Mock trial as a strategy of the teaching of medical ethics

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Abstract
This study aimed to identify students’ perceptions about the importance of the mock trial as a strategy for teaching medical ethics in a medical school. During the mock trial of the second term of 2010, students answered a questionnaire with Likert scaled items that in which were included three specific questions about the use of the strategy: contribution to learn about medical ethics, relevance to the training and if recommends the continuation of the activity at the Institution. Two hundred eleven students attended and all responded to the survey. Students who answered “definitely yes” or “probably yes” to three questions scaled reached, respectively, a total of 96.2%, 93.9% and 92.5%. This result led to conclude that, based on the favorable perception of the students surveyed; it is recommended the continuation of the mock trial as a strategy for the teaching of Medical Ethics at the Institution.

Key words: Medical ethics. Bioethics. Medical education. Medical Students. Medical subject study methods.

Resumo
Julgamento simulado como estratégia de ensino da ética médica
Este trabalho buscou identificar a percepção dos alunos sobre a importância do julgamento simulado como estratégia de ensino da ética médica em uma escola de medicina. Durante o julgamento simulado do segundo semestre de 2010 compareceram 211 alunos, que responderam um questionário contendo itens escalonados de Likert, no qual foram incluídas três questões específicas sobre a utilização da estratégia: contribuição para a aquisição de conhecimentos sobre ética médica, relevância para a formação profissional e se recomenda a continuidade da atividade na instituição. Os alunos que responderam “definitivamente sim” ou “provavelmente sim” para as três questões escalonadas alcançaram, respectivamente, um total de 96,2%, 93,9% e 92,5%. Este resultado permitiu concluir que, com base na percepção favorável dos estudantes pesquisados, é recomendável a continuidade do julgamento simulado como uma das estratégias de ensino da ética médica na instituição.


Resumen
Juicio simulado como estrategia de enseñanza de la ética médica
Este estudio tuvo como objetivo identificar las percepciones de los estudiantes sobre la importancia del juicio simulado como una estrategia para la enseñanza de la ética médica en una escuela de medicina. Durante el juicio simulado de la segunda mitad de 2010 acudieron 211 estudiantes que respondieron a un cuestionario tipo Likert, con elementos escalonados, que incluyó tres preguntas específicas sobre el uso de la estrategia: contribución al aprendizaje de la ética médica, relevancia para la formación profesional y se recomienda la continuación de la actividad en la institución. Los estudiantes que respondieron “definitivamente sí” o “probablemente sí” a las tres cuestiones escalonadas alcanzaron, respectivamente, un total de 96,2%, 93,9% y 92,5%. Este resultado permitió concluir que, con base en la percepción favorable de los estudiantes encuestados, es recomendable la continuación del juicio simulado como una de las estrategias para la enseñanza de la ética médica en la institución.


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The *deliberation* in Medicine is the act which precedes the choice of a line of research of the disease or the treatment to be proposed to the patient. Aristotle\(^1\) included the human deliberation within the moral excellence. Who knows how to deliberate well has practical wisdom which is the ability to choose what is best for their own good. If the exact sciences dispense deliberation, the Medicine, and other sciences, depends on it.

The resolution within the medical profession may be right, bringing benefits to patients, or misguided, producing harm. Therefore, the medical doctor needs to deliberate well to be a good professional and the medical graduation is the ideal time of preparation of this skill. However, during the graduation is not possible to offer training for all practical situations which will arise in the professional life. To compensate this deficiency, special teaching strategies which simulate a normal situation are used, making such experience becomes an almost real experience.

Anastasiou and Alves\(^2\) cite twenty teaching strategies in university. One of them is the simulated court, also named mock trial within the context of biological sciences. This strategy, among other purposes, applies to the skills development of future professionals in the deliberation of moral conflicts in medical ethics. Neves\(^3\) also mentions six strategies for teaching medical ethics and bioethics during undergraduate medical course: case discussions, seminars, mock trials, films, group discussion and role-playing. The mock trial, therefore, belongs to the set of recommended strategies for the teaching of medical ethics and bioethics.

