Should cancer patients be informed about their diagnosis and prognosis? Future doctors and lawyers differ

B S Elger, T W Harding

Objectives: To compare attitudes of medical and law students toward informing a cancer patient about diagnosis and prognosis and to examine whether differences are related to different convictions about benefit or harm of information. Setting and design: Anonymous questionnaires were distributed to convenience samples of students at the University of Geneva containing four vignettes describing a cancer patient who wishes, or alternatively, who does not wish to be told the truth. Participants: One hundred and twenty seven medical students and 168 law students. Main outcome measures: Five point Likert scale of responses to the vignettes ranging from “certainly inform” to “certainly not inform” the patient. Results: All medical students and 96% of law students favoured information about the diagnosis of cancer if the patient requests it. Seventy four per cent of medical students and 82% of law students favoured informing a cancer patient about his or her prognosis (p = 0.0003). Thirty five per cent of law students and 11.7% of medical students favoured telling about the diagnosis (p = 0.0004) and 25.6% of law students and 7% of medical students favoured telling about the prognosis (p < 0.0001) even if the patient had clearly expressed his wish not to be informed. Law students indicated significantly more often than medical students reasons to do with the patient’s good, legal obligations, and the physician’s obligation to tell the truth, and significantly less often than medical students that their attitude had been determined predominantly by respect for the autonomous choice of the patient. Conclusion: Differences in attitudes according to the type of case and the type of studies were related to convictions about the benefit or harm to the patient caused by being given information. The self reported reasons of future physicians and future lawyers are helpful when considering means to achieve a better acceptance of patients’ right to know and not to know.

A large majority of both healthy adults and cancer patients from different countries want to be told about their diagnosis and prognosis. In North America and Northern Europe, attitudes of physicians towards telling cancer patients about their diagnosis have changed remarkably in the past 30 years. Before 1960, the majority of American physicians usually did not tell cancer patients about their diagnosis. For roughly the last 20 years, however, most physicians in the United States and Northern Europe have reported that they usually inform a cancer patient about his or her diagnosis. But significantly fewer physicians from these and other countries usually tell patients the full truth about the prognosis of their disease. Studies in Eastern Europe and in Japan have shown that physicians from these parts of the world usually do not inform patients about either the diagnosis or the prognosis of cancer. Changes towards more disclosure have been reported from Japan recently.

Besides defending the right to know, most ethicists defend also a right not to know, although a different position is held by Buchanan. He argues that a contract between patient and physician not to tell the truth, even if both have given consent, cannot be valid. Little is known about physicians’ attitudes towards a patient who does not want to be told about his diagnosis and prognosis.

Moreover, most studies have focused on a quantitative description of the percentages of physicians who inform or do not inform a patient. Few data exist about the reasons why physicians respect or do not respect the wishes of competent patients to know or not to know about their diagnosis and prognosis and whether reasons reported by physicians differ from the reasons that patients, informed laypeople, or lawyers would indicate themselves.

HOW TO EXPLAIN DIFFERENCES BETWEEN ATTITUDES

The “mysterious change” in physicians’ attitudes towards disclosure of cancer diagnosis observed in the United States and Northern Europe between 1960 and the seventies has in general been attributed to the growing respect for patient autonomy. The new requirement of informed consent that arrived on the American scene in two separate contexts, for daily practice in 1972, and for clinical study in 1966, is thought to have shifted attention to a duty to respect the autonomy of patients. According to this theory, persisting differences between countries in attitudes towards patient information could be explained mainly by culturally different appreciations of patient autonomy as an overriding value. This theory does not, however, provide sufficient explanation of the fact that even in countries which place a high value on patient autonomy many physicians still do not inform patients about their prognosis.

Another hypothesis would be that the observed “mysterious change” of attitudes towards truth disclosure about cancer diagnosis does not primarily reflect physicians’ greater respect for patient autonomy but is mainly due to a change towards a more positive evaluation of the consequences of informing. According to this hypothesis, paternalistic concerns still have an important influence on physicians’
attitudes. Because of advances in cancer treatment, telling about a cancer diagnosis is no longer equal to announcing certain and imminent death. Patient compliance is needed to assure treatment efficiency. Physicians who are convinced that communicating the diagnosis of cancer is beneficial will inform patients who ask to be told and even patients who would have preferred not to know about their diagnosis. By contrast, disclosure of a poor prognosis is still judged harmful and therefore many physicians do not favour truthful information about poor prognosis.

