



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



# Audience readings of media messages about MRSA

P. Washer<sup>a</sup>, H. Joffe<sup>b,\*</sup>, C. Solberg<sup>b</sup>

<sup>a</sup> *Division of Surgery, Oncology, Reproductive Biology and Anaesthetics, Imperial College London, London, UK*

<sup>b</sup> *Division of Psychology and Language Sciences, University College London, London, UK*

Received 24 April 2008; accepted 16 May 2008

Available online 14 July 2008

## KEYWORDS

Meticillin-resistant *Staphylococcus aureus*; Public perceptions; Media; London

**Summary** This paper explores whether, and to what extent, national newspaper messages tally with public perceptions about meticillin-resistant *Staphylococcus aureus* (MRSA). It compares research on media messages about MRSA with interview data gathered from a demographically diverse sample of 60 people interviewed from the Greater London area. Across the interview sample there was a shared consensus that most people associated MRSA not with the history of antibiotic use, but with dirty and poorly managed hospitals. Some media messages, such as blaming MRSA on the alleged 'management culture' of the NHS, seemed to capture the *Zeitgeist*, whereas others, in particular the 'celebrity victims' of MRSA, did not seem to resonate with the audience. This study also found that ideas based on scientific understandings about germ theory and the immune system were held alongside folklore such as miasmatic theory. The comparison of media and mind thus points to the existence of pre-scientific understandings of germs, contagion and blame in parallel with the biomedical story in the minds of the public. The findings contribute to our understanding of the public and patients' views of this infection.

© 2008 The Hospital Infection Society. Published by Elsevier Ltd. All rights reserved.

## Introduction

This discussion paper examines how media messages about meticillin-resistant *Staphylococcus*

*aureus* (MRSA) are received and processed by the public, in order to gauge whether, and to what extent, the public's account of MRSA is shaped by media representations.

Various types of media studies have examined the relationship between the triad of the scientific understanding of a phenomenon, the media representation of that science and the beliefs of the audience or the general public. Media studies

\* Corresponding author. Address: Department of Psychology and Language Sciences, University College London, Gower Street, London WC1E 6BT, UK. Tel.: +44 207 679 5370.

E-mail address: [h.joffe@ucl.ac.uk](mailto:h.joffe@ucl.ac.uk)

research rarely identifies a simple, one-way causal route from science via media to public. Early notions that the media somehow directly inject ideas into people's minds have now been largely discredited.<sup>1</sup> Rather than a uniform audience, audience research proposes a picture of multiple types of audiences, all with diverse social characteristics and viewing practices.<sup>2</sup> Meaning lies not only in the text, but in the way the audience responds to the particular item, which may be influenced by class, gender, sexual and ethnic identity, as well as the wider cultural context.<sup>1</sup>

## Media messages about MRSA

The British public has been exposed to various media messages concerning MRSA. A study of MRSA in four national UK newspapers over a 10-year period up to 2005 found that MRSA tended to be described in terms of a doomsday scenario, apparently heralding the end of the antibiotic age.<sup>3</sup> Modern medicine was seen to be powerless against the new threat unless a 'medical miracle' was to be discovered. There was little discussion in the media on the genesis of MRSA in terms of the over-prescription of antibiotics, instead the media tended to focus on the reasons why MRSA was spreading. Often the issue of the spread of MRSA, which was attributed to poor hospital hygiene, was elided with the cause of it, so that dirty hospitals were thought to somehow generate MRSA. The blame for new epidemics of infectious diseases is often directed outwards, to *the other*: either 'foreigners' or to out-groups from within the host society.<sup>4</sup> However, the blame for the MRSA problem was directed at the poor hygienic standards and practices of healthcare staff and hospitals, particularly inadequate management of hospital cleaners. In the lead up to the 2005 British general election, MRSA became increasingly politicised, particularly by being linked to deregulation and privatisation of National Health Service (NHS) cleaning services. Thus MRSA became a potent political symbol of the decline and decay of the NHS and served both political parties as a rallying call for improvements in NHS funding and management.

