REQUIREMENT OF ENGAGING SOCIAL MEDIA FOR HEALTH COMMUNICATION: A CASE STUDY ON RASHTRIYA BAL SWASTHYA KARYAKRAM (RBSK) IN DISTRICT EARLY INTERVENTION CENTRE (DEIC), JAJPUR DISTRICT IN THE STATE OF ODISHA (INDIA)

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Abstract—*The health issues that continue to plague Odisha underline the need for revamping the existing system. There have been gaps between the planning and implementation of various health programmes in the state because of poor communication. Concerted efforts by the government, NGOs, the media and civil society are needed to strategise and implement plans for health-related issues. In this context it is important to state that today social media is a growing and changing communication tool, underutilized within the global health and development sector. In settings with minimal human and financial resources, social media gives implementers the ability to reach a large number of people over a broad geographic area. It allows the user to share information through multiple channels, easily reaching and engaging diverse audiences. Although social media have considerable potential as tools for health promotion and education, these media, like traditional health promotion media, require careful application and may not always achieve their desired outcomes. This paper summarizes current evidence and understanding of using social media for health promotion in the state of Odisha (India). More important, it discusses the need for evaluating the effectiveness of various forms of social media and incorporating outcomes research and theory in the design of health promotion programs for social media. This paper is a review using a systematic approach. A systematic search of the literature was conducted using electronic databases and manual searches to locate peer-reviewed studies, media reports and Government health reports published between January 2010 and August 2017.*

KeyWords— Social Media; Health Communication; Rural India; Government Health Promotion

1. INTRODUCTION

Health is one of the important aspects of life, which not only determines physical condition of a person but also influences socio-economic-educational status of the family. In Odisha, Child mortality (under five) rate is 82, As per Annual Health Survey, 2010-12, Infant mortality rate is 57, SRS (Sample Registration System)-2012 .It envisages that health problems starts from early age, is a burden for the family as well as the State, about 65% children (0-5) years are anemic, NFHS (National Family Health Survey)-III. 1.23 lakhs students are identified as disabled/ physically challenged OPEPA (Odisha Primary Education Programme Authority), 12-13. NRHM (National Rural Health Mission) under Department of Health & Family Welfare has taken several initiatives for building a healthy society. Rashtriya Bal Swasthya Karyakram (RBSK) will be a major intervention in early detection and complete treatment of physical problems. The Dept of Health & Family Welfare, Govt of Odisha has implemented RBSK programme from the year 2013-14. The programme aims to cover over 1.21 crores children from birth till 18 years under its domain. Screening of the new-born, both at home & public-health facilities, Pre-schooling children up to 6 years from Anganwari centres & school going children & adolescents from age 6-18 years studying in Government & Government aided schools will be the targeted beneficiaries under this programme. It is important to say that to make successful this, sincere efforts should be given from health screening till complete treatment under the programme to achieve desired outcome for child health care in the State. Several NGOs in the state have been drawn into the issue of ensuring better communication. However, many of them are unhappy with the present scenario. Samir Ranjan Mishra, mission head, Center for Integrated Sustainable Development, points out that there have been gaps between the planning and implementation of various health programmes in the state because of poor communication. Moreover, people in rural Odisha are not aware of the 108 ambulance service. Communication at the grassroots is weak. Hence, health communicators need to be trained. Digital communication interventions could be a major step forward.

According to the report of UNI -- C-1-1-DL0214-987397.Xml (Bhubaneswar, Tuesday, Jul 25 2017), Odisha government has adopted the social media as a go to platform for instant action from information dissemination to redressing grievances, Chief Minister Naveen Patnaik today said. Inaugurating a workshop on Delivery of public services through social media in

association with the Facebook, Mr Patnaik said social media has become an integral part of good governance in today's world as it brings the common public closure to the government and ensure their direct participation in the governance and policy matters. He also advised extensive use of social media to reach out to people, informing them about government programmes, works on healthcare etc., listening to their issues and problems, and taking immediate action to resolve them as fast as possible.

