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A Few Words about Bioethics

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ABSTRACT

Ethics is a discipline that systematically explores and explains philosophical-ethical cognitions by applying them in shaping moral views, understanding decision-making, and perceiving moral behavior and action. The purpose of her learning and teaching is to gain experiences that enable the development of moral and ethical competencies, the acquisition of knowledge, skills development and formation of attitudes necessary for moral decision-making and action, and differentiating right from wrong that we all face almost every day. Medicine and health care are the areas in which these procedures are most often expressed.

Keywords: *Ethics, Bioethics, Research, Health*

INTRODUCTION

Bioethics refers to the ethical implications of biomedical technology and its practices [1]. Bio refers to life, and issues in bioethics are often life-and-death issues. Ethical and bioethical standards can be personal, organizational, institutional, or worldwide.

The change in ethics related to modern medicine and research in the past few decades is most intriguing. Medicine and technology rapidly change and offer choices to clients and their families. Consumers are actively involved in their health care and more knowledgeable of medical technology and its implications. The public evaluates this technology and how it relates to their daily lives. The application of bioethics in our everyday lives provides opportunities, challenges, enthusiasm, and choices, albeit difficult, for each of us.

Thousands of people, patients as well as healthy, daily participate in biomedical research projects throughout Europe [2]. The research projects aim to provide new and enhanced knowledge, which may in the future lead to new or improved methods of diagnosis, treatment and prevention of sickness etc.

The research participants (human subjects) are thus means towards that end. However, participants in human experiments are inevitably exposed to risks of harm from mishaps, adverse effects etc., and burdens in terms of pain, discomfort, and the spending of time and effort. Occasionally the research participants may also have reasonable prospects of benefits to their own health, but often this is not the case. The question is then what level of risks and burdens it is acceptable to expose human subjects to in biomedical research in Europe.

Because of apparent potentially conflicting interests between the researcher and the participant, the level of acceptable risk cannot be left for the researcher alone to decide. That is why there are rules, such as legal, ethical and professional norms. Hence, the level of acceptable risk is subject to binding legal regulations.

In the past few decades, there has been an exponential burst of research activity dedicated to the fields of tissue engineering and regenerative medicine [3]. Transplantation therapy and clinical trials have been major contributors and hallmarks of these two fields. Unfortunately, the number of organs available for transplants has been experiencing a gradual decrease year after year. This is where tissue engineering comes into play. The entire purpose of this science is to generate organs from stem cells, which can then ultimately be transplanted back into the patient. This would fix the problem of organ shortage and help people obtain the proper treatment in time. However, the use of stem cells constantly faces political and ethical challenges, which is why researchers rely on new inventions and techniques by which they can obtain and harvest these incredible cells.

Professionalism is closely linked to modern ethical precepts and reflects traditional core values [4]. Defined as a set of values,

behaviours and relationships that underpins the trust that the public places in health professionals, it focuses on health professionals' partnerships with patients and with each other. Some commentators express concerns about the way market models in health care might affect how we define professionalism. For example, although NHS doctors always had an ethical obligation to consider resources, their own income was generally not linked to their clinical decisions. Increasingly, the use of more commercially orientated tools, including incentives, has led to concerns about how potential conflicts of interest should be managed. More generally, concerns have been expressed that a broader cultural shift towards a consumer-led model of health care could undermine the core values associated with medicine. Key challenges include finding and maintaining ways in which core values, such as compassion, beneficence and a strong obligation to promote the interests of patients, can still underpin and guide practice in a commercially orientated and consumer-led health environment.

ETHICS

Research ethics as the generic concept governs the standards of conduct for scientific researchers [5]. Research ethics was first and foremost developed as a concept in medical research; it has been extended to other fields such as social sciences, information technology, engineering, and so forth. Research ethics be mainly discussed in basic principles such as minimizing the risk of harm, obtaining informed consent, protecting anonymity and confidentiality, avoiding deceptive practices, and providing the right to withdraw. Research ethics, also, is distinguished from publication ethics. Whereas research ethics focuses on standards protecting the right of human participants or animals involved in research, publication ethics focuses on standards ensuring public trust in scientific findings, high-quality scientific publications, and people who receive credit for their ideas. In other words, publication ethics are standards to guarantee the research integrity (scientific integrity, or academic integrity). Accordingly, scientific integrity ensures values and practices such as objectivity, clarity, reproducibility, maintenance of academic standards, honesty and rigor in academic publishing, and utility. The violation of scientific integrity is defined as scientific misconduct. Scientific misconduct includes disvalues and malpractices in professional scientific research or academic area such as fabrication, bias, plagiarism, falsification, censorship, inadequate procedural, outside interference, and information security. All participants in academic research area, for example, authors, editors, reviewers of journals, research institutions, and even uninvolved scientific colleagues, are responsible for research and publication ethics.

