The Challenge of Clinical Interviewing and Physical Examination Performance for General Practitioners in Turkey

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Background and Objectives: This study’s objective was to better understand the current conditions and style of practice of generalist physicians in Turkey on clinical interviewing and physical examination skills prior to the widespread availability of family medicine postgraduate training. Methods: This study was performed in 30 primary health centers, randomly chosen from the 110 primary health centers in Izmir, Turkey. We administered a questionnaire to 106 physicians in those centers, asking about their performance during medical encounters. We then observed 166 first-visit encounters of 37 of those physicians. Finally, we compared physicians’ reported behavior (as described in the questionnaires) with their actual performance (when observed). Results: In the physician questionnaire, 86.8% of participants agreed that 20 minutes or more was sufficient time for first visits, but in practice, 81.9% of the interviews lasted less than 5 minutes. The major reason cited by physicians for short interview times was overcrowding (72.6%). In 94.6% of the encounters, physicians obtained the history of present illness but the rest of the history, such as past history and family history, was gathered in less than 40% of the interviews. Except for the examination of oral cavity and pharynx, lungs, and heart, almost all the rest of the physical examination was performed in less than 10% of the cases. No written records were kept in 63.0% of the encounters. Conclusions: The problems and difficulties present in delivering primary care in Turkey include the physicians’ behavior in addition to working conditions.

(Fam Med 2005;37(5):354-9.)

The patient interview, physical examination, diagnostic testing, and management skills form the foundation of the physician-patient relationship. The interview process is the starting point after which all these aspects of care come together. Obtaining a good patient history can result in reaching the correct diagnosis in 70% of the cases, and combined with a thorough physical examination, the correct diagnosis can be identified in 90% of cases.1 Imparting interview and examination skills to physicians is an important part of medical education. In recent years, medical education in Turkey has undergone significant changes, and instruction about clinical skills has become part of the standard medical school curriculum. Currently, however, most practicing physicians, who graduated before the curricular changes, never received this type of training. In addition, family medicine as an area of specialization is still in its early stages in Turkey, and few practicing general practitioners have received this specialty training.

Problems related to the lack of training are further compounded by the facilities in which physicians practice. Primary health services in Turkey are provided in primary health care centers (PHCCs). Each PHCC has an average of five physicians, and each PHCC was planned to provide care for 50,000 people in big cities. Although there are supposed to be nurses and midwives in every PHCC, in certain centers these staff members are not present due to health care worker shortages in the country.

The PHCC is intended to provide all facets of health care, but due to lack of medical equipment and health care assistants, they are not able to do so. In particular, the lack of space forces more than one doctor to simultaneously see patients in the same examination room or to see patients only on certain days of the week. In many PHCCs, the off-duty doctors also work in the examination rooms because of the lack of separate doctor offices.
Our aim in this study is to better understand the current conditions and style of practice of generalist physicians in performance of clinical interviews and physical examinations before there is widespread availability of family medicine postgraduate training and while physicians practice in the current PHCC facilities.

Methods

Study Design

We used a questionnaire survey and direct observation of generalist physicians who work in randomly selected PHCCs in Izmir municipality, Turkey. We administered a questionnaire to physicians in those centers, asking about their performance during medical encounters. We then observed first-visit encounters of some of those physicians. Finally, we compared physicians’ reported behavior (as described in the questionnaires) with their actual performance (when observed). Data collection took place during April to May 2002.

Subjects

This study was conducted in Izmir, the third largest city (population 2.5 million) in Turkey, located about 220 miles south of Istanbul. We randomly selected 30 PHCCs out of the 110 centers in the Izmir area.

For the questionnaire component of the study, 106 of 156 physicians (68%) in the 20 centers were available and agreed to complete a questionnaire. For the observation component of the study, the 37 physicians who were seeing patients on the day we visited their PHCC were chosen for direct observation during their first visit of the day with a new patient. Bias in physician selection was minimized because physicians were selected only because they happened to work in a center being visited on the day we visited, rather than being selected because of specific physician characteristics or willingness to participate.

We only observed first (new) encounters with patients but did so regardless of whether the patient presented with an acute or chronic complaint. Patients who came for birth control only, pregnancy follow-up, or prescription renewal and all children under ages 2 years were excluded. None of the patients refused to participate in the study.