The teaching does not release class exposition and dialogue, but it requires complementary strategies through practical activities in which the student participates effectively in its organization and execution. The coordination of activities is up to the teacher. The students are placed in groups and their roles are distributed previously. In this context, the teacher’s action aims to provide increasingly more voice to the student through diverse forms and procedures of teaching\(^4\).

The simulated jury is the reproduction of a situation in which arguments of defense and prosecution are presented to analyze a problem\(^2\). This strategy involves a reasonable group of students in their organization. The distribution of roles is made by analogy to the criminal trial through the following teams: prosecution, defense, sentencing council and plenary. Thus, during the course of the activity, the other students may also be included as participants.

Another modality of mock trial uses the rite of medical councils. The following roles are played by participants: reporter, reviewer, parts and counselors – strategy which favors the teaching of ethics at both the undergraduate and postgraduate course, as Oliveira points\(^5\) This form of the mock trial is supported by Grisard\(^6\), who calls for an advisor to exercise the presidency of the regional council of medicine, while two teachers play the roles of reporter and reviewer. A team of students is designated to play the role of prosecutor and the other one for defender. The others play the role of councilors, with right to vote, by analogy to judgments of a regional council of medicine.

This article aims to report the perception of medical school students from the University of the West of Santa Catarina, who attended a mock trial during the activities of the academic week. The organization of the trial was in charge of teachers and students of the discipline of Medical Ethics, given during the seventh stage of the course.

### Materials and methods

This descriptive and cross-sectional study was conducted during the mock trial promoted in the second half of the 2010 school year. After receiving information and signing the free and informed consent term, all scholars of the twelve stages of medical school completed a questionnaire containing six questions – three of identification and three of activity assessment of the mock trial. The three evaluation questions have referred to, respectively, the following subjects: importance of the activity to acquire knowledge in medical ethics; importance of the activity for their professional training, maintenance of the activity as a teaching strategy of medical school.

The completion of the mock trial, with some adjustments, was guided by the Code of Ethical and Professional Process (CPEP) of the Federal Council of Medicine (CFM) CFM contained in Resolution 1.897/09\(^7\). The preparations have started with the selection of a group of seven students from the seventh phase – and who course the discipline of Medical Ethics – to be the protagonists. The choice has occurred from their own free will, after being explained the necessary skills for the performance of roles. The case was planned based on a possible
real situation which occurs in regional councils of medicine. During the preparatory meeting, the case reported was distributed to the students chosen to discuss, and present suggestions, and for those who would play the roles of reporter and reviewer, the preparation of their reports.

The other students from the seventh phase participated as advisors, with the right to speak and vote at the appropriate time. The protagonists played the following roles: presenter, reporter, reviewer, complainer, denouncer, lawyer of the complainer and lawyer of the denouncer. The board of directors was composed of a chairman, a vice chairman and a secretary. The presidency was exercised by a teacher with experience in council of medicine and other positions were exercised by the teachers of the discipline.

The data collected in the questionnaire were transcribed into Microsoft Excel and analyzed by using statistical software BioEstat 5.0. Subsequently, the results obtained were organized in table forms.

Results

All the 211 (100%) students present in the mock trial responded integrally to the three questions which dealt specifically with the activity evaluation. However, only 170 (80.5%) answered all the questions – thirty-nine students (18.5%) did not complete the age item and two (1.0%) did not pointed the sex item. Regarding the distribution of the 211 present students, 75 (35.6%) belonged to the basic cycle (first to third stage), 72 (34.1%) the clinical cycle (fourth to seventh phase) and 64 (30.3%) to residency (eighth to tenth to second stage).

