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Teaching of bioethics in the field of medical and biological sciences: The situation in Algeria

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Abstract

Objective: The purpose of this study is to draw up a preliminary analysis on the situation of bioethics in Algeria first and to describe the teaching of bioethics, particularly in the field of medical sciences and biological on the other hand.

Methods: From the foregoing, this study is of a descriptive nature. Our subject led us to a documentary search. The Boolean search focused on a number of keywords including Bioethics, Education, Biological and Medical Sciences, Algeria. The interrogation of the Web was made singularly on the following databases: Digital Library of UNESCO, mesrs.dz and joradp.dz.

Results: In Algeria, the domain of medical and biological sciences, the teaching of bioethics was gradually introduced, first in 2011, in official graduation programs and then in 2012 in post-graduation. In the domain of research, through the implication of doctoral students in prospecting, analyzing and identifying the ethical problems raised by research in the natural sciences, medical sciences and biotechnologies.

Conclusion: The proposal to create a chair in bioethics at the University of Oran contributed positively to the initiative of the invitation launched by the world institution UNESCO to associate us with bioethical debates. The absolute necessity is to resort to a qualified education given by specialists in the domain while putting in place expert advice to evaluate, develop and decide on the best programs. The opening of the bioethics post-graduation in 2012 made it possible to achieve this objective.

Keywords: Ethics; Bioethics; Teaching; Medical and Biological sciences; Algeria

1. Introduction

The term "bioethics" was first created in 1970 by Van Rensselaer Potter, an American oncologist, who intended to describe "the fusion of ethical values and biological facts" and "to generate wisdom, knowledge relating to the way of using knowledge to guarantee social well-being" [1]. The field of bioethics has subsequently given rise to numerous institutional innovations since the 1970s, first in developed countries and then throughout the world. It has expanded to meet the demand of movements particularly human rights, civil rights and the rights of patients in the face of new

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technologies and scientific discoveries such as the human genome, organ transplantation, fertilization in vitro and DNA research, without forgetting the violations of human rights during human medical experiments [2].

Bioethics is a reflection based on a multidisciplinary and pluralistic dialogue which takes into account all fields affected by scientific advances affecting human beings, including social, legal and environmental dimensions [3]. At the supranational level, projects are being carried out aimed at developing international normative texts for different bioethics themes. The normative activity of the United Nations Educational, Scientific and Cultural Organization (UNESCO) falls within this framework. Based on consultations with interstate organizations, such as national ethics committees, the UNESCO International Bioethics Committee (CIB), came to the conclusion that it was necessary to focus first on the human being as moral actor, while recognizing its particular responsibility towards the environment and the biosphere [4]. Thus, the work of the IBC, open to representatives of civil society, including non-governmental organizations (NGOs), supplemented and amended by the intergovernmental bioethics committee (ICGB), resulted in the consensual adoption by all of 191 Member States, of three policy declarations: the Universal Declaration on the Human Genome and Human Rights in 1997 [5], the International Declaration on Human Genetic Data in 2003 [6], and the Universal Declaration on bioethics and human rights in 2005 [7].

The teaching of bioethics constitutes a step towards bioethics education. This education has existed since the 1990s [4]. It requires explaining to students the issues, risks, benefits and dangers of all new biotechnologies; they must be able to ask themselves the question of knowing what are the disadvantages and dangers presented by the use of new techniques [8].

In Algeria, the teaching of ethics and bioethics modules has been gradually introduced into the various university courses, particularly in medical and biological sciences, philosophy and law. Students of medical and biological sciences were the first target groups.

After having drawn up a preliminary analysis on the situation of medical ethics and bioethics in Algeria, we propose to describe the teaching of bioethics particularly in the field of medical and biological sciences.

2. Materials and Methods

This is a preliminary descriptive study, it is structured around two essential parts:

- 1/ The situation of bioethics in Algeria.
- 2/ The teaching of this discipline, in the field of medical and biological sciences.

