

Electronic Media as an agent of Health care for Vulnerable group: Case Study of Varanasi District

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Abstract

The study focused on analysis of consumption pattern of Electronic media in regards to the health programmes for women and Children in Varanasi district. It further aim to analyse women's and children rationale for watching health-related shows, their perception of the situations portrayed on these shows and also the impact on them based on the sample of 400respondents in selected areas of Varanasi district in Uttar Pradesh. The results are discussed and have been observed the types of television programmes are viewed, popularity of different channels and their contents among women& Children and the opinion of health programmes among viewers. The objective of research was to understand the relationship between viewer motives for watching television and using other electronic media and interpersonal relationship perceptions.

Keywords; Logit, Electronic Media, Health Care, Varanasi

Introduction:-

The mass media is one of the best communication tools to spread the information and create awareness in the people so that there is acceptance of any idea to create interest. Mass media displays information about health and make people aware so as to prevent the spread of various diseases. There are various types of mass media, television, internet, traditional media and folk media etc., mainly the electronic media very much interact with the people even illiterates can easily understand the information aware about the social, political and well developmental issues. The

media have the power to direct our attention towards certain issues and highlighting various issues to resolve the problem. This is the agenda setting theory. In the words of Cohen, the media “may not be successful in telling their readers what to think, but are stunningly successful in telling their readers what to think about”. The media reflect the realities, values, and norms of a society

The media act as a mirror of society, or a ‘window on the world’, which can be used as a resource to understand the society, O’Shaughnessy (1999). Freimuth et al. (1984) have shown that many people rely on the news media for their health-related information. Policy makers also obtain considerable amount of information from the media. As Stein (2001) argues that the media has an essential function in social learning to provide the information that will empower ordinary people and transmit the idea that structure people’s thinking. Apart from the educative role, the media also play an advocacy role instrumental in making policy makers and key opinion leaders take the epidemic seriously, Getachew (2006). As Bryant and Thompson (2002) have suggested that news coverage of health matters takes on considerable significance that has the potential to shape the impression of average citizens and powerful policy makers alike. In the words of Brown and Walsh-Childers (1994), news coverage of health “tends to ascribe the power to control individuals’ health to medical experts using high-technology equipment”.

According to Mehta and Sadhi (2004), communication involves dialogue. Participants of the dialogue, who play their role as news sources, not only exchange knowledge but also critically look into their beliefs, attitude and behavior patterns. Studies have also shown that the news media tend to increase their coverage of health concerns as they affect the society’s mainstream and/or the greatest number of people in their audience.

Mass media plays an important role in creating awareness and influencing beliefs, attitudes and practices. As the mass media can be an effective instrument in guiding social norms, it is important to involve the media in behavior change communication (BCC) strategies for audiences in India. However, to use the various kinds of mass media judiciously and create long-term partnerships, it is critical to understand their potential reach, their target audiences and their perspectives and interest in partnering in efforts to promote behaviors that will have a significant impact on family health outcomes.

There is strong evidence that electronic Media technologies (T.V. Radio, Social Site, Mobile, etc) could be instrumental in addressing slow response rates of govt. to citizen requests, poor access to services, particularly for low-income and marginalized populations in underserved rural areas. In addition, electronic Media technologies offer significant opportunities for improving the back-office operations of govt. In addition, many primary healthcare clinics located in the rural areas do not have any electronic systems at all & continue to operate paper- based systems, resulting in patient records being kept by patients themselves. The impact of the use of multiple systems is that it is difficult & costly to develop a national overview of patient statistics. On a more basic level, it is extremely difficult for individual institutions within the healthcare sector to share information between each other. One of the clearest examples of this is to be found in the sharing of patient laboratory results. Currently in most instances, this only takes place through manual exchange. Many vendors of Electronics Media started to embed a variety of e-health services in T.V., Internet, Radio, Mobiles, etc.

Electronic Media Availability and their Uses in Health care:- Radio and television are powerful media and their reach has almost covered between 90 and 98 per cent of the geographic area of the country. In larger States of Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan and Assam, the possession of radio in households was fairly low with only one-third of them possessing radio sets. In population-wise, smaller States like Kerala, Goa, and Jammu and Kashmir, more than 60 per cent of households were possessing radio sets in their households. In other States, the range of households possessing radio sets was between 41 and 51 per cent. In economically developed States such as Punjab, Haryana, Himachal Pradesh and Karnataka, around half of the households possessed radio sets. In India, radio is available in around 59.4 per cent of the households. Further, bigger States have lesser number of households and smaller States have higher number of households are in possession of radio sets. It had also been established that around 40 per cent of households in India do not possess radio which directly influence their level of awareness of various developmental initiatives undertaken by the government.