Table 1
Differences between characteristics of medical and law students; No (%)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Medical students (M)</th>
<th>Law students (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=127)</td>
<td>(n=168)</td>
</tr>
<tr>
<td></td>
<td>(n=64)</td>
<td>(n=75)</td>
</tr>
<tr>
<td></td>
<td>(n=63)</td>
<td>(n=93)</td>
</tr>
<tr>
<td>Mean age (SD)</td>
<td>24.4 (8.2)</td>
<td>22.1 (4.1)</td>
</tr>
<tr>
<td>Minimum/maximum</td>
<td>24.7 (3.8)</td>
<td>21.1 (1.5)</td>
</tr>
<tr>
<td>Study year, mode/range</td>
<td>24.2 (2.4)</td>
<td>22.1 (5.3)</td>
</tr>
<tr>
<td>Ethical training§</td>
<td>21/23</td>
<td>18/52</td>
</tr>
<tr>
<td>Culture‡: USA/Canada</td>
<td>5 (4.1)</td>
<td>6 (3.6)</td>
</tr>
<tr>
<td>North-Europe</td>
<td>10 (8.1)</td>
<td>2 (2.7)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>85 (69.1)</td>
<td>27 (16.3)</td>
</tr>
<tr>
<td>South-East Europe</td>
<td>15 (12.2)</td>
<td>91 (54.8)</td>
</tr>
<tr>
<td>Other</td>
<td>8 (6.5)</td>
<td>13 (7.8)</td>
</tr>
</tbody>
</table>

*p-test for age and study year, χ² for others, p shown if <0.05 ("-" means p>0.05).
†No significant (p<0.05) differences were found when comparing groups from the same faculty, except for ethical training of medical students (p<0.001).
‡Self-reported identification with cultural origin. Some students did not indicate their culture.
§Medical students indicated participation either in the medical ethics seminar taught to 2nd year students or in the ethics part of the legal medicine course.
Law students: various kinds of teaching in high school or in other, e.g. philosophical or theological, faculties.
Group M1: 64 medical students at the end of their 5th year in 1996.
Group M2: 63 medical students at the beginning of their 5th year in 1996.
Group L1: 75 first to fourth year law students from an "international law" lecture in 1996.
Group L2: 93 mostly first year law students from a "law and medicine" lecture in 1996.

Authors' note: This table is adapted from one already published in Medical Education.

Table 2
Characteristics that make acting according to patient's choice more likely (+) or less likely (−); p value according to the Mann-Whitney rank sum test, mentioned if p ≤0.05

<table>
<thead>
<tr>
<th>Diagnosis desired (case 1)</th>
<th>Prognosis desired (case 2)</th>
<th>Diagnosis not desired (case 3)</th>
<th>Prognosis not desired (case 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group L1 (as compared to group L2)</td>
<td>0.01−</td>
<td>0.009−</td>
<td>0.009−</td>
</tr>
<tr>
<td>Medical students: age &gt;22</td>
<td>0.004−</td>
<td>&lt;0.001−</td>
<td>&lt;0.001−</td>
</tr>
<tr>
<td>Medical students: age &gt;24</td>
<td>0.003−</td>
<td>0.001−</td>
<td>&lt;0.001−</td>
</tr>
<tr>
<td>Medical students: Swiss</td>
<td>0.006+</td>
<td>0.008+</td>
<td>0.001+</td>
</tr>
<tr>
<td>Medical students: Southern Europe</td>
<td>0.05−</td>
<td>0.05−</td>
<td>0.05−</td>
</tr>
<tr>
<td>Medical students: Northern Europe</td>
<td>0.001−</td>
<td>0.001−</td>
<td>0.001−</td>
</tr>
<tr>
<td>Medical students: Islam</td>
<td>0.02−</td>
<td>0.02−</td>
<td>0.02−</td>
</tr>
<tr>
<td>Medical students: Islam</td>
<td>0.03−</td>
<td>0.03−</td>
<td>0.03−</td>
</tr>
<tr>
<td>Medical students: Father university education</td>
<td>0.01+</td>
<td>0.01+</td>
<td>0.01+</td>
</tr>
<tr>
<td>Medical students: Mother baccalaureate</td>
<td>0.003−</td>
<td>0.003−</td>
<td>0.003−</td>
</tr>
</tbody>
</table>

Bold: all medical and law students included; normal (not bold): concerning either law or medical students.
Group M1: 64 medical students at the end of their 5th year in 1996.
Group M2: 63 medical students at the beginning of their 5th year in 1996.
Group L1: 75 first to fourth year law students from an “international law” lecture in 1996.
Group L2: 93 mostly first year law students from a “law and medicine” lecture in 1996.

