

# Construction of bioethical understanding through cinematographic work: perspective of teachers, students and health workers

**Max Amaral Balieiro; Alinne Rodrigues Bitencourt; Pedro Guilherme Castilho Costa Castilho; Rosana Oliveira Nascimento; Nely Dayse Santos da Mata; Marlucilena Pinheiro da Silva; Maria Virgínia Filgueiras de Assis Mello Mello; Aneli Mercedes Celis de Cárdenas; Kelly Huany de Melo Braga; Luzilena de Sousa Prudêncio**

## Abstract

*The study aim at to analyze the bioethical understanding of teachers, students and health professionals through cinematographic work. A descriptive-interpretative study with a qualitative approach, carried out in an online environment, through an interview guided by a semi-structured script. Data analysis was based on Bardin's referential. The process allowed the identification of two thematic categories: Building bioethical understanding through continuing education; Cinematographic work as a tool for bioethical analysis: perceptions and reflections. The results revealed that dilemmas with ethical implications were experienced by the participants, but with an incipient criticality. The methodological strategy of continuing education, using cinematographic work, allowed reflections and construction of knowledge about bioethics.*

**Keywords:** Bioethics; Cinema; Continuing Education; Health Education; Health Workers.

## 1. Introduction

The insertion of art, particularly cinema, in the education of health professionals is not recent. However, in the last 20 years, its use as a non-traditional pedagogical strategy has been increasing, as it contributes to keeping the students' attention on the theme presented, generating discussion about relevant contents. As it is an active, reflective and transforming methodology, it stimulates the students' critical positioning (MATTOS, 2018).

It is considered that an important aspect related to the use of cinema in teaching methodology is the possibility of generating discussions capable of exposing the personal experiences of the participants, which configures a method that extrapolates the molds of formal education and, especially, the limits imposed by the use of theory alone. Thus, cinema provides questions and reflections that raise the ethical problematizing positioning that emerges from it.

In the health area, in face of the growing concern and problems that involve bioethics, several discussion environments, strategies and study approaches arise. Thus, art, especially cinema, has proven to be a valuable tool to represent the changes in ethical problematizations (ANTUNES *et al.*, 2016). From this point of view, teaching bioethics in educational systems that train health professionals is a challenge, because it is necessary that students exercise and analyze their practices, whether individual or collective, in order to facilitate the

## ***Construction of bioethical understanding through cinematographic work: perspective of teachers, students and health workers***

facing of problems and the ethical and moral implications that may occur throughout their professional lives (WARMLING *et al.*, 2016).

In the educational scenario at the Federal University of Amapá, for example, the application of cinema in the construction of knowledge about bioethics is the object of studies at the Center for Research in Bioethics and Collective Health.

The multidisciplinary character allied to modern technologies, as well as the representations of distant times, provides cinema with an aesthetic and educational value that is present in several domains of daily life, increasing, when it comes to bioethics, discussions necessary to the development of its foundation (ALERM and GONZÁLES, 2019). For such, knowledge and understanding about Bioethics as a term and, later, as a science, are necessary.

Thus, it is understood that the study of bioethics is necessary, as a theoretical and practical discipline in the academic field, due to the fact that it permeates all academic practices. Thus, its applicability may be relevant for reflection and even for the resolution of situational problems, which may occur not only during academic practices, but also in everyday life.

Thus, bioethics can be a reference for analysis, discussion, and reflection for continuing education in health care. As a tool for significant transformations and learning, it can contribute to the better qualification of professionals and workers. By configuring a critical and reflective training to deal with reality, it can provide significant changes in the health scenario.

It is emphasized that Bioethics has the character of a transversal science. Therefore, it is considered pertinent to apply it to teaching as an agenda of speeches in various undergraduate courses, to support the understanding of the issues it covers, in addition to ethics in academic training. It is relevant to understand that teaching in the health field can be enhanced by the incorporation of continuing education as a tool for reflection, bringing about changes in the daily life of services and providing the development of critical consciousness to reflect on new ways of producing health and on the organization of work processes.

