

Use of Popular Films in the Teaching of Bioethics in Studies of Biology

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Summary

In the present report we describe our experience in the use of commercial films in the teaching of bioethics to Biology students at the Pompeu Fabra University (Barcelona). Over the last three academic years (2007-2010) we offered three films to promote the learning of the principles of bioethics and to stimulate discussion of relevant issues foreseen in the syllabus of the subject. Based on the participation of the students and their academic results we believe that such activity can be considered very positive.

Keywords: Bioethics, Cinema, Teaching, Biology Students.

Introduction

The use of commercial films for teaching purposes has and continues to be used in many University degree programs but it has been especially relevant in the fields of Medicine and the other Health Sciences^{1,2}. The *Journal of Medicine and Movies* would be a further example of the use of such resources as a teaching method¹.

At the School of Health and Life Sciences (Spanish acronym: FCSV) of the Pompeu Fabra University in Barcelona commercial films are commonly used as a teaching resource in many subjects in the Biology Degree and in the new degrees in Human Biology and Medicine³. We have already reported to the readers of the *Journal of Medicine and Movies* our experiences in the use of the film entitled *Awakenings* (1990) by Penny Marshall as regards the teaching of an introductory subject in Biology studies⁴. In 2009, the experience of the use of movies as a teaching method at the FCSV of the UPF was awarded by the regional government of Catalonia, and this activity was presented at a National Workshop on University Studies held in 2009⁵.

Different authors have shown the possibilities of films to arouse awareness about bioethical problems⁶⁻¹⁰. Here, our aim is to explain the experience in the use of commercial films over the past 3 academic years (2007-08; 2008-09; 2009-2010) in the teaching of bioethics in Biology studies at the UPF.

Context of the experience

The FCSV of the UPF was created in 1998 with a view to imparting degrees in Medicine and Biology. Different circumstances led to its starting its activities only in Biology, with an innovative educational project implemented in cohorts of 60 students¹¹. These studies always focused on human biology and hence had an essentially biohealth orientation. During the academic year of 2008-09, the new European degrees in Human Biology and in Medicine were started. The former degree in Biology is in extinction. Bioethics is a subject taken in the new and in the former degrees.

The teaching experience we discuss here was developed in the subject of Bioethics in the old Biology

degree. The subject has 4.5 credits (45 hours), is compulsory and is imparted during the third trimester of the fourth year of the degree.

As well as lectures, the teaching plan of the subject includes seminars, practical discussion sessions, group presentations about a topic of bioethical interest and a written of a individual reflective essay about this topic.

As mentioned in the Introduction, our aim here is to explain readers about our experience in the use of commercial films in the teaching of bioethics over a period of three academic years. In each academic year we presented our students three films with a view to fostering discussion about three relevant topics in the program of the subject (Table 1).

Table 1. Topics foreseen in the teaching plan of the Bioethics subject*.

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| <ol style="list-style-type: none"> 1. Conceptual and historical framework of Bioethics 2. Main principles of bioethics: autonomy, beneficence, non-maleficence and justice. 3. Relations between health professionals and patients. 4. Bioethics and the origin of life. 5. Bioethics and the end of life. 6. Bioethical aspects in animal research. 7. Bioethical aspects in research on human beings. 8. Bioethical decisions in special cases (minors, hunger strikes, biobanks). 9. Good scientific practice. 10. Bioethics and health economy. |
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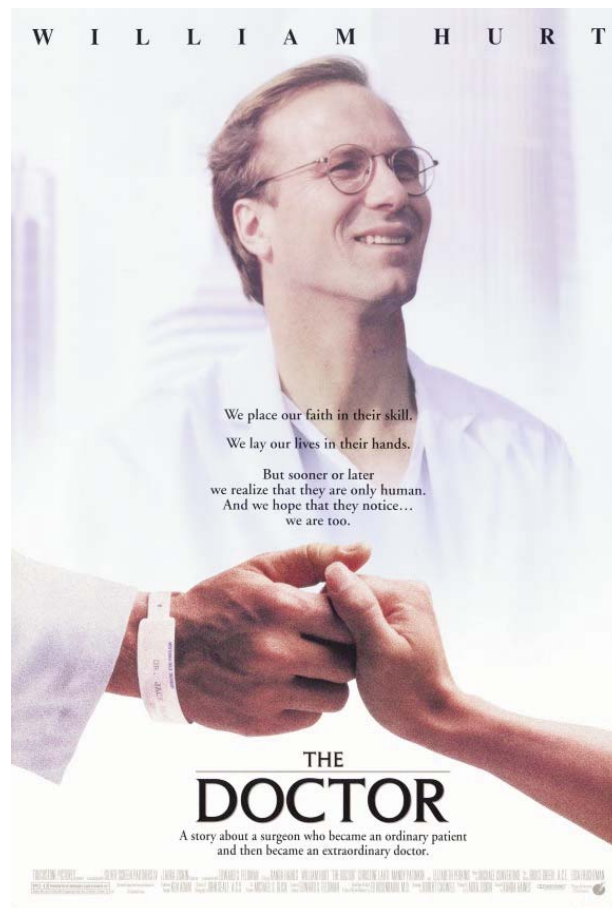
The films selected