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In order to achieve a wider acceptance of patients’ right to know and not to know, more should be known about future physicians’ and future lawyers’ reasons to respect or not to respect patients’ wishes concerning information. We chose to compare future physicians to future lawyers as opposed to students from other areas because law students are a clearly defined group which represents also a group of future well educated patients and society’s “conscience” in so far as the basic values of modern society are reflected in its laws. They will also intervene as lawyers and judges in legal procedures concerning patients’ rights. The goal of this study is to identify the attitudes of future physicians and lawyers towards informing cancer patients about their diagnosis and prognosis. The questionnaire presented four case scenarios, each involving a 45 year old school-teacher described as competent and non-depressed who is suffering from metastatic lung cancer with a life expectancy of less than one year. Medical students were asked whether, if they were the physician in charge of the patient, they would inform him if they asked them to tell him the truth about his diagnosis (case 1) and prognosis (case 2). They were also asked whether they would inform the same patient if he clearly expressed his wish not to be told his diagnosis (case 3) and prognosis (case 4). Law students were asked, using the same four case scenarios, whether a physician by whom they would like to be treated themselves should inform the patient about his diagnosis and prognosis or not. We used a Likert scale allowing for five different responses: “I certainly inform”, “I probably inform”, “I am as likely to inform as not to inform”, “I probably do not inform”, and “I certainly do not inform” (“the physician should certainly/probably inform” etc for law students). Responses were scored from 1 to 5: 1 if the student strongly favoured the patient’s wishes being complied with, and 5 if the student strongly favoured not respecting the patient’s wish for or against being given information. All students were asked to indicate which of seven ethical or legal considerations (see appendix) had most determined their decision that the patient be informed or not in each of the four scenarios.

**AIMS AND HYPOTHESES OF THE PRESENT STUDY**

In order to achieve a wider acceptance of patients’ right to know and not to know, more should be known about future physicians’ and future lawyers’ reasons to respect or not to respect patients’ wishes concerning information. We chose to compare future physicians to future lawyers as opposed to students from other areas because law students are a clearly defined group which represents also a group of future well educated patients and society’s “conscience” in so far as the basic values of modern society are reflected in its laws. They will also intervene as lawyers and judges in legal procedures concerning patients’ rights. The goal of this study is to identify the attitudes of future physicians and lawyers towards informing cancer patients about their diagnosis and prognosis. The questionnaire presented four case scenarios, each involving a 45 year old school-teacher described as competent and non-depressed who is suffering from metastatic lung cancer with a life expectancy of less than one year. Medical students were asked whether, if they were the physician in charge of the patient, they would inform him if they asked them to tell him the truth about his diagnosis (case 1) and prognosis (case 2). They were also asked whether they would inform the same patient if he clearly expressed his wish not to be told his diagnosis (case 3) and prognosis (case 4). Law students were asked, using the same four case scenarios, whether a physician by whom they would like to be treated themselves should inform the patient about his diagnosis and prognosis or not. We used a Likert scale allowing for five different responses: “I certainly inform”, “I probably inform”, “I am as likely to inform as not to inform”, “I probably do not inform”, and “I certainly do not inform” (“the physician should certainly/probably inform” etc for law students). Responses were scored from 1 to 5: 1 if the student strongly favoured the patient’s wishes being complied with, and 5 if the student strongly favoured not respecting the patient’s wish for or against being given information. All students were asked to indicate which of seven ethical or legal considerations (see appendix) had most determined their decision that the patient be informed or not in each of the four scenarios.

**STATISTICAL ANALYSIS**

Computer statistical analyses were performed by means of the Statistical Package for the Social Sciences (SPSS). The non-parametric Mann-Whitney test for independent samples was used for comparisons between the responses on the Likert scale of dichotomous groups for example, medical students v
should cancer patients be informed about their diagnosis and prognosis?

RESULTS

One hundred and twenty seven (71%) of the medical students and 168 (64%) of the law students attending the lectures on the day of distribution returned completed questionnaires. Characteristics of students are described in detail elsewhere.*

Medical and law students did not differ significantly in respect to sex, religion, and educational level of parents. Significant differences existed concerning age, study year, ethical training, and cultural origin (see table 1).

