The Impact and Challenges of Medical Journalism: A Review

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ABSTRACT

The media plays a vital role in disseminating medical information to the public. However, the accuracy of the health information that is available varies widely. What is published in the media has important consequences on patients' decisions about their health, be it their faith in vaccines or the specific medication that they take. It can also influence the general public's perceptions of healthcare. There is a dire need for professionalism in health-related reporting which will ensure that the anonymity and autonomy of the subject as well as the receivers are protected. Inaccurate journalism can generate both false hopes and unnecessary fears. On the other hand, critical health journalism can help set records straight. This paper looks at both positive and negative impacts of medical journalism. It also outlines some of the challenges and deficiencies in medical journalism, and obstacles faced by journalists in reporting health news. We conclude with key aspects that need to be implemented for the successful reporting and dissemination of health-related information.

KEY WORDS:

Impact, challenges, medical journalism, journalists, media, health news, health information, healthcare

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Introduction

Medical journalism is the communication of health and medical information in the media. It targets the layperson rather than the medical or health professional, by disseminating health related information through different types of media sources. These include printed as well as online newspapers, television, radio, the internet, and, in the past, newsreels. In modern times, social media such as Twitter play a significant role in the dissemination of news to the public. Medical and health issues are of interest to most people and are commonly reported as they have an impact on peoples' behavior and awareness. Medical journalism also impacts medical practices, health care usage and government policies (Keshvari et al., 2018; Leask et al., 2010). In the context of the COVID-19 pandemic, millions of people around the world currently look for reliable, fact-based journalism that can help them navigate the biggest challenge of their lifetime. The need for trustworthy information has, therefore, never been greater and more urgent than at present. Access to timely, high-quality information is imperative during a global health crisis such as that caused by the COVID-19 pandemic; it is of paramount importance to slow the spread of the virus, mitigate its impacts, and motivate society to respond in an appropriate manner (Higgins, 2020).

Advancement in digital technology has accelerated the desire for information and increased global connectivity. With each new technological device that is produced, the creation, production and distribution of news by the mass media have been transformed (Lawson-Borders, 2011). The internet, mobile devices, and social media play a large role in global media connectivity and the dissemination of medical information world-wide. The use of social media reporting on platforms such as Facebook and Twitter has increased, and this has had a huge impact on the spread of health information. Global health organizations such as the Centre for Disease Control (CDC), the World Health Organization (WHO) and the Food and Drug Administration (FDA) all use the internet and social media now to inform the public about novel health and medical developments. The rapid spread of fake or misleading news, mainly via social media, has been a major concern during the COVID-19 pandemic, and the WHO has coined the term 'infodemic' to refer to the fast spread of misinformation (Zarocostas, 2020). To combat this infodemic, the WHO launched a new information platform, working closely with social media platforms worldwide. In addition, the WhatsApp Coronavirus Information Hub was launched by WhatsApp, a messaging application for mobile devices, in partnership with the WHO, the United Nations Children's Fund and the United Nations Development Programme. This aims to get real-time, accurate health information to billions of people around the world, while aiming to reduce the spread of false information (United Nations Development Programme, 2020)

The influence of the media on public beliefs is large and can influence an individual's health-related behaviour due to the latest medical news they learn through the media. For example, the side effects of the cholesterol lowering drug, statin, was covered widely by the UK media and this resulted in the rise in the proportion of people who stopped taking the drug (Matthews et al., 2016; McCombs, 2013). Statins, used to treat high cholesterol, came

under heavy criticism in October 2013, in articles published in the *British Medical Journal* (Abramson et al., 2013; Malhotra, 2013). The articles claimed that, for some patients, the harms outweigh the benefits. A group of researchers wanted to see if the discussion had affected people's behaviour. They checked possible changes in UK medical records between October 2013 and March 2014. The statistical analysis revealed an association: compared over an average six-month period, approximately 200,000 people had stopped taking statins (Matthews et al., 2016). Therefore, the statin story shows why health journalism matters – it strongly impacts people's health seeking behaviour.

