Klemenc Ketiš Z, Švab I. Using movies in family medicine teaching: a reference to EURACT educational agenda. Zdr Varst 2017; 56(2): 99-106

# USING MOVIES IN FAMILY MEDICINE TEACHING: A REFERENCE TO EURACT EDUCATIONAL AGENDA

# UPORABA FILMOV V POUČEVANJU DRUŽINSKE MEDICINE NA OSNOVI KOMPETENC DRUŽINSKE MEDICINE

# Zalika KLEMENC KETIŠ<sup>1,2,3\*</sup>, Igor ŠVAB<sup>2</sup>

<sup>1</sup>University of Maribor, Faculty of Medicine, Department of Family Medicine, Taborska 8, 2000 Maribor, Slovenia 
<sup>2</sup>University of Ljubljana, Faculty of Medicine, Department of Family Medicine, Poljanski nasip 58, 1000 Ljubljana, Slovenia 
<sup>3</sup>Community Health Centre Ljubljana, Metelkova 9, 1000 Ljubljana, Slovenia

Received: Apr 6, 2016

Accepted: Sep 13, 2016

Original scientific article

#### **ABSTRACT**

# **Keywords:** family practice,

medical education, narration, professional competences Introduction. Cinemeducation is a teaching method where popular movies or movie clips are used. We aimed to determine whether family physicians' competencies as listed in the Educational Agenda produced by the European Academy of Teachers in General Practice/Family Medicine (EURACT) can be found in movies, and to propose a template for teaching by these movies.

**Methods.** A group of family medicine teachers provided a list of movies that they would use in cinemeducation. The movies were categorised according to the key family medicine competencies, thus creating a framework of competences, covered by different movies. These key competencies are Primary care management, Personcentred care, Specific problem-solving skills, Comprehensive approach, Community orientation, and Holistic approach.

**Results.** The list consisted of 17 movies. Nine covered primary care management. Person-centred care was covered in 13 movies. Eight movies covered specific problem-solving skills. Comprehensive approach was covered in five movies. Five movies covered community orientation. Holistic approach was covered in five movies.

**Conclusions.** All key family medicine competencies listed in the Educational Agenda can be taught using movies. Our results can serve as a template for teachers on how to use any appropriate movies in family medicine education.

## IZVLEČEK

Ključne besede: družinska medicina, medicinska izobraževanja, narativna medicina, profesionalne kompetence **Uvod.** Cinemeducation je metoda poučevanja z uporabo filmov ali filmskih izsekov. Namen te raziskave je bil oceniti, ali filme lahko uporabimo pri poučevanju družinske medicine na osnovi kompetenc družinske medicine, ki jih je predlagala Evropske akademija učiteljev v družinski medicini (EURACT).

Metode. Skupina učiteljev družinske medicine je predlagala seznam filmov, ki bi jih lahko uporabili v poučevanju družinske medicine. Dva učitelja družinske medicine sta filme pregledala in na osnovi vsebine ter prizorov iz filmov za vsak film določila seznam kompetenc družinske medicine, ki se lahko s pomočjo določenega filma učijo. Kompetence družinske medicine so vodenje primarne zdravstvene oskrbe, v osebo usmerjena zdravstvena oskrba, zmožnost reševanja specifičnih problemov, celostni pristop, usmerjenost v skupnost in celovito oblikovanje modelov.

**Rezultati.** Končen seznam je obsegal 17 filmov. Devet jih je zajemalo kompteneco vodenja primarne zdravstvene oskrbe. Kompetenca v osebo usmerjene zdravstvene oskrbe je bila zajeta v 13. filmih. Osem filmov je vsebovalo kompetenco zmožnosti reševanja specifičnih problemov. Celovit pristop je bil zajet v petih filmih, prav tako tudi kompetenca usmerjenosti v skupnost. Celosten pristop je bil zajet v petih filmih.