If the allegedly poor state of the NHS was symbolised by the 'hospital superbug', then in the media reports the solution to the problem lay in the return of the matron. This old fashioned (female) authority figure would roll up her sleeves and return the NHS to an imagined 'golden age' when hospitals were orderly, clean and safe. Thus solutions to MRSA were not thought to lie with

conventional medicine, for example, with new antibiotics. This was further demonstrated by the plethora of alternative medicines and unconventional prophylaxes proposed, often linked to notions of 'boosting the immune system'. Another feature of this generally non-medical media portrayal of MRSA was the personalised stories of people who had succumbed to the infection. These were generally celebrities or people who had contracted the disease under special circumstances, such as in maternity wards.

## Audience reception of these media messages

How, and to what extent, do the media messages shape the audience perception of MRSA? We interviewed a purposive sample of 60 members of the public from the Greater London area and asked them what came to mind when they heard of the term MRSA. The sample was composed of equal numbers of men and women, and of broadsheet and tabloid newspaper readers. Half of the sample had spent at least one night as an inpatient in hospital in the 12 months prior to the interview. The results of this audience research have been reported in detail elsewhere.<sup>5</sup> This discussion paper adds to the literature by comparing the media accounts with the audience accounts of MRSA.

For almost all respondents, MRSA was associated with dirty hospitals. In particular, NHS hospitals were regarded as sources of contamination, and often compared unfavourably to private hospitals. The ubiquity of this association was particularly striking as it confounded traditional notions of hospitals as being places where the sick go to be cured. Instead, there was a widespread feeling that the danger was that, 'you would go in with something minor and come out with MRSA'. This audience representation certainly mirrors the furore in the newspapers about dirty hospitals causing MRSA. The scientific view, which would argue that the genesis of MRSA lies in the excessive use of antibiotics, was not prominent in the media. In the audience this scientific view was prominent among broadsheet-reading men; otherwise it did not feature in the audience representation.

The focus on dirt and the hazards posed by dirty hospitals resonates with Mary Douglas' seminal anthropological work on purity and pollution, in which she compared modern ideas of defilement and those of 'primitive' cultures.<sup>6</sup> For her, there are notable differences between the modern and 'primitive' notions of dirt. The first is that dirt

avoidance in 'primitive' societies is related to religion, for example, the food prohibitions in the Old Testament, whereas for a modern European it is not. The second difference is that modern ideas about dirt are dominated by our knowledge of pathogenic organisms, which stem from the advances in bacteriology over the past century.

Modern scientific understanding would interpret even the most exotic of ancient rites in terms of modern notions of hygiene and germ theory. For example, the prohibition against eating pigs in the Bible would be interpreted as a result of the dangers of eating pork in hot climates. Douglas rejects this scientific materialist view, but she also rejects the opposite view that primitive rituals are purely symbolic, and have nothing in common with our modern scientifically grounded ideas of cleanliness. Instead, she argues that our modern ideas of dirt and dirt avoidance, although rooted in modern notions of germ theory, carry traces of pre-bacteriological notions, and thus also express more primitive symbolic systems.

If we can abstract pathogenicity and hygiene from our notion of dirt, we are left with the old definition of dirt as matter out of place. This is a very suggestive approach. It implies two conditions: a set of ordered relations and a contravention of that order. Dirt then is never a unique isolated event. Where there is dirt, there is system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements.<sup>6</sup>

Applying this to current data, we see that dirty hospitals fundamentally threaten the notion of the hospital as a place of safety and of cure. Instead, dirt and the threat of contamination symbolise unpredictability, chaos and the contravention of order. Our respondents' responses to this threat – their use of antibacterial gels, calls for improvements in hospital cleaning, and bringing into hospital their own cleaning products such as antibacterial wipes – have a sound materialist function to contain and reduce dirt and to minimise the risk of contamination with MRSA. Yet these also express a symbolic system of containing the threat by imposing ritual and order against an unseen and little understood danger.

Another glimpse of a pre-scientific notion of contamination can be found in some respondents' talk of MRSA coming from the 'bad air' in hospitals. The idea that epidemics of infectious disease were caused by the putrid miasmas arising from decaying organic matter, cesspools, corpses and marshes was widespread right up to the 19th century.<sup>7</sup> During the medieval period the main protection against infectious disease was by fumigation via

the burning of incense, herbs and aromatic essences. The belief was that disease was spread by corrupted air, distinguishable from pure air by its noxious smell, so the way to contain epidemics was by removing evil odours.<sup>7</sup> Respondents in this study connected the bad smells one encounters in hospitals with the threat of MRSA, a point of view that harks back to this pre-scientific understanding of contagion. The 'sterile' smell of disinfectant in hospitals was an important signifier of hygiene.