Yet another example is an article published in 1998 by Andrew Wakefield, a British physician, in the premier medical journal *The Lancet,* in which he reported a causal relationship between autism and the childhood MMR vaccine (Taylor et al., 1999). This caused widespread fear among parents across the world, igniting concerns about the safety of vaccines in general. In many parts of the world, measles vaccination rates fell drastically (DeStefano & Chen, 1999). The fear and mistrust of vaccines continued for many years, despite larger studies failing to replicate his findings. It was not until 2003 when British health journalist Brian Deer took a more in-depth look that the truth emerged about the study (Deer, 2011). Thus, the media plays a large role in shaping public perceptions of vaccine safety and efficacy. It also affects the decisions of doctors, policymakers, and health professionals, as well as the stock market (Larsson et al., 2003).

Considering this impact of medical findings on the public's health choices, it is the responsibility of those involved in journalism and medicine to prepare accurate, complete, and reliable news. The health information that appears in the mass media is, however, by and large subjected to little or no evaluation of content or effectiveness, in comparison to health information published in scientific publications (Bandiwadekar et al., 2014; Grilli et al., 2002). Citing source of information is vital, and it is the responsibility of the journalist and media centers to get their information vetted before it is released to the public. For example, there was the recent unnecessary use of hydroxychloroquine and Remdesivir by the public when media reports suggested it as a treatment option for COVID-19 (Jackson, 2020). Nor were top medical journals without controversy. *The Lancet* and the *New England Journal of Medicine* had to retract papers with data based on Surgisphere, a little-known health care company, but many news outlets had already reported their findings (Gallagher, 2020). This type of yo-yo medical news reporting is more harmful than good to the layperson.

The media not only spreads awareness but also informs and educates people. By informing and educating the public about different health issues, the media helps promote a healthy lifestyle and positive behavior changes among the public (Abroms & Maibach, 2008). Another major advantage of good media and medical journalism is that it is one of the best ways to counter false information that might be circulating in society. From the moment the emergence of COVID-19 in China was first reported, journalists have played an important role in reducing risks associated with the virus. They have identified new hotspots, provided information on protective measures, exposed falsehoods, and held governments accountable for their policies.

Challenges in medical journalism

The chief challenges that journalists face in communicating health news is common among different countries. Broadly, these include unwillingness on the part of health authorities to give health information or to meet with journalists, red tape, deadlines, the absence of latest statistics, issues in statistical interpretation, and the lack of medical or health science training in general (Veloudaki et al., 2014). Another major challenge faced by journalists and media outlets is the intervention by nearly all governments in silencing the media by compelling journalists and the media to suppress authentic information.

A study on the quality of health news in the United States, which evaluated 500 health news articles over a period of 22 months, showed that 62-77% of the reports had not successfully covered issues of cost, advantages, disadvantages, and the quality of health care (Schwitzer, 2008). One of the challenges identified in this study was the lack of both publication space and research time for the journalists. The reduced number of training opportunities in health or medical-related subject matter and health statistics was another issue. As in many other developing countries, in Ghana, most science reporting is done by general reporters (Appiah et al., 2015). While the study by Appiah et al. was limited by a small sample size and a correspondingly small scope for findings, the researchers discovered that many journalists in Ghana obtained science and health information through experts such as health professionals and scientists, and that science journalism training and easier access to research findings would motivate journalists to write more health and science articles. Yet another identified challenge was having to meet media deadlines which compromised on the quality of the reporting. Similarly, in Europe, common sources for health news and information were experts, medical journals and scientific publications, as well as friends (Dentzer, 2009). Dentzer, who is a health news editor, identified several challenges in the field of medical journalism and stated:

> But not only should our profession demand better training of health journalists, it should also require that health stories, rather than being rendered in black and white, use all the grays on the palette to paint a comprehensive picture of inevitably complex realities. (p. 3)

As seen from these examples, one of the main challenges faced by journalists is the lack of scientific and medical knowledge. This highlights the importance of a basic science qualification for all medical journalists. When the journalists felt that there was a lack of time to conduct proper background research on a given health related topic, they relied on health experts to give accurate information without verifying the accuracy of the information provided to them. However, the journalists were not held accountable in this context, which is a deficiency in the systems in place.