Within the last decade, social networking sites like Facebook, LinkedIn, Wikipedia and Twitter have fundamentally changed the way people communicate and share information. Approximately 1 billion people around the world are active Facebook users. With the Twitter registering 317 million monthly active users and 500 million tweets per day, the platform has emerged as the most popular, elitist and crisp form of communication. Social media has become an integral part of modern culture.

Social media – understood as online platforms for user-generation of content, for instant distribution of information, for the establishment of networking communities and for open-access, two-way dialogue – are also gaining importance in public health. Patients are increasingly online, where they consult Wikipedia, online doctors and patient forums to get answers to their questions and discuss their own and their family's health and wellbeing. Smartphone apps for the health system are a rapidly growing sector. The private health sector is using social media for marketing purposes, and the press has taken on social media as a major source for health communication. Neglecting social media for public health science communication would be negative.

In this paper, it is highlighted some of the current uses of social media in public health research and communication. It discusses the strengths and weaknesses and makes a number of recommendations for how public health departments and research institutions can implement social media in their work. Finally, it is recommended a number of topics for future research that academic departments of public health can undertake in order to make use of the potential of social media. Communication with the public is also a key component. All universities today see communication to the wider society as one of their basic aims along research and teaching, and most research funding agencies emphasise the importance of public communication of science.

2. AN OVERVIEW OF SOCIAL MEDIA

With social media, an additional array of communication platforms and practices has emerged to support the communication needs of individual researchers. A rapidly increasing number of research scientists are using social media to communicate their work, their results, and their work procedures. Through blogs they write about their current research work, papers they have read, and other issues relevant to their academic work, including professional relation and science policy issues. They use Twitter to share news and survey new ideas. LinkedIn to 'market' their work and career moves, Mendeley or ResearchGate to share references and data, and Facebook to tell their friends and former colleagues that science and private life is often indistinguishable.

Table-1 summarises some of the most widely used social media platforms most relevant for public health science communication.

TABLE 1 – AN OVERVIEW OF SOCIAL MEDIA

Social media group	Use	Examples
Microblogging	• Short text-based posts of up to 140 characters • Often used to share links to webpages, articles and events	Twitter
Social networking sites	• Profile pages with personal descriptions and "walls" to share links, statements etc. • Readers may post comments and questions and rate the content • Users may also join common interest user groups	Facebook, LinkedIn, Google+
Scientific social networking sites	• Social networks targeted researchers and scientists • Functionalities are similar to popular social networks, but many include e.g. data sharing services	Mendeley, Research Gate, Academia.edu
Blogs	• An internet site consisting of posts displayed in reverse chronological order • Combines text, images, and links to other webpages • Often themed on a single subject • Allow readers to comment • Derived from the words web log	Scienceblogs.com ResearchBlogging.org
Wikis	• Online, free-content collaborative internet encyclopedia	Wikipedia
Media sharing services	• Services that allow the users to upload and share various media such as pictures and video • Most services have additional social features such as profiles, commenting, etc.	YouTube, Pinterest

3. How social media are used in public health science communication

In this section, it is described about different uses of social media for public health science communication with examples from university departments, public health institutions, and individual initiatives.

Research dissemination scientific journals, conference abstracts and posters are traditional channels through which individual researchers can disseminate their research. With social media yet another tool for disseminating research results and for drawing attention to research projects and publications has emerged.

By providing links to articles, abstracts, and PowerPoint presentations, social networking sites can help individual researchers and research groups create a wider awareness of their work. Studies have shown that using social media for marketing scientific articles can increase downloads and citations and thereby increase impact. Many high-impact journals are already using social media and several journals encourage their authors to explore social media for announcing their articles.

In principle, the university's professional communication officers could provide such linking. But in practice, this is better and more accurately done by the researchers themselves. Researchers can easily expand their already established network of peers into a larger social media linked network. Also, the personal dimension of social media makes it better suited for sharing new articles, abstracts and poster presentations than the more anonymous mediation done by a communication officer.

