

The Teaching of Bioethics in the Undergraduate Medical Course at the State University of Londrina (UEL)-Brazil

BREZİLYA LONDRİNA EYALET ÜNİVERSİTESİ'NDE
MEZUNİYET ÖNCESİ TIBBİ DERSLERDE BİYOETİK ÖĞRETİMİ

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Abstract

Objective: This paper aims at evaluating the teaching of Ethics and Bioethics in the undergraduate medical course at the State University of Londrina (UEL)-Brazil from 1968 to 2001, as well as discussing how and when to teach Bioethics. There are three phases of teaching this discipline at UEL.

Material and Methods: This study evaluated Phases I and II and used different methods for each phase, as follows: questionnaire and test.

Results: The results are that the teaching in Phase I was focused on Forensic Medicine and was inadequate for the practice of Medicine. In Phase II, the content is more appropriate and the marks of the test were higher than the Brazilian mean. Therefore, the establishment of a follow-up procedure of the former students of Phases I, II and III for the evaluation process is required in order to obtain an overview of the whole course.

Conclusion: As a conclusion, we emphasise the importance of teaching Ethics and Bioethics using an interdisciplinary approach, based on real health problems towards a humanistic approach in medicine. In this way, the need to change the whole curriculum and implement a teaching learning methodology centred on the students is essential and PBL seems to be the most appropriate methodology.

Key Words: Teaching bioethics, methodology, Brazil

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Özet

Amaç: Bu makale, hem Brezilya Londrina Eyalet Üniversitesi'nde (UEL) 1968'den 2001'e kadar mezuniyet öncesi tıbbi derslerde biyoetik öğretimini değerlendirmeyi, hem de biyoetik öğretiminin nasıl ve ne zaman yapılması gerektiğini tartışmaktadır. Bu disiplinin Londrina Eyalet Üniversitesi'nde öğretilmesinin üç evresi vardır.

Gereç ve Yöntemler: Bu çalışmada, Evre I ve II değerlendirildi ve her evre için anket ve sınav gibi farklı yöntemler kullanıldı.

Bulgular: Sonuç, Evre I'de öğretimin adli tıba odaklandığı ve hekimlik yapmak için yetersiz olduğudur. Evre II'de içerik daha uygundur ve sınav sonuçları Brezilya ortalamasından daha yüksektir. Bu nedenle, tüm derslerin yeniden gözden geçirilmesi için eğitimi tamamlamış olan öğrencilerde Evre I, II ve III ün değerlendirilmesi gerekmektedir.

Sonuç: Sonuç olarak, biz tıpta humanistik yaklaşıma yönelik gerçek sağlık sorunlarına dayalı, etik ve biyoetik öğretiminde disiplinlerarası bir yaklaşım kullanmanın önemini vurgulamaktayız. Bu durumda, tüm müfredatı değiştirme gereksinimi ve öğrenci merkezli öğretim metodolojisinin uygulanması gereklidir ve PBL en uygun metodoloji olarak görünmektedir.

Anahtar Kelimeler: Biyoetik öğretimi, metodoloji, Brezilya

Ethics and Bioethics have been frequently discussed in medical education and medical professional development in recent years. There are some motives behind this enterprise. The reasons for the interest in Ethics and Bioethics are related to the changes in the society, whose nature is social, cultural, economical, technological and political.

Ethical basis in medicine is fundamental, in other words, the quality of medical practice and the relationship between doctors and patients, family, community and healthcare providers has to be improved. This poses major ethical dilemmas related to the allocation of resources, commercialisation of medicine, dehumanisation and rationing of access to care.^{1,2} Thus, the doctors of the 21st century should be able to cope with all issues above in order to solve the major health problems of the population. Consequently, changes have been occurring in fields like education, work relations, among others.

The purposes of this paper are (i) to evaluate the teaching of Ethics and Bioethics in the undergraduate medical course at the State University of Londrina (UEL)-

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Table 1. The teaching of Ethics and Bioethics at the Undergraduate medical course – State University of Londrina – Brazil.

	Phase I	Phase II	Phase III
Discipline	Forensic Medicine	Bioethics	1 st – 4 th : non-specific disciplines 5 th : Bioethics
Academic year	4 th	5 th	1 st to 5 th
Total number of hours	40	40	1 st – 4 th : undetermined 5 th : 40
Teaching learning methodology	Lectures	Lectures Seminars Practice	1 st – 4 th : Problem based learning 5 th : Lectures and seminars
Topics	<ul style="list-style-type: none"> • Investigation system in forensic medicine • Professional responsibility • Medical aspects related to Death • The medical code • Medical malpractice • toxicology • Forensic psychopathology • Penal code • Weapon and trauma injuries • Murder and suicide • Rape and sexual offences • Abortion 	<ul style="list-style-type: none"> • The foundations of Bioethics • Medical Ethics - historical perspectives • Ethics of medical care and responsibility • Virtues and values of the medical and social context • Ethics, medicine and biotechnology • Research in human beings • Human sexuality and reproduction • Organ transplantation • Abortion • On death, dying, euthanasia and assisted suicide • Allocation of resources in Public Health: justice and equity • Ethics and Bioethics committees 	Same as Phase II
Assessment	written test	written test case discussion	written test case discussion

Brazil from 1968 to 2001, and (ii) to discuss how and when to teach Bioethics.