Rather than envisaging the contradictions of pre-scientific/scientific concepts of dirt and contagion as an either/or, respondents apparently carried both sets of ideas simultaneously. Thus their proposed solutions for tackling MRSA come into focus as an attempt not only to allay the spread of pathogens, but at the same time to impose pattern and order on dirt/non-dirt. As Douglas puts it, 'When we honestly reflect on our busy scrubblings and cleanings in this light we know that we are not mainly trying to avoid disease. We are separating, placing boundaries, making visible statements'.<sup>6</sup> Many respondents did not trust hospital cleaners and their managers. Those who had been hospital inpatients described bringing their own cleaning products into hospital, such as antibacterial wipes, which they used on surfaces of hospital bedside trolleys and cabinets to protect themselves from MRSA. As we will see below, the calls for return of the matron also expressed this desire for old-fashioned order.

Another striking point about our respondents' views concerning MRSA is that although they had much to say about it and felt it was a dangerous threat, they did not feel that they were personally at risk from it. Research into representations of other infectious diseases demonstrates that one way that people distance the threat they may feel from contracting an infectious disease is to negatively associate it with *the other*. *Others* are said to be at risk of a disease, or are blamed for spreading it, because of particular traits or practices which 'they' have but which 'we' lack. *Others* are said to be dirty, have bizarre rituals, eat disgusting food and have perverted or promiscuous sex.<sup>4</sup> The 'Spanish' Flu epidemic of 1918 and 'German' measles are two examples of *othering* that have entered the English language. More recent examples of association of an epidemic with a particular group of 'foreigners' include early US associations of acquired immune deficiency syndrome (AIDS) with Haiti, or the 2003 severe acute respiratory syndrome (SARS) epidemic with the Chinese.<sup>8–10</sup> Yet in the case of MRSA, this distancing works in a tangential way, centred around

notions of the healthy self and diseased *other*, but combined with modern notions of the centrality of the immune system to health. The 'not me/not my group' in this case are not 'foreigners' or out-groups, but those with 'weakened immune systems'.<sup>4</sup>

Martin's history of the meaning of the immune system tracks the transformation from understandings in the 1940s, when the most important threats to health were thought to lie in the environment just outside the body.<sup>11</sup> The main defence was then thought to be preventing the entrance of germs into the body, through cleanliness, washing and personal habits (such as not touching the mouth with the hands). Only after 1954, when gammaglobulin became available, and before the Salk vaccine, did (US) popular periodicals turn their attention to what was going on inside the body. In the 1960s and 1970s attention to defences within the body increased, and as the interior came into focus, concern with hygiene and the cleanliness of the outside surfaces of the body diminished. The appearance of AIDS in the 1980s enormously increased interest in the immune system for both scientific and non-scientific audiences. The present data suggest that the pre-1960s notions of personal cleanliness and washing retain a strong cultural resonance in locating the threat outside the body. Yet at the same time, the notion of the immune system as something that can be 'boosted' to prevent MRSA speaks to post-1980s, post-AIDS notions of self-help and an interest in alternative therapies.

The respondents blamed the MRSA problem on hospital cleaners and poor NHS management and under-funding. The blame for MRSA resided in the new 'management culture' of the NHS. Respondents' calls for the return of the matron figure echoed the newspaper accounts and UK government policy, which has seen the reintroduction of the role of 'modern matrons'. Since 1999, more than 3000 matrons have been appointed across the NHS with the power to withhold payment for poor cleaning services, either from the in-house service or the external contractor.<sup>12</sup> Interestingly, many of our respondents proposed the reintroduction of the matron. They were not aware that this had already occurred. Trust-building measures of this kind are clearly not as newsworthy or as memorable as the trust-destroying story of MRSA.

One of the common ways that people make sense of a novel, complicated and frightening occurrence is by connecting it with more familiar past events. This at once invests it with new meaning through transferring existing meanings onto it, and also suggests the potential for its

control, through association with previously managed epidemics.<sup>13</sup> These connections are by no means random. For example, the early media coverage of 'mad cow disease' connected it to veterinary diseases, which underplayed the threat to human health. Once the link between bovine spongiform encephalitis (BSE) in cows and variant Creutzfeldt–Jakob disease (vCJD) in humans was made in 1996, vCJD was described in terms of AIDS, thus highlighting the potential risk to human health.<sup>14</sup> Respondents generally talked about MRSA in terms of the 'flu' or the common cold, although they felt that MRSA was more serious; few respondents linked MRSA to a range of more serious epidemics, such as Legionnaires' disease.

