

Knowledge, Attitudes and Practice of Medical Students at the Cave Hill Campus in Relation to Ethics and Law in Healthcare

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ABSTRACT

Objectives: *The purpose of this study is to assess the knowledge, attitudes and practices among medical students in relation to medical ethics and law. The results of the study will be a useful guide to tutors of medical students and curricula designers.*

Methods: *A thirty-item self-administered questionnaire about knowledge of law and ethics, and the role of an ethics committee in the healthcare system was devised, tested and distributed to all levels of students and staff at the Queen Elizabeth Hospital in Barbados (a tertiary care teaching hospital) in 2003. The data from the completed questionnaires were entered into an SPSS database and analyzed using frequency and multiple cross-tabulation tables.*

Results: *Completed responses were obtained from 55 (96%) of the medical students. Medical students generally attested to the importance of ethical knowledge but felt that they knew little of the law. Students varied widely as regards the frequency with which they saw ethical or legal problems, with a quarter seeing them infrequently, but another quarter seeing them every day. They received their knowledge from multiple sources and particularly from lectures/seminars, and found case conferences the most helpful. Only a few students felt that text books had been helpful. Students were generally knowledgeable about most ethical issues, but many had uncertainties on how to deal with religious differences in treating patients, on the information to be given to relatives, and how violent patients should be treated.*

Conclusions: *The results of the study highlight that medical students felt an inadequacy of knowledge of law as it pertains to their chosen career. Since most of their knowledge of law was obtained from lectures, these should be reviewed and other avenues of tuition explored. The study also highlights the need to identify the minority of students who have problems with their ethical knowledge and to devise means whereby any deficiencies can be discussed and modified.*

Conocimientos, Actitudes y Prácticas de los Estudiantes de Medicina en el Campus Cave Hill en Relación con la ética y las Leyes en el Campo de la Atención a la Salud

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RESUMEN

Objetivos: *El propósito de este estudio es evaluar los conocimientos, las actitudes y la práctica entre los estudiantes de medicina en relación con la ética y las leyes en el campo de la medicina. Los resultados del estudio serán una guía útil para los tutores de los estudiantes de medicina y los diseñadores de currículos de estudios.*

Métodos: *Una encuesta auto-administrada de treinta puntos sobre los conocimientos de leyes y ética, y el papel de un comité de ética en el sistema de atención a la salud, fue diseñada, probada y distribuida a todos los niveles entre los estudiantes y el personal del Hospital Queen Elizabeth en Barbados (un hospital docente de atención terciaria) en 2003. Los datos de las encuestas completadas fueron introducidos en una base de datos de SPSS, y analizados usando tablas de frecuencia y tablas múltiples de tabulación cruzada.*

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Resultados: *Se obtuvieron cuestionarios respondidos por parte de 55 (96%) de los estudiantes de medicina. Los estudiantes de medicina por lo general atestiguaron la importancia de los conocimientos éticos, pero sentían que sabían poco de las leyes. Hubo grandes diferencias entre los estudiantes con respecto a la frecuencia con que veían problemas éticos o legales – una cuarta parte de ellos señalando que no los veía frecuentemente, y otra cuarta parte indicando que los veía todos los días. Ellos recibieron sus conocimientos de múltiples fuentes – especialmente de conferencias y seminarios – y encontraron que las conferencias sobre casos, fueron las más útiles en tal sentido. Sólo unos pocos estudiantes fueron del parecer de que los libros de texto habían sido útiles. Por lo general, los estudiantes se mostraron conocedores de la mayoría de los problemas éticos, pero muchos manifestaron incertidumbre en cuanto a cómo abordar las diferencias religiosas al tratar con los pacientes, qué información dar a los familiares, y cómo debían ser tratados los pacientes violentos.*

Conclusiones: *Los resultados del estudio ponen de relieve que los estudiantes de medicina percibían cierta insuficiencia en relación con los conocimientos sobre asuntos relacionados con las leyes dentro del marco de la carrera elegida. Como que la mayor parte de sus conocimientos fueron obtenidos de las conferencias, éstas deben ser reconsideradas, a la par que se exploren otras vías de instrucción. Asimismo, el estudio resalta la necesidad de identificar la minoría de estudiantes que tienen problemas con sus conocimientos en materia de ética, y diseñar medios que permitan discutir y modificar cualquier deficiencia.*

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INTRODUCTION

In spite of tremendous advances in healthcare resulting in the prolongation of life and the cure or amelioration of previously incurable conditions, many communities express dissatisfaction about the care they receive. Dissatisfaction is reflected in expressions about poor ethical conduct within the healthcare sector and an increasing use of litigation against healthcare practitioners. It is also reflected in an increase in the popularity of 'alternative medicine' in spite of it being largely untested, unregulated and with little accredited training required by its practitioners.