With reference to questions about the importance of mock trial for the acquisition of knowledge in medical ethics, 129 (61.1%) answered “definitely yes”, 74 (35.1%) “probably yes”, 5 (2.4%) were “undecided”, 2 (0.9%) answered “probably not” and 1 (0.5%) answered “definitely not” (Table 1).

When they were asked if they consider the complementary activity on mock trial relevant to professional training, 136 (64.5%) indicated “definitely yes”, 62 (29.4%) “probably yes”, 9 (4.3%) were “undecided”, two (0.9%) answered “probably not” and two others (0.9%) answered “definitely not” (Table 1).

When they were asked if they recommend the continuity of mock trial activity for the next phases of medical school, 151 (71.6%) students marked “definitely yes”, 44 (20.8%) answered “probably yes”, 12 (5.7%) were “undecided” and “probably not” was marked by only 1 (0.5%) and “definitely not” by 3 students (1.4%), as shown in Table 1.

Table 1. Answers from students about the use of mock trial as a strategy for teaching medical ethics in the medical school of Unoesc

<table>
<thead>
<tr>
<th>Subjects of questions from 4 to 6</th>
<th>DS*</th>
<th>PS**</th>
<th>I***</th>
<th>PN****</th>
<th>DN*****</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N°</td>
<td>%</td>
<td>N°</td>
<td>%</td>
<td>N°</td>
<td>N°</td>
</tr>
<tr>
<td>Contribution to acquire knowledge in medical ethics</td>
<td>129</td>
<td>61,1</td>
<td>74</td>
<td>35,1</td>
<td>5</td>
<td>2,4</td>
</tr>
<tr>
<td>Relevance for professional training</td>
<td>136</td>
<td>64,5</td>
<td>62</td>
<td>29,4</td>
<td>9</td>
<td>4,3</td>
</tr>
<tr>
<td>Recommended continuing the next stages of the course?</td>
<td>171</td>
<td>71,6</td>
<td>44</td>
<td>20,8</td>
<td>12</td>
<td>5,7</td>
</tr>
</tbody>
</table>

Caption: * DS: definitely yes; ** PS: probably yes; *** I: Undecided; **** probably not PN; ***** DN: definitely not
Source: authors’ research, 2010.

For statistical analysis of answers at different times of the course, students were divided into three cycles: basic, clinical and residency. For this analysis, the answers were grouped into three groups: yes, undecided and no.

Regarding the value of the mock trial for the acquisition of knowledge in medical ethics, a total of 94.7% of the basic cycle marked “yes”, from which 54.7% marked “definitely yes” and 40% marked “probably yes”. From the students of clinical cycle, 100% answered “yes”, from which 72.2% indicated “definitely yes”.
yes” and 27.8% marked “probably yes.” Regarding the resident students, 93.7% answered “yes”, from which 56.2% chose “definitely yes” and 37.5% answered “probably yes” (Table 2). Although there were more positive answers from the students of clinical cycle, this difference was not significant to the chi-square test: Partition (BioEstat 5.0) (p = 0.267).

Regarding the assessment of the relevance of the mock trial for professional training, 94.6% of students from basic cycle answered “yes”, from which 69.3% indicated “definitely yes” and 25.3% answered “probably yes.” In clinical cycle, 95.8% answered “yes” and, from these ones, 69.4% chose “definitely yes” and 26.4% chose “probably yes.” Regarding resident students, 89.7% said yes, 53.5% from which marked “definitely yes” and 36.2% marked “probably yes” (Table 2). This difference of answers also showed no statistical significance by using the chi-square test: Partition (BioEstat 5.0) (p = 0.670).

Regarding the evaluation related to the continuity of mock trial as an activity for the next phases of the course, 90.6% of students from basic cycle answered “yes”, from which 69.3% indicated “definitely yes” and 21.3% marked “probably yes.” In clinical cycle, 97.3% answered “yes”, from which 72.3% chose “definitely yes” and 25% marked “probably yes.” In relation to residency, 89% answered “yes”, from which 73.4% indicated “definitely yes” and 15.6% marked “probably yes” (Table 2). Just as the previous ones, this difference in responses also not significant by chi-square: Partition (BioEstat 5.0) (p = 0.670).