In addition to sharing links and recommendations to already published articles, social media provides an opportunity to share informal background information, which cannot easily be published elsewhere. Researchers can induce a wider interest in a recently published research article by writing; for example, blog posts that reflect on the work involved or provide less formalised and more explicit first-person comments on the research field. The blog format gives researchers an opportunity to go beyond the ritualised peer-reviewed journal format and tell 'the true story' about the project, which, in turn, can strengthen informal contacts with researchers.

Wikipedia, a collaboratively written web-based encyclopedia, is one of the most used sources of information online. It is usually among the top results of search engine queries, also when it comes to seeking medical information. By contributing new research results to existing or new Wikipedia articles, with links to the original sources, researchers have an opportunity to disseminate their research to other professionals.

4. Methods

This review paper followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and used a systematic approach to retrieve the relevant research studies. The review included all study designs in order to identify the best evidence available to address the research objective. The literature search was conducted on September 7, 2017, using the following electronic databases: CSA Illumina, , Communication Abstracts, ISI Web of Knowledge, Web of Science, MEDLINE, PsycINFO, and PubMeb Central. The searches were performed using the following defined search terms: "social media" OR "social network" OR "social networking" OR "Web 2.0" OR "Facebook" OR "Twitter" OR "NRHM Odisha" OR "Odisha Health" AND "Health". The inclusion criteria were (1) primary focus on all communication interactions within and between the general public and/or patients and/or health professionals about health issues using social media, (2) including the uses and/or benefits and/or limitations of social media for health communication, (3) original research studies, and (4) all study designs. The exclusion criteria were (1) studies not in English, (2) literature reviews, dissertation theses, review papers, reports, conference papers or abstracts, letters (to the editor), commentaries and feature articles, (3) studies only on Web 1.0 (ie, traditional Internet use), and (4) studies with a primary marketing or advertising focus. In total, 10 original research studies that included the use, and/or benefits, and/or limitations of social media for health communication among the general public, patients, and health professionals were selected for this review.

5. Results

The 10 selected studies are summarized by study design, social media tool/application, study purpose, participants/sample and sample size, measurement tools, results, conclusion, and use of social media. The diverse studies included the use of a range of social media tools/applications; the most reported being Facebook, blogs, Twitter, and YouTube. The study samples included blogs/forum discussions in which the participants were the general public, patients, and/or health professionals. There was a wide range of health topics, but the most frequently reported on were sexual health, diabetes, flu/H1N1, and mental health issues such as stress or depression. There was not sufficient topics on Rashtriya Bal Swasthya Karyakram (RBSK) and Odisha health mission.

6. Discussion

The Ministry of Health & Family Welfare, Government of India, under the National Health Mission launched the Rashtriya Bal Swasthya Karyakram (RBSK), an innovative and ambitious initiative, which envisages Child Health Screening and Early Intervention Services, a systemic approach of early identification and link to care, support and treatment. This programme subsumes the existing school health programme.

Child Health Screening and Early Intervention Services basically refer to early detection and management of a set of 30 health conditions prevalent in children less than 18 years of age. These conditions are broadly Defects at birth, Diseases in children, Deficiency conditions and Developmental delays including Disabilities - 4D's.

It is estimated that about 270 million children in the age group from birth to eighteen years including the newborn and those attending Angawadi Centers and Government schools will be benefitted through this programme in a phased manner (Census 2011). Any effective health intervention will reduce both direct costs and out-of-pocket expenditure. Child Health Screening and Early Intervention Services also aims at reducing the extent of disability, at improving the quality of life and enabling all persons to achieve their full potential.

For this the early intervention centers are established at the District Hospital level across the country as District Early Intervention Centers (DEIC). The purpose of DEIC is to provide referral support to children detected with health conditions during health screening, primarily for children up to 6 years of age group. A team consisting of Pediatrician, Medical officer, Staff Nurses, Paramedics will be engaged to provide services. There is also a provision for engaging a manager who would carry out mapping of tertiary care facilities in Government institutions for ensuring adequate referral support. The funds will be provided under NHM for management at the tertiary level at the rates fixed by State Governments in consultation with Ministry of Health & Family Welfare.