Evidence shows that journalists are the key figures in producing health reports for the media. Personal speculations and interpretations are, however, often included, which leads to incorrect and misleading news reports. This practice is often used to make an article/ feature attractive to the audience ("clickbait"). Sensationalizing personal speculations was evident in the case against Dr. Shafi who was accused of performing illegal sterilizations on expectant mothers and having links to terrorist activities. The story was first published

by the *Divaina* newspaper and gained widespread media publicity thereafter. Furthermore, only a very few media outlets verified the facts at the beginning (Colombo Telegraph, 2019). These were proven to be allegations that were not based on concrete evidence (Economy Next, 2019). Evidence for this was presented in the newspaper, *The Leader,* which stated that "despite media claims of thousands of complaints filed against Dr. Shafi, the investigators have narrowed it down to 11 and that too requires medical confirmation" (The Leader, 2019). However, the media has not been held accountable for this type of malicious reporting.

In Sri Lanka, Sri Ranganathan et al. carried out a critical appraisal of consumer health literature (CHL) in the Tamil print media (2019). They studied 633 CHL in 600 newspapers and found that common topics included non-communicable diseases (25%), reproductive health (13%) and food habits (12. 6%). However, they found very minimal coverage of topics related to national public health campaigns, official health promotion messages, communicable diseases, medicines, vaccines, tobacco and alcohol. Less than half the articles had published names and designations of the authors/sources. There was also a serious mismatch noted between the content and accompanying pictures in many of the CHL. The authors further noted that the content was of poor scientific merit and unreliable in 54% of the sample. They concluded, therefore, that "medical or health journalism is an urgent need in Sri Lanka. Both healthcare and media organizations should come together and develop this discipline for the benefit of the people of Sri Lanka" (p. 19).

The right information against the backdrop of a good literacy rate of 91.71% (MacroTrends, n.d.), such as that found in Sri Lanka, is highly beneficial in spreading health awareness among the general public. A study on dengue related knowledge among caregivers of dengue patients in Sri Lanka found that a majority of the participants obtained information related to the disease from media outlets such as television (21%), radio (6.1%) and print media (17.1%). It was also found that a higher literacy rate among people was an important factor in disseminating important health information (Udawatte et al., 2020).

Another challenge is the generalization of certain diseases that are specific to a particular country. For example, vector/arthropod borne disease such as dengue and malaria are seen mostly in tropical countries such as Sri Lanka, Singapore and Thailand, whereas diseases such as tick typhus and rocky mountain fever appear mainly in the West. Not catering to health news in the local context, therefore, can confuse the public.

Lack of transparency and sponsorship disclosure is also a challenge in health reporting; for example there were media claims stating COVID-19 antibody tests from Abbott Laboratories were superior to other commercially available counterparts. Unlike in academic publications in peer-reviewed journals, these claims did not carry a statement of conflict of interest (Consumer News and Business Channel, 2020). However, when reporting itself is not free of biases, the autonomy of readers/viewers and decision makers can be compromised. Therefore, it is in everyone's best interest that such statements are followed by a statement of full disclosure. This issue was brought out in a paper which analyzed the challenges faced by journalism education in Sri Lanka by noting that media and journalism syllabi should be revised to also include context specific journalism (Dissanayake, 2018).

Every media has a specific target audience. For example, it was shown that journalists were ill-equipped to handle disparities in health-related information especially when this related to vulnerable populations such as those with HIV/AIDS, or belonging to a particular race, as they preferred to report what is more agreeable to their audience, thus overlooking some obvious discrepancies (Wallington et al., 2010). These disparities were more obvious during the COVID-19 outbreak, with many reports claiming that African Americans were more susceptible to COVID related fatalities. However, only very few media outlets highlighted the fundamental issues surrounding their increased mortality and morbidity rates as a result of the unequal access to healthcare faced by this community (Brooks, 2020).

Impact of medical journalism on the public

Today, many people access health information online. How the public appraises health information available online is difficult to investigate and there are not many studies in this area. One of them, a *British Medical Journal* study looked at participants' ability to appraise health information by asking them to use the internet, the way they would at home, to answer health-related questions. The authors of the study stated that "participants in focus groups said that when assessing the credibility of a website they primarily looked for the source, a professional design, a scientific or official touch, language, and ease of use" (Eysenbach & Köhler, 2002). The investigators also observed internet users did not actively seek information as to who produced the websites or how the information was compiled. A limitation of the study was the small sample size and a laboratory setting.