**Zaključek**. Vse kompetence družinske medicine, ki jih je predlagal EURACT, se lahko učijo tudi s pomočjo filmov. Rezultati te raziskave lahko služijo kot predloga učiteljem družinske medicine glede načina uporabe filmov v izobraževanju iz družinske medicine.

<sup>\*</sup>Corresponding author: Tel: ++ 386 3 896 31 22; E-mail: zalika.klemenc@um.si

## 1 INTRODUCTION

Family medicine is a unique medical specialty, which does not only provide clinical care, but predominantly focuses on continuing, comprehensive and holistic care that is person-based (1). Family physician should therefore also possess special skills in order to be able to deliver appropriate care, such as communication skills.

The Educational Agenda produced by the European Academy of Teachers in General Practice/Family Medicine (EURACT) (2) has become a standard for developing family medicine curricula in Europe. This document is based on the European Definition of General Practice/Family Medicine (1).

The European Definition of General Practice/Family Medicine(1) was developed following the need for an authoritative statement which would define both the discipline of family medicine and the tasks of the family physician, and relate them to the context of the health care system (1). It defines six main competencies of family medicine: primary care management, person-centred care, specific problem-solving skills, comprehensive approach, community orientation and holistic modelling. Primary care management includes the ability to manage primary contact with patients, dealing with unselected problems; to cover the full range of health conditions; to co-ordinate care with other professionals in primary care and with other specialists; to master effective and appropriate care provision and health service utilisation; to monitor, assess and improve quality and safety of care; to make available to the patient the appropriate services within the health care system; and to act as an advocate for the patient. Person-centred care includes the ability to adopt a person-centred approach in dealing with patients and problems in the context of the patient's circumstances; to develop and apply the general practice consultation, so as to bring about an effective doctorpatient relationship, with respect for the patient's autonomy; to communicate, set priorities and act in partnership; to promote patient empowerment; and to provide longitudinal continuity of care as determined by the needs of the patient referring to continuing and coordinated care management. Comprehensive approach includes the ability to manage multiple complaints and pathologies, both acute and chronic health problems in the individual, simultaneously; to promote health and wellbeing by applying health promotion and disease prevention strategies appropriately; and to manage and co-ordinate health promotion, prevention, cure, care, palliation and rehabilitation. Community orientation includes the ability to reconcile health needs of individual patients with the community in which they live, in balance with available resources. Holistic approach includes the ability to use a bio-psycho-social model, taking into account cultural and existential dimensions.

Based on these competencies that every family physician should possess, the Educational Agenda lists, in broad terms, educational objectives of family medicine at different levels of training (2).

Usually, medical education is focused on studying diseases and their clinical management (3-5). Due to straightforwardness and rationality of such topics, they are usually relatively easy to teach using traditional teaching methods. On the other hand, medical education is also trying to teach more complex issues, namely comprehensive care, holistic care, multimorbidity, professionalism, ethical dilemmas, family functioning, communication in different situations, community orientation, etc. This requires adoption not only of knowledge and skills, but often also a change of attitudes of learners (4, 6), where traditional teaching methods are less likely to produce the expected results (6-9).

Cinemeducation is a relatively new method of medical education where movies or movie clips are used. In recent years, also television series on medical issues are being used in this context (10). Cinema utilises sight and sound, which enhance learners' ability of watching and listening. Moreover, movies stimulate discussions and reflections, which is a part of an active learning process (11). Cinemeducation is useful in teaching the bio-psycho-social-spiritual approach (12), especially the areas of communication, palliative care, ethical issues, professionalism, family dynamics and doctor-patient relationship (8, 11-14). This is achieved by engaging students in active learning, which is comparable to learning experienced during the actual consultations with patients (11).

Therefore, cinemeducation seems a very useful method of teaching a complex area of family medicine. Nevertheless, there are practically no studies that would go beyond the mere description of the topics and movies (11).

