ISSN NO. 2320-5407

Journal homepage: http://www.journalijar.com
Journal DOI: 10.21474/IJAR01

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH

RESEARCH ARTICLE

INFORMATION COMMUNICATION TECHNOLOGY USED BY HEALTH CARE WORKER (ASHA) of UTTARAKHAND.

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Manuscript Info

Manuscript History:

Received: 14 April 2016
Final Accepted: 19 May 2016
Published Online: June 2016

Key words:
Health care worker (ASHA), Healthcare services, Information and Communication Technology (ICT)

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Abstract

Public health is one of the important responsibilities of the state. The health of the citizens significantly affects their economic productivity, their livelihood capacity and adversely affects the local economy. There is a gap in rural and urban healthcare in developing countries. In India, where infant mortality rate (IMR) in rural areas at 82 per 1000 live births is nearly double the number of 45 for urban areas. Government has set up various mechanisms to provide access to the people living in rural and remote areas to quality health services, but many of them are not performing as per the requirements of the rural localities. The efficiency of the rural health service delivery and would impact the quality of rural health care services and explore how Information and Communication Technologies (ICT) could be used as a tool to improve the capacities of the local actors; through facilitating the networking with various rural healthcare actors. The present study titled "**COMMUNICATION TECHNOLOGY USED BY HEALTH CARE WORKER (ASHA) of UTTARAKHAND**" is being proposed with specific objectives : To study the socio-economic and communication characteristics of Asha worker, To find out the existing knowledge about communication technology among Asha worker. To evaluate the feasibility of the of communication technology used by Asha worker, the study was carried out in two villages of Udham Singh Nagar, Uttarakhand. The study was confined to Health care worker(ASHA), only ASHA worker were selected as respondents. From the outcome of study it was observed that the patients' perception and evaluation of the healthcare services they received on a scale of 0 to 5 from very poor (0) to excellent (5). In Villupuram people have given and average rating of 3.7 to public healthcare services and 3.3 to private healthcare services. people are relatively more satisfied with the public health services than the private services. The difference in the ratings indicates the public perception of the difference in the quality of healthcare services provided by the public and the private facilities. If the public healthcare facilities are better in terms of availability and effective presence of healthcare personnel with regularity and punctuality, it not only improves the public perception of the quality of services, but also improves the health status and thereby economic status of vulnerable sections of the rural society. The use of Information and Communication Technology (ICT) has lots of potential in improving the overall performance of the public healthcare system. It could transform both quality and access of public health services.

Introduction:-

Most of the poor living in rural localities are isolated from the benefits of formal health care (both public and private) and most of them access untrained local 'private practitioners' incase of any illness. Government though has set up various mechanisms to provide access to the people living in rural and remote areas to quality health services, but many of them are not performing as per the requirements of the rural localities. The efficiency of the rural health service delivery and would impact the quality of rural health care services and explore how Information and Communication Technologies (ICT) could be used as a tool to improve the capacities of the local actors; through facilitating the networking with various rural healthcare actors. Technology connectivity between various public heath tiers and actors can better the health service delivery and improve the health status of the people living in rural areas. Such network would improve the capacity of accredited social health activist (ASHA), the local health care provider, as well as the other local healthcare actors like auxiliary nurses and midwives (ANM) and multipurpose health workers (MPHW). Such network also would give confidence in health service delivery of local actors and make various actors more accountable and functional. Furthermore, a network at the district level between ASHA in various locations as well as establishing of communication network with some of the leading specialists and hospitals could improve the quality of public health services provided by the local healthcare actors like ASHA. The active engagement of technology at various healthcare levels through induction of ICT components would improve its outreach as well as quality. The department of IT should take the lead in bringing the technology integration and the ongoing technology initiative should incorporate healthcare components in it. A Closed Communication Network (CCN) with both telephone and Computers with various local public health systems as well as the district health system is suggested towards the end of this paper as a means to improve the rural public health service delivery. It is further important to build the capacity of ASHA to be more technology friendly. Appropriate Technology needs to be worked out to enable the communications easy even for illiterates. The functionaries do not have proper audiovisual aids to communicate uniform messages to the communities ICMR (2006)

On the basis of these observations and field data, the present study titled "**COMMUNICATION TECHNOLOGY USED BY HEALTH CARE WORKER (ASHA) of UTTARAKHAND**" is being proposed with following **specific objectives:**

1. To study the socio-economic and communication characteristics of Asha worker.
2. To find out the existing knowledge about communication technology among Asha worker.
3. To evaluate the feasibility of the of communication technology used by Asha worker.

