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## ARTICLE

# Epidemics, public health workers, and ‘heroism’ in cinematic perspective

QIJUN HAN  and DANIEL R. CURTIS 

*During COVID-19, acts of ‘heroism’ – particularly by ordinary people ‘from below’ – have been foregrounded, prompting complicated ethical issues in the public health context. By analysing examples from a large corpus of films about epidemics across the twentieth- and twenty-first centuries, this article investigates how cinema has represented public health workers. We find that the public health worker in epidemic-related films tends to be elite or an authority figure with expertise, often male – whose personal burden and sacrifice goes unrecognised by others, or even directly challenged ‘from below’. However, although the public health worker as ‘ordinary hero’ rarely features, the ‘human’ side of epidemiologists, physicians and bacteriologists – through either personal redemption and a return to more humble roots, or recognition of personal error, questioning of official regulations and authorities, and eccentric and unorthodox behaviour – makes these ‘elite’ figures appear more ordinary, bridging the gap between the two.*

As the struggle with COVID-19 continues to go on, one feature of the societal response has been the appearance of a militaristic terminology – often drawing parallels with war scenarios. The general public, media, and government authorities alike have framed the interaction with the pathogen as a battle against an ‘invisible enemy’, and one led by ‘key workers’ operating on the ‘frontline’. We have heard references to a country’s ‘darkest hour’ – echoing Winston Churchill during the Second World War – and the ringing out of Vera Lynn’s *We’ll Meet Again* and the anti-fascist folk song *Bella Ciao*. Of course, the metaphorical use of war to depict the struggle against disease is not new with COVID-19, but has a long history (Hanson 2008; Flusberg 2018).

As a result, it is perhaps unsurprising that alongside this militaristic terminology, we have also seen ‘heroism’ become a prominent global motif – including also

a related language of traitoring and dereliction of duty. On 22 April 2020, the BBC even led with an article posing the question ‘Will coronavirus change how we define heroes?’. While in previous years more significance has been placed on the cultural trope of the ‘superhero’, or the ‘great public figure’ such as Martin Luther King or Nelson Mandela (for an overview see Allison and Goethals 2011), during COVID-19 the emphasis has turned to acts of heroism from below – essentially ‘ordinary’ people doing their everyday jobs in healthcare, transportation, or food provisioning, helping strangers, but under stressful, pressurised and traumatic conditions, and with great risks to their own personal health and safety. This is perhaps nowhere better illustrated than in the Twitter statement from the Vice President of the United States, Kamala Harris, on 19 January 2021, with ‘... a message for all the little girls and boys out there who dream of growing up to be superheroes: Superheroes walk among us. They’re teachers, doctors, scientists, vaccine researchers – and you can grow up to be like them too’ (2021). Similarly, ‘whistleblowers’ – those revealing institutional or professional malpractices, or simply supplying new pieces of information, often with personal risks involved – have also been presented as forms of ‘quiet’ heroism (for the concept: Brown 2017). Accordingly, these acts are viewed as distinctive from general ‘prosocial’ forms of compassion or altruism (on their blurred lines: Franco, Blau, and Zimbardo 2011). It must be noted, furthermore, that similar developments were seen during Ebola outbreaks in Western Africa in 2014–2015, where ‘hero status’ among communities was attributed more to ‘ordinary insiders’ rather than altruistic interference from outside (Atlani-Dualt et al., 2020).

From these developments, a new ethical debate has arisen. On the one hand, this reframing of the term ‘heroism’ might be viewed positively – giving new-found recognition to ‘forgotten’ or ‘under-appreciated’

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members of society. This could have broader egalitarian consequences – a greater respect for those with lower socio-economic status, and in the context of public health, a greater respect for the social, economic and cultural contribution of migrants, which is of obvious significance given the recent rise of populist governments all across the world standing on the back of nationalism and xenophobia. Furthermore, it has been shown that the majority of ‘key workers’ employed in public health or care-giving roles during COVID-19 are women (Wenham, Smith, and Morgan 2020a; Wenham et al. 2020b) – perhaps altering a reliance on ‘macho’ ideals of bravery or courage, to a ‘relational heroism’ that, according to psychology professor Alice Eagly, ‘is much less dramatic and more personal, that’s not necessarily a sudden act but is more of a continual commitment’ (BBC 2020a).