The three films offered annually were selected on the basis two important criteria: their commercial success and their ability to stimulate discussion about the topic in question. Below we describe the main characteristics of the films.

The first is *The Doctor* (1991) by Randa Haines, which tells the story of how the behaviour of a surgeon famous for his treatment of his patients changes when he is told he has laryngeal cancer. The film is especially pertinent in regard to observing models of physician-patient relationships or, by extension, that of any health care professional with the people they must look after.

*The topics related to the movies are in bold.

This film is probably one of those most used in the teaching of medicine^{2,9,12-15}. In our case, the film is directly related to the topic in the study program addressing health staff-patient relations.

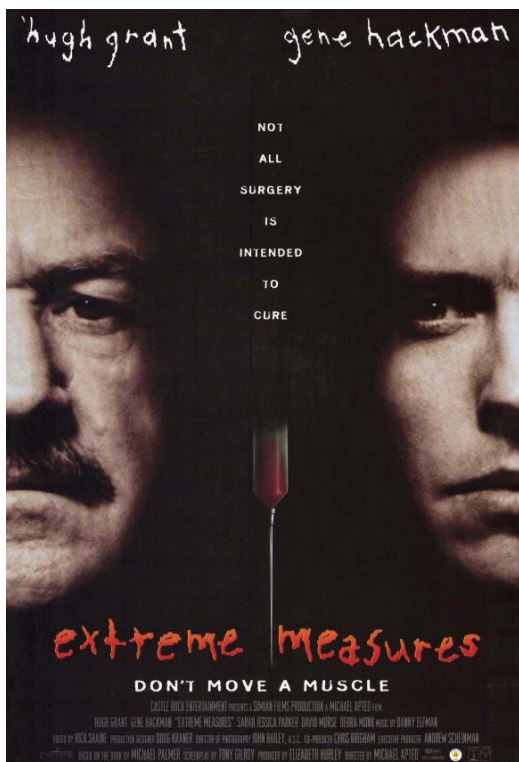


In a second session the students saw the film entitled *Miss Ever's Boys* (1997) by Joseph Sargent, which tells us of the famous investigation started in the 1930's in Alabama (USA) known as the Tuskegee study. In that research, performed with afroamericans, important bioethical rules were transgressed and its repercussions had considerable transcendence in the drafting of later bioethical norms⁶. Some years ago, Dr. Cañizo described the characteristics of the film and suggested that it could be used for teaching purposes; this was endorsed by other authors^{7, 9, 14, 16}. We used the film to illustrate historical aspects of the formulation of the basic principles of bioethics and ethical issues related to experimentation with humans; another relevant topic in the program.

Finally, we offered our students the film entitled *Extreme Measures* (1996) by Michael Apted. The film is an excellent thriller, where renowned investigators forcefully and illegally use people homeless to investi-



gate possible solutions for patients with spinal lesions. The film posits important bioethical problems concerning the good practice of scientists and the limits of research. Unlike the previous two cases, we do not know of previous cases in which this film has been used for teaching purposes.



Teaching activity

In our case, the use of commercial films aims to stimulate reflection and debate about the three topics mentioned above: health staff-patient relationships, investigation on human beings, and good scientific practice. This activity (the showing of these films) lies within the practical sessions of the subject. During each academic year, each session was led by a teacher.

Tabla 2. Scripts with bioethical problems to be discussed in the sessions held after the showing of the films.

Practical session 1: Health staff-patient relations

Showing of the film *El Doctor* (Randa Haines, 1991).

Discussion of topics related to the film.

Short test on the topics dealt with in the film and in the discussion.