The aim of this study was to determine whether family physicians' competencies as listed in the Educational Agenda produced by the European Academy of Teachers in General Practice/Family Medicine (EURACT) (2), can be found in movies, and to propose a template for teaching by these movies. This exercise could then be repeated by different teachers interested in teaching family medicine by the use of cinemeducation.

### 2 METHODS

We asked a group of 41 family medicine teachers to provide us with a list of movies that they would use in cinemeducation. Movies were defined as recordings of moving images that tell a story and that people watch on a screen or television. We only included fictional and/or narrative movies and excluded documentaries and

television series. The latter were excluded because we wanted to ensure homogeneity of the methodology. We used full-length movies, but there were no other requests regarding the content, language, or country of production of the movies.

In the next step, the authors independently viewed the suggested movies and wrote a short synopsis of each, in which they described their usefulness for family medicine education. The evaluation was based on the learning outcomes of family medicine education proposed in the Educational Agenda (2). The movies were then categorized according to the key family medicine competencies by both authors independently. In practice, it meant that the authors looked for the scenes or clips of a particular movie that would stimulate the discussion and/or reflection upon at least one competency. Both authors afterwards discussed the findings and came to a mutual agreement. There were no disagreements between authors regarding the categorisation of movies.

The selection of movies was finished when the learning outcome of every competence was covered by at least five movies.

# **3 RESULTS**

The list consisted of 17 movies.

Most of the movies covered more than one key competence. Table 1 shows the list of movies and their categorisation according to competencies. Table 2 shows which competencies were covered by which movies.

**Table 1.** The selected movies according to the category, key family medicine competency and key topic.

Movie (year, director)	The key family medicine competency	The key topics in the corresponding competence
4 Months, 3 Weeks and 2 Days (2007, Cristian Mungiu)	Person-centred care	Social and cultural dimension
	Community orientation	The effect of poverty on health care utilisation
50/50 (2011, Jonathan Levine)	Person-centred care	Understanding the patient's personality and life aims
Amour (2012, Michael Haneke)	Specific problemsolving skills	An approach to patients according to prevalence and incidence of diseases in a community
	Primary care management	Stroke
	Holistic approach	Holistic concept of care

Movie (year, director)	The key family medicine competency	The key topics in the corresponding competence
As Good as It Gets (1997, James L. Brooks)	Person-centred care	Social and cultural dimension
	Community orientation	The effect of poverty on health care utilisation
	Comprehensive approach	Multimorbidity
	Primary care management	Obsessive-compulsive disorder Coordination of health services' utilization
Doc Hollywood (1991, Michael	Person-centred care	Continuous management of patients
Caton-Jones)	Specific problem- solving skills	Diagnosis and management of an emergency situation
	Comprehensive approach	The use of complementary and alternative medicine by patients
	Primary care management	Common conditions
Dr. T & the Women (2000,	Person-centred care	Continuous management of patients
Robert Altman)	Specific problem- solving skills	Uncertainty in medicine
	Comprehensive approach	Simultaneous management of acute and chronic conditions
	Primary care management	Gynaecological disorders
Once Upon a Time Was I, Veronica (2012, Marcelo Gomez)	Primary care management	Depression, anxiety, somatoform disorders
Hannah and Her Sisters (1996; Woody Allen)	Specific problem- solving skills	Irrational use of investigations
	Comprehensive approach	Consultation in family medicine
	Holistic approach	Holistic approach to communication
The Intouchables (2011, Olivier	Person-centred care	Understanding the patient's personality and life aims
Nakache & Eric Toledano)	Community orientation	Health care management of patients with special needs
	Comprehensive approach	Consultation in family medicine