On the other hand, the reframing of the term ‘heroism’ might also be viewed negatively. Many public health workers, for example, have little choice in the matter and continue to work while frightened or overburdened – sometimes having sub-optimal access to requisite protective clothing (especially in the early stages of the initial outbreak). In a BBC television programme, ‘*Panorama*’, shown during the first spike in COVID cases, one health worker explicitly stated that ‘Calling us heroes just makes it okay when we die’ (2020b). During the second spike in cases, more attention has been put on the deleterious long-term impact on the mental health of those in the medical and care-giving professions. In other words, glorifying their work – and creating assumed fixed notions of medical duty – at this time might be highly unethical. Contemporary and historical work on the subject of ‘who must act’ and ‘what risks must be accepted’ has already pointed to the temporal and political fluidity of medical ethics during epidemic outbreaks (Wallis 2006; Malm et al. 2008). Veneration of heroes, furthermore, may simply be symptomatic of different processes going on: during earlier outbreaks of MRSA in the United Kingdom it was suggested that the symbolic centralisation of institutions such as the NHS simply reflected fear driving nostalgia for an earlier perceived age of order and hygiene (Washer and Joffe 2006).

Perhaps at the most cynical level, it might also be argued that the widespread veneration of new forms of heroism in both the media and among the general public provides a veneer of protection for authorities and governments: their own failures obscured or hidden behind a façade of good will and empathy. In one high-profile case from the United Kingdom, an elderly war veteran’s attempts to raise funds for the

NHS were lauded as ‘heroic’, while the ‘hero’ himself, Captain Sir Thomas Moore, in turn described the NHS staff as the ‘real heroes’ of the ‘front line’. Yet some might argue that media emphasis on emotive stories of giving and compassion deviate public attention from other issues such as long-term structural underfunding of public health in the United Kingdom or underlying institutional dysfunction. Furthermore, tense stand-offs in many mid-western states of the United States of America between protesters against lockdowns and counter-protesting medical workers only serve to highlight the fragile or insecure foundations in which the new ‘ordinary hero’ image is conceived. More recently, ‘*The Economist*’ led with an article titled ‘Health workers become unexpected targets during covid-19’: noting that beyond the cheers, applause and pictures of rainbows, public health workers have also been subject to violent and psychological abuse (2020). During the second spike in infections in the West, some people have started taking to social media such as Twitter to question whether medical staff ‘really are so burdened?’, sharing dubious and poorly contextualised photographs of ‘empty’ hospital corridors.

The role of the media and popular culture in helping forge societal conceptions of what it means to be a hero is, therefore, clearly important. However, just as described above with COVID-19, there is also something of a debate on the effectiveness and ethics of their educational function – perhaps illustrated in the burgeoning sub-field of ‘heroism science’. Some literature has an entirely positive view: the construction of heroes in films, comics and television, for example, may encourage young people and children into decidedly altruistic future roles. Indeed, it has even been suggested that putting health care personnel on the same level as superheroes such as Superman, could conceivably lead to a realignment of children’s idols, and in turn encourage them towards saving lives through education, treatment and research in adulthood (Brown et al. 2016). Anxieties associated with the visualisation of graphic or depressing disease symptoms might also be contained or moderated by weaving plots around heroic medical figures (Tomes 2002, 646). However, not all views are positive. Psychological studies have suggested that while hero images can help uplift young people, inspire hope and comfort, and support identity formation, they can also disappoint, model bad behaviour, and offer unrealistic standards of comparison (Kinsella, English, and McMahon 2020). Other literature has critiqued the assumption that societies create heroes for the better, concluding, when looking to the past, that historical

heroes have rarely served the greater good (Sviderskyte 2019). Furthermore, it is also possible that heroism is broadly conceived of in positive terms, but that does not necessarily validate explicit attempts to deliberately encourage or cultivate heroic behaviour through education or messaging (Beggan 2019).

Given the three-layered debate regarding (a) the definition of the term ‘hero’, (b) the ethics of applying it in the context of public health environments, and (c) whether media and popular culture should be employed to deliberately cultivate heroic behaviour, this article analyzes how public health workers have been represented in the cinematic depiction of epidemic disease outbreaks. What features or characteristics are prominently foregrounded, and for which public health workers? Can they be considered ‘heroic’, and if so, how is that achieved? This links up with the broader question of how hero images have been historically and culturally conditioned. As described above, many societies’ recent and ongoing struggle with COVID-19 has led to the veneration of the ‘ordinary hero’ within public health work – but the question remains whether this is in fact something that can also be discerned in cinematic history, or whether it is something that is a sharp departure from what can be observed in films.