In this sense, continuing education can be configured as a stage for the problematization of bioethics, using the cinematographic work as a pedagogical instrument. When used in this way, it can enhance the field of knowledge and study, opening new ways of viewing and problematizing the same theme, and of using the theoretical concepts applied to the practice of the discipline.

Understanding the relevance of the expansion of studies on bioethics and its precepts in the field of academic training in the health area and the richness provided by the use of cinema in this task raised the interest of investigating the theme, emerging the following research question: What is the understanding of teachers, students, and health workers about bioethics, having a cinematographic work as a pedagogical instrument? Thus, the objective of this study is to analyze the bioethical understanding of teachers, students, and health workers propitiated by cinematographic works.

## **2. Material and Method**

This is an exploratory, descriptive, qualitative study, of narrative research type, conducted at a public university in the state of Amapá, Brazil. It is intended to interpret the meanings of the reports and understand the daily lives of participants facing the bioethical phenomenon, as proposed in a study on training narratives (PEREIRA and EUGENIO, 2019).

The chosen institution is a reference in teaching and hosts the Center for Research in Bioethics and Collective Health of Amapá (NUPEBISC/AP). The study participants were professors, students, and health workers who met the inclusion criteria: being a professor or student in an undergraduate or graduate course at UNIFAP or private educational institutions; being a health worker assigned to services linked to the Unified Health System (SUS) of the Municipal Network of Macapá or the State Network of Amapá.

To define the number of participants, the criterion of data saturation was used. Thus, 31 subjects agreed to participate in the study, but only 10 interviews were conducted. This quantity was established according to data saturation, defined as an epistemological instrument that determines when observations and interviews are no longer necessary on the phenomenon or category investigated (GLASER and STRAUSS, 1967).

The approach of researchers with the participants occurred in an activity provided by NUPEBISC/AP, through the Scientific Initiation project called "Bioethics through the Lenses of Cinema", which aimed to hold a workshop that included 60 participants, involving teachers, students, and health workers. Due to the Covid-19 pandemic, which affected the whole world, the workshop, planned to be executed in a presential way, occurred remotely, through the Google Meet platform.

The event was held on May 7, 2021 and was attended by 61 people, among whom 31 agreed to participate in the study. Data collection was performed on the same day, through semi-structured interviews, using an online form developed by the researchers on the Google forms platform.

The data collection instrument presented a structure that allowed obtaining sociodemographic information of interest to the study, such as age, gender, institution of origin, education, and level of instruction. Thus, it presented closed questions (questions about the professional resume) and open questions (understanding about the film work in the context of Bioethics), such as: "Have you ever experienced a problem related to bioethics? Tell us about it"; "Now that you participated in this event, how do you understand bioethics?"; "How do you perceive the cinematographic work as an instrument capable of favoring your reflection on bioethics?". The answers lasted 15 minutes.

The answers contained in the forms were transcribed in full, using the Word computer program, and later analyzed by applying the content analysis proposed by Bardin (BARDIN, 2011). For this, we used the software ATLAS.ti® Qualitative Data Analysis version 8.0, developed specifically for the storage, manipulation and analysis of qualitative data, in order to facilitate the management of coded data to be analyzed.

ATLAS.ti® is a software made up of several elements, among which the following stand out: hermeneutic unit (the proper file to store the information in the software environment), primary documents, codes, quotes, analysis notes and network view (graphic schemes). Thus, in this study, the organization of the data was built by a Hermeneutic Unit, which is the extended project, composed of 10 primary documents (forms) and 19 codes (registration units).

## ***Construction of bioethical understanding through cinematographic work: perspective of teachers, students and health workers***

The interviewees' narratives were examined through analytical reading, for subsequent coding and categorization, according to the thematic and textual similarity, as proposed by Bardin (BARDIN, 2011). In this step, the ATLAS.ti software allowed the organization of the data, favoring the pre-analysis, coding, categorization and the creation of dimensions. Through thematic coding, with an analysis matrix performed based on the theoretical reference, objectives and research problem, it was possible to identify dimensions or categories. Text fragments, extracted as meaning units, were coded according to their relevance and analyzed in two thematic categories.