Movie (year, director)	The key family medicine competency	The key topics in the corresponding competence
Steel Magnolias (1989, Herbert Ross)	Person-centred care	Understanding the patient's personality and life aims
	Primary care management	Diabetes
	Comprehensive approach	Multimorbidity
	Holistic approach	Holistic approach to communication
Stopped on Track (2011, Andreas	Person-centred care	Patients' and their families' understanding of a disease
Dresen)	Comprehensive approach	House visit
The Death of Mr. Lazarescu (2005, Cristi Puiu)	Community orientation	Health care organization and its effect on patients' management outcomes
	Primary care management	Epidural haematoma, abdominal pain, alcoholism Coordination of emergency services
	Specific problem- solving skills	Diagnosis and management of emergency situation
The Doctor (1991 Randa Haines)	Person-centred care	Communication
	Community orientation	Inequalities in health care provision
	Specific problem- solving skills	Step-wise decision-making
	Primary care management	Cancer Ill physician
	Holistic approach	l
The King's Speech (2010, Tom Hooper)	Person-centred care	Person-centred communication Partnership building
The Last King of Scotland (2006, Kevin McDonald)	Person-centred care	Social and cultural dimension Communication Partnership building
	Specific problem- solving skills	Diagnosis and management of an emergency situation
	Primary care management	Epilepsy
	Holistic approach	Holistic concept of care

Movie (year, director)	The key family medicine competency	The key topics in the corresponding competence
What's Eating Gilbert Grape? (1993, Lasse Hallström)	Person-centred care	Family-centred approach
	Holistic approach	Practical approach to holistic care
Wit (2001, Mike Nichols)	Person-centred care	Communication Partnership building
	Specific problem solving skills	Ethics of history taking and clinical examination

# 3.1 Primary Care Management

Primary care management was covered in nine movies. They mainly focused on clinical topics or clinical dilemmas, and most of them narrated patients' experiences and their points of view. Some of them also described the coordination of care.

### 3.2 Person-Centred Care

Person-centred care was covered in 13 movies. Those movies depicted the relationship between the doctor and patient, building a partnership, communication, and continuous management of patients.

# 3.3 Specific Problem-Solving Skills

Specific problem-solving skills were covered in eight movies. The movies portrayed specific techniques and problem solving skills of family physicians.

# 3.4 Comprehensive Approach

Comprehensive approach was covered in five movies. The movies depicted doctors dealing with multiple complaints of a patient, health promotion, prevention and lifestyle issues.

# 3.5 Community Orientation

Community orientation was covered in five movies. The movies in this category described the influence of a disease on a community and family, and vice versa.

#### 3.6 Holistic Approach

Holistic approach was covered in five movies. The movies portrayed comprehensive solutions to patients' problems that needed to include negotiations between biomedical solutions and social and cultural realities.