Accordingly, we use a broad definition in this article for public health worker – including figures that could arguably be considered as ‘elites’ or ‘authorities’ such as doctors, scientists, epidemiologists, and bacteriologists, but also others less likely to be considered ‘elites’ such as nurses, care givers, midwives, and vaccination and transportation staff (even though clearly these occupations still require expertise and technical skill). We do this by gathering together illustrative cinematic examples from across the twentieth- and twenty-first centuries (the earliest from 1910), which have been selected from an extensive database of 306 epidemic-related films that served as the foundation behind other recent work on societal responses to epidemics in visual culture (Han and Curtis 2020a, 2021a). The temporal and geographic dimensions of this epidemic-film database is provided in Figure 1 and Table 1. It should be noted that from this database we do not include any film dealing with HIV or AIDS – *Kids* (Larry Clark, 1995), *And The Band Played On* (Roger Spottiswoode, 1993), *Dallas Buyers Club* (Jean-Marc Vallée, 2013), for example – since these are so numerous that they can be placed within their own distinctive cinematic category, and accordingly, have their own long scholarly literature devoted to them within specific contextual debates (illustrative examples include Pearl 2004; Li

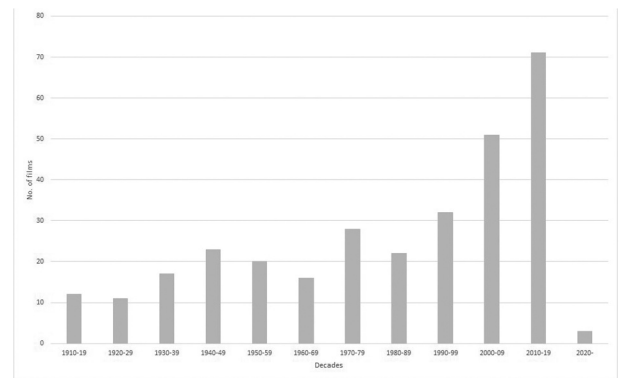


FIGURE 1. Temporal distribution of epidemic-related film database. Source: Film database used in (Han and Curtis 2021a).

2016; Mathijs 2003). Overall, the film examples in this paper have been manually selected from the database based on the prominence of public health workers as characters within the narrative (public health workers are not always foregrounded in epidemic-related films) – but this is not an exhaustive study given the limitations of space and scope.

The significance of this approach is informed by two key points. First, regardless of whether we conceive of linking public health workers and heroic attributes as a ‘good’ or ‘bad’, ‘positive’ or ‘negative’ aspect, it has been shown that films – and visual culture more generally – affect how we think and feel: stories are how we make sense of the world. Accordingly, it has been suggested that by using emotive narratives or relatable characters, films can become effective mediums for delivering messages or reinforcing values – and in the public health context, have implications for how viewers might think about how to act and behave (Wald 2008; Osther 2005; Kendal 2021; Han and Curtis 2020a; Brown et al. 2015; Nasiruddin et al. 2013; Vidal 2018; also, in comics: McNicol 2017). These have been described in psychology as ‘symbolic sense-making processes’ (Wagner, Kronberger, and Seifert 2002). Representing the ‘public face’ of science, general perception can in turn be shaped by popular depictions of scientists (Kirby 2017, 2). If this is the case, then it stands to reason that the representation of different types of public health worker during epidemic situations in cinema might have logical consequences for how we perceive the same people in the real world. Given that many of these public health workers are ‘ordinary’ people, or alternatively are ‘elite’ or ‘authority’ figures that strongly interact with ‘ordinary’ people, films are in a good position to open up these insights since this medium often reflects upon the daily lives of citizens by zooming in on the lives of individual characters.

TABLE 1. Geographic distribution of epidemic-related film database.

Production Country	Continent	No. of epidemic-related films
Argentina	South America	1
Australia	Asia/Oceania	2
Brazil	South America	1
Canada	North America	3
China [Mainland]	Asia/Oceania	18
Czechoslovakia	Europe	1
Denmark	Europe	1
Egypt	Africa	1
France	Europe	6
Germany	Europe	9
Hong Kong	Asia/Oceania	7
India	Asia/Oceania	2
Ireland	Europe	1
Italy	Europe	7
Japan	Asia/Oceania	9
Kenya	Africa	1
Mexico	North America	1
Netherlands	Europe	1
Nigeria	Africa	1
Norway	Europe	1
Russia	Europe	2
South Africa	Africa	2
South Korea	Asia/Oceania	5
Spain	Europe	9
Sweden	Europe	2
Taiwan	Asia/Oceania	3
UK	Europe	30
USA	North America	138
Yugoslavia	Europe	1
Joint Ventures	n/a	40
TOTAL	n/a	306

Source: Film database used in Han and Curtis, 2021a. Note: 'Joint ventures' are films produced with two or more different countries. Country names are those used at the time of film production (Germany includes films produced as West Germany/Federal Republic of Germany).

Second, the focus on public health officials' representation in cinema makes sense within a broader context of the development of the 'medialisation of science' – the mutual relationship between the social systems of science and the mass media. By this, it is suggested that there is in more recent times an increasing tendency to orient scientific approaches and findings towards the interests of the media, since media attention for certain topics is seen as vital for public support, research funding, and outreach and education (Weingart 2012). In recent times, cinema has even been used to teach aspects of disease and healthcare to medical students (Darbyshire and Baker 2012). Thus, for example, in the film *Contagion* (Steven Soderbergh, 2011), many of the cast and crew members visited the CDC for preliminary research before filming in the

interests of developing authenticity. How do developments such as this impact on processes of scientific knowledge presentation to wider audiences, and does this entrench or bring closer together 'lay' and 'official' perspectives on the threat of disease (on this potential divide: Wagner-Egger et al. 2011)? Furthermore, can we see the images and representation of public health workers in high-profile films such as *Contagion* as generalisable and typical of visual culture's attempts to frame epidemics or simply unrepresentative and anomalous?

