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Review Article

Bioethical Principles in the Care of the Elderly with Osteoarthritis

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Abstract

Introduction: The application of the principles of bioethics becomes particularly interesting if it is taken into account that the health relationship with an elderly person must be carried out by the health professional. Osteoarthrosis is one of the diseases that most frequently affects the elderly. It is a regular medical consultation with subsequent reasons for high treatment for their care and, a frequent cause of the deterioration of the lifestyle that influences the quality of life of the individual associated with their health.

Objective: To deepen the importance of the application of bioethical principles in the care of the elderly with osteoarthrosis.

Methods: A review of the subject was carried out in the Lilacs, Ebsco, Cochrane Library and Pubmed databases. The search strategy was developed in the period between January and July 2021.

Conclusion: Taking into account that osteoarthrosis is an increasingly frequent disease from the third decade of life, we must learn to apply the principles of bioethics and work on measures to avoid the appearance of disability and the consequent deterioration of the quality of life related to health, always bearing in mind that old age is only possible in society and the health professional is an important part of it.

Keywords: *Bioethics; Elderly; Osteoarthrosis; Old Age; Physiotherapy*

Introduction

Worldwide it is affirmed that the 20th century was one of population growth and that the 21st century will be that of its aging. The modern era has been characterized not so much by an increase in the upper limit of man's life, but by an increase in the proportion and number of people who live to approach that limit [1].

The aging of the individual is not an exclusive phenomenon of modern societies, it has been present in all stages of the social development of humanity, always being of interest to philosophy, art and medicine. In imperial Rome, man was already considered old at 20 years of age and half of the population died at 27 years of age due to infectious diseases. Already in the Middle Ages people were old at 25, in the 18th century at 30, a century ago at 40 and today you are young at 50 years of age [2,3].

Cuba has a progressive population aging with a marked increase in recent years. The Cuban population has experienced a simultaneous reduction in the percentage of people under 15 years of age, compared to the increase in the relative weight of the population aged 60 and over. At the end of 2019, people aged 60 and over represented 20.8% of the total. It is estimated that the percentage of Older Adults will reach 25% by 2025, at which time Cuba will be the oldest country in Latin America and by 2050, one of the oldest in the world [4,5].

In recent decades, three closely related phenomena have occurred that have attracted world attention as they have forced a review of national policies in relation to people. The first of these is the aging of the population. The population aged 60 and over has grown rapidly. Also, the concept of aging has changed. The second phenomenon is the great scientific and technical advance in Medicine, also bringing greater complexity in the application of these resources. The third and last phenomenon is the resurgence of Medical Ethics. Currently it is possible to appeal to the rights of the patient and also to resort to bioethical principles in decision-making [6].

Bioethics considered as science has only a short time to be conceived as such; one of its precursors is the Dutch oncologist Rensselaer Van Potter, who is credited with the first use of the word bioethics [7].

The fundamental ethical criterion that regulates this discipline is respect for the human being, for his inalienable rights, for his true and integral good: the dignity of the person.

The bioethical revolution in medicine has transformed the patient into a competent subject, who can make decisions about certain situations, taking into account that real decisions are not simple alternatives between good and bad, right and wrong, conflicts Ethics occur in very complex situations in which "a good decision" is equivalent to choosing a lesser evil. On the other hand, delving into ethical theories can be disappointing, if we hope to find absolute guidelines for action [8,9].

There are several facts relevant to an ethical approach to aging and aging. The first is demographic in nature. In all the countries of the world, the proportion of the elderly, and especially the elderly, has increased in recent decades. Better living conditions are expected to allow the populations of many nations to reach their theoretical limit of longevity [10,11].

The present of old age, today, is of crucial importance for ethical reflection. Never before has there been such a marked coexistence of people in the extreme ages of life [12].

Among the diseases that most frequently affect the elderly is osteoarthrosis, being the most common of joint diseases. This causes pain and progressive functional limitation and constitutes, in addition to a common reason for medical consultation with the consequent high costs for its care and treatment, a frequent cause of the deterioration of the lifestyle that influences the quality of life of the individual associated with their health [13].

