The use of films as a teaching tool for the teaching-learning process in bioethics

Camila Maria Pereira Rates¹
Larriny Maciel Silva²
Lívia Moura Pereira³
Juliana Dias Reis Pessalacia⁴

Objective. Identifying the contribution of using films in the process of teaching-learning in bioethics and verifying the facilities and difficulties in using this teaching resource. Methodology. A qualitative study analyzed from the Bardin referential. Semi-structured interviews were carried out, recorded, and transcribed in full. For definition of the sample was used the criteria of repetition. In total, participated in the study 21 students of Nursing and Biochemistry, members of a Center for Teaching and Research in Bioethics of a public federal university in the city of Divinópolis, Minas Gerais, Brazil. During the analysis of interviews, two thematic categories and two subcategories emerged. Results. In their responses, students indicated the importance of viewing the bioethical problem for the reflection and decision-making in professional practice. Many reported that from the experience in discussions of the films showed, were made changes in the ethical position. Conclusion: The use of films as a teaching resource contributes to the process of teaching-learning in bioethics for undergraduate students. The discussions of the films are stimulating and provide a space for reflection and dialogue on bioethical problems that students may encounter in their professional practice.

Key words: teaching materials; higher education institutions; learning; bioethical issues.

Utilización de las películas como herramienta didáctica para el proceso enseñanza-aprendizaje de Bioética

Objetivo. Determinar la contribución del uso de las películas en el proceso enseñanza-aprendizaje en bioética, así como las ventajas y desventajas en la utilización de este recurso didáctico. Metodología. Estudio cualitativo, analizado a partir del referencial de Bardin. Se realizaron entrevistas semiestructuradas, que fueron grabadas y transcritas en su totalidad. El criterio utilizado para la definición de la muestra fue el de repetición. En el estudio participaron 21 alumnos de los cursos de Enfermería y Bioquímica, integrantes de un Núcleo de Enseñanza e Investigación en
Bioéti ca de una universidad pública federal del municipio de Divinópolis, Minas Gerais, Brasil. Durante el análisis de las entrevistas emergieron dos categorías temáticas y dos subcategorías. **Resultados.** Los estudiantes indicaron en sus respuestas la importancia de visualizar el problema bioético para la reflexión y la toma de decisiones en la práctica profesional. Muchos informaron que a partir de la vivencia en los debates de las películas abordadas, se generaron cambios en la postura ética. **Conclusión:** El uso de películas, como recurso didáctico, contribuye al proceso de enseñanza-aprendizaje de la bioética en alumnos de pregrado. Los debates sobre el contenido de las películas son estimulantes y proporcionan un espacio para la reflexión y el diálogo sobre los problemas bioéticos que pueden encontrar en la práctica profesional.

**Palabras clave:** materiales de enseñanza; instituciones de enseñanza superior; aprendizaje; temas bioéticos.

**Utilización dos filmes como ferramenta didática para o processo ensino-aprendizagem de Bioética**

**Objetivo.** Identificar a contribuição do uso dos filmes no processo ensino-aprendizagem em bioética e verificar as facilidades e dificuldades na utilização deste recurso didático. **Metodologia.** Estudo qualitativo, analisado a partir do referencial de Bardin. Realizaram-se entrevistas semiestruturadas, que foram gravadas e transcritas em sua totalidade. O critério utilizado para a definição da mostra foi o de repetição. Participaram no estudo 21 alunos dos cursos de Enfermagem e Bioquímica, integrantes de um Núcleo de Ensino e Investigaçãem Bioética de uma universidade pública federal do município de Divinópolis, Minas Gerais, Brasil. Durante a análise das entrevistas emergiram duas categorias temáticas e duas subcategorías. **Resultados.** Os estudantes indicaram em suas respostas a importância de visualizar o problema bioético para a reflexão e a tomada de decisões na prática profissional. Muitos informaram que a partir da vivência nos debates dos filmes abordados, geraram-se mudanças na posição ética. **Conclusão:** O uso do cinema como recurso didático contribui ao processo de ensino-aprendizagem da bioética em alunos de graduação. Os debates dos filmes são estimulantes e proporcionam um espaço para a reflexão e o diálogo sobre os problemas bioéticos que podem encontrar na prática profissional.