The methodological rigor was guaranteed by using the principles of credibility, reliability, confirmability and transferability (LINCOLN and GUBA, 1991). For the reliability of the study, there was the insertion of the researcher in the context of the participants, through the Workshop "Bioethics through the Lenses of Cinema". The transcripts of the interviews were returned to the participants to be validated, providing credibility. The coding of the data was done by three researchers, with the audit of a third party. For data confirmability, the researchers adopted a reflexive attitude. The transferability of the data was made possible by the participants' bioethical understanding, propitiated by the movie shown in the workshop.

In this study, there was no conflict of interest. The guidelines of Resolution No. 466/12, of the National Health Council, were followed, and all ethical aspects of research were respected. The project was submitted and approved by the Research Ethics Committee of the Federal University of Amapá, under Opinion No. 4.004.401. To guarantee the anonymity of the participants, each one received an alphanumeric code, in which the letter "E", for Interviewee, would be followed by a number (E1, E2, E3... E10), according to the order of the interviews. The Informed Consent Form (ICF) was presented and signed by all those who decided to participate in the research.

### **3. Results and discussion**

The study was carried out with health professionals, professors and students from undergraduate courses in the health area of both genders, aged between 18 and 60 years. After transcribing the participants' answers, data analysis provided the construction of two thematic categories: Construction of bioethical understanding through continuing education; Cinematographic work as a tool for bioethical analysis: perceptions and reflections.

#### **3.1 Building bioethical understanding through continuing education**

In accordance with the National Policy of Continuing Education in Health (PNEPS), Continuing Education in Health (PHE) is defined as an educational approach that occurs in everyday work with pedagogical strategies that use meaningful learning, with a view to achieving the transformation of professional practices (BRASIL, 2018).

It is understood that continuing education, intrinsic to bioethics, can occur in the daily practices and academic activities of undergraduate students and health professionals. Thus, implementing bioethics together with continuing education in academic environments and health services will produce a space for dialogue and reflection in the construction of knowledge, enabling the development of strategies to face the problems that

## ***Construction of bioethical understanding through cinematographic work: perspective of teachers, students and health workers***

involve health and disease relationships.

In this study, the reports showed that, despite the contact with bioethical concepts during the "Bioethics through the Lenses of Cinema Workshop" and the understanding that the study of bioethics is indispensable and transversal, because it permeates several areas of knowledge, as well as academic and daily experiences, the participants had not yet built an understanding of this theme, but they knew the relevance of studies on it. This was evident in the answers to the questioning, "How do you understand bioethics?"

*As something very important to be studied and discussed (E2).*

*As something essential, both in professional life and in daily life (E3).*

*As something important for the best development of collective health (E8).*

*I believe bioethics tries to ensure that lives are not inferiorized (E7).*

*It is the study and perception of moral problems within the health area (E5).*

Furthermore, inside and outside the academic field, it is inherent to science to act in the most diverse fields of knowledge, which gives bioethics a transversal characteristic (POTTER, 1995). Therefore, bioethics is multidisciplinary and crosses the different fields of knowledge. This transversality is perceived in the following statements:

*I understand that bioethics is closely related to the ethical and moral behavior of professionals who work directly with people's care and health promotion (E1).*

*After the event, I was able to realize how important it is to study bioethics, because it enables us to reflect on various ethical and moral issues that may occur in our daily lives both personally and professionally. Reflect on the best and most correct decision to be made in each specific situation (E9).*

*I understand it as an extremely essential subject for the training of new professionals, whether in health or other areas, because it is the study of how we should act and think amidst so many diversities that may arise in the environment, inside and outside the workplace (I10).*

Given the above, continuing education is perceived as a contribution capable of facilitating reflective dialogues about the health practices that permeate the daily actions of teachers, students, and health workers. It also promotes, in a positive way, the discussion about the importance of bioethics as a discipline within graduation, indispensable as a practical and theoretical tool for the resolution of problem-situations in the healthcare work environment.

