ORIGINAL RESEARCH PAPER

Community Medicine

IMPACT OF SMART HEALTH EDUCATION MODEL ON KNOWLEDGE AND ATTITUDES OF RURAL PEOPLE REGARDING SWATCH BHARAT ABHIYAN.

KEY WORDS: Rural, Swachh Bharat Abhiyan, Sanitation, SMART health education model.

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ABSTRACT

Background: Throughout the world many countries are facing challenges in providing adequate sanitation for their entire populations, leaving people at risk for water, sanitation, and hygiene (WASH)-related diseases. Sanitation and drinking water in India continue to be inadequate despite of the longstanding efforts on various levels by the governments and communities to improve the coverage. Lack of safe drinking water, the absence of basic sanitation and hygienic practices is associated with high morbidity and mortality from excreta-related diseases. It has been estimated that one in every 10 deaths in villages is linked to poor sanitation. and hygiene. Swachh Bharat Abhiyan', the largest nation wide cleanliness campaign launched on 2nd October 2014. The present study was conducted to create awareness among rural people about 'Swachh Bharat Abhiyan' as well as sanitation practices through 'SMART Health Education Model'. **Materials and Method:** The study was conducted among rural people between the age group of 15-45 years. The study participants were 90 people both male and female, who took a pre test regarding knowledge and attitude about sanitation practices and 'Swachh Bharat Abhiyan'then they were exposed to structured 'SMART Health Education Model'. Afterwards they appeared in the post test. The pre and post-test scores were analysed by using Paired t test. **Results:** Significant improvement in knowledge about sanitation practices and a favourable attitude towards 'Swachh Bharat Abhiyan'was found after applying 'SMART Health Education Model'. **Conclusions:** Our study found a significant improvement in people's knowledge regarding sanitation practices and the development of a positive attitude towards 'Swachh Bharat Abhiyan'by introducing an interventional technique known as the SMART Health Education Model.

INTRODUCTION

"*Swacchta*" which means cleanliness is the abstract state of being clean and the habit of achieving and maintaining that state. Cleanliness may imply a moral quality, as indicated by the aphorism "cleanliness is next to godliness". Throughout the world many countries are facing challenges in providing adequate sanitation for their entire populations, leaving people at risk for water, sanitation, and hygiene (WASH)-related diseases.[1] Sanitation and drinking water in India continue to be inadequate despite of the longstanding efforts on various levels by the governments and communities to improve the coverage. The rural sanitation programme in India was introduced in 1954 as a part of First Five Year Plan of Government of India. The 1981 census revealed that rural sanitation coverage was only 1%. Contaminated water consumption and poor hygiene practices result into many diseases which form leading causes of death among children worldwide.[2] Highest causes of illness and death, in children in developing countries are diarrheal diseases which are preventable diseases linked to open defecation.[3] Lack of safe drinking water, the absence of basic sanitation and hygienic practices all are associated with high morbidity and mortality from excreta-related diseases. National Sample Survey Office (NSSO) 2012 report underlined the extremely poor state of sanitation in the country, particularly in rural areas of India.[4] It has been estimated that one in every 10 deaths in villages is linked to poor sanitation and hygiene.[4]

Swachh Bharat Mission (SBM), the largest nation wide cleanliness campaign, was launched on 2nd October, 2014 with aims to achieve Swachh Bharat by 2019, as a fitting tribute to the 150th Birth Anniversary of Mahatma Gandhi. The objectives of SBM are to reduce or eliminate open defecation through construction of individual, cluster and community toilets.[5] The concept of SBM is to provide sanitation facility to every family, including toilet, solid and liquid waste disposal system, village cleanliness and safe and adequate drinking water. Under the mission, nearly 10 crore toilets will be constructed by 2019.

The most important thing for the effective implementation of a program is community participation and for that community must be made aware about the mission objectives and its role in bringing the desired change in the society. Keeping this in mind the current study was undertaken to create awareness among rural people regarding SBM by using the 'SMART Health Education Model' . The objectives of the study are:

- To assess the knowledge and attitudes of rural people about 'Swachh Bharat Abhiyan' of India.
- To evaluate the effectiveness of 'SMART Health Education Model' on their knowledge and attitudes pertaining to sanitation practices.
- To involve health workers in the application of 'SMART Health Education Model' to educate rural people about sanitation practices.

MATERIALS AND METHODS

This community-based study was conducted in a selected village which is located nearest to PHC Miran Sahib which is the field practice area of GMC Jammu and 120 people belonging to the age group of 15-45years were selected by random sampling for this study. Verbal consent was taken and confidentiality was assured. The objectives of the study were explained to the participants.This study was conducted from October to December 2018. A group of 10 health workers was trained for implementing modified and structured 'SMART Health Education Model' in stepwise manner.

As a pre test a self-administered questionnaire was distributed to all study participants. The questionnaire comprised of 15 questions, 4 questions on 'Swachh Bharat Abhiyan' and 11 questions related to common sanitation practices to assess their knowledge and attitude sanitation practices. The responses were recorded Then the **SMART Health Education Model** was implemented by the health workers.