### THE UNAPPRECIATED PUBLIC HEALTH WORKER

It has been suggested in pioneering new work at the intersection of history, cultural studies and anthropology, that concepts such as the epidemiologist as 'culture hero' in visual or popular culture have roots going back into the past, but at the same time developed or changed across the course of the twentieth century. Some of the earliest depictions of public health officials in post-World War II American television dramas were predominantly male physicians presented as culture heroes by being stripped of their charisma – in the process fostering social cohesion through technical training and skill (i.e., the science) – rather than their own 'innate' qualities of personality (Lyntheris 2016). Emphasis was put on their ability to act with dispassionate rationalisation, routinisation and objectivity rather than give in to their emotions or feelings. This was some departure from the situation in the 1930s, which was more deferential (Jones 2001, 1997), where trained doctors often had distinctive personalities and were partially integrated members of local communities themselves (Lederer and Rogers [2000] 2003, 492–3). Thus, in films such as *Panic on the Streets* (Elia Kazan, 1950), *The Killer That Stalked New York* (Earl McEvoy, 1950), *80,000 Suspects* (Val Guest, 1963), and *Morte a Venezia* (Luchino Visconti, 1971), public health officials – sometimes working in conjunction with political authorities – are often found holding back certain amounts of information from the general public to maintain 'social cohesion' and avoid panicked or extreme responses (Han and Curtis 2020a).

By the later phases of the twentieth century, however, the concept of the culture hero had changed. The epidemiologist was now the embodiment – and thus in the words of Lyntheris, the 'restoration' – of humanity: an interpretation that emphasises the 'human qualities' of the medical professional, alongside their technical skills (2016). By this, specific reference is made to characteristics such as emotion, compassion, disobedience during times of stress brought about the



threat of an epidemic, and breaking the rules to ‘put civil and medical duty above orders’. Indeed, while in *Panic on the Streets*, the US Public Health Service and police form an uneasy agreement not to notify the press of a pneumonic plague death, and the doctor is merely a sidekick to the police captain, films such as *The Crazies* (George A. Romero, 1973) began to zoom in on the tensions between medical or scientific expertise and political or military authority. Accordingly, by the 1990s we see typical situations such as the doctor who realises her patient has died of bubonic plague in *Quiet Killer* (Sheldon Larry, 1992), and then acts against the authorities by attempting to warn New York’s citizens – with considerable push-back and resistance from the city mayor.

This ‘restoration of humanity’ thesis is complex and broadly convincing, but one might also ask whether the two (non-zombie-related) films that Lynteris focuses on – *Outbreak* (Wolfgang Petersen, 1995) and *Contagion* – are wholly representative of a wider pool of epidemic-related films: indeed, we already noted that *Contagion* was very unusual in its deep integration of actual disease prevention and public health expertise. Overall, we also note that the heroic image of the public health worker in many other epidemic-related films often rests on other cinematic devices that centre on distrust (Han and Curtis 2020b). A recurring theme running through many of these films dealing with societal responses to epidemics is the emphasis on the sacrifices made by public health workers – especially ‘authority’ figures such as doctors and high-level scientists – that

sometimes even lead to the ultimate self-sacrifice, where the performance of duty and responsibility to other people’s well-being contributes to an untimely death. Thus, for example, in the recent high-grossing Chinese film *Wolf Warrior 2* (Wu Jing, 2017), based on a fictional epidemic outbreak of ‘Lamanla’ in Africa (but with obvious parallels to Ebola), the medic who has developed the cure, Dr. Chen (Guo Qiucheng) is shot by a guard and dies in the process of trying to protect his daughter who has developed antibodies – though not before revealing the location of other hostages with his last words. However, a key device employed within many other films is not only to merely make the audience aware of this sacrifice, but its power is found in operating in combination with the fact that the characters around the medic – broader community and society – often fail to recognise or even give cursory acknowledgement to the sacrifice.