### **3.2 Cinematographic work as a tool for bioethical analysis: perceptions and reflections**

The cinema, in its early days, at the end of the 19th century almost turning into the 20th century, did not aim to enable the spectator to reflect on the themes approached in its scripts. It merely aimed at popular entertainment. Following the beginning of the 20th century, the narrative and technical aspects of the cinematographic language began to develop exponentially, and the "seventh art" opened space for the various

## ***Construction of bioethical understanding through cinematographic work: perspective of teachers, students and health workers***

ways of telling stories in an elaborate and critical manner, as well as serving as a framework for reflections within its narratives.

Images express themselves as effective subjectivation devices, becoming an instrument through which processes are carried out in which subjects constitute themselves and assume ways of thinking, acting, and feeling (MOURÃO *et al.*, 2019).

Films can be used as teaching strategies, contemplating the social and cultural aspects of the subjects, with the possibility of contributing to reflection and dialogue (MELO *et al.*, 2017). As, besides mere entertainment, the cinematographic language has as principle to favor the viewer's identification, it is understood that the film can also serve as an important pedagogical resource, potential educational tool and teaching strategy in formal and informal spaces, relating the teaching environment to the wider daily culture.

Education and the cinematographic work cooperate when it comes to the way of exercising thoughts, since both promote new perspectives related to a specific theme, through cognitive expansion, reflection, and genesis of the discovery of new ways of seeing the world around. Regarding the health area, the cinema can be used as a catalyst in the teaching-learning process, especially regarding human subjectivity (NICOLAU *et al.*, 2014).

In this study, the use of cinema was confirmed as an instrument for the study and reflection on bioethics, when it was placed as the focus of reflection, discussion, and theoretical and practical problematization in the debate that took place in the Workshop. The following speech fragments reveal the participants' understanding of the use of cinema as a bioethics teaching tool:

*I see the cinematographic work as an excellent instrument for transmitting information and messages that are very important for the construction of critical, ethical, and moral thinking. Art is an excellent instrument of reflection and transmission of information (I9).*

*An important element, which brings perspectives that sometimes we are not aware of (E3).*

*All illustrative content facilitates understanding of the ethical problems present in the health area, especially in the dramaturgy of situations (E5).*

*Fundamental, as it is a ludic way of acquiring knowledge (E8).*

This theme awakened, in each participant, a new way of seeing the ethical and moral dilemmas of the fictional narrative and building the parallel in relation to their daily lives. This can be seen in the following statements:

*It is a lighter didactic, which facilitates understanding and addresses important points of bioethics, such as the impact of inconsequential actions on families (E4).*

*The event broadened my horizons and conceptions about Bioethics [...].*

*Facing multidimensional events explored by the films, it is of immediate association to daily life, and from this a "lens" is created to transcribe (E6).*

*The film reveals a little the need for ethical and moral behavior, being concerned with the protection and defense of life (E1).*



## ***Construction of bioethical understanding through cinematographic work: perspective of teachers, students and health workers***

*A work that highlights the denunciation of the cases of dehumanization of those companies towards people (E2).*

*It brings a very important reflection on: "Is another's life worth more than mine?" (E7).*

It is pertinent to point out that the use of cinematographic work has occurred as a teaching strategy in various fields of knowledge. When it comes to the problems and issues of interest to the health field, it would be no different. Thus, it is necessary that educators and students develop the ability to assimilate the objectives and objects brought by the work, linking them to situations experienced in their daily lives.

### **4. Conclusion**

The study allowed us to identify that, at some point in their lives, whether academic, work, or daily, the participants had experienced some dilemma with bioethical implications. However, their critical vision may not have been prepared to develop such a debate of reflective nature, so that their ethical and moral thoughts could be directed to the outside. In this sense, the cinematographic approach, used as a tool for reflection and ethical perception, allowed the emergence of critical and reflective thinking, still latent inside each one.

Thus, the construction of knowledge focused on Bioethics and the ethical and moral implications applied to health care is still a long way to go for some professionals in this area. In the continuing education process, it is important to include themes that can be jointly built by individuals and extended to their daily lives, as occurred in the outcome of this study. At this juncture, the construction of bioethical understanding made possible by the cinematographic work in the continuing education process in the health field proved to be positive for the understanding of the bioethical issues discussed in the workshop.