When women were assessed about their listening habits to radio, it was found that in the States of Goa, Delhi, Kerala, Andhra Pradesh, Jammu, Karnataka and Tamil Nadu, the range of women who listen to radio programmes was between 60 and 70 per cent. In bigger States of Uttar Pradesh,

Madhya Pradesh, Bihar, Rajasthan and Assam, the range of women listen to radio was between 26 and 33 per cent, almost half of what had been the case in smaller States.

The viewership of television was high in all the States of the country. The lowest viewership of television among women in the reproductive age group was from Bihar (12.7%) and the highest was from Delhi (82.8%). In States such as Rajasthan (17.9%), Bihar (12.7%) and Assam (18.0%), less than 20 per cent of women were viewing television at least once in a week. In these States, the availability of television sets was equally poor. However, comparatively television was gaining viewership at a faster rate than radio.

For the purpose of this study, the media includes the electronic media (TV and radio), Representatives from all 5 TV channels, including the national broadcaster, Doordarshan, were of the view that their primary objective is to engage audiences in good, “clean” entertainment. However, they stressed that they also address social concerns “indirectly” in the story-line of their productions. Managers of radio channels described themselves as local infotainment channels. Since they have local reach, their content is designed to have regional appeal. Their prime audiences are young people and their main concerns are business and viewership. editors and managers of publications and the electronic media in Uttar Pradesh (UP) substantiate desk research findings that the print media caters primarily to urban, literate audiences (SEC4 A and B), whereas the electronic media caters mainly to the middle class and semi-urban audiences (SEC B, C and D). Audience targeting in the mass media is based on research. Apart from the data available in TAM, IRS and NRS, media houses conduct their own audience research and pre-testing to ensure that the content is appropriate and well-received by the targeted audiences. Twelve of the 18 media houses indicated that they use independent research processes to better understand their audiences and design appropriate content.

FM channels were open to partnerships that would lead to better coverage of health issues. They were in favor of collaborative strategic planning, although they indicated that these decisions are not taken by the individual radio station. Twelve informants from media houses noted that such discussions on partnerships could only be initiated at the top management level or at the corporate head office.

In contrast, most TV channels felt that their coverage of health issues under corporate social responsibility was adequate or that health issues should be addressed through paid content and the purchase of airtime: A senior manager of a popular TV channel in Mumbai said: "I think the UP Government also has to do something. If there is a local channel in UP, it could be used for this. Like Doordarshan.

Health programmes on television not only created health awareness among the viewers, but helped them to launch a cleanliness drive (Agrawal Binod C., 1975). Results of another study indicated that women's participation in TV viewing was significantly smaller than men (Agrawal et al., 1977) but those women who view TV gained more than men in the areas of family planning, health and nutrition. Another significant finding of the study is that illiterate women, more than the literate women gained knowledge from TV viewing indicating that literacy was no barrier for learning gram TV (Agrawal B.C. 1981). A detailed and in-depth study conducted during the same period indicated the information needs and the viewing behavior of women were different from men. (Agrawal and Rai(1980),in Agrawal (1984).

Bardhan,Dubey and Jain in an evaluation study of Media Reach and Effectiveness (NIHFW, 1983) found higher proportion of media reach, ownership and consumption in the urban area. More males than females had media reach. Reach of the print media was low, however, that of publicity material is high. Radio proved to be most favoured medium for family planning messages. Education, occupation and place of residence showed a close relationship with media exposure. The highest mean exposure was that of Gujarat followed by Orissa and Karnataka. In another NIHFW study (1985), the total impact of communication programme activities was found satisfactory on creating awareness about family planning. But the impact of motivating people to accept some methods of family planning was discouraging. The study recommended the review of the communication, strategies to meet challenges and remove misconceptions, fears and apprehensions about different family planning methods.

Literature Reviews:-

Kroeger (1993), in his conceptual framework, proposed that age of mother as an important explanatory variable, explaining the differences in the proportion of women seeking maternal health services.

Retherford and Mishra (1997) found that electronic mass media exposure has a substantial positive relationship with current use and intended future use of family planning even after controlling for number of living children, rural/urban residence, and education.

