

## **Public Perception of Folk Media and its Importance in the Dissemination of Science**

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### **ABSTRACT**

Science communication aims to connect the general public with scientific research by enhancing their awareness, interest and understanding of science. Folk media can play a significant role in low-resource settings that require more cost-effective measures to communicate effectively. The major objectives of this preliminary study were to study and document the role of folk media in the dissemination of science and to understand the public perception of the role of folk media in science communication based on an online survey. Data for this study was collected from literature survey of published research papers and other relevant documents including grey literature and online news articles, and an online survey that assessed people's opinions on using folk media for science communication was conducted. The questions for the survey were based on the importance of folk media for science communication and types of folk media. The findings from the preliminary review of literature, news articles and public survey in this study indicated that folk media can be effectively used for science communication among the rural and deprived sections of society but it can also be useful in a modern context and to enhance engagement with science in urban areas. The survey participants agreed that folk media is important for science communicators and to counteract misinformation and superstition.

**KEYWORDS:** Folk media, Science Communication, Folk Art, Folk Music

### **Introduction**

Science communication aims to connect the general public with scientific research by enhancing their awareness, interest and understanding of science. Scientific research is usually communicated among scientists using research papers, presentations, and academic gatherings, but these cannot be understood by the lay public (Patil, 2018). Hence, it is necessary to use language and tools that can be understood by the public to help in better assimilation of the information being given to them. Science communication fulfils this gap in public understanding of science by using relatable ideas and language and a storytelling approach to make complex scientific concepts more interesting to the layperson.

Mass media such as television, radio, newspapers and magazines can be very effective in science communication but they also pose certain barriers in rural areas because of the lack of literacy and accessibility to modern technology, which can be expensive (Sinha, 2013). These low-resource settings require more cost-effective measures to be able to effectively communicate with the audience. Folk media can play a significant role in such instances.

### **Folk Media in Science Communication**

Folk media refers to the ways of communication used by the common people or rural folk for the delivery of their messages. Folk media has a different style of presentation to the public and uses puppetry, street plays, folk songs, and folk dances such as *nautanki* and other similar traditional means of communication (Patairiya, 2012). Folk art forms are also easily relatable to the public as they are more personal and familiar to them and have no set language rules or literature (Kodavath, 2015).

Despite there being documented cases of the use of folk media for science communication, such initiatives are still inadequate in practice. We conducted this study to document some examples of the use of folk media in science communication in recent times and to understand how the general public perceives the use of such initiatives.

The major objectives of this study were as follows:

- To study and document the role of folk media in the dissemination of science.

- To understand the public perception of the role of folk media in science communication based on an online survey.

### **Methods**

Data for this study was collected from literature survey of published research papers and other relevant documents including grey literature and news articles, and an online survey that assessed people's opinions on using folk media for science communication. The questions for the survey were based on the importance of folk media for science communication and on the types of folk media, etc. A Google form questionnaire was shared with people *via* online platforms and they were asked to fill it. Data collected from 100 participants who filled the Google questionnaire was then analysed. The participants included students, teachers, science communicators, business professionals, etc. among others, to ensure varied opinions were considered, and the majority of the participants were 22-30 years of age with the oldest being 60 years.

### **Results and Discussion**

#### ***Importance of Folk Media for Communicating Science to Rural Populations***

Folk songs and art can easily incorporate familiar concepts and ideas to educate rural populations on various aspects of science and society that can affect them and their knowledge can in turn help solve current problems in the society. For example, the Soliga tribes of the Biligiri Rangaswamy hills in Belgavi reserves worked with forest officials on different issues such as tracing tigers, counteracting poaching and timber smuggling. The folk songs of this tribe have great details about animal behaviour, including their sighting, smell, pug marks, etc, and even include songs about the classification of forests. These can be very beneficial in conservation efforts if integrated with modern scientific approaches (Iyer, 2016 & Rajappa, 2018).

The use of folk dramas for raising awareness about tribal health and hygiene in Bhil regions of Madhya Pradesh was seen to be very effective to increase awareness on topics such as the evolution of life, the universe and its myths, the human body and diseases, environment and food. The programme was

well-received by the local people and they participated by asking many questions, which showed their curiosity towards the topics, and they reported that they would encourage their children to participate more enthusiastically in topics on science and technology in the future (Anupam and Tripathi, 2013).