Questionnaire

At each PHCC, a questionnaire with 37 questions was distributed to the PHCC physicians working on the day we visited the PHCC and was collected 1 hour later by one of four teaching assistants. The questionnaire consisted of items regarding demographic data; physicians’ behavior and attitudes regarding interviewing; procedures and techniques for interviewing, physical examination, and communication; physical environment; duration of visits; and practice characteristics. Short-answer questions were asked about the physicians’ attitude and behavior. For communication skills, physicians were asked to evaluate themselves on a 5-point Likert scale. The rest of the questions were multiple-choice questions. The Cronbach’s alpha for the questionnaire was .68.

Observation

Thirty-seven physicians at the PHCCs were observed during interviews and examinations with 166 new patients. The observations were made by trained teaching assistants who had conducted a clinical skills program at our university for at least 1 year. The checklists that were used for the study were the same ones used in the clinical skills teaching program. The checklists were comprised of three sections: communication, history taking, and physical examination. A copy of the checklist is available from the first author on request.

During the observation of the physician, if the physician performed less than 50% of the items on the checklist for communicating with the patient or taking the patient’s history, his/her performance was marked as incomplete. Conversely, when more than 50% of the items were completed, then the physician was assessed as having completed the item. When observation revealed that the physician completely skipped history taking or had no communication with the patient, this part of the encounter was coded as none. In the physical examination, the items in the checklist were assessed as having been performed or not performed during the physical examination.

The four observers evaluated eight patient-physician interviews prior to the study. Inter-observer consistency was very good (kappa > 92%).

Data Coding and Analysis

The symptoms stated to be the main complaint were classified according to the International Classification of Primary Care, Second Edition (ICPC-2) encounter symptoms and complaints codes. Both questionnaire and observation results were analyzed with SPSS 8.0® and sample size calculations were performed with Epi-Info®.

We conducted analyses to determine if there were any differences in the results of the questionnaire according to the gender and experience of the physicians (years in profession less than 9 years, 10–19 years, or more than 20 years). We also compared the results of the observation according to patient age (2–14 years, 15–24 years, 25–64 years, 66+ years), gender, whether the physician had received prior education in clinical skills (yes or no), and the physician’s experience (years in profession less than 9 years, 10–19 years, or more than 20 years). Further, we compared to see if there was a change in the duration of interview based on the patient’s reason for the encounter.

Our sample size calculations called for a minimum of 90 subjects to achieve proportion estimates with a
10% margin of error at 99% confidence intervals. To achieve this sample size, we assumed that three physicians would be on duty in each of the centers we visited, in which case 30 PHCCs would yield a sufficient number of subjects.

Results

Questionnaire Results

Of the 106 physicians completing the questionnaire, 50.9% were male, and 49.1% were female. Of these 106 physicians, 41.5% had worked for 0–9 years, 52.8% had worked for 10–19 years, and 5.7% had worked for more than 20 years; 74.5% of them had only worked at the PHCC, while 25.5% had supplementary jobs after working hours.

The physicians had different workloads: 56.7% saw patients 3 days or more a week and 40.5% for one half to 2 days. Fifty-one percent examined 21–50 patients per day, while 35.8% examined 51–100 patients per day. Only 8.5% examined fewer than 20 patients, while 4.7% examined more than 100 patients per day, and 2.8% did not see any patients because of administrative responsibilities.

Most physicians stated that sufficient examination time for a first encounter is 20 minutes (68.9%), with 18.8% stating 30 minutes and 12.3% stating 10 minutes. However, in practice, 73.6% stated that they could only spend 10 minutes with the patient, 16% reported spending 20 minutes, and 1.9% spent 30 minutes. The remaining physicians (8.5%) reported spending various times for examination. Reasons stated by the physicians for not being able to spare sufficient time for each patient were having too many patients (72.6%), uneven distribution of the patients during the day (48.1%), the presence of a single examination room in the center (36.8%), the patient’s reluctance to wait longer (33.0%), and the physician’s reluctance to have the patient stay longer (4.7%). Some physicians (11.3%) reported that the time spent with the patient was sufficient. However, among those who believed that they spent enough time with patients, 75% stated that 20 minutes was necessary for the first encounter, while only 33.3% of them said that they spent 20 minutes.

