

Reporting New Telemedicine Impediments in Indian Print Media: Will Solutions Journalism Improve Tele-Medical Discourse?

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Abstract

The media being the primary source of information for the public has an important role in reporting and framing health promoting news updates. The news frames suggested by the media should explore solutions for existing impediments in medical and health practices to improve healthcare delivery at the time of the pandemic. This study aims to show how the challenges in telemedicine were reflected in mainstream Indian print media through Framing Analysis. The results revealed that news highlighting telemedicine challenges and real-time barriers was barely reported, restricting the frames to slue toward a high adoption rate in telemedicine rather than focusing on its long-standing challenges. Obstacles faced by physicians and patients who used telemedicine during this period were largely ignored. By reporting them in the prime mainstream media could have enlightened the necessity for facilitating clinical and structural reformation and in edifying workable telemedicine guidelines at this time of its increasing acceptance. Through this analysis, the study proposes that embracing 'Solution Journalism' in health and medical news may promote a favourable environment to create a sustainable telemedicine ecosystem in India.

Keywords: Health and Medical Reporting Print Media; Telemedicine Challenges and Solutions Journalism

1. Background

Health promoting news disseminated through mainstream print media gains more credibility across readers of all ages. In India, with over 560 million internet users (Statista, 2020) people trump their belief in traditional and mainstream newspapers and magazines which are considered as the most trusted sources of news than news broadcast on television and radio (Newman *et al.*, 2020; Tewari, 2016) like other global audiences. With this comes a great ethos for health journalists to follow and fulfil their roles as an effective disseminator of health communication. More so, people rely on the news reports presented based on the reality of the situation when making important health decisions. From this standpoint, understanding what news should be gathered and reported during a global health crisis can make an important impact on the people, healthcare workers and policymakers.

The lack of an evidence-based approach and the inability to critically assess developments in healthcare delivery or examine national policy are some of the challenges health journalists face when reporting news updates. Through tracking the right source of information, asking the right questions, and critically appraising the best and tested practices, health journalists have been deemed as adversaries to bear responsibility to execute an interpretive and facilitative role (Hinnant *et al.*, 2016; Weaver *et al.*, 2007). Gaps and barriers in healthcare delivery can occur at every stage of real-time

practice, and transparency in reporting such gaps persists, even more at the rare times of public health emergencies globally, say the COVID-19 pandemic. Specially, news relating to public health management and covering serious gaps in its implementation while in its nascent stages are utterly crucial for policy makers. Following the outbreak of COVID-19 in March 2020, the Indian Ministry of Health, and Family Welfare, along with the National Institute for Transforming India (NITI) *Ayog* has released Telemedicine Practice Guidelines that allow registered Medical Practitioners and healthcare technology providers to provide medical services to the population (Telemedicine Practice Guidelines, 2020). However, it is yet to be determined whether the new guideline settles existing gaps, or will it lead to more new challenges to emerge at the time of the pandemic is what is yet to be ascertained. Telemedicine is similar in most aspects to other technologies for which better evidence of effectiveness is being commanded.

Many scholars have been extensively researching about the challenges and barriers that hinder effective telemedicine practice as a form of healthcare delivery for several years. The challenges pertained to telemedicine are access, quality of service and cost. Access to good internet connectivity remains a larger issue, while even if there is good connectivity, there could be other dominant challenges in receiving quality services during a consultation. Cost and payment options for such distant services are also a concern, as it solely depends on the practicing doctor or the corporate who manage dedicated websites and smart phone applications. In addition, there are other barriers, such as age and educational level of the patient, preferred language for communication and patient privacy and confidentiality (Fagherazzi *et al.*, 2020), technical design and interoperability that hamper effective telemedicine delivery (Smith *et al.*, 2020; Kruse *et al.*, 2018), risks in clinical decision making and treatment and lack of trust in patient-doctor relationships (Das *et al.*, 2020) and the greater risk of misdiagnosis (Chandwani and Dwivedi, 2015).