The Teaching of Ethics and Bioethics

The majority of the Brazilian medical schools teach Ethics through the discipline of Forensic Medicine in the 4th or 5th academic year and the focus is formal legislation. Besides, the teachers are usually physicians and they have not been prepared in Ethics and Bioethics.³ However, this reality is changing and there is a constant state of modification in the Brazilian medical education, which has been reviewing its courses and making efforts to change them, mainly in the last decade.

The undergraduate medical course at the State University of Londrina (UEL) is divided into two cycles - basic and clinical sciences (1st - 4th academic year) and internship (5th and 6th academic year). The teaching of Ethics and Bioethics in this course can be considered to have three Phases, namely: Phase I – from 1967 to 1996, Phase II – from 1997 to 2001 and Phase III – from 1998 to the present.⁴ The changes implemented in Phases I and II were in the content and period to teach discipline. However, the changes in Phase III were substantial with the implementation of the new medical curriculum with thematic modules instead of disciplines. For instance, Bio-

ethics and other areas are taught throughout the course from the 1st to 4th academic year. The features of these Phases are presented in the Table 1.

By analysing the features of each Phase, it is possible to observe that the teaching of Ethics and Bioethics is improving, because it started from a single discipline with focus on Forensic Medicine and progressed to thematic modules with topics of Bioethics based on real health problems in an interdisciplinary approach. Although these changes might suggest evolution, we do not know if they have been effective.

The Evaluation Process – Methods

Phases I and II were the starting point of the evaluation process. Different methods for each phase were applied in order to verify how Ethics and Bioethics were taught and the effects of such teaching.

The evaluation of Phase I was part of the research that evaluated the whole medical course at the State University of Londrina – Brazil.⁵ It was a survey study and used questionnaire with open and closed questions as a method. The sample consisted of physicians, who were former students and had graduated from 1972 to 1994 at the medical course of the State University of Londrina and were working in the State of Paraná. The questionnaires were sent by mail

to 1,004 doctors and 299 (29.8%) were answered and returned.

There were two methods carried out in Phase II. The first method was a test, whose purpose was to verify the outcomes of the Bioethics discipline. The test was the Brazilian National Examination for Higher Education Courses (ENC), applied annually by the Brazilian Ministry of Education. It assesses the final year students of all medical courses, among others in Brazil. The focus of analysis was the rate of correct answers to the questions related to Ethics and Bioethics from 1999 to 2002. The second method was a questionnaire to investigate the perceptions of the students concerning the discipline, from 1997 to 1999.

The Evaluation Process – Results

Physicians were prepared for the practice of medicine in Phase I, with a focus on Forensic Medicine rather than Ethics and Bioethics. As a consequence, the former students mentioned the following issues:

- Lack of knowledge about the essential foundations of Ethics;
- Lack of preparation to deal with humanitarian behaviours and attitudes in the relationship between patients-family and doctors; doctors and doctors; other professionals and doctors;
- Lack of preparation to cope with patients who are dying or have complex medical problems;
- Lack of preparation to manage the uses of appropriate and cost-effectiveness technology in medicine.

Findings in Table 2 show that the rate obtained by UEL students on the Brazilian National Examination was higher than the one obtained by other Brazilian students, in the analysis of Phase II. Probably, these differences happen as a result of the implementation of changes in the discipline at UEL. However, as other Brazilian Medical Schools have been introducing modifications just like UEL, the results in the test tend to be balanced.

Considering Content, Teaching learning methodology and Assessment, the discipline of Phase II was approved by 84.5% of 240 students; however, they suggested that the content should be taught throughout the course instead of only at the 5th academic year.

Discussion and Conclusion

The first aim of this paper was to evaluate the teaching of Ethics and Bioethics in the undergraduate medical course at the State University of Londrina (UEL). The conclusions are that (i) the discipline of Forensic Medicine in Phase I was inadequate to prepare for the practice of

Table 2. The rate of correct answers to Ethics and Bioethics questions in the Brazilian National Examination, from 1999 to 2002.

	UEL	Brazil
1999	67.2%	30.7%
2000	95.1%	91.1%
2001	84.7%	78.2%
2002	39.3%	30.4%

Medicine in the perception of former students. (ii) Despite the positive result in the test of the final year students in Phase II, the method used was not enough to conclude that the teaching of Ethics and Bioethics was adequate for their professional life, i.e., the results referred only to their academic period; and (iii) this study highlights the needs to apply multimethod research and establish a long term follow-up of the former students who have been taught through the traditional curriculum (Phases I and II).

The second aim of this study was to discuss how and when to teach Bioethics. Considering the results above and suggestions from the former students of Phase I and students of Phase II, to modify the content or teaching learning methodology only in a single discipline is not enough. It seems that the effective way of teaching Ethics and Bioethics is throughout the course in an interdisciplinary approach towards an active, cumulative, contextual, integrative and deep learning.

Therefore, the issues that emerge to promote a humanistic approach to Medicine are the content of Ethics and Bioethics; teaching learning methodology; real-world settings for learning; and curriculum. In this way, Problem-based learning (PBL) is pointed out as an educational approach to reach this goal.⁶⁻¹⁰ As mentioned before, the undergraduate Medical Course at the State University of Londrina implemented a new curriculum in 1998, using PBL. Consequently, the teaching of Ethics and Bioethics was transformed and was named as Phase III.

The first cohort of the new curriculum finished the course in 2003. As a conclusion, there is the need to set up a follow-up procedure to evaluate the outcomes of this new curriculum, focusing on Ethics and Bioethics.

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