**Palavras chave:** materiais de ensino; instituições de ensino superior; aprendizagem; temas bioéticos.

**Introduction**

Bioethics is a new field of knowledge, and a current of thought that has largely developed around Brazil since the 90s\(^1\). In addition to working with many discussions and reflections in various areas of knowledge, bioethics is also related to ethical issues arising from the scientific and technological advances of nowadays. Such issues become more evident in the health area due to the wide application of new scientific and technological findings related to the maintenance of life and human health. In this context, emerge questions of difficult approach, by involving different values and opinions, which can lead to conflicting situations in the decision-making process by healthcare professionals. In situations involving issues of bioethical order, when a decision has to be made, a dialogue between the involved parties is necessary in order to reach consensus.

In their careers, health professionals, including nurses, may have difficulties with positioning themselves in face of practical experiences with conflict situations involving life and death, which often relate to values acquired through family and religion, for example. Hence, it becomes relevant the constant improvement of strategies for teaching-learning in bioethics in nursing undergraduate courses, and in all other courses in the health area. Such strategies may allow that future professionals have spaces for reflection and
debate about bioethical issues in health, providing support for decision-making grounded in an ethical positioning that considers their beliefs and values, as well as the legal aspects involved. Currently, in the midst of so many technological advances, new forms of access and a great variety of instruments and processes of cognitive assimilation are found for the teaching-learning process, such as, the computer, the television and the cinema. Thus, this study sought to understand the contributions of using films as a teaching tool in the process of teaching-learning of bioethics in undergraduate courses. The starting point was the assumption that using films positively influences the teaching of bioethics in undergraduate courses.

This study provided direct benefits to the participants, since they were offered spaces for reflection and discussion related to current bioethical issues in health. Furthermore, it brought benefits to science, due to providing subsidies for improvements in methodologies of teaching-learning in bioethics at undergraduate courses. It is important that bioethics is treated in full, without deleting contents, in all undergraduate courses however, it is worth noting that in nursing there is the peculiarity of having a great bond with patients and, consequently, facing numerous bioethical problems in the daily routine. Therefore, it is important to highlight that particularly in nursing, teaching bioethics offers many contributions to the formation of the ethical positioning of subjects.

Etymologically, the word ‘bioethics’ means ethics of life, and is a concept derived from the Greek \textit{bios} = life and \textit{ethos} = ethics, which refers to the habits, customs and behaviors of human beings. It is a branch of applied ethics that has emerged in the academic and professional setting, and used as a tool for discussions and debates focused on the consolidation of democracy, citizenship, human rights and also, social justice. It is a practical ethics applied to situations in health, and based on the description of consistent facts, conflicts, and existing moral problems.

In 1970, the American oncologist Van Rensselaer Potter proposed the bioethics neologism to express a new science that should be the link between the humanities and the empirical sciences, more specifically an ethics aiming to preserve life on the planet, since the scientific development without wisdom could endanger life itself on earth. Thus, bioethics is considered as a new field of knowledge, and also a school of thought that since the 90s, has developed widely in Brazil. Considering that bioethics is the practical ethics focused on ethical issues arising in the context of health and life, it aims to provide support for decisions concerning life, health and death. Thus, it was due to the need for humanization of health care that the teaching of bioethics emerged in the scenario of education, constituted as an intersection of knowledge fields, from the need to discuss ethical, legal and social issues arising from advances in science, medicine and biotechnology.