Associations between the characteristics and the responses to the cases are shown in table 2.

All medical students (100%: 72.4% certainly; and 27.6% probably) and almost all law students (95.8%: 76.8% certainly; and 19.0% probably) favoured information about the diagnosis of cancer if the patient requested it (table 3).

Medical students were significantly less in favour than law students of informing a cancer patient about his prognosis (p = 0.0003); 82.2% of law students (54.2% certainly; and 28.0% probably) preferred that the physician inform the cancer patient of his prognosis but only 74% of medical students (29.1% certainly; and 44.9% probably). A significantly higher percentage of law students (35.1%: 21.4% probably; and 13.7% certainly) than medical students (11.8%: 7.9% probably; and 3.9% certainly) favoured telling the patient about the diagnosis even if the patient had clearly expressed his wish not to be informed (p = 0.0004, see table 4).

Significant differences were also found concerning the disclosure of information about prognosis to a patient who does

Table 4 Number (%) of medical and law students in favour of informing or not informing about the diagnosis or prognosis of cancer if the patient asks not to be told

<table>
<thead>
<tr>
<th>(3) Diagnosis</th>
<th>Medical students</th>
<th>Law students</th>
<th>(4) Prognosis</th>
<th>Medical students</th>
<th>Law students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>M (n=127)</td>
<td>M1 (n=64)</td>
<td>M2 (n=63)</td>
<td>L (n=168)</td>
<td>L1 (n=75)</td>
</tr>
<tr>
<td>1. Certainly do not tell</td>
<td>30 (23.6)</td>
<td>18 (28.1%)</td>
<td>12 (19.0%)</td>
<td>22 (13.1)</td>
<td>8 (10.7%)</td>
</tr>
<tr>
<td>2. Probably do not tell</td>
<td>55 (43.3)</td>
<td>31 (48.4%)</td>
<td>24 (38.1%)</td>
<td>69 (41.1)</td>
<td>24 (32.0%)</td>
</tr>
<tr>
<td>3. As likely to tell or not</td>
<td>27 (21.3)</td>
<td>10 (15.6%)</td>
<td>17 (27.0%)</td>
<td>17 (10.1)</td>
<td>8 (10.7%)</td>
</tr>
<tr>
<td>4. Probably tell</td>
<td>10 (7.9)</td>
<td>4 (6.3%)</td>
<td>6 (9.5%)</td>
<td>36 (21.4)</td>
<td>24 (32.0%)</td>
</tr>
<tr>
<td>5. Certainly tell</td>
<td>5 (3.9)</td>
<td>1 (1.6%)</td>
<td>4 (6.3%)</td>
<td>23 (13.7)</td>
<td>11 (14.7%)</td>
</tr>
</tbody>
</table>

p Value* (law versus med.) 0.0004
p Value* (same faculty†) 0.0001

<table>
<thead>
<tr>
<th>(1) Diagnosis</th>
<th>Medical students M1/M2‡</th>
<th>Law students L1/L2‡</th>
<th>(2) Prognosis</th>
<th>Medical students M1/M2‡</th>
<th>Law students L1/L2‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient autonomy</td>
<td>72.4***</td>
<td>39.9***</td>
<td>62.2***</td>
<td>39.9***</td>
<td></td>
</tr>
<tr>
<td>Informing is best</td>
<td>24.4***</td>
<td>44.0***</td>
<td>71.9/52.4 p=0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required by the law</td>
<td>2.4*</td>
<td>8.3*</td>
<td>21.3**</td>
<td>33.9**</td>
<td></td>
</tr>
<tr>
<td>Always tell the truth</td>
<td>4.7***</td>
<td>24.4***</td>
<td>3.9**</td>
<td>20.2***</td>
<td></td>
</tr>
<tr>
<td>Total number</td>
<td>n=127</td>
<td>n=168</td>
<td>n=127</td>
<td>n=168</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 Differences between medical and law students (%) concerning the four most often indicated reasons reported to have principally influenced the attitudes toward information about the diagnosis or prognosis of cancer if the patient asks to be told the truth

*No indication means that no significant difference existed between the two groups of students from the same faculty (p = 0.05).

†Between the two groups of students from the same faculty.

‡No indication means that no significant difference existed between the two groups of students from the same faculty.