Thus far the audience accounts largely reflect the media representations of MRSA. Both are focused on dirty hospitals, management culture, return of the matron, and on hospital 'superbugs' as a symbol of a wider decline and decay of Britain. Yet there were two particular points on which the newspapers and their readerships diverged; one concerns the role of audiences' blame of 'foreigners' for MRSA. As discussed above, one of the common ways that the threat from a new epidemic of infectious disease is processed is to negatively associate the disease with the particular characteristics or practices of *others*. In the case of MRSA, although foreigners were not 'catching' the disease, they (black cleaners in particular) were 'spreaders' of it, even if they were not a 'risk group'.

In the UK newspaper coverage of MRSA, there was no such blaming of *others*. The blame for the problem, rather than going outwards to 'foreigners', went upwards to 'our leaders', both the government and the NHS management.<sup>3</sup> Whilst this strand of 'upwards' blame was also present in the audience accounts, the focus on foreigners by respondents is both interesting and unexpected. Respondents linked the spread of MRSA with the role of 'foreigners', and MRSA thus symbolised the supposed 'ills' of the wider society, demonstrating how it can be used as a focus for wider societal concerns about immigration, as well as more generally for xenophobia and racism. Like the resonance between the respondents' ideas of germ theory and pre-scientific ideas of miasmas, the belief that foreigners and immigrants spread dirt and infections is hardly new. In the Typhoid Mary stories, *the other* carries the disease, whereas in the MRSA case, *the other* does not necessarily carry the disease but unwittingly spreads it by his or her poor hygienic practices. What is perhaps most noteworthy here, is that the source

of this association is not the newspapers, nor was this belief reflected there.

One common theme among the respondents was that MRSA was a microcosm of everything that was wrong with the NHS, which in itself was a microcosm of everything that was wrong with Britain. MRSA thus becomes a symbol of society more generally and the images and terminology associated with physical disease, of contamination, infection, filth, breakdown, disorganisation, and death, which blends with a commentary on the society in which the epidemic is occurring.<sup>13</sup>

The way the media message is reinterpreted here in light of the audiences' own preoccupations corroborates other research on media portrayals and audience reception of messages pertaining to infectious diseases.<sup>15</sup> The media message is influential and is by and large reflected in the audience accounts. Yet the audience's reinterpretation of the media message, on an issue like risk of infection, may include additional messages from the wider culture not present in the newspaper representation, such as the putative role of 'foreigners'.

Media representation and audience accounts also diverge regarding the focus on 'celebrity victims' in the newspapers. Although a great deal of the UK MRSA news coverage has focused on famous people who were said to have contracted it, particularly the actress Leslie Ash and 'agony aunt' Clare Rayner, its association with celebrities did not seem to embed itself very strongly in the public(s) consciousness and their names were mentioned only rarely by respondents.

## Conclusion

This paper has explored whether and to what extent the national newspaper messages about MRSA tally with 'what is in people's heads'. Among a demographically diverse sample, although there were various responses, there was still a great deal of homogeneity of response across genders, ethnic groups, age range and newspaper readership (taken as an imperfect marker of social class and level of education). It is therefore reasonable to say that there is a relatively shared representation of MRSA. For the British public, MRSA is associated with dirty hospitals, caused by NHS mismanagement. The solution is thought to be improved hygiene in hospitals, enforced by the return of the matron. This collection of ideas seems so axiomatic, such obvious common sense to those who espouse it, that it is possible to overlook that it diverges from the scientific account in several important respects.

The first of these is that the scientific/biomedical accounts of MRSA would locate the phenomenon within the antibiotic era. Scientific understanding of the MRSA story would at least in part blame the emergence of antibiotic-resistant strains of bacteria on the over-prescription of antibiotics. Yet this strand of the story is only present in the audience accounts of the phenomenon by the broadsheet-reading men. Before carrying out the research, we expected that perhaps MRSA would affect the way that people feel about antibiotics in general and about their personal use of antibiotics in particular. We found that only a small minority of the respondents linked MRSA with antibiotics.