Table 2. Variations of positive answers from students on mock trial as a teaching strategy by cycles of study of the medical course of Unoesc

<table>
<thead>
<tr>
<th>Subjects of the questions 4-6</th>
<th>Basic cycle</th>
<th>Clinic cycle</th>
<th>Residency</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution to acquire knowledge in medical ethics</td>
<td>71 94,7</td>
<td>72 100</td>
<td>60 93,7</td>
<td>p=0,267</td>
</tr>
<tr>
<td>Relevance for professional training</td>
<td>71 94,6</td>
<td>69 95,8</td>
<td>52 89,7</td>
<td>p=0,670</td>
</tr>
<tr>
<td>Recommended continuing the next stages of the course?</td>
<td>68 90,6</td>
<td>70 97,3</td>
<td>57 89</td>
<td>p=0,670</td>
</tr>
</tbody>
</table>

Source: Authors’ research, 2010.

Discussion

The learning of ethics in medical courses depends on three key factors: exposure time and crosssectionality of discipline, training and ethical attitude of the teacher, use of active methodologies 8. In this context emerges the importance of mock trial for two main reasons: 1) to provide greater exposure time and crosssectionality to discipline, when it is inserted as a complementary activity for all students at various points of the course and 2) for being among the active methodologies which contribute positively to the professional training of students 8. This position was confirmed by the majority of subjects in this study, which considered the activity as important for both the acquisition of knowledge about medical ethics and for their training, recommending its continuation in the institution.

A wide survey published by Muñoz and Muñoz 9 in 2003, carried out on 103 medical schools in Brazil, pointed out that the mock trial was used by a group of schools which adopt diversified strategies in the teaching of medical ethics and bioethics. Movies, role-plays, elaboration of opinions and visits to institutions were also among the special activities of these schools. According to this work, the teaching methods most used, in summary they were class (various modalities), round table case discussions and seminars.

With relevance to longer contact with the discipline of Medical Ethics, only three out of 103 medical schools in Brazil offer it over the six-year course 9. In this sense, the Medical School from the University of Vale do Itajaí (Univali), in Santa Catarina, deserves a special mention, which offers in all semesters the teaching of medical ethics and bioethics and promotes a mock trial at the end of each semester for students from the eighth period. The method follows the model recommended by CPEP from CFM and activity integrates the discipline of Medical Ethics and Bioethics 6.

In a recent study on the teaching of Ethics and Bioethics in undergraduate courses in Nursing, Medicine and Dentistry of Manaus, the attributes most
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often cited by students interviewed, as desirable for a good teacher of Ethics were experience and professional experience, humanistic culture, knowledge of moral philosophy, as well as the regulatory standards of the profession and the History of Medicine. This humanistic ethical and professional experience is of great value to students, because these professionals have much to teach, assist, inform and offer, focusing on the critical problematization on the approaching of issues related to Medical Ethics 10.

The ethical debate is essential in the field of health care and research. Thus, ethics must be inserted under an integrated way in medical graduation. Accordingly, CFM, through resolution issued yet in 1975 11, recommended the collaboration of regional councils of medicine in the teaching of ethical principles. This discussion should occur during the early graduation, in order to students can put into practice in the care the concept of ethics in the doctor-patient relationship, making it more human and compassionate 8. The mock trial is a dramatization which favors the discussion of ethical and bioethical issues which are part of the doctor’s professional life. Therefore, some councils of medicine adopt this activity to promote medical ethics during medical education.

