

Public Health Film Presentation Experience in Medical School

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Abstract

The use of films as learning tool for Public Health topics has been rarely used in the literature despite their positive outcomes. The good results achieved in them have motivated us to implement this activity in the Public Health course of the Medicine degree. To get optimal results, it is necessary to find a list of movies that fit with the lessons on the agenda. The professors made a list of 25 films and groups of two or three students were organized. At the end of the course, each group made a presentation to the class about the movies and their Public Health issues, relating them to the agenda and the conflict raised. The activity was positive, especially valuing the learning experience and the contents treated.

Keywords: *Public; Health; Movies; Films; Activity; Medicine.*

1. Introduction

The use of commercial films as an educational tool has been used for decades in various branches of learning, especially after the popularization of the digital format on DVD. There are few cases in which these commercial films have been used for learning medicine, and even fewer for learning Public Health (Gallagher et al., 2011) (Silbart, 2006). By incorporating films into teaching, we can enhance the experience of medical students, increase their sensitivity, understanding, reflection and empathy, fostering realistic learning in a wide range of contexts and organizational environments that present complex or twisted challenges, allowing them to look at problems from other perspectives (Gritton et al., 2016).

The most effective way for a film to bring knowledge to the classroom is to show it with the tutor present and use it as a catalyst for debate and discussion with students in class. Previously there must be a job of choosing films, identification of the key points for learning and the topics on which a debate or discussion can be made. It is discouraged to use films as mere entertainment or to fill hours of the agenda (Gallagher et al., 2011). For material to be suitable, professors can use external quality criteria such as review aggregators to ensure the value of the film, review and update the movie list, ask students to suggest new titles, and introduce each movie before recommending it (Gallagher et al., 2014). There are several challenges that can condition the selection of films: Who decided the final script? What languages were chosen for the film and why? How can the effectiveness of a film as a Public Health tool be measured? (Fedunkiw, 2003).

The topics of movies should fulfill the learning criteria of the agenda. Klemenc et al asked 41 professors to prepare their own list of films, and finally they found 17 films that met the competencies of family doctors listed in the Educational Agenda produced by the European Academy of Teachers of General Medicine/Family Medicine (EURACT) (Klemenc Ketiš & Švab, 2017). Wilson et al described a method to systematically identify, classify, and select movies for Public Health students. Using keywords related to Public Health in the Internet Movie Database and the International Film Index, they classified the most suitable films for teaching. Using inclusion and exclusion criteria they ordered the films by relevance to Public Health, sophistication of analysis of Public Health content, potential for empowerment and use of advocacy, plausibility of movie and cinematic quality. (Wilson et al., 2010). This list had a heavy impact on the implantation of this activity in our Faculty.

2. Methodology

An exercise was implemented in the Public Health subject of the Medicine degree at the Cardinal Herrera-CEU University (Valencia, Spain), which has 53 students. The professors carried out a search in the scientific bibliography of other similar experiences, helped with search on cinema blogs, aimed at finding a catalog of films that would be interesting to the

students. The professors viewed many of these movies in advance to finally choose 25 with the following criteria: that they can bring knowledge, open the mind of students to new realities and generate debate. Some narrate historical events or biographies. Others show a particular aspect of health and disease. Some seek to impact the audience so that we reflect on a controversial issue. The 53 students were divided into 22 pairs and 3 triplets. The class list was randomly ordered, and from first to last they were called to choose a partner and a movie. After that, they had a month to watch the film, analyze it, and give a 10-minute presentation to the class. Because the limited time, we could not fulfill the Gallagher recommendation that the teacher attends the projection of the films, mentioned above.

3. Results

3.1. List of chosen movies

In Table 1 is shown the list of chosen movies, all of them previously watched by our professors to guarantee their quality and check their fitness with the Public Health agenda.