Concern for the conduct of the caring professions is not new, it goes back to antiquity when there was little scientific basis for medicine and 'alternative medicine', as we now know it, held sway. Nevertheless, the principles in the Hippocratic Oath have endured and remain important for the ethical conduct of health professionals. Codes of conduct and laws regulating the profession have been updated from time to time; they are taught and there has been a growth of ethicists and ethical committees, yet concerns about professional conduct appear to grow (1, 2). Complaints may be a reflection of better public awareness or poor practices within the health sector. How doctors are trained, is regarded as a key element in determining the ethical and legal conduct within the healthcare sector (3). It is therefore important to find out from medical students their knowledge and attitudes about medical ethics and law and relate it to the knowledge and attitudes of the people they work with. The medical students studying at the Queen Elizabeth Hospital (QEH) in Barbados are The University of the West Indies students in the final two years of their five-year course. They would have undergone formal instruction in ethics in the earlier (pre-clinical) years of their course at the Mona or St Augustine campuses in Jamaica and Trinidad and Tobago

respectively. At the time of the study, there was no formal course in ethics in the final two years, although there were activities which provided exposure to ethical problems including lectures and case conferences. Various methodologies have been tried to stimulate better ethical conduct in healthcare settings but there are few studies designed to measure what is known and practised, so that educational efforts may be better targeted (4).

SUBJECTS AND METHODS

A self-administered questionnaire was devised to determine the knowledge, attitudes and practice of ethics and law of all categories of healthcare personnel. The questionnaire was developed with the inclusion of a wide range of response options to some questions, a 5-point response option for attitudinal questions, and it was pre-tested on a group of healthcare workers.

The questionnaire contained questions dealing with demographics of the respondents, how often ethical or legal problems were encountered, how knowledge about ethics and law was obtained, who would be consulted on such problems, the perception and role of an ethics committee, and on attitudes to patient autonomy, confidentiality, informed consent in adults and children, end of life care, abortion, religion and the treatment of violent patients.

Six hundred questionnaires were distributed to all levels of staff at the Queen Elizabeth Hospital in Barbados and collected from drop boxes in the institution. Data from the returned questionnaires was entered into the SPSS version software and analyzed using its data analysis programmes. Since the sampling of different categories of personnel was 'convenient', a descriptive analysis, rather than statistical significance, was performed.

RESULTS

Sixty-two per cent (373) of the questionnaires were returned, of these 55 were medical students, representing 96% of the students at the QEH at the time of the survey. The demographic characteristics of the respondents were typical of their groups. Seventy per cent of the respondents overall as well as the medical students were female.

The following questions were asked:

'How often do you meet an ethical or legal problem in the course of your work?'

Eleven per cent of medical students responded that they never saw ethical or legal problems, a similar percentage responded that they saw problems once a year or less, and one quarter said they saw ethical problems on a daily basis (Table 1).

Table 1: Frequency of seeing ethical or legal problems

Frequency of Ethical or Legal problems	No of Responses	Per cent of Medical students
Never	6	11%
Once a year or less	6	11%
Once a month	16	30%
Once a week	10	18%
Every day	13	23%
No response	4	7%
Total	55	100%

'How important is knowledge of ethics to you in your work?'

Medical students were generally very positive about the importance of ethical knowledge (Table 2). However, one student thought such knowledge was not important and that

Table 2: Importance of ethical knowledge

Not at all	0	0%
Little	1	2%
Important	12	22%
Very important	15	27%
Extremely important	27	49%
Total	55	100%

student was among those who responded that they saw ethical problems infrequently.

'How did you get your knowledge of ethics?'