It has been shown that age is the greatest risk factor for the development of osteoarthrosis that gradually increases after the age of 30, reaching up to 80% by age 65 and even 95% at older ages [14,15].

Population aging has imposed a new challenge for the health systems of the different countries: today, the most important thing is not to continue increasing the longevity of populations, but to qualitatively improve their health and well-being. To this end, the term quality of life has been developed in recent decades, which has been used by specialists from the most diverse disciplines, such as philosophers, economists, sociologists, psychologists and doctors [16-18].

It is important to consider the elderly person who is ill as a person and not only address the pathological aspect. The objective of this review was to deepen the importance of the application of bioethical principles in the care of the elderly with osteoarthritis.

Methods

A bibliographic review study was carried out, through the systematic consultation of articles and books published in electronic databases in sites related to health topics such as: PubMed, Lilacs, Ebsco, Cochrane Library, Scielo, Dialnet, Redalyc, Elsevier, in addition of national and international organizations, in the period between January and July 2021.

Developing

Bioethics is the discipline that brings together knowledge of philosophy, medicine, biology, sociology, psychology, law, etc. It provides the necessary elements to solve the new ethical dilemmas generated by scientific and technological progress. It is the creative use of dialogue to formulate, articulate and resolve the dilemmas that arise in psychosocial and biomedical research and in healthcare. There is no aspect of health care or biomedical research that can escape bioethical reflection [19].

It studies the regulation of the researcher's work, the ethical problems that affect the human being individually (problems and rights of the patient, social conflicts derived from institutional or governmental policies, occupational medicine), environmental problems and those related to balance of our ecosystem. Problems of all professions and technical specialties of the health sciences: (chemists, dentists, psychologists, social workers, nutrition graduates, graduates and nursing technicians, etc [19].

Bioethics studies the morality of human behavior in the field of life sciences. It is interdisciplinary in nature. It is an instrument of reflection to guide biomedical and technological knowledge, based on an increasingly responsible protection of human life [19].

Von Kretschmann-Ramírez and Arenas-Massa (2016) review a series of articles on the teaching of bioethics in Medical Sciences and Dentistry. In this study, the following conclusions were reached: «it seeks to promote self-reflection and moral reasoning in students [...] [20].

Both the Nüremberg Code, as well as other ethical documents, which seek to protect patients, are periodically reviewed in order to update them and adapt them to new challenges.

In 1979, the bioethicists T. L. Beauchamp and J. F. Childress, defined the four principles of bioethics: autonomy, non-maleficence, beneficence and justice. At first they defined that these principles are prima facie, that is, that they link as long as they do not collide with each other, in which case one or the other will have to be prioritized, depending on the case. However, in 2003 Beauchamp considers that the principles must be specified in order to apply them to the analysis of specific cases, that is, they must be discussed and determined by the specific case at the casuistic level.

The four principles defined by Beauchamp and Childress are:

1. **Principle of autonomy:** Autonomy expresses the ability to set standards for oneself without the influence of external or internal pressures. The principle of autonomy is imperative and must be respected as a rule, except when there are situations in which people may be non-autonomous or have reduced autonomy (people in a vegetative state or with brain damage, etc.), in which case it will be It is necessary to justify why there is no autonomy or why it is diminished. In the medical field, informed consent is the highest expression of this principle of autonomy, constituting a right of the patient and a duty of the doctor, since the preferences and values of the patient are essential from the ethical point of view and assume that the objective It is up to the doctor to respect this autonomy because it is about the health of the patient.

2. **Principle of beneficence:** Obligation to act for the benefit of others, promoting their legitimate interests and eliminating damages. In medicine, it promotes the best interest of the patient, but without taking the opinion of the patient into account. It as-

sumes that the doctor has training and knowledge that the patient lacks, so that he knows (and, therefore, decides) what is most convenient for him. That is to say "everything for the patient, but not counting on him".