Ethical and legal concerns are part of the core aspects of the biofabrication field since the first insights [6]. For drug discovery and cosmetics testing, biofabrication models contribute to minimize the use of animals while assessing the safety, efficacy, and security. Furthermore, for medical applications, although biofabrication can minimize some ethical dilemmas and moral distress associated with clinical organ transplantation and xeno transplantation, it is not devoid fits own restrictions, ethical and regulatory issues, particularly because of the fact that some protocols propose the use of stem cells from different sources, including embryonic stem cells. In addition, regulatory issues related to biofabrication are currently under discussion by worldwide agencies and organizations. Furthermore, it is possible that the use of previously approved and safety-certified materials (e.g. biomaterials, nanomaterials, and cells) will accelerate the application of biofabrication technologies to solve real-world challenging issues.

Stem cells are a promising tool for engineering tissues and are typically classified as either embryonic stem cells (ESCs) or adult stem cells (ASCs) [7]. ESCs can differentiate into any cell type in the body (pluripotent). This plasticity has been exploited to generate vascular cells for many applications. However, use of human ESCs includes some risks, such as the potential of uncontrolled tissue growth leading to abnormalities or tumor formation. In addition, difficulty in controlling phenotype and ethical considerations (in some countries) further hinder the investigation of these cells. Ideally, tissue engineering would use an autologous source, making adult progenitor cells an attractive option for cell delivery approaches.

Bioethics, health law, and human rights are overlapping and interrelated in ways that are not always either articulated or understood [8]. Rather than antagonistically competing for their own influence, these fields can most constructively be viewed as complementary and synergistic. Thus, for example, human rights

strongly support the medical ethics principle of informed consent, and medical ethics supports the human rights concept of the right to health. Human rights are universal and as such apply to all humans; they also articulate governmental obligations, and as such, focus on states. Health law is jurisdictional, and is the result of a political process in a particular country – which may or may not be the result of a country signing a particular treaty, obligating it to implement certain domestic law. Bioethics, especially its subcategory of medical ethics, defines the obligations of physicians when treating patients, and can also define a physician's obligations when working for the state (usually seen as the domain of human rights).

ETHICIST

The proposal that the ethicist should function precisely like any medical consultant risks confusing both ethics and medicine [9]. While it may not be wrong to regard an ethicist as having a certain body of special knowledge and experience, the main issue concerns the details of that role. To be sure, it may be readily conceded that the ethics consultant should be capable of functioning in clinical situations. However that may be, specifically in the claim that the ethicist should not only talk with the physician who requests the consultation, but in addition and as ethicist must be able "to examine" patients and help in their medical management. To ask for this kind of involvement is to say that the ethicist must be a physician. It is surely unreasonable, and probably illegal, to expect a non-physician to have those skills and perform those actions—which is obviously not to suggest that the ethicist cannot be an experienced clinician and held accountable for whatever is done under that aegis.

There is another problem with this view, however. Not only is it left unexplained just why an ethicist must also be able to conduct physical examinations, so it is left unexamined why a physician must also be able to conduct ethics examinations—as if a clinical-ethics examination were precisely like a clinical-medical examination. While there may very well be some similarities between clinical methods followed by the examining physician, and clinical methods followed by an ethicist, they are surely substantially different: to know how to detect and assess an irregular heartbeat, for instance, does not in the least provide insight into why the same patient is morally troubled nor in what those 'troubles' consist. The heart of the difficulty here, as will be explored later on, may well lie in a too narrow understanding of what 'clinical' signifies. After all, the clinical activities of, say, a nurse, a nurse practitioner, an EEG technician, or a social worker, do in fact differ significantly from those of a physician—but are widely accepted as 'clinical' quite as much as the doctor's work. That there are similarities is clear, too, although it will take some analysis to clarify both the differences and the similarities.

