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INTEGRATIVITY AS A FEATURE OF BIOETHICS

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Abstract. Bioethics as a new science has become a new worldview and in recent years the scope of the questions and problems it studies has been increasingly expanding. Over the past decades, we have witnessed bioethics becoming an increasingly integrated science, uniting not only medical and biological issues, but also social sciences such as philosophy, law, ethics, and many other areas. In this article, we analyzed the concept and essence of integrativity as a characteristic aspect of bioethics. The article examines the integrative features of bioethics as a science.

Key words: bioethics, integrativity, experience, comprehensive approach, biotechnology, integrative medicine, legal basis, gene correction.

Аннотация. Биоэтика как новая наука стала новым мировоззрением и за последние годы все более расширяются масштабы вопросов и проблем, исследуемых ею. За последние десятилетия мы стали свидетелями того, что биоэтика становится все более интегрированной наукой, объединяющей в себе не только медицинские и биологические проблемы, но также социальные науки, как философия, право, этику и многие другие области. В данной статье мы проанализировали понятие и сущность интегративности, как свойственную сторону биоэтики. В статье рассматриваются интегративные особенности биоэтики как науки.

Ключевые слова: биоэтика, интегративность, опыт, комплексный подход, биотехнологии, интегративная медицина, правовая основа, генная коррекция.

INTRODUCTION

Bioethics is a new field of knowledge that studies and analyzes the ethical, legal, religious, and socio-cultural issues that arise in the fields of biology, medicine, and human research, as well as healthcare. Finding a balance between the achievements of modern science and the protection of human rights and interests is one of the goals of bioethics. In recent decades, we have witnessed bioethics becoming an increasingly integrated discipline, incorporating not only medical and biological issues, but also social sciences, philosophy, law, and many other fields. In this article, we will discuss the concept of integrativeness, its essence and its manifestation in bioethics.

LITERATURE REVIEW

In this article, the famous scientists who were the first in the CIS to address the current problems of bioethics and used the experience of foreign researchers and international organizations in their works: the scientific experience of B.G. Yudin, Y.M. Lopukhin, T.V. Mishatkina, I.V. Siluyanova, L.V. Konovalova, T.N. Pavlova, P.D. Tishchenko, V.N. Ignatiev,

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V.V. Vlasov, and local scientists M.S. Abdullahodzhaeva, Z.M. Mukhamedova, D.A. Asadov and other scientists who have made a great contribution to the study of bioethics in Uzbekistan was used.

RESEARCH METHODOLOGY

Bioethics is a unique form of integration and synthesis of the fundamental achievements of modern medicine, natural sciences, and social and humanities, which is the basis for calling bioethics a philosophical science. The article substantiates its worthy place in the system of social sciences. Bioethics' study of the impact of disease, death, and the consequences of new medical technologies on cultural processes expands the possibilities for the modern interpretation and development of social anthropology in our country. The fact that these innovations in modern science and education also have an impact on issues of universal rights and individual freedom, in turn, is evidence of the relevance of the study and development of bioethics today [1]. Therefore, in the article, general scientific and general philosophical methods of scientific knowledge, such as comparative analysis, systematic analysis, analysis, synthesis, and the principles of historicity, logic, and objectivity were used.

ANALYSIS AND RESULTS

Integrativeness is defined as a scientific method or approach that aims to obtain complete and comprehensive information about an object or phenomenon, to understand it, or to create a solution by integrating its various elements or components. Below we have listed some of the advantages of an integrative approach:

Firstly, an integrative approach allows us to look at problems or events from different perspectives and consider different aspects. This, in turn, helps to understand the situation more deeply and more fully, and to study the object or event comprehensively.

Secondly, the integrative method or approach helps to unify knowledge from different fields, allowing to identify connections and relationships between them. Building on the connection of knowledge leads to a more comprehensive and in-depth analysis of the problem.

Third, an integrative approach allows for the use of diverse skills and methods to achieve effective solutions and results. Combining and applying experiences from different fields leads to innovative approaches to emerging problems and, thereby, to propose sustainable and effective solutions.

