Background: One of the essential issues in doctor-patient relationship is the matter of telling the truth of cancer diagnosis to patients. This is not only important from an ethical standpoint, but also can have legal implications. Thus, truth-telling and its associated factors are of great importance especially in cancer patients. The aim of this study was to evaluate factors effective in doctors’ telling the truth to their patients.

Methods: The statistical population included specialists and subspecialists working in the field of cancer treatment in Tehran. Overall, 161 questionnaires, designed for our study, were gathered and evaluated.

Results: According to our study, 87.6% of the responders would tell the truth to their patients, while 12.4% wouldn't do so. They believed that the best person to tell the truth to the patient is the physician or the psychiatrist specialized in this field. Ninety-two percent of physicians felt the need for developing a guideline on educating patients. There was a significant difference between oncologists and non-oncologists in terms of tendency to tell the truth, with non-oncologists showing more tendency. Most of the doctors preferred to tell the truth to their middle-aged (51–70 years) patients rather than to their younger or older patients.

Conclusions: Only 25.5% of physicians in our study had the policy to tell the truth to majority of their patients, and almost all of them felt the need for having a formal guideline regarding informing and educating cancer patients. This highlights the significance of cultural-religious context of our country and the importance of having a practical guideline to educate our physicians.
stated that they usually tell the truth. Approximately 70% either never tell or usually do not tell. Recent research on physicians’ attitude towards telling the truth about cancer diagnosis demonstrated that multiple factors are influential in this setting, the most important of them being the society’s culture.

In fact, there are different viewpoints regarding truth-telling. The goal of this study was to evaluate the standpoints of specialists in Tehran regarding truth disclosure to cancer patients and its association with the type of specialty and where they worked. Also, we wanted to determine the physicians attitude towards the best way of telling the truth to patients.

Methods
The statistical population of our survey included specialists and subspecialists working in the field of cancer treatment in Tehran. We distributed the questionnaires to physicians in academic centers or oncology meetings, and encouraged them to participate in the survey. Overall, 161 questionnaires were returned and evaluated. The questionnaire consisted of several sections. The first section was about the individual's personal and professional information. The second section inquired about the point of view, preference, and behavior of responders with regard to telling the truth to patients, which was designed according to Ajzen's planned behavior theory. The planned behavior model is one of the most reliable models for predicting behavior and, since it has structures considering important aspects of behavior, can be utilized for evaluating opinions, values and attitudes behind the process of truth-telling. It is a cognitive social theory that is designed to discern and predict the possibility of showing or not showing a behavior and is a developed form of logical action theory. Accordingly, our evaluation consisted of 11 questions for attitude, 3 questions for preference, and 2 questions for behavior. The questions of this section were designed as a 5-point scale ranging from 1 (totally disagree) to 5 (totally agree). For the final analysis of the questionnaire, Cronbach’s alpha coefficient was calculated. Alpha coefficients for attitude, desire, and behavior were 0.76, 0.67 and 0.51, respectively. As for data analysis, descriptive statistics and inferential statistics including t test and analysis of variance were used.

Results
Descriptive statistics
The population in our study consisted of physicians in different specialties. The frequency distribution of responders according to age, sex, level of graduation, work place, work experience, and number of new cancer patients visit per year are presented in table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Patient N(%)</th>
<th>Family members N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Mean ± SD)</td>
<td>43.4 ± 11.2</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Male 59%</td>
<td>Female 41%</td>
</tr>
<tr>
<td>Age distribution</td>
<td>&lt; 35 years 27.4%</td>
<td>35-50 years 56.6%</td>
</tr>
<tr>
<td>Specialty</td>
<td>Specialist 112</td>
<td>Subspecialist 44</td>
</tr>
<tr>
<td>Work place</td>
<td>Private services 19.5%</td>
<td>Public services 46.5%</td>
</tr>
<tr>
<td>Work experience</td>
<td>&lt; 10 years 50%</td>
<td>10–20 years 36.2%</td>
</tr>
<tr>
<td>Number of new patient visits per year</td>
<td>&lt; 50 patients per year 43%</td>
<td>51-100 patients per year 26%</td>
</tr>
<tr>
<td>Specialty</td>
<td>Oncology 21.9%</td>
<td>Surgery 17.9%</td>
</tr>
</tbody>
</table>

Then we requested the physicians to characterize their general method of facing cancer diagnosis; 87.6% would tell the truth to their patients and 12.4% would not do so. Regarding the tendency to change their general attitude towards cancer diagnosis, the results showed that 66% of the physicians had little, 27% had medium, and 7% had high interest in changing it.