This study, therefore, highlights the relevance of the use of cinematographic art as an alternative teaching tool to the one commonly used in the classroom, which enhances and makes the study possible, going beyond the transmission of only theoretical content. Consequently, it opens nuances for more studies to occur, approaching cinema as a lens for learning, not removing from teaching its primary characteristic.

### **5. References**

- ALERM-GONZÁLEZ AJ, GONZÁLEZ-PÉREZ U. Propuesta del cine de ciencia ficción para educar en Bioética. *Pers Bioet.* 2019;23(1):14-33. DOI: <https://doi.org/10.5294/pebi.2019.23.1.2>
- ANTUNES MSB, MIRANDA ACM, HIGARASHI IH, PELLOSO SM. A arte cinematográfica e a bioética: reflexão sobre a eutanásia. *Revista UNINGÁ [serial on line]*. 2016 [citado 2021 abr. 23];49(1):52-5. Disponível em: <http://34.233.57.254/index.php/uninga/article/view/1304>
- BARDIN L. Análise de conteúdo. São Paulo: Edições 70; 2011.
- BRASIL. Ministério da Saúde. Secretaria de Gestão do Trabalho e da Educação na Saúde. Manual Técnico 2018: Programa para o Fortalecimento das Práticas de Educação Permanente em Saúde no SUS PRO EPS-SUS. Brasília; 2018 [citado 2021 abr 28]. Disponível em: [https://bvsmms.saude.gov.br/bvs/publicacoes/manual\\_tecnico\\_pro\\_eps\\_sus.pdf](https://bvsmms.saude.gov.br/bvs/publicacoes/manual_tecnico_pro_eps_sus.pdf)
- GLASER BG, STRAUSS A. The discovery of grounded theory. New York: Aldine Publishing; 1967.

***Construction of bioethical understanding through cinematographic work: perspective of teachers, students and health workers***

LINCOLN YS, GUBA EG. Naturalistic inquiry. New York: Sage; 1991.

MATTOS MP. Viagem educacional e oficinas temáticas como ferramentas de formação construtivista em psicofarmacologia clínica. *Reciis – Rev Eletron Comun Inf Inov Saúde*. 2018;12(4):478-88. DOI: <https://doi.org/10.29397/reciis.v12i4.1448>

MELO E SILVA M, BARROS MDM, DE LA ROCQUE LR. As questões sociocientíficas na trama do filme *Elysium*: conexões entre ciência e cidadania no “chão da escola”. *Demetra*. 2017;12(3):561-74. DOI: <https://doi.org/10.12957/demetra.2017.28749>

MOURÃO L, SOARES JPF, LOVISI A, NOVAIS MCB. Educação física, gênero e cinema: contribuições para a formação docente. *Pensar a Prática*. 2019;22:53919. DOI: <https://doi.org/10.5216/rpp.v22.53919>

NICOLAU ARS, CAMILLO SO, MAIORINO FT, NÓBREGA MPSS. O cinema como recurso pedagógico na disciplina de enfermagem psiquiátrica. *R Enferm Cent O Min*. 2014;4(1):983-92. DOI: <https://doi.org/10.19175/recom.v0i0.553>

PEREIRA EBF, EUGENIO BG. Narrativas de formação: potencialidades e possibilidades para a pesquisa em educação. *Rev Multidisc ensino extensão Cultura Inst Fernandes Rodrigues Silveira (CAp-UERJ)*. 2019 maio-ago;8(18):31-46. DOI: <https://doi.org/10.12957/e-mosaicos.2019.41983>

POTTER VR, POTTER L. Global Bioethics: converting sustainable development to global survival. *Med Global Survival* [serial on line]. 1995 [citado 2021 abr 23];2(3):185-91. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/14627015/>

WARMLING CM, PIRES FS, BALDISSEROTTO J, LEVESQUE M. Ensino da bioética: avaliação de um objeto virtual de aprendizagem. *Rev Bioét*. 2016;24(3):503-14. DOI: <http://dx.doi.org/10.1590/1983-80422016243150>