Telemedicine in India is not something new and its presence has been felt for the last two decades (Agarwal *et al.*, 2020). Many sectors of healthcare have introduced telemedicine on various new media platforms for patients to seek consultations with registered physicians. More telemedicine platforms picked up at this time of COVID-19 pandemic after new practice guidelines has cleared the air around telemedicine and made it perfectly legal for doctors to embark on it. The ongoing pandemic has made face-to-face consultation easily switch to virtual for non-emergency situations when movement restriction is observed in strict measures, and it is the first time that India experiences a hype to its full potential (The Indian Express, 2020). Telemedicine became an easy alternative means of consulting doctors when face-to-face interaction was a constraint during this health outbreak. Given the gravity of the pandemic, for many people who need consultation for symptoms like flu, bacterial infections, symptoms of corona-virus or for any other health issues, teleconsultation are now available at the safety of the residence of patients and doctors where they can connect through various telemedicine platforms. However, there are many impediments experienced in this process.

At this decisive phase, investigating the challenges in telemedicine and resolving old ones when telemedicine has been quickly adopted and expanded to its full capacity is presumed to be most likely subject covered by the media. Given this context, the researcher extracted a set of concerns and questions.

1. What are the challenges in telemedicine during the pandemic reported in the mainstream print media?
2. Were news frames implying such challenges?
3. Are reporters able to source potential solutions to different challenges in telemedicine practices that are suggestive to policy makers?

2. Methods

This study uses the Frame Analysis Method to qualitatively interpret whether challenges in telemedicine were reflected in mainstream Indian print news media. The frames will impact the reader on how the news story is investigated and presented. Journalists use this technique to deliberately

guide the reader's attention and direct their focus or perspective through the reported news articles (Goffman, 1974; Tankard, 1991). The news frames serve four main purposes within the context of this research: to define problems, diagnose a course, to make value judgments, and suggest remedies. Such frames are vital to spot errors or gaps experienced in doctor-patient telemedicine consultation more importantly during the time of pandemic when the whole of India was under complete or partial lockdown. The researchers assert that if the assumed frames were not focused or absent in the news then the news desk has missed the wider picture in exploring problems and solutions to cover fatal gaps in telemedicine practices owing to its quick adoption at the gruelling time of pandemic and lockdown effects.

Mainstream Indian English online news was gathered for ten months between March and December 2020 which was also the first time a total lockdown was imposed in all the states of India. A total of 24 news articles from 12 mainstream print news portals published in India appeared through web searches by following the key words - Telemedicine in India, new guidelines, challenges, gaps, barriers, hesitancy, inhibitions, and solutions were identified. However, only 10 news articles covering telemedicine challenges (Refer Table 1) were selected to find out the extent of reporting telemedicine challenges and to identify if any frames point to such challenges or barriers in the practice of telemedicine during the pandemic. Five mainstream print news media covered telemedicine challenges - The Hindu, The New Indian Express, Hindustan Times, Express Healthcare, and Economic Times - Health World.

Table 1. List of news articles covering telemedicine challenges in 2020

No.	Date of Publication	Headline	Print Mainstream News portal	News Frames/Topic	URL
1.	April 9, 2020	Transforming Indian healthcare via telemedicine	Express Healthcare	Staggering rise in telemedicine adoption	https://www.expresshealthcare.in/covid19-updates/transforming-indian-healthcare-via-telemedicine/418106/
2.	April 19, 2020	COVID-19 enhances reliance on telemedicine	The Hindu	Telemedicine opportunities	https://www.thehindu.com/news/national/tamil-nadu/covid-19-enhances-reliance-on-telemedicine/article31378946.ece
3.	May 02, 2020	Telemedicine - Once a hard sell, now booming Demand	Economic Times, Health World	Staggering rise in telemedicine adoption	https://health.economictimes.indiatimes.com/news/health-it/telemedicine-once-a-hard-sell-now-a-booming-demand/75502115
4.	May 10, 2020	Telemedicine set to transform healthcare in a post-Covid-19 world	Hindustan Times	Staggering rise in telemedicine adoption	https://www.hindustantimes.com/cities/telemedicine-set-to-transform-healthcare-in-a-post-covid-world/story-j79r1yEDFxYaE4nlcFNL3I.html
5.	May 13, 2020	Dial a doctor	The New Indian Express	Telemedicine opportunities	https://www.newindianexpress.com/cities/chennai/2020/may/13/dial-a-doctor-2142535.html
6.	May 18, 2020	Telemedicine Accreditation, Certification to follow soon, says Prof (Dr) K Ganapathy	Economic Times, Health World	Staggering rise in telemedicine adoption	https://health.economictimes.indiatimes.com/news/health-it/telemedicine-accreditation-certification-to-follow-soon-says-prof-dr-k-ganapathy/75803256
7.	May 31, 2020	Telemedicine is the new call for action at the moment	The New Indian Express	Telemedicine opportunities	https://indianexpress.com/article/lifestyle/health/in-telemedicine-virtual-healthcare-future-scope-india-mindsets-doctors-6421192/
8.	July 10, 2020	Telemedicine in India: Is the time ripe?	Express Healthcare	Telemedicine Challenges	https://www.expresshealthcare.in/blogs/guest-blogs-healthcare/telemedicine-in-india-is-the-time-ripe/412528/
9.	July 17, 2020	Why telemedicine and health tech providers need to improve their regulatory preparedness?	Express Healthcare	Telemedicine Challenges	https://www.expresshealthcare.in/covid19-updates/why-telemedicine-and-health-tech-providers-need-to-improve-their-regulatory-preparedness/423385/
10.	December 26, 2020	How digital healthcare has been a boon in 2020?	Economic Times, Health World	Staggering rise in telemedicine adoption	https://health.economictimes.indiatimes.com/news/health-it/how-digital-healthcare-has-been-a-boon-in-2020/79961572

