

## **A brief study on the public dissemination of COVID-19 information through *Science Reporter***

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### **ABSTRACT**

Information dissemination during the COVID-19 pandemic period was a challenging task. There was a lot of misinformation circulated through social media. The pandemic has badly affected the print sector, and most magazines either stopped publication or shifted to digital mode. One of the premier science magazines published in India, *Science Reporter*, has brought out issues in the digital format even during the pandemic lockdown. In the present study, we analyse the content related to COVID-19 published in the magazine for disseminating scientific information to the public. The study showed that the magazine carried forty-three articles related to COVID in 16 issues published during 2020-2021. The study also showed a spurt in popular science writing from the members of the scientific community.

**Keywords:** *Science Reporter*, COVID-19, public dissemination, science writing

### **Introduction**

The novel coronavirus (SARS-COV-2) struck the whole world all of a sudden, and in March 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic (Armocida *et al.*, 2020, Shim *et al.*, 2020). It has caused widespread damage to not only human life but also the economy of nations (Chan, 2020). The disease was new to the scientific community, and during the initial period, the medical community, scientific community and policymakers were at a

standstill in managing the disease. Restrictions, including lockdown, were implemented across the globe and in India (Siddiqui *et al.*, 2020).

The whole society became panicked due to the uncertainty in managing the disease. The psychological effect of ‘moral panic’ is an extreme sense of concern and will affect the physical culture of society (Goode, 2017). The main reason for this panic is the lack of information flow from experts to the community at the appropriate time (Greco, 2005). Misinformation through social media was spreading like a wildfire during the period (Lazer *et al.*, 2018). Lack of information or misinformation exaggerated through media reinforce fears and phobias in the mind of the common man (Taylor *et al.*, 2004).

Science magazines have long been a channel of science communication for promoting scientific temper in society. The pandemic has badly affected the publication sector, and many magazines shifted their focus to digital format during that time. The effectiveness of the magazines in avoiding superstitions/misinformation can be perceived from the diversity of articles published in a magazine over a period. Earlier studies have observed that the scientific information published in magazines has credibility (Hovsepyan *et al.*, 2018).

### **Methodology**

The present study was carried out using *Science Reporter*, India’s oldest and long-standing English popular science magazine published by the National Institute of Science Communication and Policy Research (NIScPR), Council of Scientific and Industrial Research (CSIR), Govt of India, since 1964. The details of the articles on COVID published in *Science Reporter* during the 2020-2021 period were documented and analysed.

### **Results and Discussion**

Since COVID-19 started making waves across the globe, *Science Reporter* carried a considerable number of articles related to COVID in its 16 issues published during 2020-2021. A total of 43 articles under various categories like a cover story, feature, short feature, CSIR technology showcase, quiz innovative minds, interview, webinar report, and info graphics

were published (Table 1), along with articles on other issues. The cover story that forms the face of a magazine is the selling point of a magazine as it features on the magazine's cover page. Two cover stories related to COVID-19 were published during the period. The cover story 'United in the Fight — Indian S&T Establishments Come Together to Challenge COVID-19' published in the May 2020 issue, highlighted the contributions of various organisations and departments of government in combating the pandemic. Similarly, the cover story 'Turning Point for Telemedicine' published in the August 2020 issue highlights how the COVID-19 lockdown triggered the initiative for telemedicine.

**Table 1: Details of COVID-19 related articles published in *Science Reporter***

Cover Story	Feature	Short feature	CSIR Technology Showcase	Quiz	Innovative minds	Interview	Webinar Report	Infographics
2	12	12	6	5	3	1	1	1

The pandemic has triggered our scientific community to write popular science articles. Twenty-nine members of the scientific community contributed articles to the magazine during the period (Table 2). This spurt in the popular science writing by our researchers is a positive impact on the pandemic. Being the frontline workers in mitigating the pandemic, the first-hand report by our scientific community has a positive impact on information dissemination. It prevents superstitions and the spread of misinformation regarding the spread of the virus and against vaccination. Apart from our research community, people from the academic community and even the student community contributed articles to the magazine.

**Table 2: Profiles of authors who contributed Covid-19 articles**

Scientists/ Researchers	Academicians	Science writers	Students	Retired govt servants
29	5	4	3	3

The study revealed that even though the number of contributions from the male gender dominated, a considerable number of female authors also contributed to the magazine

(Table 3). Gender-wise analysis of contributing authors showed that 28 male and 20 female authors contributed articles during the time. There were no contributions from the third gender.

**Table 3: Gender-wise contribution of articles**

Gender	No.of authors (%)
Male	58.33
Female	41.66
Third gender	0

The COVID-19 pandemic opened up an era of collaboration in science. Many institutions across the globe initiated a collaboration to find a solution to mitigate the pandemic (Fry *et al.*, 2020). In the articles published in *Science Reporter* during the time, seven multi-authored articles were observed, with five articles with male-female collaboration and 2 with female-female collaboration (Table 4).

**Table 4: Details of collaboration in articles**

No. of multiauthored articles	Male-Female	Female-Female	Male-Male
7	5	2	0

Analysis of the geographical location of the authors showed that authors from 10 states contributed articles during the period. The highest number of articles were contributed by authors from the Delhi region (Table 5). This is mainly due to the contribution of scientists from national institutions situated in the Delhi region. The contributions of articles from various areas of the country showed the strength of science communication during the COVID-19 pandemic period.

**Table 5: Geographical distribution of the contributing authors.**

Name of State/Union Territory	Author Numbers
Delhi	23
Gujarat	1
Jammu and Kashmir	1
Karnataka	1
Madhya Pradesh	6
Puducherry (UT)	1
Punjab	3
Telangana	5
Uttar Pradesh	3
West Bengal	2
Overseas	1

### Conclusion

The sudden surge in COVID-19 rejuvenated the scientific skill of our scientific community in every field of science. Within a short span of two months, our scientists made commendable breakthrough research in mitigating COVID-19. There was a long concern that people from the scientific community rarely write popular science articles. Our study has shown that the scientific community showed renewed interest in popular science writing. *Science Reporter* being the only science magazine that has been consistently brought out even during the pandemic, carried a good number of articles on COVID catering to the needs of every member of society.

Like in any other field in scientific research, in science writing related to COVID also we can see a considerable number of collaborative writing. The study showed that the Indian English popular science magazine *Science Reporter* had done commendable work in disseminating COVID-19 related information to the public.

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