145 - TECHNOLOGICAL HEALTH CARE SETTINGS AND ETHICAL RELATIONS

RAIMUNDA MEDEIROS GERMANO[1]
LAURIANA MEDEIROS E COSTA[2]
KARLA PATRÍCIA CARDOSO AMORIM[3]
1 - Department of Nursing of the Federal University of Rio Grande do Norte, Natal/RN, Brazil.
2 - College of Science, Culture and Extension of Rio Grande do Norte FACEX, Natal/RN, Brazil.
3 - Brazilian Association of Odontology of Rio Grande do Norte, Natal/RN, Brazil.
rgermano@natal.digi.com.br

Of all the sciences that man can and should know the main one is the science of living by minimizing the bad and maximizing the possibility for good. Leon Toltoi

Each day there are more and more new and sophisticated technologies in the field of health, but they do not always come with an ethical reflection, regardless of what it can do to human life. Our attitude when faced with this reality is the main concern of this article.

Tracing the historical roots of Latin America, the military technologies and oceanic navigation and the systemized astronomic knowledge of the Europeans for this continent date back to the XIV, XV and XVI centuries and expanded to other areas during subsequent periods. Later, in the XX century this dependence, little by little, came to be the domain of the United States, with greater visibility starting in the 1960s. Agricultural and land transportation technologies were developed by pre-Colombian tribes and civilizations.

In Brazil, in relation to the health field in the first decades of the XX century, it is important to remember the names of Oswaldo Cruz and Carlos Chagas who introduced new technologies in the field of public health in an intense combat of epidemics of the time.

But, as a matter of fact, the politics of science and technology in the country only began to be institutionalized in the 1950s. The National Research Council (CNPq), as well as the Council for Advanced Professional Training (CAPES) , both created in 1951, have contributed and are still contributing to scientific and technological investigation. In the 1970s the National System for Scientific and Technological Development (SNDCT), was created, making it possible to produce new technologies in a wide variety of fields, according to subsequently prepared basic plans. Later, in 2005, the government created its own Ministry of Science and Technology, strengthening all of the existing policies in the field and creating new initiatives.

In addition to governmental policies, other spaces in the field of private initiative have been equally responsible for producing new technologies, many of which are directed to health fields. Nowadays, we speak of medical technology, of imaging diagnosis and other sophistications. And the promise is that in a not so distant future technology can offer infinitely better possibilities in relation to those that are available today. Is there anything wrong with this? Should we condemn the new technical procedures? Our answer is no. The technical and scientific development in the fields of diagnosis and treatment have saved many lives and contributed to the minimization of much suffering. We understand that these technologies bring good and bad consequences. It is not, however, about condemning them but reflecting on our attitudes when faced with them. For this reason we should not separate science, technology and ethics.

How can we then support science and technology while at the same time irresponsibly establish limits on what they can do? How can we support these advances and avoid disaster? Where, then, should we focus our concern? It should be multi-focused to the degree that it involves various dimensions of life. The first is concerned with the exclusion of a large sector of the population, concerning the use of its benefits. But there are others: the indiscriminate use of various measures, equipment and medications without restriction or questioning, that do not always bring benefits to those who use them; the disintegration of relations and communication between health professionals and the user, as a result of the priority given to exams and equipment, usually underestimating the existing information on and auscultation of the user. It is the technocratization of life as Simmel warns.

However, it is necessary to consider that in spite of all the technological advances being offered in the health field by an arsenal of sophisticated machines and by the pharmaceutical industry, these two will always be a complement and not the embodiment of the essence of care.

On the other hand, the technological discourse and its practice in the field of health are rooted in modern western capitalist society that has separated and continues to separate the subjective and objective cultures. Simmel, in agreement with Marx and Max Weber, who have foreshadowed a modern world where things are dominated by man, talk about two phenomena that for them are nowadays fundamental and structural and mutually feed each other: monetary economy and the social division of labor. “Money as the absolute means tends to become the absolute end, the model and great regulator of practical life”. For Simmel, money performs a central role as much in the constitution of liberty as in the constitution of modern tragedy (SOUZA, 2005).