DISCOURSE

Discussions of bioethical themes that are widely held in the public sphere, on the other hand, are characterised by the fact that in this sphere there are no collectively shared moral convictions; there is at best partial consensus [10]. To an extent, that may be a consequence of the fact that many areas of research, for instance stem cell research, are rather inaccessible to day-to-day experience. Moreover, on many bioethical topics people's moral intuitions are extremely varied. In these cases, a much more systematic kind of ethical guidance is called for. Discussions in media and politics, as well as institutionalised ethics committees, therefore, fall back on academics who inform participants about scientific, legal, sociological and ethical aspects of new forms of practice and new technologies. These informatory tasks then fall to biologists, jurists, sociologists and ethicists. This means that academic ethical discourse plays a role in public discussions as well. Yet the relation between the academic discipline and public bioethical debates is remarkable in several respects. First of all, the academic discipline did not exist until the need for reflection on its subject arose in practice. Now that is not all that surprising. Ever since Aristotle, ethics in general has been understood as a philosophical reflection on practices, and has conceived its task as guidance towards a good praxis. But there are some further particularities of bioethics compared with other debates on the boundary of academic and public discussion. For one, it is striking that many debates – for instance those on cloning – are largely defined by academics but disseminated by public media. It has thus been possible to read articles containing elaborate philosophical argumentation in national newspapers. Occasionally, philosophers and theologians will speak out and express their standpoints on cloning in the press before engaging with the

subject in academic journals. Sometimes, philosophers and theologians will even present themselves publicly as bioethicists, despite the fact that their academic publications are in very different areas. Those practices, of course, evoke the question of exactly what competencies a bioethicist may be expected to have.

The discourse of health equity is non-coercive, promotes public values and the good of public health and induces reflection on the problems created by the atomistic account of patent rights [11]. The mainstream vision of innovation fails to account for differences in one's starting position (technological capacity and infrastructure, health needs of the global poor). The starting position of the affluent countries provides them with the real capacity to take advantage of the opportunities offered by global trade rules. The argument that the developing countries should be blamed for not having put in place the needed infrastructure for reasons of apathy, incompetence or corruption is morally troubling. It does not nullify the responsibility of governments of affluent counties to address structural injustice stemming from transnational economic activity, and created as a result of different levels of development. If the developed world wants to enter global markets, it should do it on ethical terms.

EHEALTH

Health care, both in the private and the public sector, is rapidly moving into eHealth and telemedicine and, in the course of rationalizing administrative and delivery structures, is increasingly outsourcing diagnosis, consultation (both informatic and medical), data storage and manipulation etc. [12]. In that sense — and to that extent — it is rapidly becoming an international affair. This globalization is especially pronounced in the private sector as health care providers, taking advantage of market niches, move beyond their original national boundaries with a concomitant distribution of administrative and delivery structures. This development, which is still in its infancy, presents a series of ethical and legal problems that touch not only health care associated professionals but also institutions, policy makers and societies at large.

More specifically, the scale of health care delivery is shifting from the traditional, more-or-less immediate setting that involved direct inter-personal contact and accountability, to an aggregate corporate model that is dominated by electronic methods of diagnosis and communication where contact is frequently mediated rather than direct, is spread out among a changing variety of individuals, and responsibility is distributed among a whole host of players whose roles are intricately choreographed into a complicated service-delivery ballet whose every facet is necessary for the process to function, but where accountability tends to be seen in institutional terms instead of personally and direct. The situation is further complicated by the fact that the delivery model itself is in the process of moving from a jurisdictionally localized approach to one that transcends national boundaries.

The process and the attendant issues have three distinct sets of parameters. One set is technical; the other, for want of a better term, could be called social and the third is paradigmatic. The technical parameters centre in issues that focus in the material natures of the tools, devices, procedures and protocols that are involved in the delivery of this expanded and distributed kind of health care; the social parameters gravitate around issues that involve more abstract matters such as individual rights and models of responsibility within a corporate setting, accountability in inter-jurisdictional contexts and ownership of (or control over) data. The third, paradigmatic, set of issues is perhaps the most difficult of all. It gravitates around the question of how the rights and duties that were more or less clearly understood in the immediate context of traditional and direct inter-personal health care delivery translate into the mediated and expanded context of the globally expanded corporate model of eHealth.

CONCLUSION

Since bioethical issues are very often the subject of scientific discussions, bioethics needs to be considered in the current social context. This would mean that the main source of most bioethical problems is the operation of systems that make up modern forms of technological sciences that include, among others, medicine, biotechnology, informatics, etc., and economics and politics. So, problems exist and need to be addressed systematically. Medical practice and biomedical research must be the foundation of the future development of bioethics.

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