One of the main problems of current medical practice concerns difficulties in the doctor-patient relationship, which can affect the quality of care and adherence to recommended treatments 12. In this regard, Almeida and colleagues believe that the professional training can be positively influenced by the teaching of bioethics and medical ethics, and that the knowledge of ethics is crucial to the good performance of the doctor-patient relationship. The introduction of diversified activities, such as mock trial, can contribute to better training of future physicians, both in order to prevent serious errors as to prepare them to deal with delicate situations, when they could be denounced. This strategy is favored by integration with other instances responsible for ethical issues in the institution. The aim is to train professionals ethically competent for the better performance of the science and art of medicine 10.

The immediate aim of ethics education in medicine is to promote the discussion of controversial issues of medical practice, encouraging reflection of the various values involved and trying to introduce the essential principles to a proper professional conduct 15. Thus, as a teaching activity of medical school, the mock trial encourages the discussion of ethical issues throughout the course, from the first to last stages. Regarding the importance of the mock trial for the acquisition of knowledge in medical ethics, this research obtained, under a staggered way, positive responses from students in the three cycles – basic, clinical and residency – whose totals were, respectively, 94.7%, 100% and 93.7%. Since there was no statistically significant difference in the result, it can be interpreted that the perception of the students was also positive in all cycles (p = 0.67).

The number of medical schools in Brazil has been increasing in recent years. Often, the aims are only profitable, leaving aside the importance of a good medical education. The losers are the students themselves and the community which, in the future, will have them as their caregivers. The neglect of medical education may favor the increasing of frequency of medical error 13. Thus, the work of prevention is the most appropriate way to avoid errors. The promotion of mock trials on ethical issues during graduation, as this study shows, arouses the interest of students, encourages the development of skills in the doctor-patient relationship and creates opportunity for discussion on moral issues. The activity was considered relevant for professional training under a staggered way by most part of students interviewed of the three cycles, basic, clinical and residency (total: 94.6%, 95.8% and 89.7%, respectively), without any difference in responses statistically significant (p = 0.67).

Resolution 4/2001 of the Board of Higher Education of the National Education Council (CNE) recommends that communication and decision making become part of the skills and expertise of the future medical doctor 14. In this aspect, the training of communication skills is favored to students who are part of the representation team and decision making to all who participate in the mock trial. Furthermore, the interest of students in bioethics and ethical and professional issues is also favored by this activity 11. This interest was confirmed in the present study, in which the majority of respondents recommended the continuation of the activity at the institution.

This research also indicated for the greater receptivity of the students regarding the possible benefits of mock trial for their formation, approaching to be statistically significant (p = 0.006). In parallel, the tendency manifested was that more students become undecided or negatively evaluate the activity (p = 0.001). In this aspect, it is observed that, in the councils of medicine, the female medical doctors are less denounced than the male medical doctors 12 – occurrence explained by the caring of a lower number of patients by female medical doctors,
with better interaction, greater time of commitment and less involvement in higher risk activities, such those from emergency units. The tendency of greater receptivity on issues with humanistic content may be a further element to emphasize this explanation. However, when they were asked if the complementary activity of mock trial contributed for the acquisition of knowledge in medical ethics, the responses were equally positive, with no significant difference between male and female students ($p = 0.535$).

Recently, the discrepancy between the technical and scientific development faced by the medical profession and the reality of the clinics and hospitals with respect to quality of care and humanization has been increased, showing the increasing separation between theory prescribed by the codes of medical ethics and the reality experienced by professionals. This situation serves as a background for the increase in ethical and professional proceedings against doctors, which achieve high visibility in the media, contributing to the discredit of image of the professional as well as to the insecurity and anger of patients.

These facts denote the need for increasingly incisive changes in the process of training of medical students, trying to reverse this situation. The professional training influences the behavior of the medical doctor and the relationship with their patients, justifying an analysis of the landscape of teaching ethics whose transformations were more emphasized in the last 30 years.