In its turn, the social division of labor isolates the worker who then becomes the executor of an objectively prescribed production.

This brief reference to Simmel's thought has not only the sense of trying to understand the technological setting in health as an integral part of the whole but also as an isolated dimension of a social totality. Somehow, it helps us to understand that in a culture of objectivity the machine overshadows man, restricting the space of subjectivity. And, on the other hand, the world of technology enchants us and, sometimes, inebriates us, limiting our critical vision of daily practice, especially when faced with the pain of others, which we tend to banalize in the face of the technological apparatus.

We live in a world of contradictions and paradoxes, and if we do not build and cultivate an ethical culture, we run the risk of being carried by the enchantment and benefits of progress, to a great measure, against the current of life, even in the health field as Giovanni Berlinguer (1996) has shown us. It is, then, not a matter of purely and simply criticizing progress, but of criticizing he who symbolizes only economical and technical advances without ethical considerations; he who is not concerned with the conservation of nature and of life, but is concerned with earning money at the cost of destruction and of war; he, who, finally, has no concern with human happiness and the relief of pain.

Incidentally, the book “O mito do progresso” by economist Gilberto Dupas, published by UNESP, calls our attention to the difficult task we have to remain critical. The author adds:

Influenced by the new reality we watch the urban-industrial-electronic world become more and more enchanted anew with dreamy fantasies of 'belonging' to networks, 'full' real time communication, 'infinite' digital compacting of data, sound and image cerebral expansion with the implantation of chips and genetic transformation *à la carte*; hundreds of billions of dollars are spent annually on global propaganda to transform new equipment or services that come from them into irresistible objects of desire. And the same author poses the question: And what about human progress? (DUPAS, 2006).

That is why it is difficult to attempt to carry out the complicated task of establishing limits to technology, but it is irresponsible not to do so (DRANE & PESSINI, 2005).

In the area of health, the extraordinary technical and scientific progress has permitted us to do sophisticated surgeries and treatments, but, contradictorily, it has not managed to control or avoid dengue, malaria or leptospirosis, to cite only a few diseases. Children still die of measles, worms and malnutrition, among so many other avoidable ills. With this we can affirm that technological progress has not guaranteed a better or more just society.

The diversification of principles (social, religious, political) makes it difficult to find equilibrium between individual freedom, the ethic of collective aspirations and the democratic and equanimous application of the advances made by science and technology. We think that both believers and unbelievers need to take on responsibilities and avoid disasters and absurdities. We should ask: Should everything that science and technology are able to do be done? Besides nuclear dangers, we face today the risks of microbiology and genetics with ethical and moral dilemmas. How can we balance the potential benefits of genetics, robotics and nanotechnology against the danger of unleashing a disaster without precedent to the human species? That is why it is of fundamental importance to amplify the dialog between scientists and ethicists. How can we find the good and avoid the bad? Even though it is inevitable, said Socrates, the ancient Greek philosopher, we cannot let the bad flourish.

From this perspective, the education of health professionals deserves special attention on the part of all educators in the field, for having a multidisciplinary dialog in favor of life as a declaration of bioethics. The process of teaching and the relations of such teaching, which are activities that complement one another, need to be thought about collectively. The first involves activities, means and objectives, at different times, through which the student becomes a professional; the relations of teaching are about the connections and ties that are established between participants in the process, with emphasis on the educators (ALMEIDA, 2000).

Whether or not they are aware of it, all educators play an important role in the formation of their students, transmit ethics that are materialized in their actions, in their attitudes towards teaching, the profession and life. However, the great majority are not aware of this fact. In teaching, the main concern is with the transmission of knowledge, with technique, even so, in an isolated way, without any sign of a multidisciplinary dialog or other dimensions of life. According to Morin (2000),

> the disciplinary development of the sciences does not only bring the advantages of the division of labor (that is, the contribution of the specialized parts for the coherence of an organizing whole), but also the inconvenience of super-specialization: cloistering or fragmentation of knowledge.