In general, the field of education is also a way to emphasize some aspects of the changes of public social policies in Brazil. Higher education in undergraduate courses incorporates dimensions of the Brazilian educational historical context, as well as political dimensions of the supranational economic context. In Brazil, the beginning of the teaching of bioethics occurred around the end of the 80s. Since then, the teaching of bioethics has been slow in the academia. In order to understand bioethics, it is necessary that the process of teaching-learning is guided by decision-making on the arising problems. Thus, the teaching of bioethics should not be restricted to the simple transmission of knowledge, because it is an area of discussion, reflection and interaction of people interested in discussing the principles and values involved in each problematic situation.

The technological developments of the late twentieth century allowed the teaching activity to use instruments that really help education professionals, facilitating the improvement of teaching strategies. Aiming to socialize and turn contents often considered dull into attractive material, many teachers use in their classrooms DVD appliances (Digital Versatile Disc), television, computers, data-shows, and other devices that serve as important support to the different
methodological strategies. A proof of this is the fact that effective transmission of non-printed contents in the classroom significantly enriched pedagogical practices. In this context, the use of films has been cited as an important teaching tool in the teaching-learning process. The film emerged alongside the development of cinema, created in the late nineteenth century and television that developed and became even more popular, becoming the great media instrument of the twentieth century. Due to such popularity, from the 60s other audiovisual resources have proven effective for teaching, and are used in many areas of knowledge. It is known that the association between various visual and audio features becomes a very attractive tool for students and teachers, as motion pictures, speeches, songs, subtitles, among others, collaborating to facilitate the transmission of knowledge.

Among university students in courses such as Law, Medicine, Nursing, and others, there are structured disciplines that approach bioethical issues. As this is a current field of knowledge, and there is production of extensive audiovisual material focused on the academic debate on bioethical issues, films and documentaries have become sources of reflection and research to be explored in the classroom space. The film is an educational tool that assists in the construction of knowledge, attracts students to the issues to be studied, and as it is often associated with a form of leisure, students begin to see the study from another point of view. Therefore, this study aimed to identify the perceptions of scholars about the contributions of the use of films and round-tables of debate for the process of teaching-learning of bioethics in undergraduate courses, as well as verifying the facilities and difficulties related to these strategies.

Methodology

This was a descriptive comprehensive qualitative study of the case study type. The qualitative approach allows a broader and deeper understanding of human behavior, and its association with the values, feelings, beliefs and attitudes. Data were analyzed following the guidelines of Bardin for content analysis. Such analysis is defined as a set of instruments with methodological approach and in constant improvement, which applies to speeches such as content and continent, very diverse. For bioethical discussions, the model of principlism by Tom Beauchamp and James Childress was used as reference. It proposes that in a practical situation involving bioethical issues, are applied the principles of autonomy, beneficence, non-maleficence and justice, prima facie.

The present study was carried out at a public federal university in the city of Divinópolis, Minas Gerais, Brazil. The universe of the study were 26 academic students of the Nursing and Biochemistry courses, participants of the activities of the Center for Teaching and Research in Bioethics (NLbio - Núcleo de Ensino e Pesquisa em bioética) of the mentioned university. In their meetings, the center adopts the methodologies of films and round-tables discussion for teaching, reflection and debate about the problematic issues in health. Academic students of Medicine, Nursing, Pharmacy and Biochemistry in a health campus are invited to participate in the NLbio, as well as health professionals and lecturers from various fields of knowledge. The inclusion / exclusion criteria for participating in this study were the following: being enrolled in NLbio activities, having participated in the center meetings between October 2012 and June 2013, and having accepted in writing to participate in the study.

In the period of data collection were held eleven NLbio meetings and five films were used, which addressed bioethical problems frequent in our society, such as research with vulnerable populations, euthanasia, dehumanization of health care, abortion and blood transfusion on Jehovah’s Witnesses. After watching the films, students were divided into two groups, and each group should present arguments against and in favor of the bioethical issue addressed at the meeting. Each discussion had a mediator.

