CHAPTER 3

The *ER* Effect: How Medical Television Creates Knowledge for American Audiences

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Americans have access to many forms of media that propel information toward audiences. They become passive consumers of this information, casually flipping through a magazine or watching television while eating dinner. According to Gerbner, 'In the typical U.S. home the television set is in use for more than seven hours a day,'[1] and we watch about five hours of television programming a day.[2] While television contains a vast array of programming options from fictional narrative stories to non-fictional news-based shows, 'television content … influences mass culture because it provides widely shared common knowledge, beliefs and expectations.'[3] This research explores the fundamental shift in American public culture after the premiere of *ER*, a fictional medical television show, in 1994. With this shift, 'many Americans gain their medical and health information not from their physician or the medical profession but from the media.'[4]

While television is a central force in cultural change, outside social processes such as neoliberalism and biomedicalisation also contribute

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enormously to the circulation of information. David Harvey's work shows that 'Neoliberalism has, in short, become hegemonic as a mode of discourse. It has pervasive effects on ways of thought to the point where it has become incorporated into the common-sense way many of us interpret, live in, and understand the world.'[5] The social principles that come with the larger, more visible, political and economic framework often go unquestioned. The job then is to see how 'American neo-liberalism [functions] as a principle of intelligibility and a principle of decipherment of social relationships and individual behavior.'[6] The medical knowledge and healthy behaviours demonstrated in spaces such as media follow the guiding principles of neoliberal deregulation, freedom, personal responsibility and individuality that are openly encouraged of consumers. Neoliberalism has encouraged the public to become 'smart patients' on their own, by doing their own research and information gathering, and has contributed to the role of media within the knowledge audiences consume about biomedicine. Biomedicine is deeply connected to American culture and is creating ways for people to understand their own bodies and the world around them on a biological basis, from germs to viruses to organs and systems. Television is central to this healthscape of 'things medical,' which Clarke demonstrates through similar visual imagery and multiple media-based health information sources.[7] The media culture in which we exist creates new forms of information, often through images and a reliance on visual metaphors:

> Even as television portrays fictionalized, dramatized images of the existing medical culture, its choice of what to portray—and not to portray—simultaneously helps shape public perceptions of medicine that are carried into the clinic and the hospital by patients.[8]

It is the television writers, Hollywood television studios, the physicians and nurses working television who become the storytellers and information sources. For medical fictional television, the most important roles that are driving the creation of accurate medical knowledge are the physicians and nurses who write, advise and create the medicine on screen for viewers.

Clarke argues that 'in deeply significant but largely ignored ways, contemporary American biomedicalization itself is imbricated with popular and visual cultural materials, representations, and media coverage of things medical.'[7] These images and imagery of 'things medical'

give perspective and grounding for patients or soon-to-be patients to better understand the biomedical world. This process is seen in medical fictional television where physician writers share their own stories from their medical practice that are then performed on screen: 'Both television and medicine … became part and parcel of everyday living—integrated, naturalized, coconstitutive—during the deeply transformative medicalization healthscape.'[7] As media was creating a space for broader medical knowledge among audiences, biological citizenship and 'smart patients' were being encouraged by broader neoliberal social and cultural practices.[9] This research shows how medical television, especially after 1994 and the beginning of the run of the show *ER*, changed the landscape of medical information for American audiences. I propose that there is a process called the *ER* Effect, similar to the *CSI* Effect, whereby the show *ER* created a working medical imaginary and visual imagery that increased the flow of medical information for audiences.

Methods

This research employs a method called 'studying up,' whereby the people being sought for information are in a more privileged position than the researcher and do not have an obligation to speak with anyone about anything.[10,11] I chose to pursue this project that required engagement from the entertainment industry, although it could be an obstacle to traditional participant observation as an anthropological methodology. I acknowledge that I am in a privileged position because I began my work with industry informants by first connecting with an Executive Producer for *Grey's Anatomy* whom I knew personally, and this person led me to my first key informants. From there I utilised my current location of Los Angeles and the many friends I have working in the entertainment industry to find more informants. As I met more people, I gained an increasing legitimacy with informants who accepted that I was undertaking academic research, and not a super-fan or someone looking to meet famous people and get on set. One Executive Producer of several medical shows even stated that I knew some of the details of his shows better than he did, a clear case of academic study and not a casual viewer or fan.