Even in *Contagion* itself, already well addressed by Lynteris, this is clearly the case – with one of the most prominent examples being that of Dr. Erin Mears (Kate Winslet), an Epidemic Intelligence Officer, who begins investigating a community outbreak in Minneapolis but in the process is infected herself. Despite warnings from a colleague, she continues to concern herself more with the welfare of others, and in her final act, she is seen selflessly passing a coat to another sick person for warmth before dying, as depicted in Figure 2 below. The significance of this sacrificial scene is elevated by working in combination with other events elsewhere. A plane originally intended to evacuate Dr. Mears while



FIGURE 2. Film still from *Contagion* (Steven Soderbergh, 2011).

alive, is diverted to pick up ‘important’ political officials instead, which sharply contrasts with Dr. Mears’s final scene where she hastily zipped into a body bag and thrown into a mass burial site – a cold and brutal scene that emphasises her selfless efforts that remain unacknowledged. The recurring theme of women sacrificing themselves for the ‘greater good’ of the wider community in the cinematic depiction of epidemics has been highlighted in recent literature (Han and Curtis 2021b).

It should be recognised that Dr. Mears is, at the very least, one of the few female ‘elite’ public health workers displaying expertise and skill during epidemics – even if it goes unappreciated within the film narrative. Many negative or stereotypical film representations of women in science remain commonplace (Flicker 2003; Steinke 2005, 1997; Kasi Jackson 2011; Elena 1997) – with simply incompetent, easily dismissed or ‘unstable’ female images in epidemic-related films such as Dr. Kim In-Hae (Soo-Ae) in *Flu* (Kim Sung-su, 2013), Dr. Rachel Prescott Smith (Celina Jade) in *Wolf Warrior 2*, and ‘Susan’ (Eva Green) in *Perfect Sense* (David Mackenzie, 2011) – despite the attempts of several organisations that have tried to nuance and diversify the images of female health workers in entertainment, such as the Geena Davis Institute on Gender in Media and the German organisation, MINTiFF (Kirby 2017, 11).

In other films such as *The Painted Veil* (John Curran, 2006), the third film adaptation of a 1925 novel by

English playwright W. Somerset Maugham, the central male protagonist, Dr. Walter Fane (Edward Norton), a British bacteriologist, is seemingly presented as a ‘heroic’ figure – risking his own life voluntarily in order to help bring a cholera outbreak under control in a rural and isolated area of 1920s China. This image is developed through an Orientalist imagination of a ‘backwards’ or ‘primitive’ Chinese village, being ‘saved’ – in many cases from themselves – by the noble intentions of a ‘white knight’ bringing knowledge, education and ‘civility’. Indeed, Dr. Fane introduces all the latest advances in germ theory understanding of how diseases spread, which is placed in contrast to the rural villagers still clinging to miasmatic principles. Much of this narrative is built upon the combination of professionalism (working late into the night with his notes), the voluntary nature of his work, and self-sacrifice – his final attempts to install a quarantine of new arrivals into the village leading to his grisly death from cholera in a camp, next to his grieving widow, Kitty (Naomi Watts). However, the strength of this self-sacrificial message that the film attempts to convey is only heightened when these things are combined with the lack of recognition of Walter’s efforts from the village itself. Throughout the film, Walter’s interventions are not well accepted by the local villagers – especially on the issue of disposal of corpses or closing off the local water supplies – and this distrust is further couched within a broader framework of nationalistic fervour (set within the context of the anti-imperialist May Thirtieth Movement) which leads to violent threats against himself and his wife (Han and



FIGURE 3. Film still from *The Painted Veil* (John Curran, 2006) at the water well.





FIGURE 4. Film still from *The Painted Veil* (John Curran, 2006) at the burial site.

Curtis 2020b). Indeed, the only time that the Chinese villagers are brought into the viewer's consciousness is during mass collective resistance – reflective of a homogenous whole rather than as individual agents – with faces contorted in anger at the foreign bacteriologist's interventions (see Figure 3–4). This even has some parallels with the first film adaptation produced in 1934 (Richard Boleslawski) – more than 70 years beforehand – where Walter (Herbert Marshall) is stabbed during a protest from villagers who are understandably upset at the prospect of having their homes burned to the ground to guard against infection. The original poster shows the 'faceless collective' of the Chinese villagers, the dark shaded faces of the peasants, and their dubious intentions with one wielding a knife in the bacteriologist's direction (see Figure 5).

Indeed, this very same distrust of the intentions of medical authorities has been shown in very different types of films – from those dramatising the lives of real medical figures to those presenting the most fantastical and unrealistic zombie infection scenarios. Of the first kind of film, we can point to both older and more recent films from China such as *Shen yi bian que* (Yin Cui, 1985) and *Fall of Ming [Da Ming jie]* (Jing Wang, 2013), about real-life physicians Bian Que and Wu Youke, respectively, whose ideas were initially rejected by authorities and broader communities alike. For the second kind of film, we can point to the events depicted in the U.S. film *Dawn of the Dead* (George A. Romero, 1978), which presented Dr. Millard Rausch (Richard France) as decidedly unempathetic and strictly logical – and, accordingly, in the process coming into heated arguments with media personalities and



FIGURE 5. Original film poster for *The Painted Veil* (Richard Boleslawski, 1934).