In January 2016, the DEIC was established in the District Head Quarter Hospital, Jajpur (Odisha). It took 6-7 months to run the RBSK. The Jajpur Medical data report from August 2016 to August 2017 states that the DEIC has enrolled 3052 patients (children) so far. A Mobile Health Team consisted of four members- two Doctors (AYUSH) one male and one female, one ANM/Staff Nurse and one Pharmacist with proficiency in computer for data management, is working to reach all over the district to identify the patients.
No doubt, it is working properly. But the speediness is very slow. That is because of less awareness about the programmes and schemes. According to a report published in http://www.pressinstitute.in, the Government of Odisha has put in place many health management strategies. Interpersonal Communication (IPC), Beahvioural Change Communication (BCC) and Information, Education and Communication (IEC) are some of them. Yet, there have been serious lapses on the health front in the state of late.
Japanese Encephalitis is spreading, and has taken a toll of over a hundred lives in the state's Malkangiri District; the SUM Hospital fire tragedy claimed 25 lives, and the blame was laid at the door of 'faulty certifications'; the wide reportage on Dana Majhi, a tribal, having to carry his wife's body for over 12 km due to the lack of ambulance facilities prompted the National Human Rights Commission to ask the government for an explanation; 53 infants lost their lives at the Sishu Bhavan in Cuttack in 2015; the Health minister stepped down from office – these are only some reflections of the flaws in the system.

Take the case of the outbreak of Japanese Encephalitis – the authorities' stand, blaming the monsoon for the spread of the disease, exposes the nonchalant attitude of the Department of Health Family Welfare and Women and Child Development towards the issue, and the reluctance to address it through effective communication.

The Department of Health and Family Welfare brings out a yearly communication calendar which provides health-related information. Through IPC, Swasthya Kantha Campaign, social mobilisation drives, folk shows, hoardings and mass media campaigns, information on various programmes under State Programme Implementation Plans (PIPs) of the Odisha (National Health Mission) is being effectively disseminated. Many of the initiatives have become effective in mitigating health-related issues across the state.

Mobile Kunji, a health communication strategy operating in 10 districts of the state on Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A), is in full swing through the communication strategies of Facts for Life (FFL) Video, Participatory Learning and Action (PLA), Shakti Varta and Swathya Kantha campaigns. The Swathya Kantha (Health Wall) campaign, launched by chief minister Naveen Patnaik in 2011, is operational in several rural areas. The electronic media campaign Kantha Kahe Kahani telecast on Doordarshan every Tuesday and broadcast by AIR every Wednesday has a wide reach.

According to a study, in villages, 92 per cent of the respondents see and 84 per cent of the respondents are aware of accredited social health activists (ASHAs) via Swasthya Kantha. Even though 81 per cent of respondents report good visibility of the health wall and around 96 per cent of health walls are functional, only 28 per cent of the respondents regularly read the messages on it. A funds crunch and irregular reviews of IEC and BCC activities affect its efficacy. Also, the performance of auxiliary nurse midwives, ASHAs and panchayati raj institutions is yet to be enhanced to upgrade the level of health communication.
Both Mobile Kunji and Swathya Kantha are are operational in Malkanagiri District. Why then did more than 100 people succumb to Japanese Encephalitis? The health issues that continue to plague the state underline the need for revamping the

existing system. An official of the Department of Health Family Welfare said the ICC, BCC and IEC activities were hit by scarcity of funds. Also, re-orientation of communication staff is an urgent need.

Journalists complain of inadequate communication about workshops, seminars and other programmes and the government's health policy. Several journalists working in Odia newspapers and television channels are not skilled enough to report on health issues such as Japanese Encephalitis. All too often, there is a lack of critical assessment of health situations. Even Doordarshan and private television channels, as well as English newspapers, do not provide adequate and sustained coverage of health issues. Bijay Mohanty, a senior journalist, feels that the Odia media fails to cover health-related issues in a critical manner.