Beginning in 2011, I spoke to many physicians, television medical writers, television medical technical advisors, product placement facilitators, actors who played doctors on television shows, and medical television producers and directors. Collectively they total about 100

people who work and have worked on shows such as *ER*, *St. Elsewhere*, *M*A*S*H*, *Grey's Anatomy*, *Combat Hospital*, *Chicago Hope*, *Bones*, *Private Practice*, House, *M.D.*, Nip/*Tuck*, Doogie Howser, *M.D.*, Trapper John, *M.D.*, *Ben Casey*, *Scrubs*, *Monday Mornings*, and many other shows that are non-medical but have occasional medical storylines, in addition to countless commercials and feature films. I visited two television sets, one with a medical advisor on a non-medical show and a second with producers to a specifically medical show. These methods were supplemented with scattered pieces of research from a multitude of other sites.

The *CSI* Effect

We often question how much viewers actually learn from television shows. One of the best examples with which we may compare medical television is legal television; these are close associates in television programming as they are both understood as 'procedural dramas.'[12] Anthropologist Laura Nader, writing in 1969, wrote that 'most of what we learn about the law we absorb vicariously from TV westerns and Perry Mason-style shows,' and the same is true today for medicine and other fields.[11] More recently, many scholars and prosecutors have cited something called the '*CSI* Effect' to discuss the effect of forensic shows on real life legal juries. In questioning what the *CSI* Effect is or means for legal cases, 'prosecutors claim that the show makes juries less inclined to convict because they have inflated expectations for the comprehensiveness, sophistication and clarity of forensic evidence–all those threads and fibers and DNA traces left behind at crime scenes.'[13] Audiences that watch the forensic or medical–legal show *CSI: Crime Scene Investigation*, on air since 2000 and with many spin-offs, have purportedly been paying close attention to the use of DNA testing, crime scene collection and other forensic processes in their television storylines.

Many medical, legal and forensic shows have been developed since, with shows such as *Bones*, *Dexter*, *Body of Proof*, *NCIS* and others, and even procedural legal shows such as *Law & Order* use forensic evidence prominently in their storylines. The medical examiners, pathologists and forensic scientists are major characters with laboratories full of high-tech equipment and fancy techniques to quickly find a clue the killer left behind that will put them behind bars. On *CSI* witnesses and humans lie, but science does not. These medical-legal shows are usually

procedural, where the pattern of the episodes' story will be repetitive and the episodes are similar to one another (*House, M.D.*, a medical show, fits this pattern as well). On a procedural show, there is a crime committed, often a murder or almost deadly assault, and then the crime scene is mined for any and all evidence that may remain. That evidence is then carefully brought back to some sort of crime laboratory and processed in machinery by trained technicians, while law enforcement do their work in tracking and identifying suspects. 'On the one hand, *CSI* is read by both experts and mass media as fictional and not relevant for nonfictional forensic science, but on the other hand, they are concerned that other, nonexpert viewers will (mis)understand nonfictional practices through the prism of *CSI*.'[14] The *CSI* Effect is a demonstrated outcome of media knowledge on consumers and audiences that can be borrowed for the field of medical television in much the same way this effect has been shown in legal shows.

Even if it is debatable how much information audiences are taking from the medical–legal shows such as *CSI*, it is clear that the general public is more knowledgeable than ever about forensic investigative tools such as the collection of fingerprints, hair, semen, sweat and other bodily traces that can link back to the individual who committed a crime. Shows such as *CSI* have demonstrated specialised technology—mass spectrometers, for example—to the public, and people are generally more aware of these kinds of evidence and their implications. A 'stupid criminal' now is someone who does not wear gloves or a mask or a condom, or is careless with their hairs, or does not clean up blood with bleach, ever mindful of the cracks or blood seepage. This is a vastly different perspective from just 10 or 20 years ago, because there is more information circulating about this thanks to the popularity of the medical–legal or legal shows. In this way, the same can be said about general medical shows where audiences know more about new and rare diseases or about treatments for conditions because of such exposure. Through studies about consumers' knowledge retention about medical procedures and disease information and in-depth research with the medical staff of television shows, I aim to show that the *CSI* Effect is similar to the knowledge development that occurs through similar medical programming, something I call the *ER* Effect. After the creation of the show *ER*, medical programming began a quest for more authenticity with accurate medical terminology, more physicians on staff than any medical shows that came before and graphic medicine presented at its finest.