Another important respect in which this research diverges from the scientific account of MRSA is the way that the audience accounts of MRSA revealed traces of pre-scientific folk understandings of infection, contagion and the immune system. In the context of epidemics of infectious disease more generally, the widely used distinction between healthy self and diseased *other* is transformed by contemporary notions of the immune system into a new distinction: the invulnerable healthy self with a 'boosted immune system' and the diseased immunocompromised *other*. The distinction serves the same purpose, which is to distance the perceived threat of MRSA from oneself to other people.

Although the media influence can be seen, and although a 'common sense' representation of MRSA was present across the sample, people nevertheless interacted with the media messages. Kitzinger makes the point (see above) that class, gender and ethnic identity may influence the audience responses to a particular item, a finding corroborated empirically in other media and audience studies of infectious diseases.<sup>1,15,16</sup> This study points to meanings of MRSA that are largely shared by the audience, however, with very few differences in responses across age, gender, ethnic groups or newspaper readership.

Some messages from the media seemed to capture the *Zeitgeist*: the association of MRSA with dirty hospitals; the blaming of the alleged 'management culture'; and the contrast with the supposed 'golden age' of the NHS, as symbolised by the matron. Another strand of the newspaper discourse that seemed to resonate with the audience was the idea that the MRSA crisis symbolised the decay of the society in which the epidemic was occurring. On the other hand, the newspapers used certain celebrities to personify the face of MRSA, notably Leslie Ash and Clare Rayner. Ash in particular became a poster girl for the

condition, even though she contracted meticillin-susceptible *S. aureus* (MSSA) rather than MRSA. She has since launched 'Matron', her own brand of anti-MRSA and -MSSA hand gel, and famously won a £5 million settlement from the London hospital where she contracted her infection. Our respondents did not respond to such personifications, and few if any mentioned names of celebrities.

This conclusion begs several questions: why do certain media messages and not others seem to reach the audience? This study points to the existence in the culture of traces of pre-scientific understandings of germs and contagion, of blame and *othering*, located within and alongside a framework of scientific understandings of MRSA. These ideas are widely shared, even though not all of them originate in the newspaper coverage of the issue. These fascinating glimpses into beliefs and practices must be the subject of further research if we are to understand the complex web of public responses to infectious diseases.

#### Conflict of interest statement

None declared.

#### Funding sources

This research was funded by the Economic and Social Research Council, Grant number RES-000-22-1694, awarded to Helene Joffe and Peter Washer.

## References

1. Kitzinger J. The role of the media in public engagement. In: Turney J, editor. *Engaging science: thoughts, deeds, analysis and action*. London: Wellcome; 2006. p. 44–50.
2. Smith P. *Cultural theory*. Massachusetts: Blackwell; 2001.
3. Washer P, Joffe H. The 'hospital superbug': social representations of MRSA. *Soc Sci Med* 2006;**63**:2141–2152.
4. Joffe H. *Risk and 'the other'*. Cambridge: CUP; 1999.
5. Joffe H, Washer P, Solberg C. Social representations of emerging infectious diseases: the case of MRSA. *Soc Sci Med* [under review].
6. Douglas M. *Purity and danger*. London: Routledge & Kegan Paul; 1966.
7. Ayliffe G, English M. *Hospital infection: from miasmas to MRSA*. Cambridge: CUP; 2003.
8. Farmer P. *AIDS and accusation*. Berkeley: University of California Press; 1992.
9. Eichelberger L. SARS and New York's Chinatown: the politics of risk and blame during and epidemic of fear. *Soc Sci Med* 2007;**65**:1284–1295.
10. Washer P. Representations of SARS in the British newspapers. *Soc Sci Med* 2004;**59**:2561–2571.
11. Martin E. *Flexible bodies*. Boston: Beacon Press; 1994.
12. Department of Health. *Towards cleaner hospitals and lower rates of infection: a summary of action*. London: Department of Health; 12 July 2004.
13. Treichler P. *How to have theory in an epidemic*. Durham, NC: Duke University Press; 1999.
14. Washer P. Representations of mad cow disease. *Soc Sci Med* 2006;**62**:457–466.
15. Eldridge J, Kitzinger J, Williams K. *The mass media and power in modern Britain*. Oxford: Oxford University Press; 1997.
16. Joffe H, Haarhoff G. Representations of far-flung illnesses: the case of Ebola in Britain. *Soc Sci Med* 2002;**54**:955–969.