Topics for discussion:

- Physician-patient relations (paternalist vs. deliberative).
- Bioethical principles (autonomy, beneficence, no maleficence and justice).
- Information to patients (the right to information, benevolent deception).
- Relations among colleagues (criticism, the concealment of bad practices).
- Confidentiality.
- Privileged care.
- Professional attitude (deontology vs utilitarianism).

Practical session 2: Experimentation with human beings

Showing of the film *Miss Evers' Boys* (Joseph Sargent, 1999).

Discussion of the bioethical topics related to the film.

Short test on the topics dealt with in the film and in the discussion.

Topics for discussion:

- Vulnerable populations (low cultural level, illiteracy, poverty)
- Discrimination (racial, economic, gender-based, children)
- Information and informed consent (understanding: technical explanations vs. understandable, benevolent deception).
- Design errors in a research study.
- Risks and benefits of participating in a study.
- Maleficence and non-maleficence (refusal of treatment).
- Confidentiality.
- Professional attitude (deontology vs utilitarianism).

Practical session 3: Goof scientific practice

Showing of the film *Extreme Measures* (Michael Apted, 1996).

Discussion of the bioethical topics related to the film.

Short test on the topics dealt with in the film and in the Discussion.

Topics for discussion:

- Prioritization of resources (ideology vs real needs).
- Fulfillment of orders from superiors.
- Violation of ethical norms to achieve positive results.
- Euthanasia (hope of life vs. no hope).
- Research with human beings.
 - Need for previous phases in animals vs. directly research with human beings.
 - Beneficence vs. autonomy, informed consent.
- Professional attitude: deontology vs. extreme utilitarianism (central focus of film).
- Use of scientific information achieve through unethical means.

Before the showing of the films, an outline of the bioethical issues that appear in them is made available to the students on the intranet (Table 2). On the scheduled day, all the students enrolled in the subject watch the film in their usual classroom using the teaching space allocated for the subject.

Later, either on the same day or the following one after the film watching, two seminars are held, one for each half of the students number, in which the topics seen in the script are addressed. At the end of the seminar -lasting about an hour- the students are requested to do a short test on the topic discussed, which serves both as proof of attendance and knowledge (Table 3). The results of the three tests sat during the academic year have a repercussion of 12% in the students' final grade.

Table 3. Examples of questions related to the topics discussed from the films (two from each session).

<p>Practical session 1: Health staff-patient relations</p> <p>The health staff-patient relations model that the otorhinolaryngologist applies is of the type:</p> <p>¿Which rule derived from bioethics is violated in the case of deceiving a patient about his/her prognosis?</p>
<p>Practical session 2: Experimentation with human beings</p> <p>¿What does the title of the film <i>Miss Evers's Boys</i> refer to?</p> <p>Having seen the film and then the debate, would you have carried out the Tuskegee study?</p>
<p>Practical session 3: Good scientific practice</p> <p>At the beginning of the film, Dr. Guy Luthan (Hugh Grant) must choose between operating on a policeman or a criminal.</p> <p>At the end he chooses the policeman. Nurse Jodie (Sarah Jessica Parker) accuses him of having.....</p> <p>At the last encounter between Guy and Dr. Myrick (Gene Hackman), the former accepts that sometime the victims of an investigation are heroes but, in contrast, he accuses Dr. Myrick of having violated a basic bioethical principle. Which basic principle was he referring to?</p>

Evaluation of the experience

The activities carried out over the past three years have been very positive as regards the learning of topics related to the films shown to the students. The assessments made after the showings were always very satisfactory and the results of the final evaluations were excellent. We also wish to highlight the participatory dynamics of our students in the debates held after the showings.

Although we do not have empirical evidence concerning student satisfaction as regards this teaching mode, we have received many direct comments about the relevance of such teaching practices.

Based on the above, those of us responsible for this course feel very positive about the experience, which is also to be implemented in the teaching of bioethics in the new degrees of Human Biology and Medicine.

Other authors have commented previously about the possibilities of films for the transmission of bioethical principles^{6-10,17}. Our modest experience would also endorse the usefulness of the use of films to promote the learning of the main bioethical principles and to establish desirable bioethical values in our University students.