ordinary people. In other cases, it is not lack of empathy per se, but the inability to articulate ideas, thoughts and feelings. For example, in the Japanese film, *Kansen rettô* (Takahisa Zeze, 2009), a medical officer from the WHO, Dr. Eiko Kobayashi (Rei Dan), may be devoted and



professional (also self-sacrificially dying in the end) – but she is also presented as a poor communicator, coming into conflict with other doctors from the local hospital, and failing to explain procedures and practices to patients – thus appearing abrupt and cold. And returning to Dr. Walter Fane in *The Painted Veil*, he may be selfless and professional – self-sacrificial even – but this is combined with arrogance, that directly leads him into conflict with the villagers, with an army general, Colonel Yu (Anthony Wong), with a local warlord (a relationship that needed to be mediated by Colonel Yu), and perhaps most tellingly with his own wife throughout much of the film.

This initial outright rejection of a doctor's theories or hypotheses – especially regarding the origins of an epidemic disease outbreak – have also had a very long role in cinematic history. For example, in *Yellow Jack* (George B. Seitz, 1938), the film dramatises the real-life events concerning the attempts to diagnose and deal with yellow fever – zooming in on Dr. Carlos Finlay (Charles Coburn) and the discreditation of his theory that it was caused by the bites of infected *Aedes aegypti* mosquitos. Two years later, in *Dr. Ehrlich's Magic Bullet* (William Dieterle, 1940), comparable distrust and lack of peer support is seen in the dramatisation of Dr. Paul Ehrlich's (Edward G. Robinson) real-life experimentation with the injection of chemicals into the blood to fight infectious diseases such as tuberculosis, diphtheria, and syphilis. Similar breakdowns in the relationship between medic and community can be seen in the earlier film of *Doctor Bull* (John Ford, 1933), however, in this case, with important twists. Here, the members of the small New England community hold a formal meeting and decide to replace the 'old fashioned' physician (Will Rogers) with a new doctor 'from outside' – in the context of local gossip about Dr. Bull's close relationship with a local widow (Vera Allen) and a disturbing outbreak of typhoid fever. Elsewhere, in *A Man to Remember* (Garson Kanin, 1938), Dr. John Abbott (Edward Ellis) is unable to convince important local figures to cancel the county fair, on the grounds of a likely outbreak of polio – and by breaking the rules is suspended by the county medical association. Only later is Dr. Abbott proved right about the epidemic – recognised by the community for his humanitarian work, but by this time, he has died peacefully in his bed.

Thus, the self-sacrificial representation of public health workers within epidemics-related films often has tended to be established on the back of their efforts being unrecognised by other film characters – and in many cases an active level of distrust or disagreement.

Accordingly, it is important to also note that 'ordinary heroes' recognised today during COVID-19 have rarely made an appearance in films about epidemics – indeed, nurses, vaccination workers, and care-givers have not generally been placed at the centre of the narratives during any period of cinematic history. Thus, in the aforementioned dramatisation of treating yellow fever, *Yellow Jack*, for example, the film fails entirely to show the death of trialist Clara Maas, an ordinary nurse, who volunteered under the false impression of immunity (Wijdicts 2020, 74). The public health worker in the cinematic context has remained the preserve of the 'authority' or the 'elite' figure, usually male, and in fact, if anything, one of the key devices within many of these films tends to be that the communities from below (who are generally not public health workers) often are presented in opposition to, or at least very different to, the attitudes, values and beliefs of the professional physicians, bacteriologists or epidemiologists that tend to come from 'outside'. However, in the next section, we suggest that one way in which these types of more 'elite' medical professionals are able to 'come closer' to the 'ordinary community' in some films is through their flaws or limitations – thus becoming 'more human' as a result.

### NARROWING THE GAP IN PUBLIC HEALTH: 'ELITES' BECOMING 'ORDINARY'

Although scientists are increasingly portrayed as 'good' or 'decent' in visual and popular culture, there still remains a tendency to mark their characters out as eccentric and socially awkward – social attributes perhaps once considered negative in many contexts, but nowadays less obviously so (Kirby 2017; Flores 2002; Frayling 2005; Haynes 2017; Weingart, Muhl, and Pansegrau 2003). In some cases, this is even turned into a positive: in films concerning epidemics, public health officials have, at times, become mavericks – see, for example, the courageous and principled determination of *Outbreak's* Sam Daniels (Dustin Hoffman) under pressure from bureaucratic forces from above (Lynteris, 2016). Indeed, although as described above, 'ordinary heroes' in public health are rarely foregrounded in cinema, what is more often the case is that 'elite' or 'authority' public health workers with specialist expertise – doctors, scientists, epidemiologists and so on – take on characteristics and traits that bring them closer to the 'ordinary'.