*Health Walls*, or 'Swasthya Kantha' in the language Oriya, is an initiative by the Odisha state government to communicate about health-related topics by using the 'Kantha Kahe Kahani' (Wall Tells a Story) format to encourage people to adopt new and healthy behaviours. This campaign made use of short messages in Oriya along with local icons and images and calligraphers to make it more relatable to the local population. (State Institute of Health and Family Welfare, Odisha).

Similarly, in another study (Gavaravarapu and Thangiah, 2009), the authors collaborated with National Service Scheme to train the local community on various nutritional aspects. The NSS volunteers were already using folk dance for education on health and sanitation-related topics and so were able to adapt to education about nutrition as well. They used a combination of the lyrics of the song, the dance movements and still images as part of their performance.

### ***Public Perception of Folk Media and Types of Folk Media for Science Communication***

Folk media has an advantage over mass media such as newspapers and TV in that it is more personal and relatable to the audiences as it uses simple language and elements of storytelling that the audience is familiar with and can relate to in socio cultural aspects (Prasad, 2013).

In our survey, the participants believed that folk media was important for science communication (57.6%, agree; 21.2% strongly agree). They also believed that folk media could help fight misinformation and superstition (72.4%).

Among the types of folk media, the ones that the participants believed to be most relevant for science communication in our community were storytelling (65.3%) and drama (55.1%), followed by folk songs (39.8%), and puppet shows (26.5%), while the ones that were most commonly seen in their local

regions were storytelling (58.9%) and folk songs (31.6%), followed by folk dance (23.2%) and puppet shows (18.9%).

There have been studies that show that folk media is often preferred by people in rural areas. Kshatri *et al.* showed that among different forms of media for health communication such as TV and radio, health walls, which used folk art to create awareness on public health matters, were found to be a preferred source of information on disease prevention (Kshatri *et al.*, 2021).

Nearly 36% of respondents reported getting health-related information from these health walls. Similarly, in a study, which explored the views of a rural population on using folk media for health education, it was seen that they were very interested in folk media being used for this purpose (Shankar, 2001).

### ***Relevance of Folk Media in Recent Times***

While the use of folk media is a big part of communicating basic science in rural areas, its use is not restricted to these purposes. It can also play a major role in tackling modern scientific problems such as the conservation of biodiversity and public health awareness on topics such as antibiotic resistance (see Table 1).

**Table 1: Selected examples of the use of Folk Media in Science Communication in recent times**

<b>Institute/ Organisation</b>	<b>Theme</b>	<b>Type of folk media used</b>	<b>Reference</b>
Science City, Kolkata	'Antibiotics Use: Tina's stor on the use of antibiotics and multidrug resistance	Puppet show	NSCM 2021
SEVAK (Society for Empowerment through Voluntary Action in Karnataka)	Communicating science and social issues to the public in general and to students	Puppetry	SEVAK

IISc Bangalore	'Mapping India through the Folk Arts' using different folk dances Kalbelia: Four-colour theorem Vira: Plastic-eating worms Lavni: CRISPR Koothu: Material Properties and Microscopy Koithu Pattu: Gravitational Waves and Universe Expansion Dollu Kunitha: Haber Process	Folk dances	Bitasta Das 2017
Government officials in collaboration with the Soliga tribe	Conservation efforts in forests	Folk songs and knowledge	Iyer 2016
State Institute of Health and Family Welfare, Odisha	Health Walls, or 'Swasthya Kantha' to communicate about health-related topics using 'Kantha Kahe Kahani' (Wall Tells a Story) format	Folk art	State Institute of Health and Family Welfare, Odisha
Shiv Nadar University	Biodiversity map of the plants and animals seen in the university campus	Folk art	Shaw 2023
Vigyan Sarvatra Pujyate (Science & Technology is Revered All Over), under Science & Technology Communication, Popularization & its Extension (SCOPE)	Deforestation and pollution of Dal Lake in Kashmir	Puppet show, folk art, folk songs such as Ladishah, folk drama	Rising Kashmir 2022
Yadava College	Prevention of non-communicable diseases, HIV/AIDS, cardiovascular problems, breast and cervical cancers, sanitation and water conservation.	Folk art, storytelling and different forms of folk songs and dances	Rohith 2016

Vigyan Prasar (VP) and Madhya Pradesh Council of Science and Technology (MPCST)	“Kona Thi Vigyan Ni Vaat” Science communication and awareness on health and hygiene, environment, agriculture, technology etc	Nukkad natak or street plays	Anupam and Tripathi, 2013
National Institute of Nutrition (NIN), Hyderabad and National Service Scheme (NSS)	Folk dance was used to train the community on various nutritional aspects	Golla Suddulu, popular Telugu folk dance and song	Gavarava rapu and Thangiah (2009)