A first obstacle when analyzing this principle is that it dismisses the opinion of the patient, first involved and affected by the situation, ignoring his opinion due to his lack of medical knowledge. However, individual physician and patient preferences may differ as to what is harm and what is benefit. For this reason, it is difficult to defend the primacy of this principle, because if medical decisions are made from it, other valid principles such as autonomy or justice are set aside.

3. **Principle of non-maleficence:** Intentionally refraining from actions that may cause harm or harm to others. It is an ethical imperative valid for everyone, not only in the biomedical field but in all sectors of human life. In medicine, however, this principle must find an adequate interpretation since sometimes medical actions are harmful to obtain a good. So the point is not to unnecessarily harm others. The analysis of this principle goes hand in hand with that of beneficence, so that the benefit prevails over the harm.

   The medical implications of the principle of non-maleficence are several: having a rigorous and permanently updated theoretical and practical training to engage in professional practice, researching new treatments, procedures or therapies, to improve existing ones in order to make them less painful and harmful for patients; advance pain management; avoid defensive medicine and, with it, the multiplication of unnecessary procedures and/or treatments.

4. **Principle of justice:** Treat each one as appropriate, in order to reduce situations of inequality (ideological, social, cultural, economic, etc.). In our society, although in the health field equality among all men is only an aspiration, it is intended that all are less unequal, so the obligation to treat the equals equally and unequally to those who are unequal is imposed to reduce the situations of inequality.

   The principle of justice can be divided into two: a formal principle (treating equals equally and unequal persons unequally) and a material principle (determining the relevant characteristics for the distribution of health resources: personal needs, merit, economic capacity, effort personal, etc.).

Public policies are designed in accordance with certain material principles of justice. In Spain, for example, health care is theoretically universal and free and is, therefore, based on the principle of necessity. In contrast, in the United States most of the population's health care is based on individual insurance contracted with private health care companies. In our country, all health services are free, so they are provided with what is necessary regardless of cost, even sometimes we take the most expensive alternatives, especially when choosing a diagnostic means, being able to use another more economical and accessible.

To exclude any type of arbitrariness, it is necessary to determine what equalities or inequalities are to be taken into account to determine the treatment to be given to each one. The patient expects the doctor to do everything possible to benefit his health.

The doctor-patient relationship is fundamentally based on the principles of beneficence and autonomy, but when these principles conflict, often due to limited resources, it is the principle of justice that comes into play to mediate between them. On the other hand, health policy is based on the principle of justice, and it will be all the more just in that it achieves greater equality of opportunities to compensate for inequalities, which is the principle of justice [21].

The application of the principles of bioethics, a discipline that has been considered as "conflictive", and that is developed under the premise of the autonomy of the patient, as long as the contrary is not proven, becomes particularly interesting if it is taken into account that the Health relationship with an elderly person must be carried out by the health professional. In such cases, not only the patient's

own intervention and that of the patient are taken into account, but also invariably other elements will intervene such as the family, more or less well informed and with the best intention, the organs of social security, justice, and the health system without considering the eventual participation of the formal and informal support networks, so that discrepancies may occur between the parties interested in managing the problem, be it illness, disability, the change of status and roles of the elderly post-retirement or even due to problems of the domestic and social space of the elderly person who attends to request health care.

The doctor moved by the principles of beneficence-non-maleficence, and almost always from a paternalistic or contractual position, will rarely -even if he proposes it- will be able to achieve a dialogical relationship.

The sick old man who acts under the impulse of his autonomy, will sometimes make a hasty, overly conservative or erroneous decision, attending to health criteria acquired during a long existence and which are generally very difficult to modify [22].

The family and the social group whose criteria are governed by the principle of justice and with motivations that can be the purest search for the best to solve the health problem of the elderly, even the express desire to terminate an "annoying problem" and going through the most absolute indifference, they often hinder the smooth running of the relationship between the doctor and the old man. It is intended to violate confidentiality by questioning the competence or incompetence of the elderly, thus exerting pressure on the doctor's decisions [23].