§Mann-Whitney.

Group M1 : 64 medical students at the end of their fifth year in 1996.
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Group L2 : 93 mostly first year law students from a “law and medicine” lecture in 1996.
not want to know: 26% of law students (16.7% probably; and 8.9% certainly), but only 7% of medical students (3.9% probably and 3.1% certainly) favoured giving the information about prognosis against the clearly expressed wish of the patient.

Even if law and medical students did not show significantly different attitudes towards informing a cancer patient about his diagnosis at his request, the reasons reported by the students as having had the greatest influence on their decision to inform differed significantly between the two groups of students (Table 5).

Law students indicated significantly more often than medical students reasons in connection with the patient's good, legal obligations and the physician's obligation to tell the truth in contrast, law students reported significantly less often than medical students that their attitude had been determined predominantly by respect for the autonomous choice of the patient. The same differences were also found in the other three case scenarios (Tables 5 and 6).

The reasons indicated by students in favour of informing a patient who wanted to know differed significantly from the reasons indicated by students in favour of not informing a patient who wanted to know and also from the reasons indicated by students favouring not giving information to a patient who did not want to know (Tables 7 and 8). Respect for the autonomous choice of the patient was the reason most cited (by more than 70%) by medical students for respecting the patient's wish for or against information. Respect for patient autonomy was given by the medical students even more often (by more than 89%) as the reason to respect the patient's right not to know. A considerable percentage (about 40% of law students and 24% of medical students) of students who respected the patient's wish for information indicated that the best thing for

Table 6 Differences between medical and law students (%) concerning the four most often indicated reasons reported to have principally influenced the attitudes toward information about the diagnosis or prognosis of cancer if the patient asks not to be told the truth

<table>
<thead>
<tr>
<th>Type of reason</th>
<th>Medical students L1/L2‡</th>
<th>Law students M1/M2‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient autonomy</td>
<td>80.3***</td>
<td>55.4***</td>
</tr>
<tr>
<td>87.5±73.0 p=0.04</td>
<td>89.1/74.6 p=0.03</td>
<td></td>
</tr>
<tr>
<td>Informating is best</td>
<td>15.7**</td>
<td>27.4**</td>
</tr>
<tr>
<td>12.6</td>
<td>20.8†</td>
<td></td>
</tr>
<tr>
<td>Required by the law</td>
<td>0.8***</td>
<td>7.7***</td>
</tr>
<tr>
<td>0.8</td>
<td>5.4*</td>
<td></td>
</tr>
<tr>
<td>Always tell the truth</td>
<td>3.1</td>
<td>4.8</td>
</tr>
<tr>
<td>1.6***</td>
<td>12.5***</td>
<td></td>
</tr>
<tr>
<td>Total number n=127</td>
<td>n=168</td>
<td></td>
</tr>
</tbody>
</table>

**p (χ²) <0.001, ***p (χ²) <0.01, *p (χ²) <0.05, and tp (chi²) = 0.06 for comparison between all law and all medical students.

†No indication means that no significant difference existed between the two groups of students from the same faculty (p>0.05).

Group M1 : 64 medical students at the end of their 5th year in 1996.
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Table 7 The four most often indicated reasons* by medical and law students (%) reported to have principally influenced the attitudes toward information about the diagnosis or prognosis of cancer if the patient asks to be told the truth

