Integrated Communication Strategy for Creating Awareness on Sanitation and Hygiene Behavior Change

Arunachevan Siram
Assistant Professor, Department of Media Sciences, Anna University, Chennai - 600025, Tamil Nadu, India. e-mail: achelvan@annauniv.edu, 91 9444819958

Uma Maheswari
Assistant Professor, Department of Media Sciences, Anna University, Chennai - 600025, Tamil Nadu, India.

Abstract
Lack of sanitation and hygienic practices affect the health and economics of the individual, family, community and the nation. Open defecation is one of the major unsanitary practices in the developing countries. The eradication of the practice of open defecation and the process of making people follow good sanitation and hygienic practices is still a challenge for most nations. The actual coverage/use of toilets is much lower than what statistics suggest. The major cause behind this is the lack of awareness on sanitation. An effective hygiene education can contribute to creating awareness, understanding and behavior change on sanitation. This study has analyzed the awareness level on sanitation and the effectiveness of the prevailing Information, Education and Communication (IEC) approach among rural Indians. Focus Group Discussion and Survey methods were used to analyze the awareness level and effectiveness of IEC among the rural people. It exposes that awareness on sanitation is low. Possession of toilets in the households also minimum and usage of toilet is still lower than the possession. The use of IEC by agencies to create sanitation/hygiene awareness has not been effective. Based on the outcomes, the study suggests a new Integrated Communication Strategy (ICS) to improve the situation. ICS intensive campaigns for various target groups and levels can create awareness and generate demand for sanitary facilities. Dissemination of the right message through the appropriate media to the key influencers and the public can alter the sanitation and hygiene behavior.

Key Words: Sanitation; Hygiene; IEC; Health Communication; Behavior Change; Communication Strategy

Introduction
Poor sanitation and the lack of hygienic practices affect the health and economics of the individual, community and the nation. Open defecation traps the family in a cycle of ill health, poverty and deprivation. Insanitary conditions and contaminated drinking water extracts a crippling toll on human health and the environment. In addition to the indignity suffered by those lacking sanitation facilities, they also suffer from diseases contracted through direct and indirect contact with pathogenic bacteria found in human excreta.

Improvements in water supply and sanitation play an important role in reducing high levels of morbidity and mortality that prevail in poor societies. Use of safe drinking water, improved hygiene and good sanitation practices has been proven to be essential for good health and the availability of water is a prerequisite for socio-economic development. There also exists a relationship between water, sanitation, health and development. There is a proverb in Tamil that goes "Where there is water, there is civilization; Hygiene provides health and wealth". Water is the basis for hygiene and civilization. But, improving the water supply and sanitation facilities is not an easy job.

The lack of sanitation infrastructures like sanitary wares, tools, toilets, products and regular supply of required water is the biggest challenge in this sector. However availability of such infrastructure will not bring about change in sanitation, because sanitation habits are inherited by people along with their culture, beliefs and mental attitude. Low level of awareness on sanitation is the biggest issue. A strong social and behavioral change among the people and other stakeholders is the need of the hour.

India is facing the slur of topping the global list in open defecation. India is keen to put the sanitation program on the centre stage by sensitizing the population about hygiene with the strong intent to eradicate open defecation. The national budget for sanitation has increased from Indian Rupees (INR) 1.5 billion to more than INR 20 billion (DDWS, 2011). The construction of toilets though is very slow and there is a low usage of the existing toilets. Systematic planning, implementation and monitoring are required to scale up with quality. The population growth in the country is very high. The current population of India is 1,210 million (Census, 2011), which is 17.5% of the world population and is expected to reach 1,340 million by 2021. Population size and growth in India aggravates the impact of poor sanitation on health and quality of life.