The influence of the socioeconomic reality on the quality of life of the elderly, reveal elements of interest that demonstrate the need for a multisectoral intervention in these problems, which can become barriers if the necessary measures are not taken for their solution. Conflicts are generated that threaten self-esteem, the perception of one's own health and the satisfaction of the services received; Issues that pose new questions to the doctor by giving rise to reactive depressions that are difficult to manage [24].

Before the elderly person who dies and receives medical attention, the chapter on the terminal patient and dignified death opens, a topic that has been widely discussed in current literature. Added to these problems is the conflict when deciding between the home care offered by their family if they have it, or by strange hands in the case of the elderly without filial protection, against the reality of hospital care that guarantees high technical quality, but introduces the risk of acute confusion due to immobility and stress, by reducing to a minimum the affective exchange in the elderly in an environment that is totally alien to them. In the case of osteoarthrosis, the elderly is evolving towards disability and deterioration of the quality of life, which is why the prophylaxis of disability is important, which is fundamentally achieved by staying active, which is why in our health areas there are circles of grandparents who still do not attend the number of elderly people that they should, mainly due to lack of information and encouragement in this regard and sometimes due to taboos, mainly in the case of males.

These considerations lead us to look to bioethics (as a necessary discipline to regulate the intervention actions that the health worker can perform on the elderly, guaranteeing through its application the primacy of the good), an essential tool to offer their care to the man of today and of future generations in which the proportion of the elderly must occupy an overwhelming space and in which their demands and conflicts can have a profound influence on the socioeconomic balance of the human group to which they belong, for which reason the study of its needs and possibilities, not only as a high consumption sector but as a possible manager of solutions for its own problems [12].

The principle of non-maleficence is not a principle in itself and becomes important when you want to protect the patient in an action that offers more risks than benefits. In the elderly with osteoarthritis who goes to the physiatry consultation we have to be very careful, as this is more frequent every day it requires deep preparation, so the study program of the Physical Medicine and Rehabilitation specialty includes a rotation per geriatrics and emphasis is placed on all the considerations to bear in mind to treat an elderly person with physical agents, taking into account that there may be coexistence of several chronic diseases and the need for them to be compensated, the

changes that exist in the skin being more fragile and susceptible to burns, the existence of tumor processes that are still followed by oncology, patients who have pacemakers who cannot enter the areas where the high-frequency equipment and magnetic fields are because they affect the functioning of the same and the patient may die [13].

The principle of autonomy in our environment is respected, fundamentally in conducting research where informed consent is of higher quality and the document is made. In the case of physiatry, it is complex to provide information to the patient in such a way that they can understand it, this must be broader since before sending him to assess physiatry treatment they must mention other equally effective therapeutic alternatives, although the advantage of physiatry is that the treatments are not painful or difficult to access because in all polyclinics there are comprehensive rehabilitation areas with complete equipment of state-of-the-art technology. In daily practice we still have difficulties keeping this principle in mind, but fundamentally it is because of the trust that the patient has in the doctor that even when one gives him the information and the possible variants to follow, the answer of many is that he who knows is the doctor and that they do what he thinks best [25].

The principle of justice refers to equity in the distribution of resources and goods considered common, and gives equal opportunity of access to them. It is applied more in the social sphere and is generally fulfilled in our society. Although in the case of the elderly with osteoarthrosis, who almost always have pain, we still find professionals who are of the opinion that it is normal for them to have pain and that nothing can be done to alleviate the pain even for a short time having options such as rehabilitative treatment Or another simpler one, which is to guide them to go to exercises with their grandparents, even sometimes the best alternative is surgical treatment as it should be done in coxarthrosis (osteoarthritis of the hip) when pain limits the performance of life activities daily and leads to disability, obtaining very good results and guaranteeing at least 10 years free of disability, since this is the average useful life of the prosthesis and may be longer if care is taken for it [26,27].

One aspect to consider, especially in the elderly, is the quality of life and death. The quality of life is difficult to define, but the sense of considering the natural heritage of the patient, his home and his society takes root. It is an evaluative and not a descriptive term. Therefore, the only one authorized to comment on their quality of life is the elderly man himself [28].