<table>
<thead>
<tr>
<th>(1) Diagnosis</th>
<th>(2) Prognosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasons‡</td>
<td>Reasons‡</td>
</tr>
<tr>
<td>Most often</td>
<td>Most often</td>
</tr>
<tr>
<td>2nd most</td>
<td>2nd most</td>
</tr>
<tr>
<td>3rd most</td>
<td>3rd most</td>
</tr>
<tr>
<td>4th most</td>
<td>4th most</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Law students</th>
<th>Medical students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (n=128)</td>
<td>1 (n=90)</td>
</tr>
<tr>
<td>BI (46.9)</td>
<td>A (46.7)</td>
</tr>
<tr>
<td>BI (39.8)</td>
<td>BI (45.6)</td>
</tr>
<tr>
<td>T (24.2)</td>
<td>T (23.3)</td>
</tr>
<tr>
<td>RL (9.4)</td>
<td>RL (10.0)</td>
</tr>
<tr>
<td>2 (n=32)</td>
<td>2 (n=47)</td>
</tr>
<tr>
<td>A (43.8)</td>
<td>A (38.3)</td>
</tr>
<tr>
<td>BI (40.6)</td>
<td>BI (29.8)</td>
</tr>
<tr>
<td>T (25.0)</td>
<td>T (25.5)</td>
</tr>
<tr>
<td>DH (9.4)</td>
<td>BI (11.1)</td>
</tr>
<tr>
<td>3 (n=5)</td>
<td>3 (n=9)</td>
</tr>
<tr>
<td>A (40.0)</td>
<td>A (33.3)</td>
</tr>
<tr>
<td>T (40.0)</td>
<td>BI (11.1)</td>
</tr>
<tr>
<td>BI (20.0)</td>
<td>T (11.1)</td>
</tr>
<tr>
<td>BI (20.0)</td>
<td>BN (11.1)</td>
</tr>
<tr>
<td>4 (n=2)</td>
<td>4 (n=17)</td>
</tr>
<tr>
<td>BN (100.0)</td>
<td>BN (47.1)</td>
</tr>
<tr>
<td>5 (n=0)</td>
<td>5 (n=4)</td>
</tr>
<tr>
<td>BI (75.0)</td>
<td>BI (47.1)</td>
</tr>
<tr>
<td>A (25.0)</td>
<td>DH (35.3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medical students</th>
<th>1 (n=92)</th>
<th>1 (n=37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI (77.2)</td>
<td>BI (70.3)</td>
<td></td>
</tr>
<tr>
<td>BI (20.7)</td>
<td>BI (16.0)</td>
<td></td>
</tr>
<tr>
<td>T (5.4)</td>
<td>T (10.0)</td>
<td></td>
</tr>
<tr>
<td>RL (3.3)</td>
<td>DH (8.1)</td>
<td></td>
</tr>
<tr>
<td>2 (n=35)</td>
<td>2 (n=57)</td>
<td></td>
</tr>
<tr>
<td>A (60.0)</td>
<td>A (71.9)</td>
<td></td>
</tr>
<tr>
<td>BI (34.3)</td>
<td>BI (29.8)</td>
<td></td>
</tr>
<tr>
<td>DH (8.6)</td>
<td>T (3.5)</td>
<td></td>
</tr>
<tr>
<td>T (2.9)</td>
<td>BI (18.1)</td>
<td></td>
</tr>
<tr>
<td>3 (n=0)</td>
<td>4 (n=13)</td>
<td></td>
</tr>
<tr>
<td>A (65.3)</td>
<td>BN (23.1)</td>
<td></td>
</tr>
<tr>
<td>BI (25.0)</td>
<td>A (23.19)</td>
<td></td>
</tr>
<tr>
<td>BN (18.1)</td>
<td>BI (7.7)</td>
<td></td>
</tr>
<tr>
<td>4 (n=0)</td>
<td>5 (n=4)</td>
<td></td>
</tr>
<tr>
<td>A (25.0)</td>
<td>Others§</td>
<td></td>
</tr>
</tbody>
</table>

* A = respect for autonomy, BI = informing is best, BN = not informing is best, T = always tell the truth, RL = required by the law, DH = don’t harm.
†If >100% in the same line this is due to about 5–10% of students having indicated more than one reason as most important.
‡No indication means that no significant difference existed between the two groups of students from the same faculty (p>0.05).

Group M1 : 64 medical students at the end of their 5th year in 1996.
Group M2 : 63 medical students at the beginning of their 5th year in 1996.
Group L1 : 75 fifth to fourth year law students from an “international law” lecture in 1996.
Group L2 : 93 mostly first year law students from a “law and medicine” lecture in 1996.
the patient who wanted to know would be to inform him. A significantly smaller percentage (less than 6% of medical students and less than 12% of law students) of students who respected the patient's wish not to have information indicated that the best thing for the patient who did not want to know would be not to be informed.

**DISCUSSION**

**The most important findings of the study**

In this study, we examined whether future physicians and future lawyers in Geneva would respect the right of a cancer patient to know or not to know his diagnosis and prognosis and the self-reported reasons for these decisions. Four hypothetical cases presented a 45-year-old competent, well-educated patient suffering from metastatic lung cancer with a life expectancy of less than one year who asks to know his diagnosis (case 1) and prognosis (case 2) or, alternatively, asks not to be told his diagnosis (case 3) or prognosis (case 4).