**Table 1.** The selected movies according to the category, key family medicine competency and key topic.

The main competency	Learning outcome	Movie (year, director)
Primary are management	To manage primary contacts with patients dealing with unselected problems	Doc Hollywood (1991, Michael Caton-Jones) The Last King of Scotland (2006, Kevin McDonald) The Death of Mr. Lazarescu (2005, Cristi Puiu) Once Upon a Time Was I, Veronica (2012, Marcelo Gomez) Steel Magnolias (1989, Herbert Ross)
	To cover the full range of health conditions	Amour (2012, Michael Haneke) Doc Hollywood (1991, Michael Caton-Jones) The Death of Mr. Lazarescu (2005, Cristi Puiu) Once Upon a Time Was I, Veronica (2012, Marcelo Gomez)
	To co-ordinate care with other professionals in primary care and with other specialists	Dr. T & the Women (2000, Robert Altman) The Death of Mr. Lazarescu (2005, Cristi Puiu)
	To master effective and appropriate care provision and health service utilisation	As Good as It Gets (1997, James L. Brooks)
	To make available to the patient the appropriate services within the health care system	The Doctor (1991, Randa Haines)
	To act as an advocate for the patient	Once Upon a Time Was I, Veronica (2012, Marcelo Gomez) The Death of Mr. Lazarescu (2005, Cristi Puiu)
Person-centred care	To adopt a person-centred approach in dealing with patients and problems in the context of the patient's circumstances	What's Eating Gilbert Grape? (1993, Lasse Hallström) The Last King of Scotland (2006, Kevin McDonald) 4 Months, 3 Weeks and 2 Days (2007, Cristian Mungiu) 50/50 (2011, Jonathan Levine) Intouchables (2011, Olivier Nakache & Eric Toledano) Stopped on Track (2011, Andreas Dresen) The Doctor (1991, Randa Haines)
	To develop and apply the general practice consultation, so as to bring about an effective doctor-patient relationship, with respect for the patient's autonomy	Wit (2001, Mike Nichols) Steel Magnolias (1989, Herbert Ross) As Good as It Gets (1997, James L. Brooks) The Doctor (1991, Randa Haines)
	To communicate, set priorities and act in partnership	The King's Speech (2010, Tom Hooper) 50/50 (2011, Jonathan Levine)
	To provide longitudinal continuity of care as determined by the needs of the patient, referring to continuing and co-ordinated care management	Dr. T & the Women (2000, Robert Altman)  Doc Hollywood (1991, Michael Caton-Jones)
Specific problem solving skills	To relate specific decision making processes to the prevalence and incidence of illness in a community	Dr. T & the Women (2000, Robert Altman) Doc Hollywood (1991, Michael Caton-Jones) The Death of Mr. Lazarescu (2005, Cristi Puiu) Amour (2012, Michael Haneke)
	To selectively gather and interpret information from history-taking, physical examination and Investigations, and apply it to an appropriate management plan in collaboration with the patient	The Death of Mr. Lazarescu (2005, Cristi Puiu) Wit (2001, Mike Nichols)

The main competency	Learning outcome	Movie (year, director)
Specific problem solving skills	To adopt appropriate working principles (e.g., incremental investigation), using time as a tool and to tolerate uncertainty	The Doctor (1991, Randa Haines) Dr. T & the Women (2000, Robert Altman)
	To intervene urgently when necessary	Doc Hollywood (1991, Michael Caton-Jones) The Last King of Scotland (2006, Kevin McDonald) The Death of Mr. Lazarescu (2005, Cristi Puiu)
	To manage conditions which may present early and in an undifferentiated way	The Death of Mr. Lazarescu (2005, Cristi Puiu) Dr. T & the Women (2000, Robert Altman) The Doctor (1991, Randa Haines)
	To make effective and efficient use of diagnostic and therapeutic interventions	The Doctor (1991, Randa Haines) Dr. T & the Women (2000, Robert Altman) Hannah and Her Sisters (1996; Woody Allen)
Comprehensive approach	To manage multiple complaints and pathologies, both acute and chronic health problems in the individual, simultaneously	Steel Magnolias (1989, Herbert Ross) As Good as It Gets (1997, James L. Brooks) Doc Hollywood (1991, Michael Caton-Jones)
	To promote health and well-being by applying health promotion and disease prevention strategies appropriately	Hannah and Her Sisters (1996; Woody Allen) Steel Magnolias (1989, Herbert Ross) Dr. T & the Women (2000, Robert Altman)
	To manage and co-ordinate health promotion, prevention, cure, care, palliation and rehabilitation	Stopped on Track (2011, Andreas Dresen) As Good as It Gets (1997, James L. Brooks) Dr. T & the Women (2000, Robert Altman)
Community orientation	To reconcile health needs of individual patients and the community in which they live, in balance with available resources	As Good as It Gets (1997, James L. Brooks) The Death of Mr. Lazarescu (2005, Cristi Puiu) Intouchables (2011, Olivier Nakache & Eric Toledano) The Doctor (1991, Randa Haines) 4 Months, 3 Weeks and 2 Days (2007, Cristian Mungiu) The Death of Mr. Lazarescu (2005, Cristi Puiu)
Holistic approach	To use a bio-psycho-social model, taking into account cultural and existential dimensions	Amour (2012, Michael Haneke) What's Eating Gilbert Grape? (1993, Lasse Hallström) The Last King of Scotland (2006, Kevin McDonald) The Doctor (1991, Randa Haines) Steel Magnolias (1989, Herbert Ross)