Fourth, the integrative approach explores, establishes, and encourages collaboration between specialists in different fields, which is characterized by an increased opportunity to promote creative new ideas and solutions based on effective collaboration.

Fifth, the integrative method helps to adapt to changing conditions and requirements, because the combination of knowledge and skills from different fields ensures flexibility and consistency in solving problems. These advantages of the integrative approach make it a powerful tool for solving complex problems and achieving goals in various fields.

Integrative sciences are those that seek to integrate different disciplines and fields of knowledge to create a more complete and holistic understanding of a problem or phenomenon.

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They are usually based on in-depth analysis and encompass many aspects of different disciplines to provide effective solutions. We give examples to prove our point. For example, integrative sciences include systematic biology, systematic ecology, integrative medicine, integrative social sciences, and integrative physiology. Among these, systems biology combines knowledge from biology, biochemistry, mathematics, genetics, physics, and computer science to study complex biological processes at the cellular level[2]. Or, using a systems analysis approach, systems ecology integrates knowledge from ecology, geography, biology, chemistry, and other disciplines and systematically studies the relationships and interactions between ecosystems. Integrative medicine combines traditional medicine with other complementary therapies, such as homeopathy, acupuncture, Ayurveda, and traditional Chinese medicine, creating a holistic approach to treatment and health. Integrative social science combines knowledge from sociology, political science, economics, anthropology, psychology, and other disciplines to study complex social phenomena and systems. Integrative physiology, on the other hand, combines knowledge from biology, physiology, biochemistry, medicine, and other disciplines [3] to scientifically study how the human body adapts to various conditions.

Integrativeness as a method of knowledge has a number of its shortcomings. Therefore, it is advisable not to ignore these shortcomings when studying subjects or phenomena.

For example: Because the integration process involves synthesizing different sources or perspectives of information, the result can be subjective and may be tied to the interests or beliefs of the person conducting the research. In this regard, the factor of subjectivity is considered a disadvantage of integrativeness.

We also think that the complexity factor is a disadvantage. Integration is a complex process that requires a lot of time and effort to carefully and thoroughly analyze and organize data from various sources. The complexity of the integrative approach lies in the fact that in the research process, several systems, elements, and structural connections are studied, compared, and contrasted in terms of individuality, specificity, and generality.

At the same time, we can see limitations in the integrative approach. The integrative approach may not always be suitable for all fields of knowledge or types of research. In some cases, specific or specialized approaches are more effective in studying a subject or phenomenon.

During the integration process, some information or aspects relevant to the research question may be omitted, which may lead to an oversimplification of the situation or to its incorrect understanding and assessment. Therefore, we consider the possibility of information deficiency to be another shortcoming.

It is also worth noting that combining different data or theories through an integrative approach can lead to ambiguous or mixed results, which, in turn, can create difficulties in developing clear conclusions or recommendations. Taking into account these shortcomings, it is more appropriate to use the integrative method in conjunction with other methods of knowledge and research approaches to achieve a more complete and objective understanding of the phenomenon or problems under study. Therefore, the uncertainty that arises when using integrative methods is, in our opinion, another drawback.

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When it comes to the concept of integration, we should emphasize that it is defined as the process of bringing together different elements or components to create a complete and holistic understanding or picture of a phenomenon in order to create a solution. The goal of the integration method is to combine interrelated and interacting components into a single system or structure, study them in a coherent manner, and determine their dialectical interrelationships. For example, in biology, the use of an integrative approach to the study of living systems allows us to fully understand the nature and functioning of living systems by combining and harmonizing information about genes, proteins, and metabolic activity and pathways.

Integrative in bioethics refers to an approach that considers the many aspects and factors that affect ethical decisions and problems in biology and medicine. It includes not only medical and scientific fields, but also social, cultural, legal, philosophical and religious aspects. An integrative approach suggests that when making ethical decisions, all of these factors should be taken into account and a balance should be sought between them.