One way in which epidemic-related films have done this is by employing a frequent narrative device that includes the elite medical professional's personal recognition of error or guilt – and the feeling of

culpability generated from it. This kind of self-conscious critique of the moral and ethical practices can be seen in *The Andromeda Strain* (Robert Wise, 1971), where in one scene a laboratory worker, Dr. Jeremy Stone (Arthur Hill), exclaims 'We're not here to make accusations! We have a job to do, purely as scientists', and yet is countered by his colleague, Dr. Ruth Leavitt (Kate Reid), who sceptically replies: 'Maybe not so pure'. In the already-mentioned *Kansen rettô*, Dr. Tsuyoshi Matsuoka (Satoshi Tsumabuki) feels a personal responsibility to be on the frontline at the hospital to deal with the virus, since he treated the first patient – initially misdiagnosing it as a 'common cold'. The same can be seen in *Contagion*, where the director of the CDC (Laurence Fishburne) also takes direct responsibility for perceived mistakes: accepting with humility the investigation into his behaviour, after he had told his fiancée to evacuate before announcing it publicly. However, it should also be noted, that Dr. Cheever himself explicitly declares that he would do the very same again – given the option – which accords very closely with Lynteris's emphasis on the importance of certain 'human qualities' that extend beyond basic technical skills. Dr. Cheever is also found rectifying self-determined failures to stick to his basic moral code. At the end of the film, he gives up the right to an early vaccine, instead swapping his wristband with a small boy from a poorer family – likely because of guilt over a hasty or dismissive exchange with his father earlier in the film. Although tempting to see the medic's willingness to break the rules as something very modern, similar scenes can be picked out even from pre-Second World War films such as *Dr. Ehrlich's Magic Bullet*, where Dr. Ehrlich is effectively dismissed by his hospital for disregarding bureaucratic regulations, or Dr. Bull in *Doctor Bull*, who decides to steadfastly stick to his own principles rather than bow to social pressures or administrative precedents.

Indeed, this conception of the public health official becoming closer to the 'ordinary' may even have its roots in earlier epidemic-related films, where the outbreak of a deadly disease becomes the context behind the personal redemption of a medic – bringing them out of the 'darkness' and closer to their 'original calling' as someone devoted to tending to the sick, and in the process presenting public health practice as an intrinsically 'honourable' task. In *The Proud and the Beautiful* (Yves Allégret, 1953), a Franco-Mexican co-production, nominated for an Academy Award, and adapted from previous work by Jean-Paul Sartre, the story centres on a doctor (Gérard Philippe) who has essentially abandoned himself to drink and depression. The moral degradation of the doctor is epitomised by the fact that he

had operated on his wife during childbirth, while under the influence of alcohol, leading to her death. In line with many of the 'existentialist' disease-society cinematic presentations of the post Second World War period that display angst or pessimism over social values, and reflect upon the strengths or weaknesses of human relationships, such as *Singoalla* (Christian-Jaque, 1949), *The Seventh Seal* (Ingmar Bergman, 1957), *The Masque of the Red Death* (Roger Corman, 1964; adapted by Larry Brand/ Jeffrey Delman, 1989) *Epidemic* (Lars von Trier, 1987), *The Plague* (Luis Puenzo, 1992), and *Black Death* (Christopher Smith, 2010), the dejected doctor questions life and its callous meaninglessness. However, his moral redemption lies in the epidemic outbreak itself – apparently meningitis – giving him new cause to respond to the needs of the vulnerable around him, and his 'rebirth' is complete when he decides to resume practice and finds love in the arms of the female protagonist (Michèle Morgan), who herself, had lost her husband to the sickness.

Although less extreme, a similar course of events can be traced in *Arrowsmith* (John Ford, 1931), based around an outbreak of bubonic plague on a Caribbean island. In the beginning, the key protagonist, Martin Arrowsmith (Ronald Colman), is keen to use his knowledge with a particular cow serum to help humanity, but along the way 'loses himself' by only treating half the native population in order to test its effectiveness – and in the process loses his colleague, Gustav Sondelius (Richard Bennett), and his own wife, Leora (Helen Hayes), to the disease. Only the trauma of these events pushes Arrowsmith back to these roots: abandoning scientific regulations to simply treat the whole population, saving many lives, and in the end quitting the formal institute, to join his friend Terry Wickett (Russell Hopton) in a small-scale laboratory to do 'real' research. This narrative is further exemplified by the fact that at the beginning of the film, Arrowsmith had already declined a prestigious research role to follow his heart and setup a small practice in his wife's tranquil rural home town. Accordingly, while many of the post-Second World War films may have presented senior physicians as stern, detached and without charisma, this pre-war film brought the 'educated' medic closer to humanity by returning to his humbler roots. This same trajectory was seen in the British film, *The Citadel* (King Vidor, 1938), where during a battle with tuberculosis, Dr. Andrew Manson (Robert Donat) becomes seduced by the lure of money treating rich hypochondriacs, and only the tragic death of his diligent and ethical friend, also a doctor, convinces him to return to more meaningful work treating poor patients living in squalor (McKibben 2008). Once again,

like in *The Proud and the Beautiful*, it is the intervention of the male doctor's wife, Christine (Rosalind Russell), that acts as the instigator for pushing Dr. Manson onto his 'original' or 'proper' path.