Only 53.8% of the physicians could obtain privacy for the patient-physician interview because of the physical layout of clinic facilities. Physicians preferred to have a nurse in the examination room (78.3% always, 11.3% on some occasions). More than half of the physicians (51.9%) stated that staff helping directly or indirectly during the encounter was insufficient. Physician assessments of availability of office equipment in the centers are shown in Table 1. As shown in the table, some important equipment, such as an ophthalmoscope, is available in less than half of the PHCCs.

Rates of physicians keeping records of interviews were never (63%), regularly (20.4%), or occasionally (16.7%). Eighty percent of the physicians who kept records regularly and 55% of the physicians who kept records time to time used these data regularly.

Table 2 shows the parameters that the physicians believed that they should ask compared to what they actually reported asking during the interview at the first encounter with patients. The results were discordant in all parameters except the chief complaint. Most of the physicians (76.4%) stated that they performed a symptom-based examination on the first encounter.

Observation Results

Forty percent of the 37 physicians we observed had graduated from Ege and Dokuz Eylül University Medical Schools. In this group, 54.0% were working for 0–9 years, 43.2% for 10–19 years, and 2.7% for more

<table>
<thead>
<tr>
<th>Questionnaire (n=106) (%)</th>
<th>Observation (37 physicians, 166 encounters) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chief complaint</strong></td>
<td><strong>Complete</strong></td>
</tr>
<tr>
<td>Identifying data</td>
<td>58.5 45.3</td>
</tr>
<tr>
<td>Chief complaint</td>
<td>86.8 84.9</td>
</tr>
<tr>
<td>History of chief complaint</td>
<td>93.4 89.6</td>
</tr>
<tr>
<td>Past history</td>
<td>84.9 68.9</td>
</tr>
<tr>
<td>Current health status</td>
<td>64.2 52.8</td>
</tr>
<tr>
<td>Family history</td>
<td>74.5 45.3</td>
</tr>
<tr>
<td>Personal and social history</td>
<td>60.4 35.8</td>
</tr>
<tr>
<td>Review of systems</td>
<td>76.4 51.9</td>
</tr>
</tbody>
</table>

* “complete,” more than 50% of subsections were asked; “incomplete,” less than 50% of subsections were asked; “none,” skipped the entire parameter.
than 20 years. A total of 75.6% of them did not want to be a specialist, and 21.6% wanted to be a specialist, of whom 25% wanted to specialize in family medicine, while 2.7% were undecided. Nearly all (94.5%) of the study group reported that they did not have postgraduate training in clinical skills.

For the patients observed during the encounters, 60.2% of the patients were female, 39.8% male, 45.2% were between the ages of 2 and 14, 12% were between 15 and 24, 34.9% were between 25 and 64, and 7.8% were over age 65.

The parameters evaluated during the interview are shown in Table 3. The distribution of the patients according to their chief complaint is shown in ICPC-2 terminology in Table 4. Most of the complaints were related to respiratory infections.

The data for the observed components of the physical examinations are shown in Table 5. None of the physicians performed a complete physical examination.

| Table 3 |
|---|---|---|---|---|---|---|---|---|
| Physicians Communication Skills | Complete* | Incomplete* | None* | Total |
| | D** | O*** | D** | O*** | D** | O*** | D** | O*** |
| Appropriately welcomes, uses icebreakers | 17.3 | 21.7 | 59.2 | 59.6 | 23.5 | 18.7 | 100.0 | 100.0 |
| Obtains information by appropriate methods | 59.4 | 20.5 | 37.6 | 69.9 | 3.0 | 9.6 | 100.0 | 100.0 |
| Uses communication and facilitation skills | 70.3 | 24.7 | 27.7 | 58.4 | 2.0 | 16.9 | 100.0 | 100.0 |
| Has a conclusion to the interview | 77.9 | 38.6 | 18.3 | 27.1 | 3.8 | 34.3 | 100.0 | 100.0 |

* “Complete,” more than 50% of subsections were asked; “incomplete,” less than 50% of subsections were asked; “none” skipped the entire parameter.