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were collected from November 2012 to May 2013, through an interview containing two guiding questions about the process of teaching-learning in bioethics through the use of films, namely: What is your perception regarding the contribution of the ‘films’ teaching resource for the teaching of bioethics? In your opinion, what were the facilitating and hindering points experienced during the film presentation and round-table discussion?

The reports were recorded using an MP4 player and later transcribed for analysis. Data will be confidentially stored for a period of five years. A content analysis was done in the transcribed material, which allowed identifying two themes: ‘The film and the approximation to the reality of professional practice’ and ‘The film as a facilitator for the formation of ethical positioning’. From the definition criteria adopted in the sample, 21 academics were selected, and identified by the abbreviations A1 to academic 1, and so on. The other students did not participate due to lack of time. The perceptions of academics about the contributions of using films as tools for the process of teaching-learning in bioethics at undergraduate courses were collected, and also some characterization data, aiming at knowing the profile of the participants.

For the treatment of data, firstly was done a reading of the entire transcript material, followed by a pre-analysis to identify the profile of participants. Subsequently, the clipping, aggregation and enumeration of data were carried out, allowing clear evidence of category. Then came the categorization itself, where information contained in the speeches of participants formed the corpus of analysis that led to the development of indicators submitted to analytical procedures and subsequent inference, comparing with the literature data. Then, came the selection of units of analysis that resulted in two categories and two thematic subcategories, quantified according to the number of times that were reported by the subjects. It is worth mentioning that before starting the data collection, participants were informed about the study objectives, risks and benefits, employed methods, and recording of the interview. The Informed Consent Form (ICF) was signed by students who agreed to participate. It was prepared in two copies; one was given to the participant and the other was kept by the researchers. Before starting data collection, a thorough evaluation of the research project was done by the members of the Committee of Ethics in Research with humans of the institution. After assessment, the project was approved under Protocol number 89.436.

**Results**

Regarding the characterization data, it was found that academic students were aged 22.19 years on average, ranging between 19 and 35 years. In relation to the gender of participants, all the students were female. On the undergraduate course, 18 (84.6%) were enrolled in nursing and three (14.4%) were studying biochemistry. Regarding marital status, they were all single. About religion, 12 (57.6%) were Catholics, 4 (19.2%) Spiritists, 1 (4.8%) evangelical, 1 (4.8%) atheist, 1 (4.8%) reported believing in God, 1 (4.8%) reported being Christian, and 1 (4.8%) did not respond. During the analysis of the interviews, emerged two themes: ‘The film and the approximation to the reality of professional practice’ and ‘The film as a facilitator for the formation of ethical positioning’ and two subcategories which are discussed below.

**The film and the approximation to the reality of professional practice**

This category reflects the importance that students have attributed to films as a contributing factor to the approximation of bioethical problems with the professional reality. It was noticed that 19 (90.5%) students considered the link between the film and the approximation to the professional reality, because in their responses they mentioned the importance of visualizing the contents, in this case, viewing the problem to be studied. Such perceptions raised by this study can be noted in
the following speeches: *I really like this way of studying 'cause it’s a didactic way and it’s a form of the meeting participant to experience the theme* [A2]; *I think it increases our knowledge, makes the presentation of the proposed dilemma more interactive and ... yeah ... we can better visualize the problematic situation through the film* [A3]; *In my opinion, the movie helped a lot, because you have the approximation, you imagine, then, when you experience, you watch the film, it’s as if you had joined that context. Then you can experience ... it’s like you’d been there, like ... you think: If I were in that situation what would I do? [...] How would I react? In this point I think it contributes to discuss the dilemmas of bioethics* [A5]; *I think the film is very good [...] we can see the dilemma in a practical way and try to have a critical perception on the subject* [A6]; *I think it’s important to use the films, and through the films we can see the ... the ... dilemmatic issues clearly, the bioethical problems that we can come across.... in our profession* [A9]; *The films are very important as they bring a visualization of the theme of the day, don’t they? [...] it’s much better to see an issue, you know how to discuss and talk more about it* [A10].