- The initial steps consisted of skits on sanitation practices and related water borne diseases, vector borne diseases and their prevention
- Then a short movie was shown related to unhygienic practices, their related diseases and how to prevent them.
- Then proper Hand Washing technique was demonstrated (with six steps of hand washing) as per UNICEF guidelines.
- Games with focus on water borne diseases were played.
- Structured case stories focusing on components of 'Personal Hygiene, Prevention and related Diseases' were discussed with study participants.
- Components of personal hygiene were summarized by participants at the end of discussion.

Then the same questionnaire was again given to all participants as a post test after the implementation of SMART model. The responses were recorded separately. After a the gap of 15 days the same questionnaire was given to them again to assess retention of knowledge. Out of the total 120 people selected only 90 turned up

for the post test after 15 days. They formed the final study group. Responses were again recorded again separately.

Data was collected and grouped using computer software MS Excel. Frequency tables were constructed and presented as percentages. The pre and post-test scores were analysed by using Paired t test and $P < 0.05$ was considered statistically significant.

RESULTS

Their mean age of the participants was 34.68 ± 0.92 years. Out of the total study population 55.5% participants were males and 44.4% were females. Majority of the participants were Hindus (62.2%) and literates formed 42.2% (Table 1)

Table 1: Distribution of study subjects according to Demographic variables (n=90)

Variable	No.(%)
Sex	
Male	40(44.44%)
Female	50(55.55%)
Religion	
Hindu	56(62.22%)
Muslim	20(22.22%)
Christian	14(15.55%)
Literacy status	
Illiterate	38(42.22%)
Literate	52(57.77%)

Table 2 shows the frequency of the practice of defecation, hand washing and solid waste disposal among the participants.

Table 2. Distribution of participants according to the practice of defecation, hand washing and solid waste disposal (n=90).

Practices	No.(%)
1. Subjects preferring open	
field defecation	32(35.55%)
2. Subjects using both soap and	
water for hand washing	57(63.33%)
after defecation	
3.Number of houses with toilet facility	41(45.44%)
4. Subjects using community	
bin for solid waste disposal	58(64.44%)

Table 3 shows that the post test scores of the participants regarding knowledge of sanitation practices and attitude towards SBA was found to be significantly improved by the introduction of the 'SMART Model' .

Table 3: Mean scores of participants (n = 90).

Mean scores		t	p
pre test	5.42	18.52	<0.001
post test(after 15 days)	8.99		
Significant level: 0.01.			

Table 4 shows the positive effect of 'SMART Model' on knowledge and attitudes about sanitation and 'Swachh Bharat Abhiyan' among participants and also their retention after 15 days

Table 4. Attitudes of Participants towards Swatch Bharat Abhiyan (n=90)

Question	No of participants with positive response before an intervention (%)	No of participants with positive response after an intervention (%)	No of participants with positive response fifteen days after an intervention (%)
Do you think there is need of Swach Bharat Abhiyan?	70(77.77%)	80(88.88%)	87(96.66%)
Do you think Swachh Bharat Abhiyan is effective?	62(68.88%)	72(80.00%)	79(87.77%)
Is your participation in Swachh Bharat Abhiyan necessary?	50(55.55%)	89(98.88%)	90(100%)
Do you think that you can help Swachh Bharat Abhiyan by keeping your area clean?	56(62.22%)	82(91.11%)	86(95.55%)

DISCUSSION

Present study found a high prevalence (35.55%) of defecating in the open field among the participants in the pre-intervention phase. These findings indicates that it is the need of the hour to sensitize rural people to hazards of open air defecation and encourage them to stop this practice. These results go along with the findings of other studies conducted in rural areas.[6,7] The study also showed that 63.3% of the subjects were using soap and water for hand washing after defecation. Similar finding have been obtained in this regard by a previous study.[6]It was found that 76.82% of the houses were having toilet facility and 34.75% of the subjects were disposing solid waste in community bins which are in accordance with findings of previously conducted studies.[6,8] In present study, simple novel health education model was used to create awareness among rural people about sanitation practices and it was found out that the post test scores of the participants regarding knowledge of sanitation practices and attitude towards SBM was found to be significantly improved. This is in accordance with a study conducted among school children to sensitize them regarding good sanitation practices that utilized the 'SMART educational Model'.

One of the reasons of having poor knowledge of participants in above areas before an intervention may be less exposure of participants to various health awareness programmes.

The introduction of such interventional programmes at community level will not only increase their knowledge regarding good sanitation practices but will also help them form a positive attitude towards the same. An important limitation of our study is the small sample size. More such studies are needed at a larger scale so that the findings can be generalized.

CONCLUSION

Our study found a significant improvement in people's knowledge regarding sanitation practices and the development of a positive attitude towards 'Swachh Bharat Abhiyan' by introducing an interventional technique known as the SMART Health Education Model.

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