The total history and physical examination time was 1–5 minutes in 81.9% of the observed encounters, 6–10 minutes in 15.7%, and 11–15 minutes in 2.4% of the patients. There were no significant differences according to age, gender, former training, and symptoms (P<.05). Also, there was no significant difference in time spent for patients according to presenting symptoms (P>.05).

**Discussion**

A considerable proportion of the physicians (68.9%) believed that 20 minutes was sufficient time for a first encounter with patients, although only 16% declared that they were able to spend that much time, and 73% reported that they spent only 10 minutes. Our observation results show that 81.9% of the physicians took the complete medical history and performed the physical examination in the first 5 minutes. As a result of this short interviewing period, the past and current medical histories are neglected by 50% of physicians, and family history, social history, and systematic examination are neglected by 80%, even though the information from these components of the interview yield important information used to get to know patients in the context of their psychosocial environment.

The reason for the lack of psychosocial data collection is presumably lack of time, since conducting an interview with a psychosocial approach takes a longer time than when the interview is conducted with a biomedical approach. Nonetheless, longer interviews may be associated with greater patient satisfaction and increased health education/prevention measures, higher rates of problem determination, and increased diagnostic rate for important diseases such as malignancies. Further investigation of all historical elements could lead to preventive and health promotion counseling and would create opportunities for addiction management and early diagnosis. Still, our findings are in line with findings of other studies, which have shown that if the visit time is short, physicians neglect...
to investigate some important areas, such as psychosocial and family history, and as a result, they overprescribe drugs, and patients do not have an opportunity to participate in the decisions regarding their health.

It is also of interest to note that there were differences between what physicians reported on the questionnaire and what they actually did while under observation—usually performing less-complete interviews and examination than they reported in the questionnaire that they do or would like to do. One explanation for the differences is that these primary care physicians do not have the necessary physical conditions for taking a history and performing a physical examination. Half of the physicians in this sample have insufficient personnel to form a team, and they lack basic diagnostic and examination equipment, except for the stethoscope and sphygmomanometer. Due to the inadequate physical space, almost half of them state that they frequently have to examine the patients in rooms with a third, off-duty person. The negative effect of this condition on the interview can be well understood if it is remembered that sensitivity, sincerity, and reliability of the patient-physician relationship is related to the environment, as well as the physicians’ skills.

The workload of the physicians is another important factor for shortening the interview period. In Turkey, the crowded PHCCs increase the workload of the doctors. The reasons for these are limited medical facilities, physicians’ rotating schedules at the polyclinics, and unreliable medical records.

Part of the problem with crowding is that in Turkey, in addition to seeing the patients registered at the practice, it is forbidden by law to turn away unregistered patients. To make matters more difficult, only 20% of the physicians keep written patient records, and of these, only 85% use these records in the later visits; this greatly compromises continuity of care. The absence of a medical record system might be a factor for the physicians’ lack of history taking and performing physical examinations. As a result, almost all cases are treated as first encounter, even though continuous personal care has an important place in patient satisfaction.

Even though our study did not investigate physicians’ knowledge, we know that there is no proper training in
clinical skills, both during undergraduate and postgraduate training in Turkey, and so their knowledge of how to apply clinical skills may be limited. Indeed, most of the physicians (91.6%) in this study declared that they did not have formal training in clinical skills during their undergraduate education. This limited knowledge may explain the lack of performance of components of the history and physical examination.

It is agreed that clinical training periods in hospital wards are not sufficient to gain these skills. In particular, communication skills have a critical role in increasing patient satisfaction and compliance, decreasing malpractice, and forming good medical decisions, yet were not taught to most Turkish physicians. These skills must be taught in both undergraduate and postgraduate periods, and this education should be part of all medical school curricula. Family medicine departments often assume this responsibility not only for postgraduate education but also undergraduate education.

In conclusion, the problems and difficulties present during the patient encounter within the PHCCs in Turkey include physicians’ attitude and behavior, an insufficient physical environment, lack of equipment, lack of maintaining proper medical records, and patient overcrowding.

Acknowledgements: This manuscript was presented as a poster at Wonca Europe 2003, 9th Conference of the European Society of General Practice/Family Medicine, June 18–21, 2003, Ljubljana, Slovenia.

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