If we analyze the integrative nature of bioethics. First, these factors include, first of all, the principle of respect for diversity. That is, bioethics, as a holistic approach, studies the diversity of values, attitudes, and cultural characteristics of different societies, whether regional, national, or religious, and takes each into account. This reflects the clearly integrative nature of bioethics, particularly as different countries and cultures may react and respond differently to contemporary medical and biological problems, and is an important aspect of international concern[4]. Second, the principle of focusing on the impact of scientific progress and discoveries on human life and health is the principle that allows bioethics to remain relevant in the rapidly changing world of science and technology. This, in turn, allows bioethics to identify, study, and take into account the impact of the latest discoveries in medicine and biology on human life and health, and therefore, through an integrative approach, to develop ethical recommendations in this complex process.

Thirdly, it is the principle of community participation in solving the issues and problems of bioethics. This, in turn, facilitates and ensures the process of anticipating and predicting conflicts of interest, taking into account all factors, and making democratic decisions that are fair to all.

Fourthly, through the integrative approach of bioethics, the principle of relying on legal and legal frameworks is formed, which promotes and helps to implement ethical and legal standards that protect human rights and interests in biology and medicine. In this regard, we can show the activity of ethics committees as a practical form and expression of the science of bioethics. This practical form of bioethics was discovered in 1964 when the World Medical Association adopted the Declaration of Helsinki. The "Basic Principles" section of this Declaration, paragraph 2 states: "The general plan and scheme for conducting each type of research should be clearly and in detail specified in the protocol, which, in turn, should be submitted to a special commission for study and approval" [5]. The main provisions of the Helsinki Declaration serve as the basis for many national legislative documents, including the legislation of the Republic of Uzbekistan.

Fifth, biomedical and biopharmaceutical research conducted on humans today remains a critical condition for the functioning of medicine, pharmacy, and the health care system. In

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particular, the increasing scale of research conducted on humans raises new bioethical problems and questions [6]. Because a person's participation in research may endanger his health, life, rights, honor, and well-being. In such conditions, civilization and society began to look for ways to protect people. As one of such forms of protection, we can show bioethics, its theoretical and practical forms.

New opportunities in medicine and pharmaceuticals are related not only to the practice of treatment, but also to the management of human life (for example, genetic correction of human characteristics, allowing unauthorized donation, destroying new life at the embryonic stage, suspending or refusing medical care to seriously ill patients), this situation is completely contrary to the existing spiritual values and traditional principles, and it created the need and need for a new approach and outlook. The science of bioethics arose due to the emergence of many such conflicts in the course of the development of the field of medicine and biology. This direction, gathering information about the limits of manipulation of human life and death, has evolved into a direction of "the systematic study of human behavior within the framework of the science of life and health and moral values and principles" [7].

The rapid development of biomedical science and biotechnologies has placed on the agenda issues that are extremely complex from an ethical point of view. These include the cloning of human cells and tissues, genetic testing, the use of stem cells, the development and implementation of genetic engineering, and the transplantation of human organs and tissues. It is very difficult to predict the consequences of such interventions in the human body, since stem cells can become anything.[8] Bioethics studies the ethical conflicts between biomedicine and humans, and biomedicine and society, through the understanding and integration of values inherent in modern culture. In this sense, bioethics appears as a practical philosophy of human life activity. In order to prove our point, we can cite the following examples from scientific practice:

1. The issue of using genetic modifications requires that the decision to allow genetic modifications to treat or improve the human body be studied and analyzed, taking into account all factors, including scientific, ethical, social, and legal aspects.

2. In the debate over embryo research and the ethics of embryo research: who is the fetus? and discusses questions about its right to life as a living being, its commercialization or cryopreservation of the fetus for future use, the scientific benefits of the research, and the overall social implications.

3. In reproductive counseling, bioethics takes into account the wishes and values of infertile families, as well as the socio-cultural context and issues related to religious and national worldviews, an important factor is the study of the legal, religious, ethical, and psychophysiological issues arising from the use of new assisted reproductive technologies (EKO, ICSI, in vitro fertilization, surrogacy).