According to different patient age groups, 34% of the physicians preferred to tell the truth to patients younger than 50 years old; 52% to patients between 50 and 70 years old; and 14%, to patients older than 70 years old.

Responders believed that the best person to tell the truth to the patient is his physician or the psychiatrist specialized in the field. Family and patient support system were in the second place. In terms of the priorities of physicians in telling the steps of the disease management, results demonstrated that the first priority was the treatment method (62.2%), the second one was complications of the treatment (39.3%), and the third and fourth ones were prognosis and diagnosis, respectively.

Physicians’ attitude by gender
We evaluated the difference in attitude between male and female physicians using the t test. The results showed no significant difference in attitude.
Towards truth-telling for male and female physicians.

**Physicians’ attitude by specialty**

We also evaluated the difference in physicians’ attitude according to their specialty. The following hypothesis we tested:

There was a difference in attitude towards telling the truth between physicians in different specialties and subspecialties.

A t test was performed, and the results showed that there was no significant difference in attitude towards truth-telling between physicians with specialties or subspecialties.

**Comparison of tendency for truth-telling between oncologists and non-oncologists**

To compare the tendency of oncologists and non-oncologists for truth-telling, we tested the following hypothesis:

There is a significant difference in the tendency for truth-telling between oncologists and non-oncologists.

Results of the t test revealed a significant difference between oncologists (10.9 ± 1.82) and non-oncologists (11.8 ± 2.1) in terms of tendency to tell the truth, with non-oncologists showing more tendency for telling the truth (t = 2.08, P = 0.041).

**Attitude and behavior of physicians towards truth-telling according to their service location**

To evaluate the difference in physicians’ truth-telling behavior according to their service location (private, public, or both), we tested the following hypothesis:

There is a significant difference in physicians’ truth-telling behavior according to their service location.

A one-way analysis of variance (ANOVA) was performed, and the results showed that there is a significant difference among physicians working in these three sectors; therefore, the null hypothesis was rejected. Post-hoc analysis using the Dunken test demonstrated that there was a difference in behavior between private sector physicians (mean = 8.87) and public-private sector physicians (mean = 8.62).

Also, to evaluate the difference in physicians’ attitude based on service location (public, private, or both), we examined the following hypothesis:

There is a significant difference in physicians' attitude towards truth-telling according to their service location.

The results of ANOVA test showed that there was a significant difference between physicians working in the three sectors; therefore, the null hypothesis was rejected. The results of Duncan's post-hoc test revealed a significant difference in attitude between doctors working in public-private sectors (mean = 44.14) and those working in public (mean = 41.57) and private (mean = 39.92) sectors.

**Discussion**

There are numerous of individual, cultural and ethical issues related to telling the truth to cancer patients. These factors have been evaluated in several studies.

Results of a study by Zamani and colleagues in Iran showed that, with regard to telling the truth, 88% of patients and 90% of physicians agreed on telling the truth about early stage cancer, and 78% of patients and 72% of physicians agreed on telling the truth to patients with advanced cancer. Most of the patients and physicians agreed that talking about the diagnosis should be explicit; the economic status of the patient should not affect the truth-telling; disclosing the truth should happen immediately after the diagnosis; and the best person to tell the cancer diagnosis is the physician. Results of this study showed that in our society’s culture (Iran), apart from different opinions about methods of truth-telling, most of the patients and physicians had a positive view regarding the necessity of telling the reality to a patient with cancer.14 Another study evaluated the views of family doctors about telling the truth to cancer patients in Croatia. They studied 134 physicians, of whom 71.6% stated that they sometimes told the truth to their patients, and 51.5% said they would tell the truth to the patients’ families without their permission. The majority of responders (70.3%) though that the family doctor was in the best position to tell the truth of the diagnosis, although 32.1% expressed difficulties in communicating with terminal patients.15

Grassi et al. studied physicians’ view regarding truth-telling and its problems in Italy. About 45% believed that patients should be aware of their diagnosis, but only 25% would tell the truth to patients. Young surgeons stated that surgeons working at public hospitals were more likely to tell the truth about the diagnosis to their patients. About one-third of the physicians thought that patients should never know about their real diagnosis. Nearly all physicians confirmed that the presence of other family members while talking about patients’ diagnosis is of great help, although they stated that patients’ families prefer not to be involve their patients with reality. Ninety-five percent of the physicians believed that the general practitioner should be involved in the process of diagnosis and communicating with the patient, and 48% stated that physicians should be the one to break the news to the patient. Also, 86% of physicians considered having an informative handbook essential.16