Rao, Mishra, and Retherford's (1998) analysis indicates that mother's exposure to electronic mass media increases awareness and use of oral rehydration therapy. Mass media exposure also makes women aware of the need for basic maternal and child healthcare and enables them to receive information regarding essential healthcare and recent developments in health issues. Thus, media is an important variable influencing the utilization of prenatal care.

Saroj Malik (1987), analysed women's programmes originating from Delhi and Jaipur Doordarshan. It showed that maximum telecast time and items were on family planning, health and hygiene, mother and child care, use of waste materials to prepare decorative items for homes and interviews with unknown women figures. She also mentioned problems of erratic and irregular power supply during transmission hours and community sets remain idle. Majority of rural women do not watch television programmes. The underlying reasons are social inhibition in visiting community center at odd hours, workload and uninteresting programmes.

Westoff and Bankole (1997) have suggested that there is a persistent and frequently strong positive association between exposure to mass media and knowledge and use of contraception, knowledge of prenatal care and postpartum care, and later age at marriage. In a recent study based on National Family Health Survey (NFHS-2, 2000) data,

Objective:-

- 1- To analyse the Effect of Electronic Media on Healthcare of Women & children.

Methodology:-

- **Serve Method:-**

Seeing the astonishing popularity of Electronics Media for Health care among rural/Urban women a questionnaire based survey will be do in four blocks two from Rural and two from urban of Varanasi district to study the role of Electronic Media in spreading awareness regarding Health care of Women and Children. Content analysis method will be using for qualitative and quantitative analysis of health related topics will covers in the electronic media.

Descriptive survey will be do for the study. Whole women population as a Universe four hundred (400) family will randomly selecting as sample size from the four blocks in Varanasi district. The data will be analyzing by the using descriptive statistics to know the facts related to above Healthcares.

The Empirical Model

The Qualitative response models, which are strongly linked with utility theory, have been widely used in scientific research to investigate factors affecting an individual's decision from among two or more alternatives (Amemiya 1981; Greene, 2000). The model aims at determining the probability that, given a set of attributes about the individual viewer of Electronics media to describe the impact of E.M. on women and children health care in Varanasi district.

Following the theoretical framework and the choice variables specified in studies by Lajili et al. (1997), Rehber (2000), Sartwelle *et al.* (2000) Zhu et al (2001), key (2003) and Gulati et al (2005), describe the positive impact of electronic media on society in this study could be described as a function of personal characteristics of the viewers and listeners of Electronic media, Ad about Healthcare on E. M. working effectively to family awareness, Immunization and sanitation advertisement timely alert for health care of family and another attributes¹. These factors have been decomposed in to the explanatory variables shown in the empirical model below. The model is specified as follow:

$$Y = \beta_0 + \beta_1 \text{Ad about Healthcare on E. M. working effectively to family awareness} + \beta_2 \text{Immunization and sanitation advertisement timely alert for health care of family} + \beta_3 \text{T.V. Health care Programme is very effectively to another E.M.} + \beta_4 \text{Illiterate women can better understood about health care Advise on E.M.} + \beta_5 \text{Day by Day its effectiveness increases} + \beta_6 \text{You discuss and recommended H.C.}$$

advises on E.M. on your family+ β_7 Sanitation and health care programme programmed by E.M. imitate Immediately+ β_8 if E.M sponsored Health care programme in Regional language, it improve effectiveness+ β_9 Less Uncertainty + β_9 Expected Price of Product + β_9 Health care programme having very little time on E.M(4)

Here qualitative dependent variable is Impact of Electronic Media on Health Care on Women & Children is positively or not, which takes on the value of 1 if Impact of Electronic Media on Health Care on Women & Children is positively and 0 otherwise not occurred.

Where: Y = Effectiveness of Electronic media on Health care of Women and Children (1 = Impact of Electronic Media on Health Care on Women & Children is Positively; 0 = otherwise) β_1, β_2, \dots denoted the regression coefficients, ϵ is the error term.

Formulation of the model is influenced by a number of working hypotheses. we have taken the hypothesis that a Viewers' acceptance to Impact of Electronic Media on Health Care on Women & Children is Positively is influenced by the combined (simultaneous) effects of a number of factors related to the Viewers objectives and constraints. The a priori expectations on the effect of each of the explanatory variables on the likelihood of a Viewers acceptance Impact of Electronic Media on Health Care on Women & Children is positively in the following sections.