CONCLUSION / RECOMMENDATIONS

Thus, we can conclude that in today's world, where the achievements of science and medicine affect human life, bioethics plays an important role in the field of biology and medicine. Using the integrative approach of bioethics, we can find solutions to the conflicting

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problems that arise in modern biology and medical science, which are closely related to human health and life, birth and death, present and future, balancing science, ethics, and societal ethics is critical to fair and sustainable decision-making. In today's world where science is advancing, the integrative nature of bioethics in protecting and ensuring human rights and interests protects the future of humanity from unknown dangers. Therefore, the socialization of bioethics, especially its introduction into educational programs, is an urgent need.

REFERENCES:

1. Umirzakova N.A. The Roles of Bioethics in the Formation of Professional Competence of Students of Medical Universities in Uzbekistan // Eubios journal of Asian and international ejaib. Vol. 31(5). July. 2021. – P. 258-260. (№3; SCOPUS); (№40, ResearchGate).
2. Пустовит С.В. Глобальная биоэтика: становление теории и практики (философский анализ). – М.: Арктур, 2009. – С. 77.
3. Мишаткина Т.В. Социальная биоэтика сквозь призму глобальной биоэтики. – Минск.: ИВЦ Минфина. 2018. – С. 517.
4. Мухамедова З.М., Умирзакова Н.А. Актуальность формирования социального контекста биоэтическтих проблем в Узбекистане. // «Гуманитарный трактат. Выпуск №99. 1 февраля 2021 г. —Кемерово. — С. 7-
5. Хельсинкская декларация ВМА https://www.mediasphera.ru / journals/mjmp/2000/4/r4-00-20.htm
6. Умирзакова Н.А. Биоэтиканинг пайдо бўлиши, фан сифатида шаклланиши ва ўрганадиган муаммоларининг фалсафий-методологик таҳлили // Фалсафа ва ҳаёт. – Тошкент, 2020. - №1(8). - Б. 56-69.
7. Мухамедова З.М. Нравственная компонента медицинских знаний будущего врача в контексте биоэтики / O‘zbekiston tibbiyoti jurnali. – 2004. №3. – С. 161-168.
8. Мухамедова З.М. Введение в биоэтику. / Ташкент, 2004, 110 с.
9. Умирзакова Н. А., Исмаилов У. М. Влияние цифровых технологий на диагностику и лечение: телемедицина, приложения для мониторинга здоровья //Academic research in educational sciences. – 2025. – №. Conference 1. – С. 229-233.
10. Собритдинова Ш. С., Умирзакова Н. А. Биоэтические аспекты применения искусственного костного материала ethoss //Russian-Uzbekistan Conference. – 2024. – С. 189-192.
11. Умирзакова Н. Значение социально-гуманитарных дисциплин в формировании гуманизма у будущих врачей //Евразийский журнал академических исследований. – 2024. – Т. 4. – №. 11 Special Issue. – С. 380-383.
12. Сатарова Д. Г., Умирзакова Н. А. Развитие глобальной этики и всеобщая декларация о биоэтике и правах человека //Этика и история философии. – 2016. – С. 202-207.
13. Умирзакова Н. А. Аксиологическая функция биоэтики в формировании профессиональной компетентности у студентов //Academic research in educational sciences. – 2022. – Т. 3. – №. 12. – С. 115-123.
14. Умирзакова Н. А. Биоэтика как ценностная ориентация в профессиональной компетентности врачей //Гуманитарный трактат. – 2020. – №. 77. – С. 4-7.

ISSN: 2692-5206, Impact Factor: 12,23
American Academic publishers, volume 05, issue 11,2025
Journal: https://www.academicpublishers.org/journals/index.php/ijai

15. Умирзакова Н. А. Востребованность биоэтики для гуманизации медицинского образования в Узбекистане //IX м1жнародного симпоз1 уму з бюетики здоров'я, медицина та фшософш: стратеги виживання. – С. 15-16.
16. Умирзакова Н.А. Таълимни инсонпарварлаштириш контекстида биоэтиканинг онтологик ва гносеологик жиҳатларининг методологик таҳлили: фалс. фанлари ... доктори дисс... – Тошкент: ЎзМУ, 2022, - 133 б.