

## Effectiveness of Selected Medias in Gain and Retention of Knowledge by Rural Women of District Udaipur

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### ABSTRACT

Media play a very important role in communicating ideas intended to change behaviour of people right from developing awareness about an innovation to its adoption. Thus it is important that these should be well designed so that people can understand properly. So the communication material before produced on large scale must be tested in the field for its effectiveness. Thus an effort was made to find out the effectiveness of selected medias (lecture + demonstration+ print and electronic media) in gain and retention of knowledge by rural women.

The study was conducted in two phases. In phase first the assessment of multimedia package was carried out through trainings with the help of lecture + demonstration, print media & electronic media in two villages namely Brahminon ki Hundar and Madar of Udaipur district. Group of village Madar was kept as control group and the other group of village Brahminon ki Hundar was kept as experimental group. In phase second the effectiveness of the individual media was tested with three different groups taken from three different purposively selected villages of District Udaipur namely Kanpur, Thoor and Brahminon ki Hundar. A homogenous group of 30 rural women who had education up to middle level was selected randomly from each village. A knowledge test was developed to determine the gain and retention of knowledge through various medias. The maximum attainable score by an individual was 45. Pre and post experimental design was used for the present study.

The findings show that the selected medias were found effective in disseminating the knowledge as well as retention in knowledge regarding 'Safe Drinking Water' among the rural women. The most effective media was electronic media, which has tremendous potential both as an educational, and an entertainment tool, it helps in preserving the valuable learning experience for use in future learning situation. The messages reach the mind of the audience both through eyes and ears simultaneously thus electronic media is more effective than other media. It is therefore suggested that electronic media should be used more.

**Keywords:** Print media, electronic media, knowledge, lecture, demonstration

Water is the sovereign wealth of a state and its people. It is essential not only for the survival of human being but also for conducting various activities in home, farm and industry. Safe drinking water with proper sanitation has a direct bearing on the working conditions and health of people.

Safe drinking water has special importance for good health. For want of safe water people are bound to suffer from various kinds of stomach related diseases. Cholera, diarrhoea, dysentery, guinea worm, flourosis, jaundice are some of the most common health hazards in rural areas because of the dependence on contaminated water. Thus provision for safe drinking water supply has been received

attention right from the launching of the first five-year plan in 1951. It is a hard truth of life that even after 50 years of independence, millions of women & children have to walk a long way everyday in search of water. They do not know that the little water, which they fetch from a long distance so laboriously, is safe or contaminated affecting their health. This large section of people should make aware about the importance of safe water.

Media play has a vital and significant role in communicating ideas intended to change behaviour of people right from developing awareness about an innovation to its adoption. Use of multimedia makes learning faster, concrete and permanent.

The combination of media plays a special role in establishing the climate in which development can take place. Thus it is important that these should be well designed so that people can understand properly. So the communication material before produced on large scale must be tested in the field for its effectiveness.

Field trials helps to find out whether the message or idea is conveyed in the way it was intended and whether people understood the message or not. Further it indicates that whether or not the people interpret the message and all the relevance of the information communicated to their own lives and their own needs etc. It also helps in analyzing the preference of media by the people with whom they are to be used.

Thus an effort was made to find out the effectiveness of selected medias i.e. lecture + demonstration, print and electronic media in gain and retention of knowledge by rural women of district, Udaipur

## METHODOLOGY

The study was conducted in two phases. In phase first the assessment of multi media package was carried out through trainings with the help of lecture + demonstration, print media & electronic media in two villages namely Brahminon ki Hunder and Madar of Udaipur district. Group of village Madar was kept as control group and the other group of village Brahminon ki Hunder was kept as experimental group.

In phase second the effectiveness of the individual media was tested with three different groups taken from three different purposively selected villages of District Udaipur namely Kanpur, Thoor and Brahminon ki Hunder. A homogenous group of 30 rural women who had education up to middle level was selected randomly from each village. An interview schedule was prepared to assess the gain and retention of knowledge by the respondents immediately or after a period of 15 and 30 days. The interview schedule consisted of 15 questions related to safe drinking water.

The maximum attainable score by an individual was 45. Pre and post experimental design was used for the present study. The analysis of data was done by using frequency, percentage, mean score, paired & student 't' test.

## RESULTS AND DISCUSSION

### Distribution of the Respondents in Various Knowledge Categories

To get an overview of the level of knowledge, the respondents were grouped under three categories of knowledge namely low, medium and high on the basis of scores obtained by them.