In the first part of our study, we will discuss the following elements:

- The legislative context in matters of medical ethics and bioethics,
- The organization of international conferences on bioethics and medical ethics,
- The project to create a UNESCO chair of bioethics,
- The creation of a national committee on ethics and professional conduct for the academic profession and the production of charters of university ethics and professional conduct,
- The constitution of a learned society.

In the second part, we will describe the teaching of bioethics during graduation, post-graduation and then in the field of research.

The nature of our subject directed us towards documentary research. Our sources of information mainly concerned the consultation of reference works including legislative and regulatory texts in the higher education and scientific research sector as well as the law relating to health and conference proceedings. To better understand our objectives, we used a certain number of key words in a Boolean search, namely Ethics, Bioethics, Teaching, medical and biological sciences, Algeria. The Web query was carried out mainly on the following databases: UNESCO world digital library (<https://unesdoc.unesco.org/fr>), mesrs.dz (www.mesrs.dz) and joradp.dz (www.joradp.dz).

3. Results and discussion

3.1. Preliminary analysis of the bioethics situation in Algeria

3.1.1. Legislative context

In Algeria, the term “Medical Ethics” appears for the first time in a legal text on July 31, 1990 (law no. 90-17 of July 31, 1990), modifying and supplementing law no. 85-17 of February 16 1985 relating to the protection and promotion of health [9]. The National Council for Ethics in Health Sciences “CNESS” was created on July 31, 1990. It essentially examined problems relating to human organ transplants [10]. He also defined experimentation on human beings within the framework of scientific research while respecting moral and scientific principles [11]. On December 19, 1996, the “CNESS” was renewed and installed at the Ministry of Health, Population and Hospital Reform [12].

In 2018, the national legal system in matters of medical ethics and bioethics was enriched through the promulgation of Law No. 18-11 of July 2, 2018, thus repealing Law No. 85-17 of February 16, 1985. Indeed, the new law relating to health was published in the official journal n°49 of July 29, 2018, its title VII is entitled “ETHICS, DEONTOLOGY AND MEDICAL BIOETHICS”, it is exclusively reserved for the field of ethics biomedical [13].

Chapter 4, entitled “Bioethics”, made up of 46 articles (from art 354 to art 399), is considered to be a novelty introduced by this law. Its article 354 concerns the determination of the four areas of bioethics, the provisions relating to each area have been developed in section [13]:

Section 1: Provisions relating to the removal and transplantation of human organs, tissues and cells (from Art 355 to Art 367).

- Section 2: Ethical aspects linked to the rights of blood donors (from Art 368 to Art 369).
- Section 3: Provisions relating to medically assisted procreation (Articles from 370 to Art 376).
- Section 4: Provisions relating to biomedical research (from Art 377 to Art 399).

3.1.2. Organization of international conferences on bioethics and medical ethics

The first two international bioethics conferences in Algeria were organized by the Laboratory of Developmental Biology and Differentiation of the University of Oran Es-Sénia:

-The first took place on May 2, 3 and 4, 2000; it was a space for exchanges and complementarily as well as a starting point to open perspectives of reflection and research which mark a commitment of Algeria in favor of the promotion of bioethics. Five sessions were included in the program, namely, Ethics and disaster medicine, Bioethics news, Health law, Deontology, Ethics, Bioethics and Society and Perspectives. The proceedings of this first conference were published in a book entitled “BIOETHICS: Disaster Medicine News, Law and Society” [14].

The second took place on November 22 and 23, 2004 under the High Patronage of the President of the Republic.

Later, other conferences were organized in collaboration with the Afro-Mediterranean Citizen Observatory Ethics and Human Rights (OCAMEDH). Indeed, members of OCAMEDH took part in several French-speaking international Bioethics meetings, notably the conference on medical ethics as part of the event “Tlemcen, capital of Islamic culture 2011”, organized on May 5, 2011. at the University of Tlemcen, Aboubekr Belkaïd, and the conference on bioethics entitled “Progress in bioethics put to the test of societies” organized on March 3 and 4, 2012 at the Faculty of Medicine of Constantine [15 16].