### The film as a facilitator for the formation of ethical positioning

This category includes the speeches that made reference to the importance of films in facilitating the formation of ethical positioning. All the 21 students claimed that the film was a facilitator for the formation of ethical positioning, and for the debates and discussions of bioethical issues, in addition to contributing a lot to the teaching-learning process. The contributions listed by students were divided into two subcategories:

**The film as a facilitator of bioethical reflection and self-knowledge for professional practice.**

It was observed that all the 21 students made reference to the film as a facilitator of bioethical reflection and self-knowledge in relation to ethical positioning. By using the film as a teaching resource for the process of teaching-learning in bioethics, the students began to present new ideas and new ethical positions, as described in the following speeches: *The positive points were that ... it help us a lot in perception, in the discussion of dilemmas that are happening day to day, helping us to have a better positioning* [A2]; *It opened my conception about the subject and even my perception changed* [A3]; [...] It allows us to see the dilemma more and discuss it in our reality, that is, it allows that in the future, in my professional practice, when I am confronted with this dilemma, I already have a position [A5]; *The positive points were precisely to make us reflect on bioethical issues, and increase our self-criticism in relation to these, these dilemmas you know, that we’ll find many times in health* [A6].

**The importance of interdisciplinary dialogue and debate in bioethics.** After watching the film, students were invited to join a round-table of discussion, composed of health professionals and teachers as mediators. During these debates, the students had the opportunity to talk and discuss bioethical issues from different positions and arguments. During the interviews, participants reported that the film and the tables of discussion were teaching resources that facilitated the teaching-learning process. The importance of the interdisciplinary debate in bioethics was reported by 19 students (90.5%), as the following speeches indicate: *The discussion itself and the debate with other people makes it possible for us to know the opinion of others, their positioning according to the theme* [A4]; *The film gave me knowledge about this dilemma, in a way that when I come across this dilemma in professional practice, in the future, I will weigh the two sides* [A5]; *Well, the positive points were that I could see that ... the opposite view, and gradually reshape my opinion or even increase what I already thought, what I had in mind* [A10]; *Well, I think the film is a great way of being able to discuss bioethical dilemmas, and in this discussion between people in a round-table we have another vision of what we stand for, we see the other side, so I think the film is essential in these discussions* [A11]; *I think movies make teaching more didactic and is a way of making dilemmas more real* [A15];
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I guess the positive point is that it makes us rethink [...] things that we already think about this, listen to the opinion of others, [...] you end up incorporating some of the opinion of others on what we thought, and it makes us rethink, really [A20]; Well, the positive point [...] is that we are able to understand a little ... of this other side, look I have my positioning, I think like this, but if I were in that person’s place, would I position myself this way? So that’s a good point, I believe these debates really bring this a lot, right? And a negative point, I think sometimes in an attempt to defend something, we are very radical in thinking, you know? So, it is good to have this other side so we broaden our view a bit [A21].

Discussion

Initially, will be discussed the results related to the characterization data of the subjects. A study aimed at analyzing the relationship between the perceived norms and drug use among college students in an institution specialized in health careers, showed that the average age of students was 22.37 years, i.e., an average age similar to our study. On the fact that all participants are women and the vast majority are nursing undergraduate students, it is known that there is female predominance in these courses justified by the higher demand for courses such as nursing still occurring predominantly by women.13

The fact that the discussion groups were composed of nursing and biochemistry academic students and invited health professionals, allowed interdisciplinary discussions in the meetings. Interdisciplinarity is important in the teaching of bioethics, because the numerous challenges associated with progresses in the life sciences should be fully apprehended.14 The predominance of nursing students is also quite relevant, as it is essential that future nurses are able to discuss bioethical issues, since they may face conflicting situations that require an ethical positioning. Possibly, the structuring of course exerts influence on the profile of students, who are all single, because the course requires full-time dedication and moreover, has classes and internships unevenly distributed in the morning and afternoon periods, making it difficult for married individuals.15 The preponderance of the catholic religion found in this study is in agreement with the census carried out in 2010, which found that the majority of Brazilians are Catholic (64.6%), followed by evangelicals (22.2%) and irreligious (8%).16