Part of the reason the *CSI* Effect, and the echoing *ER* Effect, are so compelling for audiences is their integration into the narrative of television storytelling. Most of the writers, directors and actors I spoke with told me that at a basic level they were telling a story. It all came back to the story of the show or the episode: 'Stories connect people into collectivities, and they coordinate actions among people who share the expectation that life will unfold according to certain plots.'[15] These television plots become group or collective narratives that are appealing to people, both sick and healthy. A story 'is as common as air' and so it is a familiar and appealing context for the consumer.[16] The *ER* Effect is compelling because of the use of medical authenticity *and* the narrative of the characters in the storyline. We care about the medicine because it is happening to or around our favourite characters, and that is often why medical shows can seem like night-time soap operas, because everyone is in constant danger. The narrative is heightened when beloved characters are in a plane or helicopter crash, shot in the hospital or are diagnosed with cancer, and all of these storylines are easily found in both *ER* and *Grey's Anatomy*. By creating a world the audience will want to see and experience every week, medical television pulls us into another world and we experience it alongside the characters, enjoying every minute of their joy and disappointment. The narrative and drama also make it seem as if being a doctor or working in a hospital is constantly exciting.

The *ER* Effect

I met many physicians and nurses who work on television sets, always trying to inform non-medical writers and crew about their world. They give writers options for diseases patients could have, they write in medical terminology dialogue, they position actors in an emergency room set, they demonstrate inserting intubation tubes, and they often dress in scrubs and surgical wear to appear in the scene as background actors. These writers and advisors know about the blogs that point out medical mistakes and told me about the emails and letters they get from overzealous medical students pointing out the impossibility of a particular disease presentation. One informant said that she will not compromise on the kinds of medical points that people at home could put to use, such as CPR: 'Someone at home could save Grandma with this information,' she said. They work hard to ensure a balance between the drama of the

story and the stretching of medical possibilities to achieve both an entertaining show and a fairly accurate portrayal of medicine. Physician writers also make sure the medical problems of the patients match up to the correct doctors involved in the storyline on the more broad medical shows. If someone comes into the emergency room in either *ER* or *Grey's Anatomy* and the writers want specific doctors involved with that patient, then the disease or condition needs to match their specialties. As I was told, a cardiologist is not going to consult with the orthopaedic surgeon on a broken arm. But they might if there had been a car accident and there was blunt force trauma to the torso, as well as a broken arm; so there are strategies for connecting physicians together in a team to treat a patient with accuracy. Many of the physician writers expressed difficulties because they felt that accuracy was something everyone thought they should be chasing but no one seemed to be able to define what it exactly meant. If accuracy is simply a reference to medically accurate information then most medical television is accurate, because the storylines have the potential to happen in real life. According to physician writers some expectations for accuracy were unrealistic, because otherwise there would be a limit on the diseases they could show and the stories would begin to get very repetitive. *House, M.D.* is usually the exception, because the show's entire focus is on the rare diseases of medicine. Dr House is the Sherlock Holmes of medicine in popular culture, and this allows for the constant stream of new and rare diseases to be accepted and enjoyed by audiences without critique.

The foundational and often cited medical studies about television viewing and education are based on CPR rates and HIV transmission, both viewed as potential sites for misinformation that would concern public health. Treichler, citing the Centers for Disease Control and Prevention (CDC), states that '88 percent of the American public obtains health information from television.'[4] Specifically for the case of *ER*, this show had more doctors on staff as both writers and consultants than any show ever made before. *ER* was created by trained physician Michael Crichton, also a popular science fiction writer, although I have been told that the producers had more to do with the look and feel of the show than Crichton, who only wrote the pilot. Because of this heavy involvement by physicians, *ER* was situated as a medical authority on television and therefore often criticised by the medical establishment.