India has taken many efforts towards improving sanitation. The Central Rural Sanitation Program-CRSP was launched in 1986, expanded in 1993 (DDWS, 2001) and restructured in 1999 as Total Sanitation Campaign (TSC) with a demand driven approach. To add vigour to the implementation of TSC, an award scheme 'Nirmal Gram Puraskar' (NGP) was launched in 2003 for fully sanitised...
and open defecation free villages. Encouraged by the success of NGP, the TSC was renamed as “Nirmal Bharat Abhiyan” (NBA, 2012). The objective was to accelerate the sanitation coverage in rural areas so as to comprehensively cover the rural community through renewed strategies and saturation approach.

The rural sanitation is 26% and urban sanitation is 84.6% only (DDWS, 2010). According to the latest statistics from the DDWS, the sanitation coverage has quietly improved and the construction progress of toilets is well, but less than the projection. There is a significant improvement with Tamil Nadu state holding the 5th place among the states in the HH toilets (DDWS, 2011), even though the actual sanitation situation is very poor.

SRRI (2010) study has found that, only 40 percent of households have toilets; 60.4 percent of the sample resort to open defecation; 20.6 percent of toilets were non-functional. The primary reasons for toilet usage are accessibility at night (99.6 percent), availability during emergency and safety for women and children. Perceptual barriers to using toilets are that it is unhygienic, open defecation is cleaner, water scarcity and need for high initial capital.

Taru study assessed the impact of the program in 162 villages across seven states (Roy, 2008). It has found that about 15% of households did not have access to a toilet and answered nature’s call in the open. As many as 34% of the households had constructed toilets, but did not use them regularly.

There is a need to critically look into this issue for streamlining the sanitation program in the state. Although conventional hygiene education messages are often not relevant, realistic or complete, effective hygiene education has the potential to contribute to both understanding and improved behavioral practices. It is important to note that better facilities alone rarely change people’s hygiene behavior (UNESCO, 2010). People change their behavior when they are suitably motivated.

Though sanitation is gaining momentum, half of the people in Tamil Nadu still need to be provided with sanitation facilities. Hence, there is a pressing need to study the awareness level and prevailing communication strategies that are used in the mobilization of the concept of sanitation and hygiene in rural Tamil Nadu. The specific objectives of the study are: to know the awareness level on sanitation and hygiene among the rural people; to analyze the effectiveness of the Information, Education, Communication (IEC) on the sanitation and hygiene behaviour of the rural people; to understand the existing situation and to suggest an integrated communication strategy for addressing sanitation behavior with suggestive tools, methods and materials for various stakeholders.

Review of Literature
IEC is a key to Water, Sanitation and Hygiene programs and is seen as a major tool that induces behavior change among people to demand sanitary facilities. The IEC strategy should be to address all sections of the rural population, to bring about awareness and behavioral changes for improved sanitation and hygienic practices. UNICEF (2011) had pointed out that the use of latrines and their maintenance are poor in several localities, mainly due to the gap in implementation of IEC programs. In meeting new challenges, the sector needs locally specific IEC component training, capacity building and an effective implementation strategy.

Communication is an important part of rural development (Nwosu, 1987). A successful advocacy begins with the identification of groups that need to be influenced and working out the best way to communicate (Simpson-Hebert & Wood, 1998). Gorre-Dale, Jong, & Ling (1999) found that the people in the sector are now convinced that IEC is a necessary ingredient of effective water and sanitation programmes. They accept that most water and sanitation-related problems must be tackled by the people in the villages and urban slums, who must be properly empowered and equipped to take actions themselves. Wide-ranging communication efforts have also contributed to this drive towards sanitation improvement and involve identifying, segmenting and targeting specific groups with particular strategies, messages and training. Field workers must involve the community in planning and managing their own facilities and to make hygiene education effective.

ADB’s evaluation study on water supply and sanitation projects (ADB, 2002) revealed that sanitation was given less attention and the results were mixed and limited. It shows that sanitation, hygiene, and health promotion programs are needed and complementary, and these represent a distinct factor for success.