**Table 1: Distribution of rural women on the basis of level of knowledge N= 60**

| Categories | Knowledge score | Control |      | Experimental |       |
|------------|-----------------|---------|------|--------------|-------|
|            |                 | F       | %    | F            | %     |
| Low        | Upto 40%        | 10      | 33.3 | 0            | 0     |
| Medium     | 41-60%          | 17      | 56.6 | 11           | 36.66 |
| High       | 61% & Above     | 3       | 10.0 | 19           | 63.33 |

Perusal of data in Table 1 reveal that the majority of the respondents of control group were in the medium knowledge category (56.6%) whereas 63.3 percent of the respondents of the experimental group were in the high knowledge category. In the experimental group none of the respondents was found in low category, where as 33.3 percent of the respondents of control group had low level of knowledge regarding multimedia package on 'safe drinking water'.

The findings clearly reveal that participants of experimental group attained good amount of knowledge through the exposure of multimedia package and had a sharp edge over the control group. Thus, it can be said that multimedia package was very effective in developing the knowledge regarding safe drinking water.

### Overall Mean Gain and Retention of Knowledge by the Rural Women

To find out the significance of gain in knowledge and retention, paired 't' test was used. The data presented in table 2 depicts that the overall mean gain in knowledge through the exposure of multimedia package in experimental group was 7.6. Whereas the overall retention of knowledge by the rural women after 15 and 30 days exposure declines slightly – i.e. 6.1 & 5.87 respectively in comparison to the overall mean gain in knowledge. This shows that overall mean gain and retention of knowledge was higher in experimental group as compared to control group

due to exposure of different medias on 'safe-drinking water'.

**Table 2: Overall mean gain and retention of knowledge by the rural women N = 60**

| Interval     | Control (Mean Score) | Experimental (Mean Score) | "t" test |
|--------------|----------------------|---------------------------|----------|
| At immediate | 0.11                 | 7.6                       | 12.41**  |
| At 15 days   | 0.13                 | 6.1                       | 12.60**  |
| At 30 days   | 0.16                 | 5.87                      | 12.78**  |

**Note:** \*\* Significant at 0.01 percent level; NS = Non significant

Table further reveals that there was a highly significant difference in the knowledge of experimental and control group. The results of the 't' test indicated that the knowledge retention was significant at 1 % level of probability.

Therefore, it can be concluded that multi-media package on 'Safe-drinking water' have helped rural women in developing better awareness and understanding about several aspects of safe drinking water namely water born diseases, water purification methods etc.

#### Utilization Focused Evaluation of Different Media in Terms of Gain in Knowledge by Rural Women

The knowledge of the participants before training and gain in knowledge immediately after training through lecture + Demonstration is presented in Table 3. It is evident from the table that the experimental group gained a good amount of knowledge (4.13) through training (Lecture + Demonstration) where as the control group showed negligible gain in knowledge. The paired 't'-test was used for studying the impact of training on knowledge gained.

The findings further reveals that there was a significant difference in the pre & post test scores of overall gain in knowledge by the respondents, as the calculated 't' value was highly significant. The rural women had low initial knowledge about safe drinking water as indicated by low scores in pre-test. An improvement is evident in the knowledge of participants due to their participation in the training as the pre test mean scores increased from 15.1 to 19.7 with the gain of 4.13 mean score. Although the control group showed negligible gain in knowledge (0.11), which could be due to, some sources other than training.

After the training, given through lecture + demonstration the same group was exposed to print media and it was observed that the knowledge level of respondents further increased with the mean gain of 4.8 score. This indicates that the print media has been highly effective. The probable reason for this increase in knowledge may be due to the constant exposure of the messages to the respondents, where as in the control group no knowledge gain was observed.

The data presented in table 3 further portrays that among the three medias, highest mean gain i.e. 7.6 was found after the exposure through electronic media as the pre-test mean score increased from 23.9 to 31.5 where as non-significant difference was found in the control group.