In a study by Seo et al. in 2000 in Japan, 53% of the physicians believed that the truth must be told to patients; however, 46% of Japanese people still believed that the patient’s family should be the first to know about the diagnosis, and most of Japanese physicians confer with patient’s family before telling the diagnosis to the patient.17 Fielding et al. studied
the ways of telling the truth to Chinese patients with cancer. This study focused on methods of physicians in delivering the information. Among the doctors interviewed, 46% used a sudden approach to disclose the truth of diagnosis, and 19% used a slow and gradual method. Among the others who did tell the truth, more than half of them conducted it with the help of family members. Although some believe the negative reaction of patients to be the major reason for withholding the truth, the responders were that 25% of patients get depressed upon hearing the news, while the remaining 75% keep calm.16 In a study of truth disclosure to cancer patients from the standpoint of specialists, patients, and their families in Iran, Beirughi and colleagues demonstrated that most of the doctors and nurses considered revealing the truth about the diagnosis as a mistake. Patients’ families thought that information should be given gradually depending on the patients’ psychological status. However, most of the patients believed that telling the whole truth was the best way. All of the doctors, most of the nurses, and all of the patients believed that the physician was the best person to disclose the truth. All of the patients wanted their physician to take the control of their treatment decision-making process.17

Tieying et al. analyzed the views of 634 specialists working in Chinese hospitals about telling the truth to cancer patients. They concluded that in order to raise the knowledge of cancer patients, specialists should receive more information about how to inform their patients, and it is essential to use special guidelines and methods.20

The results of our study showed that 34.8% of the responders would tell the truth to less than 25% of the patients, while 25.5% would tell the truth to more than 76% of their patients. Consistent with this finding, results of a study showed that the physicians informed only 25% of their patients about the true diagnosis.18 Therefore, taking into account the underlying factors affecting the process of informing cancer patients in any society, the limitations of this issue in our country becomes more prominent.

Patients’ age had a clear effect on doctors’ tendency to tell the truth: most of our doctors preferred to tell the truth to their middle-aged (51–70 years) patients rather than their younger or older patients. Regarding the physicians’ general attitude towards cancer patients, 87.6% stated that they would tell the truth to their patients, whereas 12.4% would not do so. With respect to changing their general attitude towards cancer patients, the results showed that the desire to do so was low in 66% of physicians, average in 27% and high in 7% of them.

Our responders believed that the most appropriate persons to tell the truth to the patient are the physician and the psychiatrist specialized in this field. This is in favor of the findings of Beyraghi et al.19 that all of the physicians, most of the nurses, and all of the patients believed that the physician was the best person to tell the truth. It is also consistent with Zamani et al.14 which showed that the best person to tell the cancer diagnosis was the physician. The best place to do so was the physician’s office, in patients’ opinion; and somewhere quiet and without disturbance, in physicians’ opinion. Grassi showed that 95% of the physicians believed that the general physician should be included in the process of diagnosis and communication with the patient, and 48% stated that the physician should tell the truth to patients about the diagnosis.20

With respect to physicians’ opinion on steps of informing patients about disease management, the results showed that the first priority was the treatment method (62.2%), the second priority was treatment complications with (39.3%), and the third and fourth ones were prognosis and diagnosis, respectively.

One of the solutions that can be helpful nowadays is having a guideline in that field of specialty. In our study, 92% felt the need for having a guideline on educating patients. This is consistent with the finding of Tieying et al.20 (in large hospitals of China) that in order to improve the knowledge of the cancer patients, the specialists needed to be well-informed about how to inform patients and that having special methods and guidelines were necessary. Also, Grassi showed that 86% of physicians considered having an informative booklet necessary.16

All in all, only 25.5% of our physicians had the policy to tell the truth to majority of their patients. Overall, only 34% of our respondents were interested in changing their general attitude towards truth-telling. According to our findings, non-oncologists were significantly more willing to tell the truth compared with oncologists, and we found no significant differences between other groups evaluated. Finally, almost all our physicians felt the need for having a formal guideline regarding informing and educating cancer patients.

In conclusion, truth-telling is an essential issue for the physicians involved with cancer patients. The majority of physicians would tell the truth to their patients, and they like to change their general attitude. Physicians prefer to tell the truth to younger patients, and the treatment method is the most important issue they would like to talk about with patients. Our study showed that 92% of physicians felt the need for having a guideline on educating patients. This highlights the significance of cultural-religious context of our country and the importance of having a practical guideline to educate our physicians.

References
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