Need For Present Study:-

One of the goals of any communication process is to bring desirable change among the audience. The important Issues concerning Health in uttarakhand Public health is one of the important responsibilities of the state. The health of the citizens significantly affects their economic productivity, their livelihood capacity and adversely affects the local economy. But sadly public health in many of the third world countries is not given adequate attention. governments of developing countries Providing quality healthcare to the vast majority, living in very remote and rural localities, has become one of the challenges , as majority of the people living in rural areas don't have the capacity to pay for the healthcare services. **are:** Substantial gaps in sub-centers, primary health centers, and a very large gap in community health centers, Substantial gaps in essential requirements in terms of manpower, equipment, drugs and consumables in the primary health care institutions, Communication technology. This study will help media practitioners on health and nutrition education through communication technology.

Review of Literature:-

A thorough review of literature is of paramount importance to any research endeavor. Effort has been made to collect available literature relevant to the present study.

According to the World Bank (1999), there must be vigorous means to promote knowledge about how to access available resources and use information on health and nutrition to improve women's lives. Approaching development from a knowledge perspective, it says, increase in knowledge can improve people's lives in myriad ways. Besides higher income, better knowledge about nutrition can mean better health even for those with little to spend on food.

Devadas et.al. (1982) made an effort for improving health, nutrition and sanitary conditions in a south Indian village through education of women and children with the help of demonstration, discussion, folk media, posters,

charts, flash card and film shows. The participants reported that they had learnt new information on nutrition and desirable sanitary practices. The rural women adopted desirable health practices from the educational programme

Tiwari and Kumar (1998) in their study on regional rural telecasts have indicated that programme related factors like content, presentation, audio quality, video quality, timeliness, etc. are major contributors to the success of health programme.

The World Health Organization (WHO,2000) has proposed the use of low-cost information and communication technology (ICT) to improve the quality of service delivery and to build up health workers' capacity especially at the primary health care (PHC) level. This application of ICT in health care has been termed e-health. Mobile e-health, or m-health, involves using wireless technologies such as Bluetooth, on to transmit e-health data and facilitate services. Usually, these are accessed by the health worker through devices such as mobile phones, Smartphone's, personal digital assistants (PDAs), laptops or tablet PCs. Health data stored on devices such as USB memory sticks and memory storage cards (SDs) can also be regarded as m-health tools.

Research Methodology:-

Since the present study is focused on Health care worker (ASHA), only ASHA worker were selected as respondents. Operational definition is the standardization of definition for particular research problems so that it can be measured to achieve specific objectives of study.

Results and discussion:-

The findings of study and relevant discussion are presented under the following sections in accordance with the objectives set for the study. These socio-economic variables and communication a characteristic of the respondents is as under:

Age is a determining factor of individual's thinking, perceptions and role in the society. It is evident from Table (55%) ASHA were young aged followed by middle (25%), and old (20%).

Education plays an important role in the behavior of an individual. It provides knowledge and skills to participate in social life and grants status in the society. The distribution of respondents according to their level of education is presented in Table Education level of ASHA: 45percent ASHA were middle, 25 per cent of the ASHA were high school pass as well as up to high school.

Income In this study, income was used to refer to the amount earned by the respondent from engaging in various paid activities outside the home. It was found that 18 ASHA (45.4%) were low income category. and 50% women fell under medium income categories,5% women belonged to low income category.Thus, from the above distribution it can be concluded that majority of the respondents were medium and only 2 of the respondent belonged to category of high

Media ownership:-

Sl.No.	Variable	Category	No. of respondents(N = 40)	%	Total
1	Age	Young (20-25yrs)	22	55	40 (100)
		Middle (25-35 yrs)	10	25	
		Old (35- 45 yrs)	8	20	
2	Education	Primary school	2	5	
		middle	18	45	
		High school	10	25	
		Above high school	10	25	
3	Income	Low < Rs 1501-100/-	18	45	40 (100)
		Medium Rs 1001-Rs 1501/-	20	20	
		High > Rs1501-2000 /-	**2**	**5**	

In the contemporary society, media plays a powerful and pervasive influence on the behavior, thinking and life style of the people. Number and type of mass media owned in the study is given in Table 2.

Distribution of respondents according to mass media ownership:-

Sl. No.	Type of media	No. of households (N = 40)	Percentage
1.	TV	40	100
2.	Radio	30	75
3	mobile	25	62.5
Total		40	100

100% ASHA owned television followed radio which was owned by 75 per cent of the ASHA . Subscription to mobile is 62.5 per cent .The media ownership pattern reveals an interesting situation which is contrary to general belief/perception that TV has the highest reach to rural areas.