In a study reported in the *New England Journal of Medicine*, researchers looked at television episodes with a keen interest in CPR

or cardiopulmonary resuscitation and survival rates. They assert that 'Patients learn about CPR from many sources, including physicians, family and friends, personal experience, and CPR courses, [but] in a number of studies … patients report that they obtain much of their information from the media.'[17] With this basis, researchers found that

> Survival rates for CPR on these television programs were significantly higher than the highest rates reported in the literature [for real patients]. For short-term survival, the rate of success on television was 75 percent, as compared with 40 percent in the literature ($P < 0.001$), and for long-term survival (assuming that the patients on *ER* about whom no explicit information was given survived to discharge), the rate of success was 67 percent (40 patients survived) as compared with 30 percent ($P < 0.001$).[17]

The differential survival rate on television and in real life is statistically dramatic. One of the physicians I interviewed who writes for television said that as a practising Emergency Room physician in Los Angeles, he runs a code (where the patient is crashing and CPR is administered) so that 'patients' families know everything has been done.' He believes that patients' families need to see doctors doing the work even if they are unable to save their loved one. They are told on television that CPR is a life-saving treatment, one that more often than not works to bring a family member back to life.

> The portrayal of CPR and death on three popular television programs is misleading in a number of ways … [These] television programs give a misleading impression about the kind of people most commonly given CPR. On television, children, teenagers, and young adults accounted for 65 percent of the patients given CPR. Of the total number of deaths on the programs, 83 percent were of nonelderly patients. In fact, cardiac arrest is much more common in the elderly than in children or young adults.[17]

Physicians who work in television agreed that most often it is not healthy, young people that are crashing in real life and need CPR. It is often the very sick and the elderly, and they will have a higher death rate. 'Rates of long-term survival after cardiac arrest as reported in the medical literature vary from 2 percent to 30 percent for arrests outside a hospital, and from 6.5 percent to 15 percent for arrests that take place inside a hospital.'[17] Most often the physicians I interviewed when asked about CPR portrayals on television talked about these facts, but that does not

give enough drama for television narratives. The drama and accuracy also lies in the realistic portrayal of CPR techniques on screen, created by *ER*'s on-set physicians, which now looks as realistic as it can without actually being the technique that is used in real life. In reality CPR does a lot of damage to the body while trying to get the heart pumping again, often breaking ribs in the process. On *ER*, the actors playing doctors were instructed to place their hands on the sternum of the actor playing the patient but to rhythmically move their own body up and down, often using their legs if straddling the patient, which creates the illusion of force. In a rebuttal to Diem et al. in the *NEJM*, Dr Neal Baer, a writer and producer on *ER*, wrote that 'two physicians are among the staff of six writers on *ER* and each script is reviewed by a physician trained in emergency medicine. The writers try to present stories based on real-life patients but sometimes dramatize the events to garner high ratings.'[18] Baer told me in an interview that this study 'gave us pause' because 'if we want people to feel it is real, people are going to believe what you are writing … and we have a responsibility.'

Generally medical demonstrations in a scene should always look as medically sound as possible and give the most realistic portrayal of medicine. A writer for *ER* talked extensively about the awards given to the show for its coverage of HIV/AIDS storylines and the publicity that resulted. Baer felt this storyline with the character of Jeanie Boulet was one of the most important they did on *ER* and 'dispelled myths about HIV' for the audience. Substance abuse for the Dr House character on *House, M.D.* was an example given by several writers for the show as their favourite and most important storyline. *Grey's Anatomy* featured a story about woman who had a preventative double mastectomy, and a writer for the show discussed how important that storyline was for the cast and crew. These stories are all good exposure for the shows and educational opportunities for the audience. Paired together, this is the *ER* Effect at its best. One medical advisor told me that she would have shows hire real amputees, actual children with cystic fibrosis and real survivors of chemotherapy as background actors when they were needed for hospital sets on various shows, and then those shows would get fantastic feedback from those communities about their portrayal. It was important for her to include the reality in the medicine in small ways like this, and her efforts resonated with audiences.

A Kaiser Family Foundation study of viewer responses and recall to an *ER* episode found that '53% of regular viewers say they learn about