Integration of mass media, face-to-face communication, print materials and opportunistic activities is important to build and strengthen capacity, quality and delivery (Laverack&Dap, 2003). Multi-level efforts such as mass media, workshops, training sessions and house-to-house visits by village authorities and health officials have raised greater awareness. Demand, involvement and willingness to pay for this service are not high. Sanitation is linked to cultural beliefs and traditions (Lavergne & Gabert, 2005). There is a need to raise the demand by arousing awareness and by showing the personal and communal benefits of sanitation. Arguments based on health and hygiene are rarely appropriate, it is better to use arguments based on honor, dignity and social status.

IEC campaigns can alter the demand and promote household/community sanitation and hygiene practices (Pattanayak, et al., 2006). National Sanitation Week activities and social mobilization for sanitation and hygiene has contributed to a significant increase in access to sanitation (Bajracharya, 2003). Hand washing with soap and water after defecation has also increased. Multi-level efforts such as mass media, planning workshops, training sessions and house-to-house visits by village authorities and health officials have raised greater awareness of sanitation and hygiene. Perceived weaknesses exist in the planning and implementation of strategies, and in support for community health promotion activities.

Much can be done to improve the effectiveness of health promotion. Specific weaknesses were perceived, including inadequate attention to evaluating programs and
modifying them accordingly and soliciting the views of end-users when evaluating health promotion programs (Gupta & Rani, 2004). Children are potential agents of change in the communities. Children are used as agents of change in the communities, taking an active role in teaching siblings, friends, peers, in addition to the elder members of their family (Tillett, 2008).

Pattanayak, et al. (2009) says that IEC activities are used to improve the attitudes and knowledge about how sanitation, safe water and hygiene relate to health. Two billion people living in rural areas are affected by open defecation. Those who suffer most from lack of toilets, privacy and hygiene are women, adolescent girls, children and infants. Community-Led Total Sanitation is a revolutionary approach. Encouraging and promoting private sector and self-help groups, supply of hardware materials, regular reporting, mobilization of teachers and schools and involvement of priests are necessary (Chambers, 2009).

Health education workers are the key informants who would produce tangible benefits in sanitation and hygiene (Behailu, Redaie, Mamo, Dintse & Newborne, 2010). The SHG model case of Keerapalayam village panchayath which has achieved a high level of sanitation due to the dedicated community participation, has improved the coverage and awareness. Dhalihara village panchayat of West Bengal succeeded in mobilizing communities and generating awareness on the importance of eradicating open defecation. It is due to the widespread IEC activity. Focus on inter-personal communication, use of folk media and outdoor media are also important. The IEC plan should include a component for raising awareness among school going children, teachers and PTAs (MDWS, 2011).

**Methods and Materials**

This study has adopted a multi-methodical approach to gather necessary data on sanitation status, people’s sanitation behavior, effectiveness of existing IEC tools and perceived gaps among the stakeholders. Focus Group Discussion (FGD) was done to gather the views of the sanitation functionaries. The FGD was conducted in August 2011 with various stakeholders including 80 village level people representatives, sanitation filed workers, sanitation officials from different level, IEC field functionaries, media experts, sanitations experts. Sanitation awareness, peoples’ sanitation and hygiene behaviour, existing IEC usage, problems were discussed in the FGD.

The survey was conducted in twelve districts of Tamil Nadu state to collect first-hand information from primary and secondary stakeholders (households, teachers, students, PRIs, Self Help Groups (SHGs) and anganwadi workers on current IEC strategies in implementing sanitation programs during the period of January to March 2012. Stratified random sampling technique was used to select the sample respondents. A self-administered questionnaire was utilized for the data collection. It has questions on demographic details, sanitation behavior, awareness, IEC exposure, etc. A participatory consultation was also conducted in July 2012. About 110 participants were present, including project officers, district coordinators of sanitation, representatives of NGOs and experts from sanitation and media. FGD and base line survey findings were shared with them and a detailed discussion was organized to come up with a new communication strategy on sanitation and hygiene behavior change.

**Results and Discussion**

The results of the focus group discussion, baseline survey and participatory planning are presented and discussed here.