The majority of students (60%) responded that they acquired their knowledge from multiple sources and in particular during their training. Nearly 40% of the students said they had single sources for their knowledge about ethics and this contrasted with more than 50% responding to a similar question about their knowledge of the law (Table 3). The single source for either knowledge of ethics or law was predominantly lectures and seminars.

'Do you know the laws pertaining to your work?'

Table 3: Main sources of ethical and legal knowledge

Sources of Knowledge	Responses re Ethics	Single sources re Ethics	Responses re Law	Single sources re Law
During training	58.2%	9.1%	41.8%	7.3%
Job experience	43.7%	—	30.9%	1.8%
Lectures and Seminars	44.5%	21.8%	81.8%	45.5%
Self tuition	16.2%	—	12.7%	—
Other sources	38.2%	5.5%	5.5%	—

The vast majority of students (93%) said they had little or no knowledge of the law related to their work (Table 4). A lesser majority of the professional cadres also stated that they

Table 4: Knowledge of the law

None	9	16.4%
Little	42	76.4%
Enough	1	1.8%
Most of them	3	5.4%
All	0	0%
Total	55	100%

knew none or little of the law pertaining to their work. For example, 14 out of 27 consultants who responded to the questionnaire said they knew little of the law. There was no correlation between frequency of seeing problems and knowledge of the law among students (Table 5).

Table 5: Little or no knowledge of the law (51 students) vs frequency of seeing problems

Frequency of Ethical/legal problem	Little or No Knowledge of the Law	
Never/Once a year or less	11	21.5%
Once a month	16	31.5%
Once a week	9	17.5%
Every day	11	21.5%
No response	4	8%
Total	51	100%

'How did you get your knowledge of the law related to your work?'

In contrast to the question related to sources of ethical knowledge, a majority of students responded that they had single sources for their knowledge in relation to law and in particular through lectures and seminars (Table 3).

'Would you say that you know the main contents of: The Hippocratic Oath; The Nurses' Code; The Helsinki Declaration; The Nuremberg Code?'

Seventy per cent (38) of the students responded that they were familiar with the contents of the Hippocratic Oath. However, apart from two students who responded that they were familiar with the Nursing code as well as the Hippo-

cratic Oath, none knew of these or any other codes of conduct.

'Whom would you prefer to consult on an ethical problem?'

All except five students chose multiple responses to this question. The majority of students said they would consult with their immediate supervisor or the head of a department and about half of them would consult with their own colleagues. Four students (7%) would not consult with any institutional resource, preferring to go to close friends or family and in one instance their priest. Only three students would have considered going to a text.

'If you thought you had a legal problem arising at work who would you consult?'

The responses were similar to those on whom students would consult on an ethical problem but the responses were less positive, eg, 50% rather than 60% would have gone to their immediate supervisor or head of a department and a third rather than half would have consulted their colleagues. There were similar small numbers that would not use any institutional resource but go to friends, family or their personal lawyer.

'Is there an Ethics Committee at your Institution?'

About half of the students (30) knew that there was an ethics committee at the institution but 20% were positive that

there was none, the others responded that they did not know. Of those who answered affirmatively, two thirds of them thought the committee was performing its role satisfactorily. Of the students who did not know that there was an ethics committee at the QEH, about half of them (13/25) felt that there was a role for such a committee.

'If an Ethics committee exists, what do you see as its role?'

Only the 30 students who responded that they knew that there was an ethics committee at the institution were invited to answer this question, and they chose multiple roles. All responded that they saw the committee as advisory to the administration and 55% (17) saw it as advisory to staff; a minority saw the committee as having a role in dealing with complaints (4), the disciplining of staff (12) or having a teaching role (10) (Table 6).

'Ethical conduct is only important to avoid legal action'

Fifty out of the 52 students responding disagreed with this statement. The responses to this and other questions on ethics are summarized in Table 7, with percentages adjusted to 0.5.

'Have you attended or used any of the following activities which dealt with ethics and law in healthcare? If so, state how helpful they were?'