The pain and suffering of others, of the one or of those who are under our care do not become objects in the academic space of discussions in the immense majority of courses in the health field. Students enroll in courses whose contents are directed to social, human or ethical questions because these are required courses and not because they are a personal preference of the students. Health care as a profession suffers because of this embarrassment.

The atmosphere of individualism that we have seen growing, said Humberto Maturana, biologist and great Chilean educator, has changed the focus of this concern in our university students. They used to ask: What can we do for our country and for our people? What can we do to give back to our country and our people what we have received from it? Today they ask: What does the market want from us?

The heritage of the Cartesian/Flexnerian model that separates and compartmentalizes knowledge contributes to the students' loss of total vision. Health is confused in this scenario with a part of the whole, sometimes even with the machine that can furnish all of the information of this part, conferring a certificate of “competence” on the professional.

What is the interest of the students in the health field in Family Health Strategy, for example? What or which of the technologies are to be applied? At a level of basic care these shall probably be the light technologies, in the opinion of Emerson Merhy. For him, they are concerned with interpersonal relations, responsible for the creation of ties and for listening to the user, for being gathered into the service of health. In addition, we add to the importance and incentive around the technologies said to be appropriate, in the sense that they are produced at a cost that is in agreement with the conditions of each region.

Do schools and colleges exalt light technologies and take them into account in their relationships with the students and daily practice, as a locus for excellence, for the accomplishment of ethical conduct? Have the subjective aspects been duly valued in relation to the user, or is our attention focused on diagnostic and treatment, machines and equipment?

Due to so much restlessness in the field of ethics, two decades ago a bioethical approach arose, understood as a movement aimed at the search for the balance of current and future conflicts between individuals and nature and between the sciences and humanities, in an attempt to contribute to the improvement of conditions for life, citizenship and human rights. We understand that we need to unite the quality of care (technical aspects) to the debate on equity and the search for organizational forms of this care that combine mechanisms for solidarity with the necessary quality to meet human needs and overcome the diverse forms of social segmentation and exclusion. We think that we can thus make a commitment to life, at any moment of action, in the exercise of professions, whether they are in the health field or not.

A comforting thought comes from Nietzsche: where there is risk, there is redemption. Out of so many threats to the preservation of life motivated by reasons of a variety of orders, of which some have already been discussed, arise innumerous options for questioning and vindication, through publications and events such as: congresses, seminars, conferences and symposiums among so many others.

For this reason, in an attempt to make a prospection of how healthcare will or should be, in the future, when faced with the contradictions with which we live, immersed in a sophisticated technological setting, we think of the bifurcations that we face: on the one hand, the depth of the current dehumanizing mechanical model; on the other, the emergence of a humanizing form centered in what belongs to the other and in the widening of the sense of who we are. In the face of this dilemma, in the case of Brazil, we give support to wholeness, one of the principles of the Brazilian National Health Care System (SUS) that proposes a dialog and refuses reductionism and the objectivation of people. Thus, possibilities are created for sharing, in which there is an option for inventiveness and creativity in the ecological sense of care taking.

For the sole purpose of exemplification, we take two distinct situations. The Intensive Care Units, as an apparatus

furnished by technology, and the Hospices designed for palliative care. And, then, we say: What are the fundamental differences between these two forms of care for patients? In the first situation, in the case of care in the Intensive Care Unit, we should immediately clarify that our purpose if not to criticize this treatment space, or belittle its importance and necessity; many lives are saved there. Our purpose is to criticize how such care is provided. Frequently, the concern of the health care team is much more on machines and exams than on the person being taken care of. For the great majority of those who go through it, the isolation experienced in this relation between man and machine is evident.

In the palliative treatments, the care is centralized on the person being taken care of and, as a result, the team is focused on the auscultation of the person's subjectivity, refining the sensibility to listen and penetrate the soul of the other, while respecting the individual's dignity. The relation takes place between persons. Therefore, it has to do with a dimension that is diametrically opposed to the first condition. And much more than this: on transforming the type of caretaking the professionals are also transformed and become more sensitive to the suffering of others and to the human condition. With this observation, we are not condemning the treatment that demands high technology, especially because this would be absurd, we are pondering about our attitudes when faced with the pain of others, whatever the therapeutic indication is.