More recently, other seminars and scientific events on ethics and Bioethics have been organized by other institutions. A scientific day on “the body, the person and ethics”, organized on May 10, 2016 by the “Ethics & Health” research team of the social sciences and health research unit of the University of Oran 2 and the Faculty of Medicine of Oran [17], as well as the seminar on Bioethics organized on April 9 and 10, 2017 by the Department of Philosophy at Constantine 2 University [18]. An international conference on “The question of ethics today” organized on April 24 and 25, 2019, at the Aboudaou Campus Abderrahmane Mira University, Bejaïa [19].

3.1.3. Project to create a UNESCO chair in bioethics

According to Professor ELKEBIR Fatima Zohra, vice-president of the Mediterranean interdisciplinary observatory of bioethics (Paris) since 2000, vice-president of the International Society of Bioethics (SIBI) (Gijon, Spain) from 2016 to

2022 and representative of the Algeria to the UNESCO Intergovernmental Bioethics Committee from 2001 to 2004, an initiative to create a UNESCO chair of bioethics in Algeria was presented in 2003 [20].

Indeed, the lack of knowledge in bioethics and difficulties in accessing documentary and informative sources had been noted in Algeria, for this, the proposal for a chair of bioethics to UNESCO had been submitted. One of the ambitions of the chair was to constitute a center whose vocation and mission would have been to offer benchmarks through the provision of bioethics teaching focused on questioning and encouraging reflection and to be an interlocutor to debate and reflect on bioethical questions. The hope was to establish, at the international level, a network for exchanging information and experiences [20]. Unfortunately this project did not come to fruition.

3.1.4. Creation of a national committee on ethics and professional conduct for the academic profession and the production of charters of university ethics and professional conduct

In 2004, the National Council of Ethics and Deontology of the Academic Profession was created by executive decree No. 04-180 of June 23 [21]. In April 2010, the first charter of ethics and professional conduct for the academic profession was published by the Council of Ethics and Professional Conduct for the Academic Profession. It concerned all members of the university community and represented a mobilization and reference tool recalling the main principles which guide university life and inspire the codes of conduct and the regulations which will result from them [22]. In March 2020, a second charter of ethics and professional conduct for the academic profession was published, updating the one published in 2010. This new charter applies to the university community, public or private, and to all its stakeholders (teacher-researchers, permanent researchers, associate or guest teachers, students, ministerial and university administrative officials, administrative, technical and service staff) [23].

After the publication of the 2020 charter, Order 991 of December 10, 2020 was published establishing ethics and professional conduct committees within higher education and scientific research establishments [24]. Order 991 of December 10, 2020 assigns missions to these ethics committees, namely: to propose the principles, rules and practices that should guide the exercise of the academic profession in terms of ethics and deontology, to ensure compliance with the standards of the academic life, as well as to combat abuses which are much broader than the restricted question of plagiarism as stipulated in decree 933 of 2016 [25].

3.1.5. Constitution of learned society

Given the importance of medical ethics in the approach to health problems and the advent of the revolution in the biomedical field, a scientific institution was created on November 27, 2018 in accordance with Law No. 12-06 of January 12, 2012. This learned society, whose objectives are the implementation and promotion of ethical aspects linked to medical practice, was named "the Observatory of Disability, Rehabilitation, and Ethics in Health: OHRES [26-27].

Since its creation, OHRES has organized several scientific events including five international congresses and 13 national seminars. The first international day took place in Oran on November 26 and 27, 2016 and focused on the theme of "Medical Ethics and Disability Situations". These meetings brought together numerous national and international researchers, students from various backgrounds, doctors, biologists, philosophers, jurists, theologians, sociologists, psychiatrists... The themes discussed were relevant, current and inherent to bioethics. Among the perspectives of OHRES, take up the idea of creating a UNESCO chair of bioethics at the University of Oran and the provision of bioethics teaching [28].