Table 6: Role of the Ethical Committee: Number of responses of the 30 students who knew there was an ethical committee; in order of frequency

To advise the administration on ethics rules in the institution	30	To discipline staff for breaches in ethical conduct	12
To advise staff and patients on ethical problems	17	To ensure that research work is conducted properly	11
To advise the staff on ethical problems they encounter	17	To teach ethical conduct	10
To review the work of staff for mistakes made	16	To judge on problems between staff and between staff and patients	7
To advise the administration on legal problems in the institution	15	To receive and deal with complaints from patients and relatives	4
To advise staff on legal problems	14	To advise patients of their legal rights	2

Table 7: Responses to 'Ethics' questions

Questions	Percentage responses			
	Strongly/Disagree	Not sure	Strongly/Agree	No response
'Ethical conduct is only important to avoid legal action'	91	–	3.5	5.5
'The patient's wishes must always be adhered to'	16.5	20	60	3.5
'The patient should always be told if something goes wrong'	9	13	74.5	3.5
'Confidentiality cannot be kept in modern care and should be abandoned'	89	3.5	2	5.5
'The doctor should do what is best irrespective of the patients opinion'	85.5	7.5	3.5	3.5
'Patients only need to consent for operations not for tests or medications'	91	5.5	–	3.5
'Close relatives must always be told about a patients condition'	31	22	43.5	3.5
'Children [except in an emergency] should never be treated without the consent of their parents or guardians'	23.5	2	72.5	2
'Doctors and nurses should refuse to treat patients who behave violently'	67	11	20	2
'The law allows abortion to be performed, therefore a doctor cannot refuse to do an abortion for a patient'	83.5	9	5.5	2
'A patient who wishes to die should be assisted in doing so no matter what their illness'	78	18	2	2
'A patient who refuses to be treated on religious or other grounds should be told that they need to find another doctor with their beliefs or accept the treatment offered'	65.5	25.5	7	2

Twenty-six students, nearly 50%, did not respond to this question. The results are summarized in Table 8. Very few students who responded had any exposure to Journals or

for the question related to the helpfulness of various activities for learning ethics and law, where the response rate was just over 50%. Taking together the non-responders and those

Table 8: Helpfulness of various activities

	Not helpful	A little helpful	Helpful	Very helpful	Extremely helpful	No experience
Journals on ethics			1	2		26
Books on ethics		2	4			23
Textbooks	2	4	4		1	18
Newspapers	5	3	4	1		16
Television	2	6	1	5		15
Workshops/seminars	1		3	6	2	17
Workshop with role play			2		3	24
Undergraduate lectures			7	1	4	10
CME lectures		5	6	6		12
Panel discussions		1		3		25
Case conferences		2	10	8	3	6
Handouts	2	5	3	3	1	15

books on ethics, and those that had found them helpful. The greatest exposure was to case conferences and undergraduate lectures and these were helpful and in particular the case conferences. It is of interest that a third of the students responding said that they had no experience of lectures on ethics and law, when this was the primary mode of instruction in this area. The areas which some students found unhelpful were textbooks, handouts, newspapers and television.

'How would you personally use an ethics committee?'

There were multiple responses offered for this question. The frequency of responses is in Table 9. Three-quarter

Table 9: Personal use for an ethical committee

To check what is the right thing to do when I am uncertain of what to do	78%
To ask what is the right thing to do when something has gone wrong	73%
To try and resolve differences with colleagues as to how to proceed	54.5%
To disseminate interesting experiences for the benefit of all	51%
To discuss difficult life and death decisions	45.5%
To resolve differences with patients or relatives	32.5%
To intervene with management when problems arise	32.5%
To point out to colleagues the things they are doing wrong	29%
To complain about the behaviour of colleagues	20%

ters of the students would want to use an ethical committee to seek advice on problems, but only a quarter of students would see it as having a role in dealing with complaints related to staff.

DISCUSSION

Ninety-six per cent of the students responded to the questionnaire, therefore the results can be considered to be representative of the knowledge and opinions of the medical students at the QEH at the time of the study. The response rate to individual questions was greater than 90 per cent, except

who said they had no experience of various teaching/learning activities related to ethics and law, one could draw the conclusion that there is little interest among the students in attending learning activities in this subject area.

In response to the question as to the frequency of the ethical and legal problems seen, there was a full spectrum of responses from 'never' seeing any to seeing them 'every day'. There appeared to be no differences in how important medical students thought ethical knowledge was, or how much law they knew in relation to how often the students saw problems. The variation in the perception of how often ethical and legal problems were seen was also seen in the wider survey among the professional cadres including those who are called on to supervise the students. If those students who responded that they saw problems every day reflect an increased awareness of these students, one needs to decide how to increase awareness among other students and those who supervise them, for the students do state that they are more likely to look to their seniors for advice on ethical and legal problems.