important health care issues from *ER*.'[19] Importantly, Americans seem to enjoy programming that they see as both informational and entertaining, so that *ER* was not only seen as realistic in its portrayal of medicine, but it also showed something that captured people's interest beyond just that. It was also noted that '62% of those who say they learn about health issues from *ER* also say that's one of the reasons they watch the show, including 25% who said it was a "major" reason they watched the show.'[19] Medical television has long had interactions with medical groups such as the American Medical Association and Los Angeles County Medical Association since the 1960s, and organisations such as Hollywood, Health & Society, funded by the CDC, USC, and NIH, more recently. Medical television chose early on to self-regulate, beginning in the 1960s with *City Hospital* and *Ben Casey*, and involves specialists such as doctors and nurses to make the medical process more real for audiences. The hospitals of *Ben Casey* in the 1960s look very different from *St. Elsewhere* in the 1980s, and extremely different from the hospitals from the 1990s to the present. The largest difference over this timeframe is the amount of machinery, blood and organs seen on screen, where television programs before *ER*, even shows such as *M*A*S*H*, set in a war, do not show graphic injuries. A medical consultant and nurse who has worked in the industry longer than anyone else I have spoken with stated that when she looks back at the shows she worked on from the 1960s to the 1980s, the biggest transition has been in what you can show on screen now: 'We couldn't show blood [in the 1980s], no visible hearts [in a body cavity], but they wanted it to *look* real.' She was working in the era right before *ER*, and the shift in the 1990s was drastic for the television industry. Shows from the 2000s such as *Grey's Anatomy* and *House M.D.* have featured open fractures, open chest cavities, open skulls with brain exposed, open everything; bodies are now open to audiences in all their blood spurting, pulsing, need for medical attention.

I also spoke with an Executive Producer for *ER* who described the studio's hesitation over having a show that had such a vast amount of medical jargon as dialogue. This medical discourse posed a significant challenge for them, and the producers had to explain that not only did they think the television audience was ready for it, but that the studio should think of the 'medical language as like wallpaper. It's just there. It's the background.' They quickly proved that American viewers wanted that fast-paced, quick, specialised jargon, because 'The attraction of these programs [*ER*, *Chicago Hope* and *Rescue 911*] rests in their graphic

"realism."'[20] There is an expectation that the medicine is real on these shows, and therefore the audience might pick up on the presented information, tendencies and terminology. The dramatically graphic and perceived realism on *ER* created a new medical imaginary for television, and the *ER* Effect. Within that frame, *ER* gave audiences at home the feeling they were getting an inside and a 'real' look at an actual emergency room.

The *ER* Effect demonstrates the movement of traditional medical knowledge to audiences who received it from this unusual source. When patients go into their doctor's office quoting *Dr. Oz* or *ER*, it is not always treated as expert knowledge because of the processes of translation through the show, but this is becoming more and more common as the *ER* Effect has grown alongside the *CSI* Effect. This kind of real, traditional knowledge presented in fictional programming is usually based on the idea of edutainment or infotainment, the process of both entertaining and informing people at the same time, maybe so well that they do not even know that they are learning. Brodie et al. surveyed viewers about the *ER* storyline on HIV/AIDS between 1997 and 2000, and more than half stated they watch for health information as well as entertainment.[21] There is something that appeals to American audiences about enjoying the knowledge that is delivered to them via this programming. Brodie et al. note that 'About one in seven viewers said that they contacted their doctor or health care provider about a health problem because of something they saw on *ER*.'[24] The knowledge being produced on *ER* contributed to their own bodily health, their general health education, and it is a trend that has continued on in popular medical shows, including *House M.D.* and *Grey's Anatomy*.

A physician writer on *ER* told me about a viewer who contacted him after an episode of *ER* saved her life. The viewer had chronic headaches and was not getting answers from her physicians. In the episode, Dr Mark Greene (played by Anthony Edwards) is shown to have a recurrence of his brain tumour when he sticks out his tongue and it deviates to one side. This woman at home went to the mirror and stuck out her tongue. It deviated left as well, and when she immediately went to the emergency room she was diagnosed with a tumour behind her nose. Doctors said she would have died within a few weeks if they had not caught it. She went through chemotherapy and surgery, and is still alive today, ten years later. The woman contacted the physician writer, and he

flew her out to Los Angeles to tour the set of *ER* and meet everyone. She still calls this writer her 'angel.' This is the *ER* Effect at its best.

Conclusion

One of the forensic consultants for medical–legal shows (both fictional and reality television) told me that in her opinion the *CSI* Effect 'is slightly overrated but definitely exists' and that '*CSI* is more technology driven than a lot of other shows' where character storylines draw away from such a technology-heavy focus. The consultant went on to say that the 'technology is ridiculous' and 'if all that worked, there would be no need for actual people.'[25] There are holograms, wildly accurate photo mapping, pixelating and facial recognition computer programs that can be seen on medical–legal or legal–police procedural shows, but do not exist in real life. In stark contrast, almost all of the technology and medical procedures are real on medical shows, which may lead to more accurate understanding by audiences from the *ER* Effect. Shows such as *Grey's Anatomy* work to include the newest technological and scientific advances in their episodes, for example an episode featuring the 'Heart in a Box' device, which the show secured from the man who designed the device directly after Food and Drug Administration (FDA) approval.[22] In this way, the *ER* Effect is more effective at passing along accurate and authentic information to audiences, more so than the *CSI* type shows with fictional technologies.