3. Results and Discussion

3.1 Slim focus on news about Telemedicine challenges

During the ten-month study, news articles on telemedicine challenges and real-time barriers during the pandemic were barely 'hinted out' in five mainstream print news portals between April and July 2020. Three articles were reported in the Express Healthcare, a magazine powered by The Indian Express. The first article was reported by a health and science reporter that included relevant views of major players of web-based private telehealth companies from whose excerpts a few practical challenges in current telemedicine practices were exposed. This news article presents a series of telemedicine challenges that tend to focus on a wide ground-breaking gap between patients and service providers. In rural areas, the biggest barrier is language...app was developed within a short span of time after the lockdown was announced; all the options are in English. While it is easy-to-use once it's downloaded by simply clicking on the 'book an appointment' option and wait for their chance; for any rural audience, it would be a task to understand the language and then navigate through the app.....in most of the private health web-based platform, clusters of General Practitioners are definitely more. Specialists' doctors rarely subscribe for Telemedicine..... payment options are easy through digital wallets like Google Pay and Paytm but these apps would probably be of a higher utility for tier-II and tier-III cities. With low literacy rates in rural areas, even these models of payments can be an inhibiting factor (Express Healthcare, 'Transforming Indian healthcare via telemedicine', April 9, 2020).

Three months later, Express Healthcare reported another article written by two legal professionals that points to telemedicine challenges to the uncertainty surrounding the legality of prescribing drugs and the need to implement fool proof technology to provide security to patients. Quoting a Supreme Court judgement in 2009, the authors reclaim the uncertainty of drug prescription on how doctors can prescribe medication without physical examination. However, this claim was made without referring to the recent Telemedicine Guideline 2020 which clearly lists what medication is recommended to be prescribed in its first Annexure. Further they also indicate the problems one might face with unlawful gains might made by digitizing patient's data when the Digital Information Security in Healthcare Act (DISHA) has not been passed by the Indian parliament (Express Healthcare, 'Telemedicine in India: Is the time ripe?', July 10 2020). Although certain challenges in telemedicine are voiced, the views expressed in this article do not validate the recent guideline due to the prosaism of the profession of the authors.

Similarly, in its third article Express Healthcare brings the views of a Chartered Accountant who indicates the need for preparatory measures to build telehealth capacities in terms of regulation of data protection and drug pricing in addition to sustaining market competition. Howbeit, the article is skewed toward building a holistic business model through a sustained data protection as a key to improve telemedicine services (Express Healthcare, 'Why telemedicine and health tech providers need to improve their regulatory preparedness?', July 17, 2020). Within a coverage swath between April and July, the magazine that predominantly focuses on healthcare as its forte, it has fallen short of proper enlisting and detailing of these barriers in the reportage.

The Hindu reports a highly enriching comment on telemedicine pitfalls by a telemedicine expert and columnist who opines that telemedicine options may go against a clinical decision. The article is timely, from a near perfect source who has been behind the implementation of telemedicine during the early onset in India.