The scarcity of studies in this area points to the need to create lines of research in the intersection between education and ethics, considering that, at the time of learning of clinical practice, ethical issues are common and the chance to discuss the topic can help in the prepare of the student for a professional more responsible and humanized performance. The mock trial activity promotes ethical issues throughout the course and enables the discussion on the conflicts which emerge from recent medical advances. In 12 years of experience in the Center of Bioethics from Cremesp, it was found that the mock trial is an important and effective way for the teaching of medical ethics, both in undergraduate and graduate school, as well as to develop skills in applied ethics for the continuing education of doctors in general.

Internationally, a method of mock trial carried out in a medical school in California, which was promoted with the aim of contributing to education and to alert medical students, residents and physicians for the prevention of medical error, took two votes: immediately after the manifestation of the complainants and at the end of the defense, in a simplified version of the models used in Law schools of the country. The assessment of the importance of this strategy for medical education was significant among participants, resembling the results of this research.

Due to the high number of legal proceedings against medical doctors who work with the specialty of obstetrics and gynecology in the United States of America (USA), a research was conducted to assess the professional training in Legal Medicine of residents and medical students. The results showed that the mock trial was one of the modalities used (9%), along with didactic lectures (38%), clinical meetings (30%), conferences (19%) and others (4%) which comes to meeting of the strategies used in Brazil.

In a broad review recently carried out in England about medical education, the mock trial was described as a special strategy which brings immediate benefits to learning the legal principles, with a positive evaluation by medical students of the five works examined, as occurred with the participants of this research.

Other courses in the health area of foreign institutions also use the mock trial for teaching. As for effectiveness, a research conducted with American students of Physiotherapy concluded the superiority of this strategy in relation to the carrying out of a seminar. In this study, the methodology was quite complex, with four teams of five to six students who worked on the prosecution and equal numbers in defense. The arguments should be based on scientific papers previously studied by scholars of the participating groups, who were tested on their knowledge during the interrogations. Another study recently conducted in a Nursing course in the USA positively assessed the use of mock trial as an innovative strategy to approach the ethical and legal aspects of the profession, overcoming the traditional classroom discussions. In both studies, students also broadly approved the strategy.

The curriculum reform may prove to be an opportunity to insert the medical ethics, seamlessly, in various levels of training of undergraduate medical students. Furthermore, the restructuring of the university is seen as a way to overcome the model which has specialized training as some of the consequences the lack of commitment to ethical values, fragmentation of the knowledge and academic impoverishment. In this evaluation, concerning the
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importance of the mock trial for professional training, the responses were equally favorable by students of all cycles (p = 0.670), indicating the acceptance of the strategy at different times of the course.

Final Considerations

The results of this study showed that the medical students interviewed, in variable degree of staggering, understand the importance of using the mock trial as a strategy for teaching medical ethics and the professional training of future physicians, as well as they recommend the continuation of this activity in the institution.

These data are in line with other published works, both in Brazil and abroad, whose themes are in the same line of argument and thought, pointing to the acceptance of the strategy. Thus, it is recommended the insertion of the mock trial activity in medical schools in order to sensitize students on the ethical aspects of professional practice.

The ideals of the discipline of Medical Ethics should be part of the curriculum in medicine and studied strategy helps to expand the understanding of human subjectivity in the difficult art of healing. However, further studies are needed to confirm the importance of the mock trial as a strategy for teaching medical ethics in medical courses.

References

19. Preston-Shoot M, McKimm J. Teaching, learning and assessment of law in medical education. Special Report 11. [Internet]. Concrenty: The Higher Education Academy, UK Centre for Legal Education (UKCLE), The Higher Education Academy Subject Centre for Medicine, Dentistry and


Authors’ participation
Priscilla Katiúscia Savaris and Aliny Reberte participated in the research design, collection, organization, interpretation of data and writing of the article. Marcelo Carlos Bortoluzzi participated in research design, statistical analysis and writing of the article. Bruno Schlemper Junior participated in the research design, data interpretation and writing of the article. Élcio Luiz Bonamigo coordinated the research project, participated in the design, interpretation of data and writing of the article.