**Focus Group Discussion**

Focus Group Discussion was conducted in August 2011 to understand the IEC implementation, sanitation issues, awareness, suitable communication methods and media to effectively reach the target group. The aim of the workshop was to get opinion and suggestions from district and block level officers, who are directly involved in the program. The FGD has provided the following information. Sanitation has only been partially achieved. Failure of TSC is due to a lack of awareness and people’s attitude towards toilets. The existing mind set is that defecation in outdoors is better than indoors.

**Graph 1 Reasons for Not Achieving Total Sanitation**

![Graph showing reasons for not achieving total sanitation](image-url)
Not enough IEC work has been done (graph 1). There is a lack of team work among implementers and toilets were built for name sake. Sanitation awareness campaigns are not immediately followed by construction of toilets. The resulting delay in construction and unsatisfactory sanitation leads to failure. Fresh strategies are needed to meet full sanitation coverage and to focus on school and community toilet usage. This can change the mindset of people and motivate the key influencers.

Effective medium for sanitation is group communication, followed by television and interpersonal communication (figure 2). Changing the mindset of the people is very important. The target audience should be women, youth, children and elderly people. Sanitation campaigns have happened only sporadically. Most coordinators are not familiar with the current IEC practices. Convergence of IEC through coordinated effort of sectors like health, education and development officials is important.

Continuous telecast and reinforcement of messages in all media is essential. Campaigns through school children and PRIs are important. Local cable channels, mobile SMS, Radio Jingles, pictures and radio broadcasts in buses, schools are also good for sanitation message dissemination. Students can be educated on sanitation through CDs and VCDs. Models of the toilets can be advertised in each village. Celebrating international days like world toilet day and sanitation festival will also bring changes among the people.

Survey
As part of the survey a pilot study was done in October 2011 in two villages of Kanchipuram district to identify reasons for poor sanitation behavior and to come up with better communication methods. Both primary and secondary stakeholders including household, institutional were interviewed and discussed. Mostly women members participated in the interaction. According to them, few households only have toilets, but at the same time all the newly built houses have sanitary facilities. Most of the women said that they wanted indoor toilets because of their teenage daughters and for their safety and privacy.

Few years ago, people mostly used to openly defecate outside the villages near bushes, trees and agricultural lands. Due to industrial development, there is no longer place to hide and defecate. In some houses, toilets are damaged and defunct. pans were provided, but no pits for toilets. So some villagers did not prefer to have toilets. The IEC van has visited four times for the campaign, but villagers could not recall what was shown in the video.

Regarding schools, students are taught about computers, but the sanitation and hygiene part of the syllabus is missing. Enough space is available in the school but there is only one toilet for two hundred students, which is also kept locked for exclusive use by teachers. 20% of students stated that they are using toilets in their homes. Health workers do not visit schools to talk about sanitation. Very few NGOs were involved in the sanitation campaign and IEC work. One company selected a village as part of their Corporate Social Responsibility and provided toilets.

After the pilot study the main survey was conducted in January to March of 2012. A total of 2,452 respondents were interviewed at the household level with 25 households from the selected 24 villages. The total percentage of women was 55 percent; more than 35 percent of the respondents were married. Ten percent of the members were illiterate; however, one-fourth has completed their secondary education. Only 36 percent of households had concrete houses and a family size ranging from two to seven.

Knowledge, Attitude and Practice (KAP) about sanitation is very important. Sixty percent of the respondents said that sanitation refers to washing hands, clean surroundings, clean drinking water and having an indoor toilet. However, only 31% of the total sample population uses toilets and the rest resort to open defecation. Nearly two-third respondents had toilets at home, whereas only 30 percent use the facilities. Only children or women members in the family use the facilities. 72% respondents said that children are aware of toilet use but are not using it in their schools, because the toilets are
locked by the teachers for their personal use. In some schools only girl students are allowed to use the toilet. Majority of anganwadi sanitary facilities are not functional and are used as storage.

Half the respondents believe that, being a traditional practice, it is very difficult to stop open defecation. Others felt that it is better to stop open defecation for health and privacy reasons. When asked about the impact/effects of poor sanitation, over half cited that it caused poor health; while 22% felt poor sanitation had an impact on the environment.