Validation of Hypothesis:

We are calculating the Z statistics measuring for level of significance for each of the estimated coefficients. McFadden R-squared represented the goodness of fit statistic. The likelihood ratio (LR) test is computed to determine the joint significance of the independent variables in the model. The LR test follows a standard chi-square (χ^2) distribution the degrees of freedom to the number of independent variables used in the model. The higher the percentage prediction, the greater the predictive power of the model. The discussion of results is based on the log-odds ratio. The log-odds

is given as

$$\beta[\log Y_i / 1 - Y_i] / \beta X_i \equiv \partial M / \partial X_i = \beta_i$$

The marginal effects of the independent variables are also estimated. These are given as

$$\partial Y_i / \partial X_i = \beta_i [Y_i (1 - Y_i)]$$

Where, Y_i represents probabilities.

Case Processing Summary

		N	%
Cases	Valid	400	100.0
	Excluded ^a	0	.0
	Total	400	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Analysis

We are using the Cronbach's alpha reliability coefficient which having the ranges between 0 and 1. However, but this have not lower limit to the coefficient. The closer value of Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale for all variables. On using the formula $\alpha = \frac{r \cdot k}{1 + (k - 1) r}$ where k is the number of items we are using in the model considered and r is the mean of the inter-item correlations and the size of alpha is determined by both the number and the mean inter-item correlations.

Reliability Statistics

Cronbach's Alpha	N of Items
.964	10

This table represents the Reliability of the all variable which is 0.96; total numbers of items are ten . This value comes under the Excellence range that is greater than 0.9.

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Impact of Electronic Media on Health Care on Women & Children is Positively	4.8450	15.409	.773	.962
Ad about Healthcare on E. M. working effectively to family awareness	4.9700	14.651	.952	.955
Immunization and sanitation advertisement timely alert for health care of family	4.9900	15.183	.798	.961
T.V. Health care Programme is very effectively to another E.M.	4.9350	15.023	.849	.959
Illiterate women can better understood about health care Advise on E.M.	4.9500	15.180	.802	.961
Day by Day its effectiveness increases	4.9700	15.212	.790	.962
You discuss and recommended H.C. advises on E.M. on your family	4.9600	14.941	.869	.959
Sanitation and health care programme programmed by E.M. imitate Immediately	4.9900	14.902	.878	.958
if E.M sponsored Health care programme in Regional language, it improve effectiveness	4.9300	15.093	.830	.960
Health care programme having very little time on E.M.	4.8700	15.236	.810	.961

In the above table we can see the entire variable having Cronbach's Alpha value is more than 0.95, which were greater than .85. It means all variables representing good reliability statics.

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 0 Constant	.597	.104	32.658	1	.000	1.817

Under Variables in the Equation we saw that the intercept-only model is $\ln(\text{odds}) = 32.65$ for the users of Electronic media and 0.160. If we exponentiate both sides of this expression we find that our predicted odds $[\text{Exp}(B)] = 1.817$. That is, the predicted odds of impact of electronic media on health care positively are 32.65.

Omnibus Tests of Model Coefficients

	Chi-square	df	Sig.
Step 1 Step	358.541	9	.000
Block	358.541	9	.000
Model	358.541	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	161.849 ^a	.592	.813

a. Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

Omnibus Tests of Model Coefficients gives us a Chi-Square of 358.549^{df}, significant beyond .000 and 0.000. Under Model Summary we see that the -2 Log Likelihood statistics are 161.84. This statistic measures how poorly both the model predicts the decisions about farming system by small & big farmers - the smaller the statistic the better the model. The Cox & Snell R^2 was interpreted like R^2 in a multiple regression for contract grower and non contract growers, but cannot reach a maximum value of 1. The Nagelkerke R^2 can reach a maximum of 1 and in the both models its value is very high.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	5.089	6	.532

Classification Table^a

Observed		Predicted			
		Impact of Electronic Media on Health Care on Women & Children is Positively		Percentage Correct	
		Negative	Positive		
Step 1	Impact of Electronic Media on Health Care on Women & Children is Positively	Negative	139	3	97.9
		Positive	27	231	89.5
Overall Percentage					92.5

a. The cut value is .500

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Ad	2.283	1.178	3.757	1	.050	9.808	.975	98.682
immu	.356	.640	.309	1	.002	1.427	.407	5.008
TVhcp	5.088	1.081	22.168	1	.000	161.999	19.487	1.347
Illiterate	.220	.578	.145	1	.004	1.246	.401	3.870
Dbd	.788	.664	1.407	1	.002	2.198	.598	8.075
DAR	.046	.737	.004	1	.050	1.047	.247	4.438
sanit	.752	.761	.976	1	.023	2.122	.477	9.437
LL	1.015	.820	1.529	1	.016	.363	.073	1.810
HCT	.363	.533	.463	1	.016	1.438	.505	4.090
Constant	1.824	.275	44.020	1	.000	.161		