Technology is only an enabler, not an end by itself. The decision when to limit use of Telemedicine and insist on a face-to-face consult is always a clinical decision. The context, professional judgement, and the patient's interest alone matter. Some doctors may be satisfied with an ultrasound image showing a mass in the pelvis. Others may want to do a rectal examination. Patients may not be comfortable without seeing the doctor face-to-face at least for the first time (The Hindu, 'COVID-19 enhances reliance on telemedicine', April 19, 2020).

The COVID-19 pandemic has created immense pressure on doctors to up skill their practise that allow them to contact patients from remote locations. This important observation on the lack of technical skills of physicians, especially among experienced and senior doctors as compared to millennial's, was reported in Economic Times Health World as a concluding remark, while the focus of the news lead was on highlighting the booming telemedicine opportunities (Economic Times Health World, 'Telemedicine - Once a hard sell, now a booming demand', May 2, 2020). A similar concluding remark on the lack of awareness among public hospitals to reach a wider section of the population was expressed by a telemedicine healthcare expert in the December 2020 article "How digital healthcare has been a boon in 2020?" through a feature story.

A news story reported by a science and health editor of Hindustan Times pointed the progression of telemedicine in India and indicating poor internet access, illiteracy, extreme poverty, and lack of robust Universal Health Coverage as some of the external challenges linked to telemedicine. The reporter stresses that any problems that occur in face-to-face consultations are also expected in telemedicine too (Hindustan Times, 'Telemedicine set to transform healthcare in a post-Covid-19 world', May 10 2020). Although this news was presented by a health editor, the news aces a paucity in identifying new empirical challenges and remedies which is duly expected from the fundamental actors of health information like in this case a science and health editor.

Only a trained medical and health reporter will be able to provide the public with a balanced and objective perspective of what is being reported. Non-health journalists rarely have medical training or health-related degrees and rely heavily on sources (Keshvari *et al.*, 2018), as seen in this study that only two reporters were actual health journalists. Training journalists for health and medical beats is the key, as specialist health and medical reporters have a stronger technical knowledge, networking with expert healthcare professionals and government health secretaries. This will eventually improve their ability to advocate for better quality coverage of important issues in healthcare delivery (Leask *et al.*, 2010). India is facing critical shortage of healthcare providers, so is in the newsroom indicating a dearth of trained medical and health reporters. It has been an impending wait since the time researchers and media educators have highlighted the importance of having trained health and medical journalists in the news organization (Chaurasia, *et al.*, 2020).

One of the news articles from The New Indian Express cites that the current telemedicine practices could favor patients who need frequent hospital visits and in the long run, but the frequency of consultation could be slowly reduced slowly with this method (The New Indian Express, 'Dial a doctor', May 13, 2020). In its another news article, a news article indicated that any disorganized and conflicting advises experienced by patients on various consultations for a same health problem puts telemedicine in jeopardy. It also cited challenges that confront the quality of services attributable to a physician who is practicing telemedicine and considered what might be the quality of consultation when doctors were overloaded with many patients waiting online, as only a few doctors opted for this service, but it is not very straightforward to just hire a doctor because there are so few of them right now (The New Indian Express, 'Telemedicine is the new call for action at the moment', May 31, 2020).

Despite a very clear indication from the Telemedicine Guidelines (2020) as indicated in page 12 suggesting that 'services should be limited to first-aid, life saving measure, counselling and advice on referral', there were news reports on inhibitions from the patient side that chose telemedicine to consult a Dermatologist, the paper quotes a patient as: "I was not comfortable with showing the dermatologist my skin issue over the video call because I honestly felt he wouldn't be able to diagnose much behind the screen." (The New Indian Express, 'Telemedicine is the new call for action at the moment', May 31, 2020).

Public perceive the most trusted sources on health issues from doctors. The attribution from doctors and patients was largely ignored. It is observed that some dissatisfied patients and their close attenders freely posted their negative feedback in the 'comment' section of the mainstream news online versions. Even after this gruesome revelation, readers cannot blindly trust negative reviews or positive reviews by owners of any healthcare information technology provider, specifically if reviews

are posted on the healthcare agency's official websites or in their social media platforms. Reporters have not reviewed nor addressed those convincing feedback, which is certainly consistent with poor follow-up news articles. Rather, the reporters concentrated on subjects building positive images about private telehealth platforms.