Distribution of respondents according to use of communication:-

Sl.No.	Parameter	No of respondents (N=40)	Percentage
1	Knowledge about communication technology	40	100
2	Used mobile phone	30	75
3	Able to read message on cell phone	25	62.5
4	Message discuss with co-worker	40	100
5	Able to understand correctly	5	12.5

It was found that a very high percentage (100%) of ASHA have knowledge about all communication technology. 62.5% ASHA worker able to read message on mobile phone where as 100% ASHA discuss message with her co-worker .only 12.5% ASHA worker able to understand message correctly.

Health care worker visit in hospital and her client home:-

Distribution of the respondents:-

Sl.No.	Parameter	No of respondents	Percentage
1	hospital	40	100
2	Client home	35	87.5

Table revel that 100 percent ASHA worker visit hospital every week for getting information related to the health care services, nutrition drugs etc. ASHA in various locations as well as establishing of communication network with some of the leading specialists and hospitals could improve the quality of public health services provided by the local healthcare actors so ASHA visit hospital.

Distribution of according to purpose of utilizing following media:-

Sl.No.	media	Information	Decoration	Contact with Doctor	Both(information, contact with doctor
1.	Mobile	5%	37.5%	7.5	50%

Table reveals that (50%) utilizing for information and contact with doctor where as 37.5% used for decoration. This is another important component of the ICT network. A telephone networked ambulance is provided at the PDC level, which would provide transport service to all the clients of ASHA. This would enable ASHA to take the patient to the hospital / the doctor as early as possible, in case of any medical causality. The delivery cases would benefit much through this facility. An appropriate health insurance package also would be worked out to minimize the cost burden of hospitalization.

Distribution of according to media used for disseminating information

Sl. No.	Type of media	purpose	Percentage
1.	mobile	Contact doctor	10%
2.	chart	Information	75
3	poster	information	62.5

Table reveals that (75%) utilizing chart for disseminating information and 62.5% use poster for disseminate information whereas only 10% use mobile just for contact doctor not for information disseminate. Here we attempt to make a dispassionate enquiry into those lacunas, and explore how Information and Communication Technologies (ICT) could be used as a tool to improve the capacities of the local actors; through facilitating the networking with various rural healthcare actors. Technology connectivity between various public heath tiers and actors can better the health service delivery and improve the health status of the people living in rural areas. Such network mobile, poster ,charted. would improve the capacity of accredited social health activist(ASHA), who the local health care provider. All of them 100% ASHA worker want to attend the training if government provide such kind of training programme for ASHA worker. The use of Information and Communication Technology (ICT) has lots of potential in improving the overall performance of the public healthcare system. It could transform both quality and access of public health services. The network facilitates appropriate and timely provision of quality treatment at a very minimal cost, along with promoting the best practices in delivering public health services. The rural poor would be greatly benefited as they would be able to access quality health services through ASHA. In spite of these riders, if planned and executed seriously, such ICT linkages in healthcare & appropriate training related w to ICT would have all the potential to improve the overall performance of the public health delivery mechanism of our country, especially that of the rural areas. To explore more avenues further research is needed on the best and appropriate technology solution that would work better in various local contexts.

Conclusion:-

The use of Information and Communication Technology (ICT) has lots of potential in improving the overall performance of the public healthcare system. It could transform both quality and access of public health services.
The rural poor would be greatly benefited as they would be able to access quality health services through ASHA.

- Willingness of the medical practitioner to provide consultations over phone and to be available for consultations.
- The diagnostic capacity of Primary Diagnostic Centres.
- The existing healthcare practices in the rural localities and health seeking behaviour of the poor.
- The effect of the local private practitioners and their influence on the local population.
- The acceptance of ASHA as a healthcare provider.

Implication of the study:-

The following implications are being made on the basis of the results of the study.

- The communication technology design should be used for disseminating nutrition information to rural women By ASHA .
- It was found that ASHA workers in imparting health and nutrition education. Use of group contact method for educating women beneficiaries was minimum and for the dissemination of the health and nutrition messages ASHA worker used other method.
- The ASHA workers themselves stated lack of community participation as major constraints in effective delivery of health and nutrition messages. there is need to equip the ASHA workers with required skills in leading community meeting for awareness as well as give training on headling computer ,cell phone etc.
- There is need to think about the media appropriate to the ASHA worker.
- In view of their knowledge regarding communication technology .there is definite need to develop a system through which the use of this medium can be used to transfer useful technologies to women.

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