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
							Lower	Upper
Step 1 ^a Ad	2.283	1.178	3.757	1	.050	9.808	.975	98.682
immu	.356	.640	.309	1	.002	1.427	.407	5.008
TVhcp	5.088	1.081	22.168	1	.000	161.999	19.487	1.347
Illiterate	.220	.578	.145	1	.004	1.246	.401	3.870
Dbd	.788	.664	1.407	1	.002	2.198	.598	8.075
DAR	.046	.737	.004	1	.050	1.047	.247	4.438
sanit	.752	.761	.976	1	.023	2.122	.477	9.437
LL	1.015	.820	1.529	1	.016	.363	.073	1.810
HCT	.363	.533	.463	1	.016	1.438	.505	4.090

a. Variable(s) entered on step 1: Ad, immu, TVhcp, Illiterate, Dbd, DAR, sanit, LL, HCT.

The Result of the Logistic model Estimates for Electronic media users are presented in the table the result indicate that the overall model estimate, 92.5% of the total variable in the sample was explained by the logistic regression model and all selected explanatory variables are relevant in the explaining the impact of electronic media on health care of women and children.

In the model we can see the entire explanatory variable is significant at the level of 1% and 5% level respectively, and in the model we can see positive value of all beta confidence. The coefficient value of T .V. Health care Programme is very effectively to another E.M. is very high, it means this variable playing most significant role to determining the impact of Electronic media on health care of women and children in the study area

How do media affect children and adolescents?

Media affect youth not only by displacing time they spend doing homework or sleeping but also by influencing beliefs and behaviors. According to social learning theory, children and adolescents learn by observing and imitating what they see on the screen, particularly when these behaviors seem realistic or are rewarded. Cognitive development theory asserts that children’s cognitive capacities at different stages determine if and how they understand media content. For example, children younger

than 8 years who are not yet able to comprehend persuasive intent will be more vulnerable to advertising. In addition, media present youth with common “scripts” for how to behave in unfamiliar situations such as romantic relationships. Finally, super peer theory states that the media are like powerful bestfriends in sometimes making risky behaviors seem like normative behavior. With the variety of theories suggesting a potentially powerful effect of the media and the growing empirical evidence for negative impact, one might hypothesize that parents would take care to limit exposure to detrimental media content. However, the “third-person effect” (a well-documented phenomenon in the communications literature) shows that teenagers and adults think that the media influence everyone except themselves or their children.

Conclusion

The study revealed that the respondents are utilizing the media more than the expectation. Media to a great extent is being used for getting health related information among respondents. Comparatively very few are unaware of the media health program. Women with different age group not only refer newspaper or magazines for health issues but also go through health related books. For instance, some respondents indicated that they read the literature of Dr. C N Chandrasekhar, N Vishwaroopa Charand and also have much interest in interactive columns. Although, most respondents read newspapers and magazines, but very few have participated in interactive columns where they can consult doctors for various health related problems. Most respondent feel television is the convenient medium for providing health awareness compared to other media. However, Radio is lagging behind in attracting listeners towards health related programmes. Meanwhile, young respondents have keen interest on new media such as internet and social media. They are not interested in listening Radio, and think broadcast media and new media is the most reliable compared to Radio. The study has pointed out that large number of respondents exposed themselves to modern media. The study also reveals that the increase in age also increases the awareness towards health. It is interesting to know that most young women are influenced with both traditional media to new media. Interestingly, most respondents prefer watching television for current affairs and not for health awareness. However, they still depend on new media for health concern and not on traditional media. The study shows that television is being the most popular reliable media. Most of the respondents watch the Doordarshan and other private infotainment television channels for health related programmes. Gulbarga says that

“these health programmes are very helpful for providing more information and remedies about certain common disease such as viral fever, cough, cold and skin related problems.” “Using remedies provided by the doctors, dietitian, nutrition and experts in health programmes keeps me away from doctors,” she added. Health of women always requires care and affection, but it may change from one age to another because of biological difference compared to men. However, women need lot of attention forever for her health.

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