3.2. Teaching of bioethics

In Algeria, the first regulatory text which explicitly mentions ethics in higher education is Executive Decree No. 04-180 of June 4, 2004 [21], although the teaching of the medical ethics module was introduced in the national curriculum for the first year of medicine from the 2001-2002 academic year following the recommendations of the first international bioethics conference [14 20].

Currently, the module of the first year of medicine is entitled "introduction to ethics and medical deontology", its program includes two chapters: The first "medical ethics" and the second "medical ethics", the two main axes developed in the second chapter are the "Philosophical Foundations of Medical Ethics" and the history of bioethical reflection and its organization." In the 6th year of medicine, the subject of medical ethics is also taught in the "MEDICAL LAW, ETHICS AND MEDICAL ETHICS" module [29].

In the field of life and natural sciences, the teaching of bioethics was gradually introduced, first in 2011, in official graduation programs then in 2012 post-graduation. In the field of research, through the involvement of doctoral

students in prospecting, analysis and identification of ethical problems raised by research in science and biotechnology [30-31].

For the teaching of bioethics in graduation, this is a discovery teaching unit subject provided to 3rd year bachelor's and master's students. The themes covered in the program were relevant and exhaustive, they focused on major contemporary issues such as the ethical problems of genetic diagnosis, the human genome and international law, the difficulties of predictive medicine, the sociocultural analysis of human reactions. public opinion towards GMOs, the ethical and legal aspects of cloning, organ transplantation, gamete and stem cell donations, the ethical and legislative aspects of biomedical research, etc [32 33]. The subject "ethics and academic deontology" was also introduced into the teaching of the 2nd year of the bachelor's degree in all specialties in the life and natural sciences [34 35 36].

As part of its Global Ethics Education Program, UNESCO published the "Basic Course in Bioethics" in October 2008. As its name suggests, this program constitutes a basis for adequate teaching of bioethics. It also aims to introduce higher education students to the principles of the "Universal Declaration on Bioethics and Human Rights". This Program has been integrated and applied in the scientific fields of around twenty universities around the world such as the universities of Japan, Argentina, India, Ivory Coast, Brazil and Russia [3-37].

For the teaching of bioethics after graduation, a magisterial training in bioethics was established in 2012 at the University of Oran 1 Ahmed BENBELLA by authorization order n°: 186 of 06/24/2012, it was a first on a national scale; several specialists in the field participated in the lessons [30].

The theoretical year program included 12 modules divided into two semesters:

The modules taught during the first semester focused on notions relating to genetics, biotechnology, procreation and human biology on the one hand and the general introduction and current events of bioethics as well as the instruments and international charters of 'somewhere else.

- The modules of the second semester concerned research ethics, Ethics and health, Bioethics and law, Bioethics and society, Bioethics and environment and finally Bioethics and religious morality. The themes of the master's theses defended focused on different research subjects, the ethics of research and clinical trials, bioethics in the face of genetics, medically assisted procreation, religion and bio law. The first magisterial defense took place on December 16, 2014. The research themes were the subject of international publications [38].

Until now, only one doctoral thesis has been defended, the research theme focused on ethical reflection on chromosomal pathologies in children, the study was the subject of an international publication [39]. In terms of collaboration and transdisciplinarity, a team effort bringing together five international researchers in anthropology, molecular biology, genomics, law and clinical psychology has also been published [40].

4. Conclusion

In Algeria, the introduction of bioethics modules into medical and biological sciences teaching programs is relatively recent. Since the beginning of the 2000s, our country has seen significant progress in the field of bioethics (texts, laws, training, research, etc.).

However, the proposal for the creation of a chair of bioethics at the University of Oran contributed favorably to the initiative of the invitation launched by the world institution UNESCO with a view to associating our country (Algeria) to bioethical debates. The objective is to use qualified teaching given by specialists in the subject and to put in place expert advice to evaluate, develop and decide on the best programs. The opening of the bioethics post-graduation course in 2012 made it possible to achieve this objective.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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