References

- García Sánchez JE, Trujillano Martín I, García Sánchez E. Medicine and cinema, why? *J Med Mov* [Internet]. 2005;1: 1-2. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol1/num1/535>
- Alexander M, Lenahan P, Pavlov, A. *Cinemameducation: a comprehensive guide to using film in medical education*. Oxford: Radcliffe Publishing; 2005.
- Baños JE, Aramburu J, Sentí M. *Biocinema: The experience of using popular movies with students of Biology*. *J Med Mov* [Internet]. 2005;1: 42-46. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol1/num2/546>
- Pérez Sánchez J. Using the movie *Awakenings* (1990) to evaluate learning in the biology degree program at the Universitat Pompeu Fabra. Ten years of experience. *J Med Mov* [Internet]. 2009;5: 27-29. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol5/num1/310>
- Pérez J, Aramburu J, Baños JE, Bordes M, Bosch F, Farré M, Díez J, Girvent M, Sentí M, Valverde O. Uso del cine comercial como herramienta docente en los estudios de Biología de la Universidad Pompeu Fabra. In: Cerezo M, Grau R. II (editors). *Jornada Nacional sobre Estudios Universitarios. Los nuevos títulos de grado: retos y oportunidades*. Castellón: Universitat Jaume I; 2009. p. 149-150.
- Del Cañizo Fernández- Roldán A. *Miss Evers's Boys* (1997). Study of the spontaneous evolution of syphilis in black patients. *J Med Mov* [Internet]. 2005;1: 12-16. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol1/num1/538>
- Blanco Mercadé A. Clinic bioethics and cinematographic narrative. *J Med Mov* [Internet]. 2005;1: 77-81. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol1/num3/552>
- Lozano Sánchez FS, Areitio-Autena Bolumburu A. Ethics of clinical research and cinema. *The other Fugitive* (1993). *J Med Mov* [Internet]. 2006;2: 44-50. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol2/num2/513>
- Astudillo Alarcón W, Mendinueta Aguirre C. The cinema in the teaching of medicine: Palliative care and bioethics. *J Med Mov* [Internet]. 2007;3: 32-41. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol3/num1/484>
- Casado da Rocha A. The primacy of autonomy in *My Life Without Me* (2002): An example of methodology for medical ethics. *J Med Mov* [Internet]. 2008;4: 66-75. Available from: <http://revistamedicinacine.usal.es/index.php/en/vol4/num2/370>
- Pérez J, Baños JE, Calafell F, Carrió M, Larramona MP. Introducción del aprendizaje basado en problemas en la titulación de Biología de la Universidad Pompeu Fabra. In: Centro de Innovación y Documentación Educativa. Premios Nacionales de Innovación Educativa 2006. Madrid: Ministerio de Educación y Ciencia; 2007. p. 93-111. Available from: <http://www.educacion.es/cide/espanol/publicaciones/coleccion/innovacion/colinn008/colinn008pnie.pdf>
- Loscos J, Baños JE, Loscos F, Cámara J. Medicine, cinema and literature: A teaching experiment at the Universitat Autònoma de Barcelona. *J Med Mov* [Internet]. 2006;2: 138-142. Available from:

<http://revistamedicinacine.usal.es/index.php/en/vol2/num4/529>

13. García Sánchez JE, García Sánchez E. Reality and realism in medicine portrayed in the cinema. *J Med Mov* [Internet]. 2007;3: 127-128. Available from:

<http://revistamedicinacine.usal.es/index.php/en/vol3/num4/498>

14. Baños Diéz JE. How thick the shield should be: Teaching the subtleties of the doctor-patient relationship using literature and popular movies. *J Med Mov* [Internet]. 2007;3: 159-165. Available from:

<http://revistamedicinacine.usal.es/index.php/en/vol3/num4/502>

15. Ortega Belmonte MJ, Rodríguez Membrive M, Sánchez Maldonado M, Bravo

Muñoz E, Corredera Guillén A, Ojeda Rodríguez MDA, Ortega Torres V, Becerra Mayor V. Learning with the cinema: a bridge between reality and ideas in the process of dying. *J Med Mov* [Internet]. 2008;4: 113-121. Available from:

<http://revistamedicinacine.usal.es/index.php/en/vol4/num3/384>

16. Farré M, Roset PN, Bosch F, Baños JE. Putting clinical pharmacology in context: The use of popular movies. *J Clin Pharmacol*. 2004;44:30-36.

17. Blanco Mercadé A. Human Cloning and Other Ethical Conflicts in *The Island* (2005). *J Med Mov* [Internet]. 2009;5: 147-151. Available from:

<http://revistamedicinacine.usal.es/index.php/en/vol5/num4/334>