue are needed in other teaching hospitals in Jordan both in the public and private sectors to be able to generalize the results of such studies on a large scale in Jordan.

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