### Folk Media in COVID-19 Awareness

There were many instances of different types of folk media being used for disease prevention and awareness during the COVID-19 pandemic (see Table 2). Many local singers and artists in rural areas took to singing folk songs and making art to create awareness about coronavirus and COVID-19 prevention and also to promote vaccination (Satphale 2020, Get Bengal 2020 & Rahman 2020). UNICEF collaborated with the Song and Drama Division of the Press Information Bureau/Regional Outreach Bureau and trained 64 folk artist groups to create awareness of COVID-19 in Gujarat (UNICEF India, 2020).

**Table 2: Selected Examples of Folk Media in COVID-19 Awareness**

Institute/ Organisation	Theme	Type of folk media used	Reference
Regional Outreach Bureau (ROB) collaboration with folk artists	Create awareness about COVID-19 using performances in public spots in Maharashtra	Folk skit, poetry songs and dances such as Lavni, Batavani, Powadas etc	Satphale 2020
Regional Outreach Bureau (ROB) collaboration with UNICEF	Communication of COVID-19 related messaging	Various folk arts and songs	UNICEF India 2020

Folk Artists	Create awareness about COVID-19 in rural Bengal	Folk songs such as Baul and Jhumur	Get Bengal 2020
IIT Kharagpur (Dept of Humanities and Social Sciences)	Folk artists in the time of coronavirus	Scroll paintings and music by the <i>Naya Patuas</i> for COVID-19 awareness outreach	Shreyoshi Ghosh 2021
Tripura puppet theatre (TPT) group	COVID-19 awareness puppet videos in Bengali, Hindi and other local languages are also being telecast on various channels in Tripura and other North-eastern states	<i>Putul Nach</i> (puppet dance)	Sujit Chakraborty 2021
Ganjam (Odisha state) authorities	Debunking COVID-19 vaccine-related myths and encouraging people to get vaccinated	' <i>Dasakathia</i> ', where sticks are used to create music, and ' <i>Pala</i> ' where tales from the mythology are narrated, ' <i>Pasu Nurtya</i> ' or animal dance, ' <i>Kandhei Nata</i> ' or puppetry	Upadhyay A 2021
SEVAK (Society for Empowerment through Voluntary Action in Karnataka)	Encourage vaccinations	Puppetry and street theatre	SEVAK
Folk artists	Using storytelling to document COVID-19 pandemic and lockdown	Rajasthani folk art form <i>Phad</i> , which is a type of scroll painting	Rahman 2020

In our survey, 63.3% of participants agreed that folk media is effective in disseminating information on the latest developments in S&T and government science policies/missions.

## **Conclusions**

The review of literature, news articles and public survey conducted under this preliminary study indicated that folk media can be effectively employed for science communication among the rural and deprived sections of society but it can also be useful in a modern context and to enhance engagement with science in urban areas. During the study, we observed that science communication through folk media is common across the country. It is a preferred medium as people can relate to it very easily, especially in rural areas, there is no language barrier and it is less expensive, provides entertainment and addresses local issues.

Folk media can be used to create awareness about basic scientific concepts such as the environment and public health along with more advanced issues like antibiotic resistance. Science communication through folk media can also be very effective in raising awareness during emergencies like the COVID-19 pandemic.

In our survey, the participants agreed that folk media was important for science communicators and to help counteract misinformation and superstition. Storytelling and dramas, among other forms of folk media, can be especially useful for communicating about scientific topics.

Folk media is still very relevant for developing countries like India as modern technology and methods have not reached all corners and are also not affordable for all. However, the new generation from urban areas is also interested in science-themed folk programmes, as they can be very engaging and entertaining. School and University students are experimenting with the use of folk media for science communication in various forms and these programmes are being appreciated.

As the study was conducted online it did not include the rural population (actual participants and beneficiaries of folk media communication), an in-person/offline study including these participants is necessary in the future to understand the public perspective and to design policy recommendations for promoting science communication through folk media. Another limitation of the study was the shortage of research articles published in indexed journals on this topic, hence the number of papers

included in this study is limited. However, we have tried to include many different forms of folk media being used for a range of communication efforts from all across India. Future research with more thorough reviews may give a more comprehensive picture.

Folk media can play an important role to make science communication inclusive by reaching out to underserved communities. The use of folk media for this purpose should be promoted and be a point of focus for scientists, science communicators and policymakers in future endeavours.

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