The lack of coverage of these challenges in telemedicine is disturbing. There are reasons attributed to slim coverage in this context, as Cassels (2007) which are tending to problems in any medical reporting, including sensationalism, biases, and conflicts of interest, balanced reports, and lack of follow-up. Pressures from internal and external sources may prevent health journalists from enacting ideal roles.

3.2 News Framing toward Challenges in Telemedicine

A total of three frames were identified in all the news stories. Most of the reports were arched towards the 'staggering rise in telemedicine adoption' followed by 'telemedicine opportunities' and of the ten articles, only two articles (reported by Express Healthcare) were framed along 'telemedicine challenges' which suggest that there is a lack of balance in reporting obstacles in all the news articles. The news headlines were not augmented towards hurdles or challenges in telemedicine and those reported articles were highly redundant over the ten-month period implying that there were no follow-ups on the issue.

This is clearly indicated through in the news articles written by a telemedicine expert and columnist indicating the meteoric rise in telemedicine practices during lockdown with a mere passing and inconclusive remark on telemedicine limitations (The Hindu, 'COVID-19 enhances reliance on telemedicine', April 19, 2020). Again, the same expert and columnist writes in the special edition of the Economic Times Health World (Economic Times Health World, 'Telemedicine Accreditation, Certification to follow soon', May 18, 2020) almost reiterating the same message. Surprisingly, the news articles from Economic Times Health World do not cover or address any reports on how the current telemedicine structure in place is prepared to handle the challenges, considering that the same newspaper carried an article covering extensively the pitfalls of telemedicine in India in December 2019 (Jhunjunwala, 2019) just a few months before the pandemic has occurred.

During a non-emergency consultation, the new Telemedicine Guideline 2020 states that patients may use real-time video/audio/text interaction for follow-up consultation on their ongoing treatment with the same Registered Medical Practitioner (RMP) who prescribed the treatment in an earlier in-person consultation. During the COVID-19 pandemic scenario, most of the news reports indicate that there were increasing responses from patients to private-owned telemedicine applications for a one-time subscription. In such a booming period, did the platform facilitate follow-up care systems for patients who wanted with the same RMP who gave them online-consultation for the first time? The journalists did not report such frames, nor did they respond to individual (RMP) who treated a patient in an earlier in-person hospital consultation and then patients connected through them via phone, WhatsApp, or video chat.

Covering fatal medical omissions or identifying wide errors in public health delivery and recording barriers will add direct relevance to the news story if objectively placed and framed. However, editors and publishers should be equally determined not to cut favours for vested members. What is lost and untold in mainstream print media is a gain to other online news sites which has diligently exposed several barriers in telemedicine practices especially during the COVID-19 pandemic. Various issues can influence how frames are created in the newsroom. Most of the news frames were merely focused on the booming telemedicine sector, which has seen a steep rise towards its use. This is due to concerns of the government to stop the spread of the virus through social distancing and lock-downs implemented across India. A similar view was observed in a study in which health journalists tend not to use controversial angles and prefer story angles that would be most likely to grab reader attention to withdraw services (Wallington *et al.*, 2010). Conflicting reports may also usher non-adoption of telemedicine and may force patients to leave homes for a quick hospital visit at the time

of strict movement control during the pandemic. Patients may stop relying on these services again even when pandemic situation return to normalcy.

3.3 Reporting Insights and Solutions to Telemedicine Challenges

Only two news articles of Express Healthcare have solicited probable solutions for the real-time problems in telemedicine practices. The article by a health and science reporter who attributed a doctor's propositions to solve language barriers while using a common Telehealth application. The ideal model in rural areas could be having apps with local languages that people can easily understand. Maybe, people in those areas can opt to take help of NGOs who can provide them access to this app, to build a sustainable Telemedicine model, access to specialists' doctors should also be provided (Express Healthcare, 'Transforming Indian healthcare via telemedicine', April 19, 2020). The second article suggests preparation for regulatory compliance and data protection, process standardization, promotion of research, and building new capabilities, as recommended by a financial consultant. The Indian healthcare ecosystem should build upon key focus areas such as standardizing pharma supply chains and delivery, including for e-pharma. Drug/medication delivery to patients needs to be more standardized, regularized and the scope of the same should be extended to beyond tier I and II cities (Express Healthcare, 'Why telemedicine and health tech providers need to improve their regulatory preparedness', July 17, 2020).