Our results indicate that all future physicians and 95.8% of future lawyers of our samples would respect the right of a cancer patient to know his diagnosis. However, the right of a cancer patient to be informed about poor prognosis is respected by significantly fewer future physicians (74%) and future lawyers (82.2%). Still fewer future physicians (66.9%) and future lawyers (54.2%) would respect the right of a cancer patient not to know his diagnosis. The right not to know about prognosis was respected by 80.3% of future physicians, but only 62.5% of future lawyers.

We found a limited number of associations between the responses to some of the cases and self-reported cultural origin, religion, ethical teaching, and school education of parents but not sex of students. These associations could not explain the significant differences between law and medical students (see table 2).

**Confirmation of the two hypotheses**

The identification of self-reported reasons helped us to understand better why students’ attitudes vary according to the type of case and according to the type of studies (law versus medicine).

First of all, in all four case scenarios medical students reported significantly more often than law students that their decision about informing the patient had been influenced by the view that physicians should respect the autonomous choices of patients. Law students reported more often than medical students deontological reasons, referring to the patient’s good, the avoidance of harm, and veracity, as well as “legal obligation”. Even if respect for the patient’s autonomy was indicated as principal reason significantly more often by students who respected the patient’s wish than by students who did not, a sizeable percentage of students did not respect the patient’s wish in spite of placing a high value on patient autonomy. Similarly, Fried et al. found that the great majority of those among 256 physicians in Rhode Island who would respect the wish of a hypothetical patient to stop treatment or to receive a great amount of pain medication affirmed that respect for patient autonomy is important. However, about thirty per cent of those who would not respect the patient’s wish still acknowledged the importance of respect for patient autonomy. These findings show that future physicians in Geneva, similarly to American physicians, and significantly more than future lawyers in Geneva, recognize respect for patient autonomy as an important value. The fact that more medical students than law students justified their attitudes by referring to the importance of patient autonomy does not, however, imply medical students’ greater compliance with the patient’s wish in case scenario 2. Even if significantly more medical students (62.2%) than law students (39.9%) indicated respect for patient autonomy as the most important for their attitude, medical students were significantly less likely to respect the cancer patient’s right to be told his prognosis.

Our results concerning the self-reported reasons of students confirm also our second hypothesis, which states that differences in attitude towards information-giving are related to conflicting evaluations of whether the information would benefit or harm the patient. Differences of attitudes according to the type of case and the type of faculty (law versus medicine) were related to these different evaluations. Only a
few future physicians seemed to have been convinced that it
would be best for a patient not to be informed of his diagnosis
and prognosis if he asked not to be told. On the contrary, a
substantial minority of medical students said that they would
inform a patient at his request because such a course would be
the best for the patient. Similarly, Holland et al. found that
most physicians believed that information about the diagnosis
of cancer was in the best interest of the patient, because
knowing a diagnosis of cancer had been shown to be well tol-
erated by most patients and was believed to have positive
effects on patients’ coping, compliance, tolerance of treat-
ment, planning for the future, communication with others,
and improved prognosis. Many physicians, however, judge
that telling a cancer patient the truth about poor prognosis
is not as much in the best interest of the patient as telling
the truth about his diagnosis. A significant minority of future
physicians at Geneva seem to be more influenced by their own
evaluation of the patient’s good than by their respect for the
patient’s right to know or not to know. The evaluation that
information about diagnosis is beneficial seems to be the rea-
son why only 66.9% of future physicians said they would
respect the right of the cancer patient not to know his diagno-
sis. The evaluation that information about a cancer prognosis
is less, or not at all, beneficial, seems to be the reason why
fewer future physicians (74%) said they would agree to inform
a patient of his prognosis at his request than of his diagnosis,
and why more future physicians (80.3%) agreed not to inform a
patient of his prognosis if he asked not to be told than not to in-
form of his diagnosis (66.9%). In contrast, the greater
willingness among future lawyers in Geneva to respect the
patient’s right to know his prognosis (82.2%) than among
future physicians (74.0%) can be explained by the signifi-
cantly greater percentage among the former having indicated
that being informed would be best for the patient.