The *ER* Effect is produced by members of the medical and television community who have taken it upon themselves to self-regulate in order to ensure public health and safety messages are clear and authentic. The doctors and nurses who work on shows, especially since the era of *ER*, push for more realistic portrayals of patients, medicine and disease when depicting brain surgery or heart attacks. This effect from *ER* has left lasting impressions in television production values and subsequently on viewers. When a viewer sees Dr Oz holding up a lung, as he is wont to do, it is probably not the first lung they think they have ever seen. They perhaps saw a pig lung or a modelled silicone lung on a fictional medical show long before Dr Oz was making viewers put on gloves and hold them. *ER* changed the medical landscape for television, introducing audiences to complicated jargon, bloody gowns and rushing around the emergency room. One of the writer/producers of *ER* told me that he did not personally know what 'bradying down' meant, even though he

had written it into hundreds of *ER* scripts. When this writer was in the hospital with a sick family member and heard that phrase 'the patient is bradying down,' he called for help in the hallway because the only thing he knew was 'that was what I put in scripts when things weren't going well with the patient, so I only knew it was really bad.' Even the non-medical writers gained medical information via the *ER* Effect from working on the show. Incidentally, 'bradying down' means that the heart rate of the patient is dangerously slow.

The *ER* Effect ripples not only through the audience, but also through the medical community. Two physicians who worked on *ER* said that applications for medical school went up during *ER*'s highest ratings years, as did the selection of emergency medicine as a specialty; anecdotally, one had heard a rate of over 300%. I spoke to one physician who consulted on a show because of the specific nature of their specialty who told me that if potential physicians are 'getting a sense of how to behave [as a doctor] from TV, they should not be in medicine,' but that people at home wanted to do what the doctors on *ER* did. It has also been reported that 'For their most obvious stabs at realism the creators of both *ER* and *Chicago Hope* turned to the kind of gore and frankness about illnesses that a few years before several people in Hollywood confidently stated that the audience wouldn't accept.'[23] The 'gore' or medically graphic presentation of bodies, diseased and injured bodies, was a larger social phenomenon. The level of graphic realism and this change over time towards more realistic presentation is exemplary of Clarke's visual imagery realised as 'things medical,' whereby audiences began to be interested about what the inside of bodies look like and what physicians really see when patients have been shot or stabbed and come into an emergency room.[7] I interviewed Noah Wyle (Dr John Carter on *ER*) after a physician writer for the show described him as one of the actors most interested in the medicine on *ER*. Wyle told me that early in the run of *ER* his friends would come over to his house and find 'franken-chickens' in his freezer that he used to practise suturing. He, along with other cast members, did 'ride alongs' where they shadowed real emergency room physicians; he read medical textbooks, anatomy and physiology texts, and diaries of medical students to familiarise himself with what life would really be like as an intern. Wyle also admitted that he was ambitious, hungry and 'grew to love the seal of approval from the medical community' conferred upon *ER*.

One of the major criticisms of *ER* and several other medical shows was the lack of industry accuracy with respect to the role of interns and residents. There are claims that '[*ER*] has paid lip service to med ed's "see one, do one, teach one" method … [but] naysayers point out [that in real life] a third-year would never be dispatched to do half the procedures that Carter [on *ER*] gets to do on his own.'[24] Physician writers discussed having committed those medical errors, but for the sake of the storyline. It adds urgency and fear if someone who seems inexperienced is left with the responsibility of saving a life, and when they save someone there is a bigger pay off for the audience and the character. These issues of authenticity and accuracy were raised with my informants often, but they believe that these are negligible and necessary for the drama of the episodes.