It should be noted that those medics that fail to 'narrow the gap' between 'elite' and 'ordinary' tend to be presented in epidemics-related films as the failures of the story. In *Blindness* (Fernando Meirelles, 2008), for example, a film dealing with a contagious disease that leads to the field of vision of anyone afflicted turning wholly white, the main male protagonist and medical authority, ophthalmologist (Mark Ruffalo), is presented in fairly negative terms. When thrown into the isolation facility along with a host of other infected characters, as an educated medic, he begins the film as his own ward's 'official representative' on the grounds of knowledge and power. However, as the conditions within the facility worsen over time, with no apparent hope of reprieve, his place within the institutional hierarchy diminishes, becoming usurped by a host of other – mainly female – characters, and especially by his own wife (Julianne Moore), who has retained her sight. His fall from grace is completed when he is found having extra-marital sex with a woman presented as an escort (Alice Braga) – a moral failure given that his wife has spent most of the film helping and supporting him and others – and only exacerbated further by the forgiveness shown by the wife. In Figure 6 below, we see the embrace of the two women – offering support, comfort and consolation – and thus not only reinforcing the 'caring wife' image, but also a form of sisterhood, while the male ophthalmologist

is presented as an outsider on the periphery. Indeed, the case of the female usurpation of the male ophthalmologist in *Blindness* has resonance with other recent research into the gendered culture of scientific competence – where the ineffectual male scientist is portrayed as experiencing a process of emasculation (Orthia and Morgain 2016).

## CONCLUSION

When returning to the themes discussed at the beginning of the paper, we may ask ourselves which public health workers are at the centre of films focusing on epidemic disease outbreaks, what features or characteristics are frequently highlighted, and can we consider them as heroic – and if so, why? Overall, we realise that the 'ordinary hero' image perpetuated during the outbreak of COVID-19 (particularly during the early phases) – culminating in the veneration of nurses, care-workers, and even whistle-blowers – is not something directly discernible in the depiction of social responses to epidemics in film; neither in the distant past, modern history, nor as a contemporary trend. Generally speaking, the main public health workers foregrounded at the centre of film narratives are epidemiologists or physicians defined by their expertise or technical ability, and often are found to be offering professionalism or sacrifice that goes unrecognised by broader society – or perhaps even directly challenged or dismissed. The motif of self-sacrifice despite underappreciation becomes a key component of their heroic portrayal. In contrast to the contemporary feminisation of the medical profession



FIGURE 6. Film still from *Blindness* (Fernando Meirelles, 2008).

(Ramakrishnan, Sambuco, and Jaggi 2014; Shannon et al. 2019; Phillips and Austin 2009), many of the ‘expert heroes’ in epidemic-related cinema are men, while women instead, are instrumentalized within the films as ways of reminding these men about their ‘original calling’ or set them on the ‘straight and narrow’.

Accordingly, if there are ‘heroes from below’ in these films – more in line with the COVID-19 experience thus far – they generally do not belong to the broader category of public health worker consisting of nurses, midwives, and other forms of caregiver. Instead, the favourable popular images in epidemics-related films often reside within the personal characteristics of medics themselves – frequently (though not exclusively) male expert epidemiologists, physicians and bacteriologists showing a ‘human’ side of themselves that goes some way to bridging the gap between ‘elite’ and ‘ordinary’. Interestingly, their expertise sets these figures aside as ‘deviants’ when working within communities – Dr. Walter Fane in *The Painted Veil* is a case in point – and yet, communities start to accept this difference when these elite or expert figures start to make concessions. In older films this manifested itself in personal redemption, a humbling, or even a physical return to the ‘ordinary’ small scale, small town or rural roots, while in more modern films this could range from recognition of personal error, questioning of official regulations and authorities, or forms of eccentric or unorthodox behaviour that perhaps deviate from the status quo. It remains to be seen whether COVID-19 will lead to the foregrounding of new types of public health hero in cinema in the following years: that is to say, whether we see a departure from the ‘cinematic public health hero’ that is a doctor or other kind of ‘expert’, self-sacrificing, and overwhelmingly male, to one more in line with the ‘ordinary hero’ that we are seeing, for the most part, venerated today.

## CONTRIBUTOR STATEMENT

Both authors contributed equally to the research and writing of this article.

## DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

## ETHICS STATEMENT

Patients or the public were not involved in the design, or conduct, or reporting, or dissemination plans of our research.

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