The combination of media was significantly effective in imparting knowledge to the rural women. This may be due to the fact that these media were attractive in general appearance, easy in handling, illustrative, expressed in local dialect and the messages delivered through these media were quite simple. Thus it can be concluded that the combination of media plays an

**Table 3: Utilization focused evaluation of different media in terms of gain in knowledge by rural women N = 60**

| Media                                    | Pre test (Mean score) |              | Post test (Mean score) |              | Gain in knowledge (Mean score) |              | "t" value |              |
|------------------------------------------|-----------------------|--------------|------------------------|--------------|--------------------------------|--------------|-----------|--------------|
|                                          | Control               | Experimental | Control                | Experimental | Control                        | Experimental | Control   | Experimental |
| Training (Lecture + Demo)                | 16.1                  | 15.1         | 16.21                  | 19.7         | 0.11                           | 4.13         | 2.00NS    | 12.14**      |
| Literature (Print media)                 | 16.1                  | 19.1         | 16.23                  | 23.9         | 0.13                           | 4.8          | 2.03 NS   | 7.72**       |
| Training + Literature + Electronic media | 16.1                  | 23.9         | 16.26                  | 31.5         | 0.16                           | 7.6          | 2.02 NS   | 3.02**       |

**Note:** \*\* Significant at 0.01 percent level; NS = Non significant

important and vital role in disseminating knowledge about 'Safe drinking water'.

#### Overall Evaluation of Multimedia Technology Kit in Terms of Gain in Knowledge by Rural Women

It is evident from table 4 that the experimental group gained 15.56 mean score and control group gained only 0.16 mean score. The calculated 't' value for the experimental group was found to be highly significant at 1% level of probability. This finding reveals that the multimedia package on 'safe drinking water' was found an effective educational tool in imparting knowledge to the participating rural women in the field of extension.

**Table 4: Utilization focused evaluation of multimedia technology kit in terms of gain in knowledge by rural women N = 60**

| Groups       | Pre test (Mean score) | Post test (Mean score) | Gain in knowledge (Mean score) | 't' value |
|--------------|-----------------------|------------------------|--------------------------------|-----------|
| Control      | 16.1                  | 16.26                  | 0.16                           | 2.02 NS   |
| Experimental | 15.1                  | 30.66                  | 15.56                          | 11.06**   |

**Note:** \*\* Significant at 0.01 percent level; NS = Non significant

#### Effectiveness of the Individual Media

The effectiveness of the individual media on 'Safe Drinking Water' was tested with three different groups taken from three different purposively selected villages of District Udaipur namely Kanpur, Thoor and Brahminon ki Hunder. A homogenous group of 30 rural women who had education up to middle level was selected randomly from each village. Thus, total sample consisted of 90 rural women.

Data in Table 5 reveal that the calculated value of 't' in all the three medias i.e. lecture and demonstration, booklet and CD were greater than the tabulated value

**Table 5: Effectiveness of Individual Media N = 90**

| Interval     | Group I<br>(Lecture + Demonstration) |         | Group II<br>(Booklet) |         | Group III<br>(CD) |         |
|--------------|--------------------------------------|---------|-----------------------|---------|-------------------|---------|
|              | Mean scores                          | t value | Mean scores           | t value | Mean scores       | t value |
| At immediate | 8.53                                 | 8.33    | —                     | —       | 10.46             | 21.6**  |
| At 15 days   | 7.63                                 | 8.04    | 10.3                  | 12.11   | 10.13             | 22.39** |
| At 30 days   | 6.33                                 | 6.26    | 9.26                  | 10.06   | 9.64              | 18.90** |

**Note:** \*\* Significant at 0.01 percent level; NS = Non Significant

at 1% level of significance. Thus, proved that all the three medias were significantly effective in retention of knowledge by rural women. This may be due to the fact that these medias were attractive in general appearance, expressed in local dialect, language used was simple, correct sequence & organization was used.

Further table shows that among all the three medias, electronic media was found to be most effective in gain & retention of knowledge. The probable reason for this might be that the people learn more quickly & retain knowledge longer from what they see rather than from what they only hear & read. The most effective communication is a combination of 'seeing & hearing'.

#### CONCLUSION

It could conclude that the selected medias were found effective in disseminating the knowledge as well as retention in knowledge regarding 'Safe Drinking Water' among the rural women. But the most effective media was electronic media, which has tremendous potential both as an educational, and an entertainment tool, it helps in preserving the valuable learning experience for use in future learning situation. The messages reach the mind of the audience both through eyes and ears simultaneously thus electronic media is more effective than other media. It is therefore suggested that electronic media should be used more.

Government is emphasized on digital literacy by initiating a program digital India in 2015. Now computer is reaching to each nook and corner of the country. Hence, efforts should be made to develop such type of need based electronic media by the rural youth at their local level which enhances use of such media for rural development.

## REFERENCES

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