DESCRIPTORS: Technology; Ethics; Human Resource Education; Health Sciences.

REFERENCES

ALMEIDA, Márcio José de. Tecnologia e medicina: uma visão da academia. *Rev. Bioética,* vol.8, nº1, 2000. Conselho Federal de Medicina. Brasília/DF.
BERLINGUER, Giovanni. *Ética da Saúde.* São Paulo: HUCITEC, 1996.
DRANE, James & PESSINI, Leo. *Bioética, medicina e tecnologia*. São Paulo: Centro Universitário São Camilo; Edições Loyola, 2005.
DUPAS, Gilberto. *O mito do progresso.* São Paulo: Editora UNESP, 2006.
MATURANA, Humberto. *Emoções e linguagem na educação e na política*. Belo Horizonte: Editora UFMG, 1999.
SOUZA, Jessé; OELZE, Berthold. *Simmel e a modernidade*. Brasília: UNB, 2005.

Endereço:
João Vilar da Cunha, 2542, Lagoa Nova, Natal/RN, Brasil. CEP: 59078590
E-mail: rgermano@natal.digi.com.br

TECHNOLOGICAL HEALTH CARE SETTINGS AND ETHICAL RELATIONS

ABSTRACT

This is a reflection on ethical relations in the context of a technological health care setting. Its purpose is to analyze the historical evolution of science and technology in Latin America, specifically in Brazil, with a focus on the existing clash between technical and scientific development and the ethical perspective. The emphasis is on the risks of the culture of objectivity that has gradually been dominating the post-modern world, placing the machine over man and restricting the expression of human subjectivity. The grandeur of technology ends up by enchanting everybody, limiting the critical vision of daily practice and contributing to banalizing the pain of others. On the other hand, the diversification of principles (social, religious, political) makes it difficult to find equilibrium between individual freedom, collective aspirations and the democratic and equanimous application of the advances made by science and technology. From this perspective, the education of health professionals deserves special attention on the part of all educators in the field for having a multidisciplinary dialog in favor of life as a declaration of bioethics. Finally, we are warned that, when faced with the contradictions and paradoxes of the world, if we do not build and cultivate an ethical culture we run the risk of being carried with the enchantment and benefits of progress that, to a great extent, run against the current of life. However, it's not about simply being critical about progress, but about what symbolizes only technical and economical advances without ethical considerations.

Descriptors: Technology; Ethics; Human Resource Education; Health Sciences.

MILIEU TECHNOLOGIQUE DE LA SANTÉ ET DES RELATIONS ÉTHIQUES

RESUMÉ

Il s´agit d´une réflexion à propos des relations éthiques dans le contexte du milieu technologique de la santé, ayant pour but d´analyser l´évolution historique de la science et la technologie en Amérique Latine, particulièrement au Brésil, faisant le point sur le déphasage existant entre développement technique/scientifique et perspective éthique. Les risques de la culture de l´objectivité sont soulignés, risques qui dominent graduellement le monde postmoderne, où la machine l´emporte sur l´individu, limitant l´expression de sa subjectivité. L´appareil technologique finit par séduire tout un chacun, réduisant la vision critique de la pratique quotidienne, contribuant ainsi à banaliser la douleur d´autrui. D´un autre côté, la diversification de principes (sociaux, religieux, politiques) rend difficile l´équilibre entre l´éthique de la liberté individuelle, l´éthique des aspirations communes et l´application démocratique et équitable du progrès fourni par la science et la technologie. Sous cet angle, la formation des professionnels de la santé mérite une certaine attention de la part de tous les éducateurs de ce domaine, afin de susciter un dialogue multidisciplinaire, pour la vie, ainsi que préconisé par la bioéthique. Finalement, faut-il avertir que face aux contradictions et paradoxes du monde actuel, faute de construire et cultiver une culture éthique, nous nous exposons au risque d´être engloutis par les attraits et les bienfaits du progrès, qui s´opposent en grande mesure à la vie. Toutefois, il ne s´agit point de soulever une critique contre le progrès pure et simplement, mais contre le progrès technique et économique à peine, sans considérations éthiques.