# **4 DISCUSSION**

To the best of the authors' knowledge, no study has dealt with the use of movies in teaching key competencies of family medicine (2) so far. In 2007, an article about using movies to teach Accreditation Council for Graduate Medical Education (ACGME) competencies was published (15). The article gives examples of a movie clip appropriate for teaching each of the six ACGME competencies, namely: Patient care, medical knowledge, practice-based learning and improvement, system-based

practice, professionalism and communication (16). The article additionally described proposed methods and content areas in order to create a framework for teaching by cinemeducation. Other articles about cinemeducation already published usually offer a narrative view from an author that had used movies or movie clips in teaching, or in some way report on the feedback from learners engaged in cinemeducation (11).

In our study, similarly as in the aforementioned article (15), we used a theoretical framework as a basis for the

selection of movies. As we wanted to test the template of EURACT Educational Agenda (2) on the case of education with movies, we used a pragmatic method of selection of movies, based on trainers' opinions. The aim was not to make a reference list of movies that can be used in family medicine by cinemeducation, but to come up with a framework, which could be useful for teachers in their work. Therefore, many very good movies, widely used in education, were not listed.

This study showed that movies can be used in teaching all key family medicine competencies as described by the Educational Agenda (2).

Most of the movies included in our study covered more than one family medicine competence. These movies could be very useful in teaching family medicine, as the discipline itself is of a holistic and comprehensive nature. Topics, like family dynamics, holistic perception, comprehensive approach, continuous management of patients and person-centred approach are more difficult to teach when compared to clinical themes (7, 17, 18), and the use of movies could be a good addition to conventional teaching. It is understandable that movies cannot be used for teaching practical skills. However, as our study showed, they can be used to demonstrate their importance or to show the appropriate procedure.

Since family medicine is a very comprehensive discipline, it should not be taught by only one method. Our study aims to provide a template of how movies could be fitted into a framework of different teaching techniques of family medicine teaching.

Cinemeducation in family medicine can be used in different ways, and traditional classroom setting is probably not the best one. Since a lot of teaching of family medicine is done through a process of mentoring, discussions about movies may be a useful method of encouraging discussions with young learners and elucidating dilemmas of different kinds (19, 20). Teaching with movies gives students enough time to reflect on a situation they have seen, discuss about the problems with a supervisor, and find a solution which could help them were they facing similar problems in actual clinical work (8). It is interesting that we have found no descriptions of such use of cinemeducation. It is possible that the potential use of cinemeducation in teaching family medicine in one-to-one setting has been left to tutors' beliefs, without the use of a structured tool. The strength of this study is the use of a theoretical framework, such as the Educational Agenda (2). We chose not to perform the systematic search for appropriate movies, as we wanted to produce a model for teaching with movies that are available to teachers. Our list of movies serves only as a model for teaching and not as a proposed list of movies to be used in family medicine teaching. Teachers could use any movie (the content of

which is appropriate for family medicine teaching) and employ it for teaching on the basis of EURACT Educational Agenda (2), together with their direction and moderation. The only criterion for the choice of an appropriate movie or movie clip is that it covers the teaching aims and that it stimulates discussion/reflection.

Our study has also some limitations. The first one is that only two teachers assessed the movies. Other teachers were only asked to provide a list of movies they thought to be appropriate for cinemeducation. The study would have a greater value if also those teachers provided analyses of suggested movies. Another limitation of the study pertains to the fact that we did not assess the usefulness of the movies for teaching, but were merely concerned with whether they are appropriate for teaching family medicine competencies according to the opinions of the teachers and authors. In addition, this study did not test the usefulness of this model in teaching, as no feedback from the teachers was sought. However, this study was only aimed at determining whether family physicians' competencies can be found in movies, and proposing a template for teaching by means of these movies.

We suggest that further studies assess the usefulness of this approach, and also examine where in the educational process movies could be successfully used.