Here the necessity of social media comes. Because, *today, more and more members of the medical profession are embracing social media for sharing helpful medical information and providing patient care.* Social media – WhatsApp, Facebook, Twitter and Skype – is slowly evolving into more than a platform for sharing pictures, videos and chats. From searching doctors to posting feedback about hospitals and treatments, they are helping doctors reach out to patients, guide them for treatments, provide post-surgery counseling and create close-knit support communities. According to a recent report by marketing and analytics firm Hansa Cequity, "there are over 100 million Indians who use social media networks and the numbers are only increasing by the day. This phenomenon creates the opportunity for healthcare service providers to engage with customers at a more personal level."
"Hospitals are increasingly using blogs as a tool for customer rating and feedback. Some organisations also allow users to blog about their experiences on the company blog or link the blogger's personal blog to their company website. Prospective customers always see more value in peer reviews, compared to company generated content such as the advertisements," the report titled 'How Digital Can Transform Healthcare Relationships' states.
"Social media is pervading businesses across industries. It is shaping public opinion and eventually transforming the overall business ecosystem," says S Swaminathan, CEO and co-founder, Hansa Cequity. Social media platforms also generate data, which can be analysed by healthcare companies to improve services. "The online platform provides huge conversations around all diseases, quality of healthcare providers, pharma companies etc. Digital is bridging knowledge around healthcare needs. Also, it helps plot trends around what people look for, search and are concerned about," adds Swaminathan.

Thus, taking Rashtriya Bal Swasthya Karyakram (RBSK) programme on social media is not a bad idea. Of course the language of the matter will be in the local language. People will see it, read the schemes, enquiry, ask doctors about it and will get assistance by system made bt district hospital. Even in remote areas, people are using social network sites such as Facebook and Whatsapp for their entertainment. Social media can generate more available health information as users create and share medical information online. If they will know and read about the health programmes in their social groping messages, then they will definitely take the benefits of the Government health programmes and schemes.

There are limitations of social media for health communication. The main recurring limitations of social media are quality concerns and the lack of reliability of the health information. The authors of websites are often unidentifiable, or there can be numerous authors. Thus it is more difficult for individuals to discern the reliability of information found online. Regulations may not facilitate health professionals to communicate with patients online, for example, email is not an official medical record and could be vulnerable to security breaches. The large volume of information available through social media and the possibility for inaccuracies posted on these sites presents challenges when validating information. Social media users are often unaware of the risks of disclosing personal information online and with communicating harmful or incorrect advice using social media. As information is readily available, there is the potential of information overload for the user. The general public may not know how to correctly apply information found online to their personal health situation.

7. CONCLUSION

Like most technology, social media is constantly evolving to fit into everyday activities not only in Odisha but also all over the world. Social media brings a new dimension to health care, offering a platform used by the public, patients, and health professionals to communicate about health issues with the possibility of potentially improving health outcomes. Social media is a powerful tool that offers collaboration between users and a social interaction mechanism for a range of individuals. With increasing use of social media, there will be further opportunities in health care. Research into the application of social media for health communication purposes is an expanding area because increasing general use of social media necessitates that health communication researchers match the pace of development. Further robust research is required to establish whether social media improves health communication practices in both the short and long terms. Social Media plays an important role in healthcare today as it has an impact on patient empowerment. Patients have untold information about their healthcare experiences at their fingertips and want pass it along to others who are in the same situation. To enable the patient voice, several healthcare organizations have developed tailored social platforms for targeted audiences. In relation to live tweeting, healthcare organizations are beginning to utilize hashtags in social updates. Hashtags first became popular on Twitter as they were being used to group together similar topics that use the hash [#] symbol. With the continuous flow and discovery of health information, hashtags provide patients and physicians with the ability to filter

available data and streamline their search. A user can search #healthcaredata, and receive live tweets, accounts, photos, videos, and other relatable posts using that hashtag. Social media is like a referral site on steroids. Through social interactions, patients have the ability to develop a first impression of a hospital and physician before meeting them [in person]. By engaging and interacting on social media sites, healthcare organizations can help revitalize the word of mouth referrals and eliminate barriers that were created by the lack of communication. Social media has become a necessity for the healthcare industry. Though it may not be the entire answer to improving patient engagement, it is a huge proponent in communicating with target audiences.

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