Mots-clés: Technologie; Éthique; Formation en Ressources Humaines; Sciences de la Santé.

AMBIENTE TECNOLÓGICO EN LA SALUD Y LAS RELACIONES ÉTICAS

RESUMEN

Se trata de una reflexión acerca de las relaciones éticas dentro del contexto del ambiente tecnológico en materia de salud. Su objetivo es analizar la evolución histórica de la ciencia y tecnología en América Latina y particularmente en Brasil, haciendo hincapié en el desfasaje existente entre desarrollo técnico/científico y perspectiva ética. Resalta los riesgos de la cultura de la objetividad que, gradualmente, domina el mundo posmoderno, donde la máquina prevalece sobre el hombre, restringiendo la expresión de su subjetividad. El aparato tecnológico termina conquistando a todos, limitando la visión crítica sobre la práctica cotidiana, contribuyendo en la banalización del dolor ajeno. Por otro lado, la diversificación de principios (sociales, religiosos, políticos) dificulta el equilibrio entre la ética de la libertad individual, la ética de las aspiraciones colectivas y

la aplicación democrática y ecuánime de los avances proporcionados por la ciencia y tecnología. Dentro de esa perspectiva, la formación de los profesionales de la salud merece atención especial, por parte de todos los educadores del área, en lo que se refiere a abrir un diálogo multidisciplinario, a favor de la vida, como preconiza la bioética. Advierte, finalmente, que frente a las contradicciones y paradojas del mundo actual, si no construimos y cultivamos una cultura ética, corremos el riesgo de ser tragados por los encantos y gratificaciones del progreso, en gran medida opuestos a la vida. No obstante, no se trata de ejercer pura y simplemente la crítica del progreso, sino de aquel progreso que simboliza apenas el avance técnico y económico sin consideraciones éticas.

Palabras llave: Tecnología; Ética; Formación de Recursos Humanos; Ciencias de la Salud.

AMBIENTE TECNOLÓGICO NA SAÚDE E AS RELAÇÕES ÉTICAS

RESUMO

Trata-se de uma reflexão acerca das relações éticas no contexto do ambiente tecnológico na saúde. Tem como objetivo analisar a evolução histórica da ciência e tecnologia na América Latina e, no Brasil, em particular, focalizando o descompasso existente entre o desenvolvimento técnico/científico e a perspectiva ética. Ressalta os riscos da cultura da objetividade que, gradativamente, vem dominando o mundo pós-moderno, sobrepondo a máquina ao homem, restringindo a expressão de sua subjetividade. O aparato tecnológico termina encantando a todos, limitando a visão crítica sobre a prática cotidiana, contribuindo para a banalização da dor do outro. Por outro lado, a diversificação de princípios (sociais, religiosos, políticos) dificulta o equilíbrio entre a ética da liberdade individual, a ética das aspirações coletivas e a aplicação democrática e equânime dos avanços proporcionados pela ciência e pela tecnologia. Nessa perspectiva, a formação dos profissionais de saúde merece uma atenção especial, por parte de todos os educadores da área, no sentido de abrir um diálogo multidisciplinar, em favor da vida, como preconiza a bioética. Adverte, por fim, que diante das contradições e paradoxos do mundo atual se não construirmos e cultivarmos uma cultura ética, corremos o risco de sermos tragados pelos encantos e benesses do progresso, em grande medida, na contra-mão da vida. Porém, não se trata de exercer a crítica pura e simplesmente ao progresso, mas aquele que simboliza apenas o avanço técnico e econômico sem considerações éticas.

Descritores: Tecnologia; Ética; Formação de Recursos Humanos; Ciências da Saúde.