### **5 CONCLUSIONS**

This is the first attempt to use the EURACT teaching agenda to provide a systematic approach with an innovative teaching method. It suggested that cinemeducation can map across the different domains proposed in the Educational agenda, and vice versa. Therefore, any appropriate movie that covers at least one family medicine competence can be used in family medicine teaching. Our results can serve as a template for teachers on how to start selecting appropriate movies in the education of family medicine. Further studies are needed to determine the usefulness of such an approach in teaching and the extent of coverage of different areas of medicine in cinema.

# **CONFLICTS OF INTEREST**

The authors declare that no conflicts of interest exist.

# **FUNDING**

The study received no funding.

### ETHICAL APPROVAL

The study did not include any persons, so we did not seek ethical approval.

### **REFERENCES**

- Allen J, Gay B, Crebolder H, Heyrman J, Svab I, Ram P. The European definition of general practice/family medicine. Evans P, editor: Wonca Europe, 2011.
- Heyrman J. EURACT Educational Agenda. Leuven: European Academy of Teachers in General Practice, 2005.
- Krzton-Królewiecka A, Svab I, Oleszczyk M, Seifert B, Smithson WH, Windak A. The development of academic family medicine in central and eastern Europe since 1990. BMC Fam Pract 2013; 14: 37.
- 4. Švab I. Education in medicine. Zdr Varst 2012; 51: 223-6.
- Klemenc-Ketis Z, Kersnik J. Deficiency areas in decision making in undergraduate medical students. Adv Med Educ Pract 2014; 5: 223-7.
- Kersnik J, Wensing M. Improving the quality of care for patients with chronic diseases: what research and education in family medicine can contribute. Eur J Gen Pract 2012; 18: 238-41.
- Kersnik J. Learning and teaching to educate future GPs. Eur J Gen Pract 2012; 18: 199-200.
- Klemenc-Ketis Z, Kersnik J. Using movies to teach professionalism to medical students. BMC Med Educ 2011; 11: 60.
- Klemenc-Ketis Z, Kersnik J. New virtual case-based assessment method for decision making in undergraduate students: a scale development and validation. BMC Med Educ 2013; 13: 160.
- Wong RY, Saber SS, Ma I, Roberts JM. Using television shows to teach communication skills in internal medicine residency. BMC Med Educ 2009; 9: 9.
- Darbyshire D, Baker P. A systematic review and thematic analysis of cinema in medical education. Med Humanit 2012; 38: 28-33.
- Alexander M, Hall MN, Pettice YJ. Cinemeducation: an innovative approach to teaching psychosocial medical care. Fam Med 1994; 26: 430-3.
- Blasco PG, Moreto G, Roncoletta AFT, Levites MR, Janaudis MA. Using movie clips to foster learners' reflection: improving education in the affective domain. Fam Med 2006; 38: 94-6.
- Weber CM, Silk H. Movies and medicine: an elective using film to reflect on the patient, family, and illness. Fam Med 2007; 39: 317-9.
- Alexander M, Pavlov A, Lenahan P. Lights, camera, action: using film to teach the ACGME competencies. Fam Med 2007; 39: 20-3.
- Swing SR, Clyman SG, Holmboe ES, Williams RG. Advancing resident assessment in graduate medical education. J Grad Med Educ 2009; 1: 278-86.
- Wensing M, Kersnik J. Improving the quality of care for patients with chronic diseases: what research and education in family medicine can contribute. Eur J Gen Pract 2012; 18: 238-41.
- Petek Ster M, Svab I, Ster B. Final year medical students' understanding of family medicine. Acta Med Acad 2014; 43: 40-9.
- Alfandre D, Rhodes R. Improving ethics education during residency training. Med Teach 2009; 31: 513-7.
- Buxton M, Phillippi JC, Collins MR. Simulation: a new approach to teaching ethics. J Midwifery Womens Health 2015; 60: 70-4.