Television provides a medical imaginary of what can and should be for bodies within biomedicine: 'The mass media … present a rich, ever-changing store of possible lives, some of which enter the lived imaginations of ordinary people more successfully than others.'[25] Medical narratives and stories are that of life and death, they are scary and uplifting, they make viewers cry and laugh, and these stories are written and set up by physicians and nurses who want them to be better and more accurate. The *ER* Effect demonstrates a crucial transition in medical television whereby when people learn from this kind of graphic, real television, they see something that will shape their biomedical perception.

Notes

1. G. Gerbner, 'Cultivation Analysis: An Overview,' *Mass Communication and Society* 1, no. 3/4 (1998): 175–94.
2. B. Stelter, 'Neilsen Reports Decline in Television Viewing,' *The New York Times*, 3 May 2012.
3. C.P. Kottak, *Prime-Time Society: An Anthropological Analysis of Television and Culture* (Belmont, CA: Wadsworth Publishing Company, 1990).
4. P. Treichler, 'Medicine, Popular Culture and the Power of Narrative: The HIV/AIDS Storyline on General Hospital,' in *Medicine's Moving Pictures*, ed. L. Reagan, N. Tomes and P.A. Treichler (Rochester, NY: University of Rochester Press, 2007) 93–132.
5. D. Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005).
6. M. Foucault, *The Birth of Biopolitics: Lectures at the College Dr France 1978–79*, Ed. M. Senellart (New York: Palgrave Macmillan, 2008).

7. A.E. Clarke, 'The Rise of Medicine to Biomedicalization: U.S. Healthscapes and Iconography, Circa 1890–Present,' in *Biomedicalization: Technoscience, Health, and Illness in the U.S.*, ed. A.E. Clarke, L. Mamo, J.R. Fosket, J.R. Fishman and J.K. Shim (Durham, NC: Duke University Press, 2010), 104–46.
8. G, Vandekieft, 'From *City Hospital* to *ER*: The Evolution of the Television Physician,' in *Cultural Sutures: Medicine and Media*, ed. L.D. Friedman (Durham, NC: Duke University Press, 2004), 215–33.
9. N. Rose, *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century* (Princeton, NJ: Princeton University Press, 2007).
10. H. Gusterson, 'Studying Up Revisited,' *Political and Legal Anthropology Review* 20, no. 1 (1997): 114–19.
11. L. Nader, 'Up the Anthropologist—Perspectives Gained From Studying Up,' in *Reinventing Anthropology*, ed. D. Hymes (New York: Pantheon Books, 1969), 284–311.
12. C. Harris, 'The Evidence Doesn't Lie: Genre Literacy and the CSI Effect,' *Journal of Popular Film and Television* 29, no. 1 (2011): 2–11.
13. S. Cole and R. Dioso, 'Law and the Lab: Do TV Shows Really Affect How Juries Vote? Let's Look at the Evidence,' *Wall Street Journal Online*, 2005.
14. C. Kruse, 'Producing Absolute Truth: *CSI* Science as Wishful Thinking,' *American Anthropologist* 112, no. 1 (2010): 79–91.
15. A.W. Frank, *Letting Stories Breathe: A Socio-Narrative* (Chicago: University of Chicago Press, 2010).
16. L.C. Garro and C. Mattingly, 'Narrative as Construct and Construction,' in *Narrative and the Cultural Construction of Healing and Illness*, ed. C. Mattingly and L.C. Garro (Berkeley: University of California Press, 2000), 1–49.
17. S.J. Diem, J.D. Lantos and J.A. Tulsky, 'Cardiopulmonary Resuscitation on Television: Miracles and Misinformation,' *New England Journal of Medicine* 334 (1996): 1578–82.
18. N. Baer, 'Cardiopulmonary Resuscitation on Television: Exaggerations and Accusations,' *New England Journal of Medicine*, 334 (1996): 1604–6.
19. Kaiser Family FoundationKaiser Family Foundation, 'Documenting the Power of Television – A Survey of Regular E.R. Viewers about Emergency Contraception – Summary of Findings' (2007), available at: http://kff.org/womens-health-policy/poll-finding/documenting-the-power-of-television-a-survey-2/.