In recent years, many health journalists are embracing 'predictiveness' in news articles to forecast, prepare and reporting responses that are working during emergencies. Leonardo Milano, who leads the predictive analytics team at the United Nations OCHA Center for Humanitarian Data, suggests that journalists should be aware of the use of assumptions and limitations while reporting for technologies used in all humanitarian operations (Milano, 2020). This will close gaps and improve the scope of future advantages at the time of health emergency. Such approaches give rise to cultivating high impact 'Solutions Journalism' wherever there is truly little information available to inform new challenges.

3.4 Embracing Solutions Journalism in Medical and Health Reporting

Solutions journalism is a novel approach and a rigorous form of reporting that can be functional and rewarding at this time of emergency health outbreaks. Solution-based news analysis can mitigate disparities in news transparency and observe how health bodies and policy makers respond to problems. Solving existing and predicable problems through expert analysis and bringing these to the forefront for public debate and discussion is important for scaling up and embedding these new telemedicine solutions within health systems. Medical and health journalists should include news reports on the following aspects:

- a. Suitability and review of the existing telemedicine system in India in terms of technical capacity, diagnostic accuracy, and patient outcome.
- b. New telemedicine systems, standards, and protocols suitable for the Indian diaspora.
- c. Patients' experiences in terms of timeliness, duration, physical and psychological comfort with the application they used, cost, concerns about privacy, willingness to use the telemedicine service again.
- d. Preparedness to mitigate limitations as stated in the technology and mode of communications by telemedicine solicitors (doctors, Telehealth companies, arbitrators).
- e. Experiences, concerns, or overcoming limitations of physicians due to scheduling telemedicine appointments, infrastructure, technical quality, and location.
- f. Service gaps and obstacles in terms of physician allocation, consultation time, drug adherence, monitoring and follow-ups, rapid reimbursements, dedicated customer care support.

- g. Challenges in increasing the awareness and knowledge of telemedicine services.

This is exactly why news needs to go beyond the headlines especially when public is inundated with redundant news about pandemics. For instance, live reports of how new technology interventions promoted telemedicine process that has reduced the limitations of an existing problem faced by doctors and patients previously must be reported. This could also involve mapping areas with the newer challenges faced by telemedicine functionalists from many other countries at this time of pandemic. If many legacy news organizations and their journalist fail to adopt this approach, readers will not fail to rely on other unverified online sources, diminishing the trust and credibility for what mainstream print is always looked upon.

4. Conclusion

Health and medical reporting can be incredibly complex, especially for journalists without a background in medical science. But for diligent and empathetic reporters, it is an opportunity to provide two-way information that empowers readers to make better health decisions. In this study, reporting differences are seen in the stances from the mainstream and special editions, though not all special editions adhered to covering the gaps or barriers in telemedicine besides the number of details in the news reports was quite limited. The lack of news articles covering gaps in telemedicine practices by mainstream print media and not creating an essential news frame for public discussion is debilitating and leads to 'mal-information' or even under-reporting. This way, it may pave the way for less competent private health technology establishments needlessly gaining strength from reporting unreasonable claims and misleading rhetoric, due to which patients might not receive enough guidance to choose a right platform for online consultation or other telemedicine services. Reporting persistent challenges faced during the pandemic will stimulate new approaches to upgrade telemedicine practices. Journalists must take a predictive approach to focus on solutions surfacing from the data facets to contextualize information for scaling up and embedding new telemedicine solutions within health systems. Understanding this need will connect policymakers and technical partners to aim for high quality of care, access, cost, and acceptance of proven telemedicine practices.

5. Limitations

The study limits the analysis to news reported only from mainstream English print (online) news media covered between March and December 2020 as news reports declined substantially post lockdown. However, considering that there were only 10 news articles within the territorial perspective of covering telemedicine challenges, the results should not be extrapolated to other media that reported similar challenges during the pandemic in India.

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