Regarding the reports mentioning the importance of visualizing the contents, the application of theory, it is known that although students have access to theoretical knowledge when joining the academia, some difficulties are still found in relating theory and practice due to not experiencing real moments for analyzing the day-by-day.17 The existence of a relationship between theory and practice is indispensable, because every theory must confront the practice, and this confrontation enables the perception of concordant and discordant points, which leads to the improvement of both.18

It is known that, especially in the health area, the practice demands that skills and abilities are developed instantly, and often students are not yet ready for that.19 Thus, the teaching of bioethics contributes to the training of active professionals, with critical thinking and ability to relate theory and practice in their daily lives, leading to the development of critical views about health practices.20

The fact that scholars have made reference to the reflection and even to changes in their ethical positioning after participating in the debates, shows the need to provide bioethical reflections for students during their undergraduate course. Such reflection should be offered as early as possible, and it is better used when continuously supplied, meaning, along the graduation.19 Offering spaces for discussions and practices for bioethics teaching is the role of higher education institutions, especially those focused on healthcare.14 The contribution of bioethics to the ethical positioning of the subjects can be noted by the references made by academic respondents to the fact that,
after knowing other points of view, they could reflect on what they defended and what others favored. Moreover, the teaching of bioethics enables learning about others and provides a moment for knowing the identity, dignity and the own culture of others.21

In the health area, which works with multidisciplinarity and teamwork, it is essential to deal and accept other opinions, especially with regard to bioethical issues, counting on the diversity and pluralism present in bioethical debates. Besides that, bioethics is related to diverse systems of thinking that should be integrated in pluralistic societies.14 From the moment that the individual defines an own ethical positioning and recognizes there are different positions other than his/her own, teamwork becomes easier, as it often includes professionals from different areas and each one has their defined tasks. In teamwork, each professional is encouraged to participate in the collective work process and therefore, the coordination between the actions and professionals is important.22 With regard to the bioethics analysis of the discourses present in the categories and subcategories, prima facie it was noted that among the four principles of the principlist bioethics, in their speeches, students refer to autonomy as a product of using films and debates in the teaching of bioethics. The self-knowledge itself and the formation of the ethical positioning of students are examples of such autonomy, since the characteristics of an autonomous person are focused on the general skills of governing themselves, and independently understand, equate, deliberate and choose.12

With this study, was reached the conclusion that using films and round-tables of debate are important strategies for the teaching-learning process of bioethics in undergraduate courses. The films and discussion tables encouraged debates, since the topics covered in each of them generated controversy in discussions, thus they provided for students moments and spaces for reflection and dialogues about bioethical problems, which they may encounter in professional practice. The audiovisual resource of films allowed the approximation to professional practice and was a facilitator for the formation of ethical positioning and self-knowledge of subjects, because it enables the visualization of the studied issue. A difficult aspect of using films for teaching is the fact that some students had not seen the movie in full before attending the meetings, which somehow compromised the understanding of the presented plot.

It is suggested that, when using films in the teaching of bioethics, it should be emphasized the need and the importance of watching the movie in advance. This was done in this study in cases when the movie was not played in full at the time of class, using only the synopsis. This is often due to the limited hour load assigned to teaching contents related to bioethics. It is also necessary to have a room with adequate lighting and sound effects, plus comfortable seating for participants. It is worth mentioning that in spite of the teaching of bioethics at undergraduate courses being a major challenge, it is important that higher education institutions are focused on providing good training for the subjects, and not just giving information. Regarding the teaching of bioethics, it is suggested, therefore, that in order that information actually contributes to the ethical training of future professionals, didactic resources are used to enable discussions, reflections, and exchange of ideas, because bioethics itself requires this dynamism, since it is a branch of applied ethics.

References

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