3.2. Recommendations for students

Some ideas were given to the students to prepare their presentations:

- Put the context: Is this movie based on true facts? Can you tell us the true story? If it is fictional, what is the historical period that is based? How was the status of medicine at that time? Some movies are made on the 90's or 00's have this health topic changed during the last decades? Is it the movie old fashioned or can it be valid today?
- About the characters of the movie: Do you want to highlight a quote or phrase that gives rise to thought or debate? Do you want to highlight attitude or beliefs of a specific character (or antagonist)? How did the characters act and how should they have acted? What was the role of the patient, the health personnel and the health management system? What ethical conflicts arise from the point of view of health?

The presentations were carried out during the course without difficulties. The students positively valued the experience and learned a lot both from their own presentations and from that of their classmates.

Table 1. List of chosen movies sorted by order of appearance in the Public Health agenda:

Movie title	Year	Director	Topic	Commentary
Awakenings	1990	Penny Marshall	Neuro-degenerative disorders	Autobiography of Oliver Sacks, who investigated the use of levodopa in patients with lethargic encephalitis. One of the highlights is the intense doctor-patient relationship shown.
Arrugas	2011	Ignacio Ferreras	Ageing and Alzheimer	The film narrates the day to day in a nursing home that Emilio has just arrived, who has the onset of Alzheimer's disease. Miguel and other residents will help him in the process.
Bicicleta, cuchara, manzana	2010	Carles Bosch	Alzheimer's disease	Documentary on the evolution of Alzheimer's disease by Pasqual Maragall (president of Catalonia). The documentary tells the testimonies, and shadows of his personal struggle.
Still Alice	2014	Richard Glatzer	Alzheimer's disease	Alice is a Columbia University linguistics professor who is diagnosed with Alzheimer's. The film focuses on how she copes with the process herself, along with her husband and children.
Amour	2012	Michael Haneke	Stroke	Anne and Georges are an elderly couple from Paris. Anne suffers a right hemiplegia, having to be cared for by George. The film tells of the harsh impact this event has on domestic life.
The fault in our stars	2014	Josh Boone	Cancer in youth	It tells the relationship with cancer of several characters. The film tells the daily life of the main couple and how cancer affects their daily relationships.
Super-size me	2004	Morgan Spurlock	Nutrition and health education	Documentary that narrates Morgan's experiment, consisting of eating exclusively McDonald's products for 30 days to evaluate their effects on his health (and winning 11 Kg).
Fed up	2014	Stephanie Soechtig	Nutrition and health education	Documentary about obesity in the US, specially focusing on the "lobby of sugar". It alerts on the increase of obesity and diabetes in children, with shorter expected lifespans.
Punto de equilibrio	1998	Ernesto Parysow	Diabetes	Fictional documentary on diabetes from an educational point of view. The protagonist receives the diagnosis, and he and his family will have to adapt to the new situation.
Contagion	2011	Steven Soderbergh	Epidemiological outbreaks	Extensively documented fictional film based on 2009 Influenza A pandemic. It used many real concepts from epidemiology and Public Health to make it scientifically valid.

Movie title	Year	Director	Topic	Commentary
Casas de fuego	1995	Juan Bautista Stagnaro	Fight against Tripanosom a Cruzi	Biography of Salvador Mazza, who fought intensely against Chagas disease in impoverished areas of Argentina, confronting him with other doctors and the privileged classes.
Balto	1995	Simon Wells	Outbreak of Diphtheria	Children adaptation of the real story of serum run to Nome in 1925, when an outbreak of diphtheria in an isolated town in Alaska threatens high infant mortality.
22 Ángeles	2016	Miguel Bardem	Smallpox vaccination	Film based on the "Royal Philanthropic Expedition of the Vaccine", in which Francisco Javier Balmis and Isabel Zendal carried the smallpox vaccine to America and Philippines in 1803.
And the band played on	1993	Roger Spottiswoode	Origin of HIV	It tells the true story of Don Francis, one of the first scientists to suggest that AIDS was caused by an infectious agent after cases of neutropenia in the homosexual community.
Dallas buyers' club	2013	Jean Marc Vallée	Origin of Zidovudine for HIV	It tells the true story of Ron Woodroof, who illegally imported Zidovudine and T peptide to distribute them to HIV patients. He will even sue the FDA for banning their importation.
Trainspotting	1996	Danny Boyle	Drug abuse	Controversial film that narrates in all its harshness the experiences of some young Scots addicted to heroin, with frequent relapses and dependency.
Requiem for a dream	2000	Darren Aronofsky	Drug abuse	The story tells the descent into the hell of drugs of its four protagonists: amphetamines to lose weight; problems with the justice for drug trafficking; with very explicit scenes.
Precious	2009	Lee Daniels	Health inequalities, sexual violence	Precious is an illiterate teenager, constantly abused and insulted by her mother and with two children resulting from sexual abuse, trying to detach herself from the violent environment.
The constant gardener	2005	Fernando Meirelles	Unethical clinical trials	Inspired by the real Kano trovafloxacin trial litigation (1996), the film focuses on the unethical practices carried out by a pharmacist company in Kenya poor villages.
The insider	1999	Michael Mann	Tobacco industry	It tells the true story of Jeffrey Wigand, a worker at the Brown Williamson tobacco company, who in 1993 revealed the unethical practices of the tobacco industry to recruit smokers.
Sicko	2007	Michael Moore	Health management	Michael Moore makes a critique of exclusively private healthcare, looking for stories of patients affected by this system and comparing it with Canada, Cuba or France.