The impact of the mass media has also been studied when it comes to the number of doctors' visits during the flu season. Trumbo, (2012) carried out studies researching the effect of newspaper coverage of influenza, on the rate of doctors' visits between the years 2002-2008. To do this, he studied the headlines of 32 newspapers and used data from the Centre for Disease Control to analyze the number of physician visits for influenza-like illness and true influenza cases. The researcher found that "news attention in the previous week accounts for a statistically significant portion of the increase and decrease in the number of individuals who go to their physician reporting influenza-like symptoms" (p. 718) – this is even after controlling for the true number of influenza cases. Limitations of the study design were, first, that all data were at the national level, whereas seasonal influenza is a regional phenomenon. Second, the actual rate of patient visits for influenza-like illness across all clinics is unknown, and all measures were estimated. Another limitation was the simplicity of the model, as it was not possible to determine if those who saw a physician for flu symptoms were exposed to the most news, or any at all.

In the days following Sri Lanka's first confirmed case of the novel coronavirus, an article was shared multiple times on Facebook claiming that asafoetida, a plant often used in traditional Indian medicine, can prevent coronavirus infection. This claim is misleading; health experts in Sri Lanka say there is no evidence asafoetida or other herbal medicine can definitively protect people from infection. The article, titled "A divine herb to protect your family from the coronavirus," was published on Facebook on January 28, 2020. It has since been shared more than 600 times (Perera, 2020).

Another important ethical issue is the lack of measures taken to protect the privacy of those affected by disease. This was often seen in COVID-19 reporting in Sri Lanka, where the ethnicity of the patients who died due to COVID-19 was made public. Identifiable information of individuals who tested positive for COVID-19 was also published, flouting ethics. Some international media outlets also picked up and reported on this unethical reporting by local media, urging Sri Lankan authorities to act (Mukhopadhyay, 2020). The International Press Institute has reported 335 media freedom violations during the COVID-19 pandemic, and more than 50% of these violations were reported from Asia (International Press Institute, 2020).

Conclusion

Health reporting is vital in our society today. However, it is not without challenges for both the reporter and the receiver. Our review has identified some of the key challenges and deficiencies in the field of medical journalism that needs to be addressed, such as misinformation and sensationalism of health news, personal speculations, the rapid spread of fake news via social media, disclosure of personal information, and lack of transparency and sponsorship disclosure by media companies and journalists. As we have shown, health journalism has both a positive and a negative impact on people. In turn, the rise in global connectivity that resulted with the advancement of digital technology, including mobile devices, the internet and social media, has had a significant impact on medical journalism due to the ease of accessibility of health news and the rapid spread of health news world-wide. However, the issues of personal speculation, fake news and reporting personal information is magnified online, when compared with more traditional methods, as it is more difficult to regulate and monitor. Findings from several studies suggest that deadlines, health authorities' unwillingness to cooperate, and the lack of sufficient training among journalists have created obstacles for the medical journalist in fulfilling their goals (Keshvari et al., 2018; Moynihan et al., 2000; Ransohoff & Ransohoff, 2001; Smith et al., 2005). Therefore, considering the importance of mass media in communicating up-to-date health news and improving public awareness of the latest health findings, certain steps need to be taken by the government and all parties involved.

One way forward would be to make a basic science degree a requirement for journalists engaged in medical journalism, as mentioned before. Furthermore, medical professionals and academics must take a more pro-active role to eliminate unhealthy practices in the field of medical journalism. Firstly, academics and medical professionals should be more involved in maintaining checks and balances on the quality of health-related news that is published in the media. Secondly, implementation of well-developed training programmes in medical journalism is vital. Specifically, training in scientific communication methods is important, as well as having an accredited body that trains medical journalists. Thirdly, legislation must be implemented within the country to prevent false health reporting. Fourthly, clearly defined policies that safeguard the public from false reporting should be put in place. Finally, cooperation between all sectors involved – health authorities, scientists, journalists, print media and social media companies – is of prime importance for successfully establishing high quality medical journalism in the country.

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