Veracity
As opposed to future lawyers, very few (< 5%) future
physicians reported having been influenced by an ethical obli-
gation to tell the truth or by legal concerns (Geneva has a can-
tonal law indicating the right of the patient to full
information, except in emergency situations). Our findings
are in accordance with other studies which show that many
physicians justify their decisions in terms of consequences
and place a higher value on patients’ welfare than on
truth-telling for its own sake or concern for legal provisions
and obligations to society. Physicians who chose not to com-
ply with a patient’s wishes for assisted suicide or euthanasia
perceived that the intervention requested was not ethically
acceptable, or identified a conflict with their moral beliefs as
the reason not to comply with patient wishes, rather than
referring to the fact that the intervention did not have a
valid legal basis.

Implications of our study for the teaching of ethics
Our results concerning the self-reported reasons of future
physicians and future lawyers are helpful when considering
means to achieve a better acceptance of patients’ right to know
and not to know. The reluctance of physicians to inform about
poor prognosis could be diminished if physicians were better
informed, first, about the fact that not only law students in
Geneva and most healthy adults, but also a great majority of
cancer patients wish to be informed about prognosis even if
it is poor, and second about empirical evidence that disclosing
the truth to a patient who wants to know seems to be benefi-
cial. Some medical students reported not being in
favour of telling the patient about his poor prognosis because of
the impossibility of predicting the individual patient’s exact
prognosis from average statistical life-expectancy data. It is
possible that the more positive attitude to informing about
prognosis among law students is related to a simplistic view of
the prognostic “truth” for particular patients. Knowing about
medical students’ difficulties in considering statistical infor-
mation to be the “truth” for an individual patient is important
because it underlines the necessity of addressing these
questions more explicitly during medical and ethical educa-
tion. A practical application of our study to medical education
could be to use our findings in the development of case-based
teaching modules on information about prognosis and respect
for patients’ wishes.

Methodological weaknesses
Our study has some methodological weaknesses because large
numbers of tests done comparing pairs of groups can generate
“significant” results by chance alone. However, the consist-
ency of the various results within our study as well as with
other studies in this area speaks against the influence of
chance alone. Another methodological weakness of our study
is that for reasons of accessibility of students and differences
in the length of the curriculum in medical and in law school,
medical students from our study were on average two years
older than law students. We cannot exclude the possibility that
this age effect influenced our results. However, we found
nothing to suggest that differences in age would explain the
different attitudes: attitudes of older law students, that is, stu-
dents whose age was at least 24 years and thus comparable to
the age of medical students, did not differ from attitudes of
younger law students. A further methodological problem is
that the questions we asked the future doctors and lawyers
were not exactly the same. Doctors indicated what they would
do, but law students what the “good” physician should do.
This could account for some of the differences in the
responses. Other studies show that physicians would not
always do what they think they should do and would not
always treat patients how they would wish to be treated
themselves: according to Oken, 60% of physicians desired to
be informed if they had cancer, though 88% usually did not inform a cancer patient.

The generalisation of the findings of our study is limited in two
respects. First, we only tested scenarios concerning a
professional, middle-aged, male patient with lung cancer.
Findings might have been different if the patient had been a
young woman suffering from leukaemia. Second, we used
samples and studied the attitudes of fifth year medical
students rather than physicians, and of law students rather than
real patients. Second, there could be considerable
sampling bias because those who attended their lecture and
completed the questionnaire were probably more motivated in
general, and more interested in ethical and legal issues than
those who did not attend and than those who attended but did
not complete the questionnaire. Some generalisation is
justified, however, because we reached a high percentage (two
thirds) of all fifth year medical students from two consecutive
years and at least one sample of more advanced law students
not influenced by specific teaching about law and medicine
(group L1). Moreover, the attitudes of the two groups of
students of the same type are similar, whereas the attitudes
of medical and law students differ in a consistent way. We cannot
rule out the possibility that our results reflect the attitudes of
“more interested” students, but this would be the case for law
students as well as for medical students. Overall, the attitudes
of future physicians at Geneva towards telling a cancer patient
about diagnosis are comparable to attitudes of physicians in the
United States and Northern Europe. Concerning the informa-
tion about cancer prognosis, the fifth year medical students
at Geneva were more likely than physicians from the areas
mentioned before to tell the truth if the patient asked to
know it. Further studies among physicians of different
generations at Geneva would be needed in order to know
whether the greater willingness to inform is characteristic of a
sample of students and disappears with growing clinical

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experience or whether local education in medical ethics has a persistent effect on physicians recently trained at the University of Geneva.

A competent patient’s right to know and right not to know are cornerstones of today’s medical ethics. Other more detailed studies are needed if we are to know more about why these rights are still incompletely respected in many countries.

References