In a study in the United States of America (USA) comparing attitudes regarding ethics between faculty and house staff, Sulmasy *et al* found that the high confidence of staff to teach ethics did not match with the staff's low knowledge scores on ethics found in the study (5). In the present study, medical students said that they would consult their supervisors or heads of a department if they had an ethical or legal problem. It is noteworthy that over half of the persons responding that they knew little of the law pertaining to their work were immediate supervisors (*ie* consultants).

Most of the students were very positive about the importance of ethical knowledge, however, since it is known that one or a few individuals could be responsible for a number of complaints about the conduct of staff, then methods should be devised to identify and try to stimulate an interest in ethical knowledge and conduct among those few who did

not think that these matters were important. The dilemma of matching the actual experience of ethical problems to the education process of students has been noted elsewhere (4). The information gleaned about the education process of medical students in this study showed that a substantial percentage of the students obtained their knowledge from lectures only. It is also a matter of concern that students expressed the view that they knew little of the law in spite of the lectures they had received, although a substantial number said they had no experience of lectures on the topic. This indicates that there is a need for greater attention to be paid to the methods of training in the law appropriate to medicine and in the international codes of conduct, for without such knowledge there is likely to be a continuing mismatch of beliefs between practitioners' and ethicists on social situations as concluded by Dickenson in a study of practitioners attitudes towards end of life decisions (6).

Although the students would use their supervisors and heads of departments as sources of knowledge, few would use a text. This probably relates to the fact that there are currently no recommended texts that deal with ethics and law for these students. Students were most positive about the educational experience they received at case conferences and their undergraduate lectures (Table 8). Case conferences are an innovation within the last two years of the ethics committee at the QEH, and they have been attended by doctors and nurses as well as the medical students. The proceedings of some of the case conferences have been published in the Bulletin of the Barbados Association of Medical Practitioners (7).

Students also responded that they would want to use an ethical committee to consult on problems. However, the existence of the ethical committee at the QEH was not known to nearly half of the students nor a substantial number of other professionals (8), for its existence and functions have not been published by the administration of the hospital.

The responses of students to specific questions suggest that the majority of students understand the usual ethical issues and their nuances. As regards the autonomy of patients, students expressed a strong sense that patients should make decisions for themselves, although some 15 per cent, in the opinion of the authors, rightly expressed some caution as regards following the patients' opinions when doing what is best for the patient. In addition, most students were committed to telling the truth to patients, 90 per cent expressed their commitment to the confidentiality of patient information and 80 per cent did not agree to the suggestion of euthanasia. However, it is important to derive mechanisms to discover students such as the two who responded that they strongly agreed that ethical conduct was only important to avoid legal action, and to explore with them their views. There was also the substantial uncertainty among students on how to deal with religious strictures in treating patients, on the information to be given to relatives, and a substantial

body of disagreement as to how to deal with violent patients. These are important issues which when encountered often need to have on the spot decisions made, and therefore are areas that require some emphasis in the education process. The means of dealing with the perceptions of a minority among students may require the use of interactive techniques such as workshops with role play, of which the majority of the students had no experience (Table 8).

This survey did not examine the frequency with which specific ethical issues arose, but differences existed in perception between the students and other health workers (7). This accords well with the findings of Robillard et al that older practitioners reported lower frequencies of occurrences of ethical problems than juniors (9).

In summary, medical students at the QEH in Barbados generally understand the importance of ethical knowledge and the majority answered correctly to questions designed to test how they would respond in situations which deal with the nuances of consent, confidentiality and patient autonomy. There were substantial minorities of students who were uncertain or incorrect on the questions pertaining to dealing with relatives, religious conflict situations and violent patients. The students responded that they knew little of the law, and were unaware of codes of conduct other than the Hippocratic Oath. Case conferences and lectures seem to have been the most helpful mode of education for the students, and most had no experience of journals, books or interactive workshops in dealing with this important area of their education. These findings should be taken into account in determining how to teach ethics to health professionals.

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