20. S.E. Lederer and N. Rogers, 'Media,' in *Companion to Medicine in the Twentieth Century*, ed. R. Cooter and J. Pickstone (London: Routledge, 2003), 487–502.
21. M. Brodie, U. Foehr, V. Rideout, N. Baer, C. Miller, R. Flournoy and D. Altman, 'Communicating Health Information Through the Entertainment Media,' *Health Affairs* 20, no. 1 (2001): 192–9.
22. *Grey's Anatomy*, 'Heart-Shaped Box,' Season 8, Episode 8, Screened 3 November 2011 (United States of America: LIFE, 2011).
23. J. Turow, *Playing Doctor: Television, Storytelling, and Medical Power* (Ann Arbor: The University of Michigan Press, 2010).
24. C. Durso, 'Specialized Television,' *New Physician* 44, no. 1 (1995): 19–22.
25. A. Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis: University of Minnesota Press, 1996).

Bibliography

Appadurai, A. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: University of Minnesota Press, 1996.

Baer, N. 'Cardiopulmonary Resuscitation on Television: Exaggerations and Accusations.' *New England Journal of Medicine* 334 (1996): 1604–6.

Brodie, M., U. Foehr, V. Rideout, N. Baer, C. Miller, R. Flournoy and D. Altman. 'Communicating Health Information Through the Entertainment Media.' *Health Affairs* 20, no.1 (2001): 192–9.

Clarke, A.E., L. Mamo, J.R. Fosket, J.R. Fishman and J.K. Shim, eds. *Biomedicalization: Technoscience, Health, and Illness in the U.S.* Durham, NC: Duke University Press, 2010.

Cole, S. and R. Dioso. 'Law and the Lab: Do TV Shows Really Affect How Juries Vote? Let's Look at the Evidence.' *Wall Street Journal Online*, 2005, available at: http://truthinjustice.org/law-lab.htm.

Cooter, R and J Pickstone, eds. *Companion to Medicine in the Twentieth Century*. London: Routledge, 2003.

Diem, S.J., J.D. Lantos and J.A. Tulsky. 'Cardiopulmonary Resuscitation on Television: Miracles and Misinformation.' *New England Journal of Medicine* 334 (1996): 1578–82.

Durso, C. 'Specialized Television.' *New Physician* 44, no. 1 (1995): 19–22.

Foucault, M. 'The Birth of Biopolitics: Lectures at the College Dr France 1978–79,' Ed. M. Senellart. New York: Palgrave Macmillan, 2008.

Frank, A.W. 'Letting Stories Breathe: A Socio-Narrative.' Chicago: University of Chicago Press, 2010.

Friedman, L.D., ed. *Cultural Sutures: Medicine and Media*. Durham, NC: Duke University Press, 2004.

Garro, L.C. and C. Mattingly, eds. *Narrative and the Cultural Construction of Healing and Illness*. Berkeley: University of California Press, 2000.

Gerbner, G. 'Cultivation Analysis: An Overview.' *Mass Communication and Society* 1 no. 3/4 (1998): 175–94.

Gusterson, H. 'Studying Up Revisited.' *Political and Legal Anthropology Review* 20, no. 1 (1997): 114–9.

Harvey, D. *A Brief History of Neoliberalism*. Oxford: Oxford University Press, 2005.

Hymes, D. Ed. *Reinventing Anthropology*. New York: Pantheon Books, 1969.

Kaiser Family Foundation. 'Documenting the Power of Television—A Survey of Regular E.R. Viewers about Emergency Contraception—Summary of Findings,' 2007, available at: http://kff.org/womens-health-policy/poll-finding/documenting-the-power-of-television-a-survey-2/. Accessed 7 June 2013.

Kottak, C.P. 'Prime-Time Society: An Anthropological Analysis of Television and Culture.' Belmont, CA: Wadsworth Publishing Company, 1990.

Kruse, C. 'Producing Absolute Truth: *CSI* Science as Wishful Thinking.' *American Anthropologist* 112, no. 1 (2010): 79–91.

Reagan, L., N. Tomes and P.A. Treichler, eds. *Medicine's Moving Pictures*. Rochester, NY: University of Rochester Press, 2007.

Rose, N. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century*. Princeton, NJ: Princeton University Press, 2007.

Stelter, B. 'Neilsen Reports Decline in Television Viewing,' *The New York Times,* New York, [Internet] 3 May 2012, [cited 26 August 2015], available at: http://mediadecoder.blogs.nytimes.com/2012/05/03/nielsen-reports-a-decline-in-television-viewing/?_r=0.

Turow, J. *Playing Doctor: Television, Storytelling, and Medical Power*, New and Expanded Ed. Ann Arbor: The University of Michigan Press, 2010.