Movie title	Year	Director	Topic	Commentary
John Q	2002	Nick Cassavetes	Health management	Fictional story of a boy who needs a heart transplant. Despite having job insurance, it will not pay the expenses. A desperate father will take hostages in the hospital to get the intervention.
The death of Mr. Lazarescu	2005	Cristi Puiu	Health management	Fictional story of a citizen with a sudden extreme pain. Ambulance is slow to appear, and finally brings the patient to one hospital, but is rejected, and rejected again in another hospital. Meanwhile, the patient is dying, and no one seems to care.
I, Daniel Blake	2016	Ken Loach	Health management	A carpenter suffers a heart attack, and the cardiologist recommends not continue working. However, after a job evaluation, he is deemed fit for work and unemployment benefit is rejected. The film is a critique of the hard bureaucratic struggle that the carpenter suffers.
An inconvenient truth	2006	Davis Guggenheim	Environment	Documentary in which Al Gore discusses widely about environmentalism, global warming, melting of the poles, CO ₂ gases released into the atmosphere, the greenhouse effect, etc.

Source: self-made

4. Discussion

4.1. Similar experiences

There are few examples of an activity like this on Public Health. We can highlight:

- Silbart et al, who made a team role-playing game based on the film "A civil action". The students formed three teams representing affected families, an industry consortium, or state and federal regulatory authorities. Surprisingly, in class the students negotiated a more favorable long-term agreement than what was achieved in real life (Silbart, 2006).
- Gallagher et al conducted another study in New Zealand with 82 fourth-year medical students distributing DVDs of fifteen pre-selected films in the school library available to students free of charge. Students were encouraged to watch the films at home and present them to the class for five minutes, summarizing the plot, discussing Public Health issues and indicating whether they would recommend it to other students .(Gallagher et al., 2011).
- Wilson et al tried to carry out a similar experiment using novels instead of movies for the learning of Public Health. The experience was not so positive: of the 177 students, only 15 withdrew one of the recommended novels from the library. Most

of the students preferred a film to a novel, concluding that experiences with novels arouse less interest in students than films and that, therefore, activities with films should continue to be encouraged in Public Health subjects. (Wilson et al., 2012).

- The same team next year incorporated a film activity into a community health nursing course. They selected the films through teacher discussions, literature reviews, and internet searches. After the students watched the films, they were asked to identify family members and identify general family structure and processes, family interactions, and ecomaps. Students found that the benefits of using film to teach family assessment skills outweighed the limitations. (Wilson et al., 2013)
- Gallagher et al made again another study from Public Health subject to present a synopsis of the films they had seen, identifying Public Health problems. Surprisingly, although the student only had to choose one film, 54% of the students saw two or more. 88% of students agreed/strongly agreed that watching movies helped students learn about health and social issues. (Gallagher et al., 2014)
- Wade et al conducted a study in 2016 at the University of Washington Bothellen for 109 students enrolled in Health studies. They were asked conducted a survey of attitudes towards the use of films in Public Health education. Both students and professors perceived the films as useful to achieve learning objectives in health (Wade et al., 2018)
- Gonçalves et al carried out a study at the Abel Salazar Institute of Biomedical Sciences asking 494 Public Health students (Medicine degree) to present five films that they had previously seen. At the end of the unit, there was a final written exam with questions about the films and texts delivered directly related to them or to the Public Health problem addressed. Finally, in a questionnaire, more than 76% evaluated the usefulness of the activity with 4 or 5 points out of five, especially valuing the content and methods. (Gonçalves et al., 2021)