The phrase "quality of life" is used in many different contexts. It allows a compact allusion to a set of conditions, requirements and results related to the well-being of healthy and sick people. It is a "descriptive" term, but also an evaluative and normative term. The quality of life in certain circumstances is supposed to meet some requirements to be acceptable [29].

In general, the evaluation of old age by the old themselves and by those who are not yet old is negative, it is isolated voices that propose to ignore the physical limitations, the decay of the intellect, the ugliness and enhance the experience, prudence and peace of life. old age [14].

Someone has said that old age is hopeless. However, it is a disease that can be alleviated in many ways. If you look closely, the process of growing up can be even more difficult than getting older. In the process of knowing how to live in old age, the attitudes and actions of the society in which the individual grows old count a lot.

Old age is not a disease: it is a state of gradual degenerative changes, of slow wear and tear, but it is not a disease nor does it have to live accompanied by pain or anguish. There are diseases of old age, just as there are diseases of childhood, but that does not mean that childhood is a disease, just as old age is not. The prolongation of life brings with it an increased risk of chronic non-communicable diseases whose consequences lead to disabilities. In another sense, there is also an increase in the accident and injury rates that are related to the process of development and industrialization and that cause a significant percentage of disabilities with a high economic cost [30].

Numerous investigations have shown that health problems and functional disability are not inherent to aging, that the majority of the elderly are free of serious pathologies, that the characteristic pattern of the pathology is chronicity, that the risk of disease and disability increases with age and that the instruments for measuring functionality are mandatory evaluation.

The evaluation of the quality of life in the elderly must be adjusted to life expectancy, otherwise it would become an increase in the expectation of disability: while the central task of current science is precisely to delay the appearance of disability in the old man [31-33].

The increase in the quantity or survival in years implies an increase in the incidence of chronic and degenerative diseases associated with age with their corresponding sequelae. This would justify a higher prevalence of disability in this age group while taking into account comorbidity with diseases such as hypertension and diabetes mellitus [34].

For example, for osteoarthrosis, there is a progressive increase in the disease with age, the concept of whether it is a physiological or a pathological phenomenon is controversial. It increases to 80% around age 65 and up to 95% after this age. In general, it affects more than 10% of the population over 60 years of age and is frequently associated with physical and psychological disorders with a high cost, the increase in life expectancy at birth will considerably increase the incidence [35].

Society in general through various plans implemented for this purpose and the family in a particular way through understanding, help in this regard and consideration can contribute to increasing self-esteem, thus achieving that old age passes calm, safe and free of feelings negatives. Human old age is only possible in society [36].

Conclusion

Taking into account that osteoarthrosis is an increasingly frequent disease from the third decade of life, we must learn to apply the principles of bioethics and work on measures to avoid the appearance of disability and the consequent deterioration of the health-related quality of life always bearing in mind that old age is only possible in society and the health professional is an important part of it.

Bibliography

1. Rojas F., *et al*. "Health status in the elderly". Havana; Editorial Medical Sciences (1993): 40.
2. Prieto O. "Population aging: Editorial Ciencias Médicas" (1997): 3-4.
3. Fajardo G. "Third age. Elderly". In: Inter-American Center for Social Security Studies. The elderly in Latin America: their needs and their social medical problems. Mexico, DF: CIESS, PAHO, WHO (1995): 1-11.
4. García Quiñones R. Aging in Cuba (2020).
5. Llanez C. "Nursing Topics, Geriatrics. Havana: Medical Sciences Editorial (2017).
6. Sánchez González MA. "Humanism and the teaching of medical humanities". *Educación Médica* 18.3 (2017): 212-218.
7. Noa Silverio L., *et al*. "Bioethics training for health professionals through virtual environments". *Cuban Journal of Higher Education* 3 (2018): 341-352
8. Cruz Ciprés M. "Concepts of bioethics". *Annals d'Ophthalmology* 13.3 (2005): 137-138.
9. Carrizales D., *et al*. Education in Values Magazine 2.28 (2017): 47-55.
10. Vera López JI. "Aging in Latin America and the Caribbean: Research and Teaching Approaches of the Latin American Research Network on Aging (LARNA)". Northern border 27.54 (2015): 207-210.
11. Osorio Pérez Ó. "Population aging: discrimination and public policies integral. Iztapalapa". *Rev Social Sciences and Humanities* 37.81 (2016): 133-163.

12. Acosta Jose R. "Bioethics for sustainability". Aquarius Publications (2002): 173.

13. Rodríguez I., *et al*. "Development and validation of a new tool to measure the facilitators, barriers and preferences to exercise in people with osteoporosis (2017).

14. Jaramillo N. "Forms of arthritis: Osteoarthritis". Intelli health (2000).

15. Ojeda H. "Knee care". Cuban Medical Advances. VIII 26 (2001): 50-51.

16. Collective of authors. "Bioethical aspects of quality of life". *Notebooks on Bioethics* 19.3 (2004).

17. Martínez-Pérez T., *et al*. "Aging, old age and quality of life: success or difficulty?" *Finlay Magazine* 8.1 (2018).

18. Sánchez Barrera O., *et al*. "Population aging: some assessments from anthropology". *Revista Médica Electrónica* 41.3 (2019).

19. Bettazzoli N. "A didactic model for teaching bioethics: didactic constructivism and narrative imagination. The co-construction of critical judgments, narration, and representation of emotions and feelings', Science Direct". *Procedia - Social and Behavioral Sciences* 174 (2015): 2174-2183.

20. Von Kretschmann-Ramírez R and Arenas-Massa Á. "Teaching bioethics in the career of dentistry. Reflections and prospects". *Perspectiva Bioética* 20.2 (2016).

21. Bioethics, Wikipedia,the free encyclopedia.

22. Guash L. "Community alternative for the therapeutic physical rehabilitation of imbalance in the elderly". (Unpublished master's thesis) (2019).

23. González Bernardi M. "Experience in B learning with the subject Bioethics, Faculty of Nursing and Health Sciences, Supplement SIGNOS EAD (2016).

24. Roig-Vila R. "Education And Technology". Proposals from educational research and innovation, Octaedro Edition, Barcelona (2016).

25. Beetham H. "Deepening digital know-how: building digital talent". Key issues in framing the digital capabilities of staff in UK HE and FE », JISC, UK (2015).

26. Mena R. "Characterization of patients with knee gonarthrosis. Comprehensive Diagnosis Center "Concepción". *Journal of Medical Sciences of Havana* 15 (2016): 23-29.

27. Sebatian, S. "Evolution of knee osteoarthritis in older adults (2015).

28. Álvarez A., *et al*. "Pathophysiology, classification and diagnosis of knee osteoarthrosis". *Revista Cubana de Ortopedia Y Traumatología* 18.1 (2004).

29. Alfonso Figueroa L., *et al*. "Quality of life and perceived social support in older adults". *Reviews Medical Sciences* 20.1 (2016).

30. Narváez LM. "Physical activity to improve strength and balance in the elderly (2017).

31. Badia X and García AF. "The measurement of health-related quality of life and preference in health outcomes research studies". In: Research on health outcomes. Barcelona: Edimac (2000): 61-78.

32. Lugo J., *et al*. "Content validity of its questionnaire to measure quality of life in patients with breast cancer". *The Cuban Institute of Oncology and Radiobiology* 2.16 (2000): 100-106.

33. Llanta M., *et al*. "Quality of life in oncopediatrics; problems and challenges". *The Cuban Institute of Oncology and Radiobiology* 16.3 (2000): 198-205.

34. Navarro MJ., *et al*. "Introduction to: quality of life, functional results and satisfaction in knee rehabilitation". Valencia. Valencian School of Health Studies (2003): 11-14.

35. Castellanos M. "Anxiety and depression in the geriatric population of a medical office". TTR for the title of specialist in MGI, Havana (1995).

36. Díaz Tamayo M., *et al*. "Benefits of physical rehabilitation in older adults with gonarthrosis" (2020): 16.

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