4.2. Difficulties and challenges

Main difficulties and drawbacks cited in the literature are: films are not perceived as a genuine Public Health intervention. Difficulty in viewing, adapting to the syllabus and evaluation (Botchway et al., 2017). Students did not want to watch the movies when the final exams approach or under other pressures such as getting a job for the summer mount. Students considered that only watching the film was a too informal strategy for learning and that the teacher should offer structured guidelines to maximize their learning. Film is an art form produced for commercial entertainment, sometimes focused on maximizing sales or critical acclaim, rather than learning, but this inconvenience can be diminished in genres such as documentaries (Gallagher et al., 2011). Some films are excessively long, and teachers must assess that the time wasted is worth it. Students may be multitasking while watching movies, reducing the benefit of the activity (Wade et al., 2018).

On the other hand, many advantages are cited: if properly analyzed, movies are an interesting way to learn and retain information more easily than a good lecture. (Gallagher et al., 2011). They do not mean a significant burden on scheduled teaching in the classroom (Gallagher et al., 2014). Movies offer students a broader and more multidimensional range of opportunities to improve their development and learning (Gritton et al., 2016). For future years, students themselves can suggest other films "Thank you for Smoking" "The Last King of Scotland", and "Samson and Delilah" (Gallagher et al., 2011). In our experience, students also recommended "Dark Waters (2019)".

4.3. Other movies found in bibliography:

The top films scored by Wilson et al (N. Wilson et al., 2010), ordered by score, were: And the band played on (1993), An inconvenient truth (2006), Who killed the electric car? (2006), Sicko (2007), Super-size me (2004), The insider (1999), The corporation (2004), The yes men (2004), Erin Brockovich (2000), Bowling for Columbine (2002), A civil action (1998), The constant gardener (2005), Born into brothels (2004), Dark days (2000), Bright leaves (2004), The big one (1997), Life and debt (2001), Children underground (2001), City of God (2003), Down to the bone (2004), Raining stones (1993), Days of wine and roses (1962), Maria full of grace (2004), The lost weekend (1945), A time for drunken horses (2000), My own private Idaho (1991), Stephanie Daley (2007), Spider (2003), Umberto D (1952). The following films are also cited in the bibliography used for this work: Milk (2008), Motorcycle diaries (2004), 50/50 (2011), Stepmom (1998), Thank you for smoking, (2005), Fed up (2014), A beautiful mind (2001), Juno (2007), Lorenzo's oil (1992), Million dollar baby (2004), My sister's keeper (2009), Outbreak (1995), Philadelphia (1993), Rain Man (1988), Steel magnolias (1989), Precious (2009), Dreams of a life (2011), Contagion (2011), Desert flower (2009), Still Alice (2014), 4 Months, 3 Weeks and 2 Days (2007), Amour (2012), As good as it gets (1997), Doc Hollywood (1991), Dr. T & the women (2000), Once upon a time was I, Veronica (2012), Hannah and her sisters (1996), The untouchables (2011), Stopped on track (2011), The death of Mr. Lazarescu (2005), The doctor (1991), The king's speech (2010), The last king of Scotland (2006), What's eating Gilbert Grape? (1993), Wit (2001),

5. Conclusion

The use of films as learning tool for Public Health issues has been used on few occasions in the literature, but all of them have been successful experiences. A good selection of films made by professors and an adequate drawbacks management can result in a pleasant and recommendable educational experience for the students.

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