About 40% of respondents said that having a toilet inside the house is not good. 16% of respondents feel it is expensive to build a toilet. Half the toilets built inside the house were not in use. Some of the toilets are being used for storing firewood and few use it as a bathroom. The reasons for not using toilets are lack of water supply (20%), no pits (13%), close to drainage (10%), and far from the home (7%). Respondents who had toilets slipped back to open defecation practices because they did not like toilets inside the house. For 17% of respondents, the facilities are damaged, smelly and difficult to maintain.

Nearly four out of five respondents have never heard any sanitation message. Only about a fifth has come across some message through their children and street plays, like hand washing practices and benefits of using sanitary facilities. When asked about the most trusted source of information, the majority said they got messages from the village and other influential leaders, while only 15% cited newspapers and television as sources of information. This clearly shows the importance of interpersonal communication. On probing further, over half the respondents (51%) stated that they never read newspapers (figure 3). 14% read newspapers occasionally. Radio listenership is minimal.

Graph 3 Source of Sanitation Information

An overwhelming majority (95%) watch TV, with 55% watching it at prime time and a quarter watching it at late night. When respondents were asked to list the prime motivators, 39% cited teachers, followed by girl children, grown up daughters or the women in their family for whom the key reasons were to own and use toilets (figure 4). Nearly a third of the respondents (32%) stated that SHG members and their peer pressure motivated them to use toilets. 14% said that village health workers were influential in their decision to construct a sanitary facility.

Graph 4 Key Influencers in Sanitation at Household Level
Four out of five (81%) respondents said that television would be the best electronic media for informing about the importance of sanitary facilities. More than half the respondents (57%) said that they never saw any posters/pamphlets on sanitation. Although respondents own mobile phones, they felt that mobile phones may not be suitable for disseminating information. Regarding sanitation messages, 30% suggested messaging on health and hygiene, 27% felt that messages should focus on hygienic practices in school, and 20% stated that messages should be on toilet usage and personal cleanliness. School teachers suggested that sanitation messages should be very specific.

According to the respondents' traditional life style and culture, having a toilet inside the house is not considered good (40%). About 16% of respondents said that it is expensive to build a toilet inside the house. Half the toilets built inside the house were not put to use. Some of the toilets are being used for storing firewood and a few use it as a bathroom. The reasons for not using toilets are lack of water supply (20%), no pits (13%), and proximity to drainage (10%) and far from the home (7%). Some of the respondents who had toilets slipped back to open defecation practices because they did not like toilets inside the house. For 17% of respondents, the facilities are damaged, smelly and difficult to maintain. In many houses people did not use facilities because of the fear of toilets getting filled up quickly.

**Participatory Consultation**

Based on the baseline survey's output like public's awareness, their perception on sanitation and existing IEC exploitation, a draft of a communication strategy was prepared. The draft was placed in front of the various stakeholders including Sanitation Coordinators, Officials, WASH Experts, Communication and Media Experts in a form of state level workshop. A detailed participatory discussion was done to improve the communication strategy.

**Integrated Communication Strategy**

Behavior change strategies encompass a broad range of activities and approaches, which focus on the individual, community and environmental influences on behavior. Interventions to change behavior have tremendous potential to alter current practices of sanitation. Responsibilities and activities of different stakeholders have to go hand-in-hand with the IEC activity.

**Communication Techniques:** Method of communication is very important for effective information dissemination and behavior change. Interpersonal Communication, Group Communication, Mass Media, Traditional & Folk Media are the major communication methods for sanitation. According to the nature, availability and suitability the method should be selected. A judicious mix of media needs to be used for taking forward the desired message to the audience.

**Target Groups:** This communication approach is community-centered. It is a process of working with individuals, communities and societies to promote positive behaviors. So, the selection of target groups and suitable communication methods are important. **Primary Target Audience:** Individuals including women, children, elders, workers, scheduled castes and tribes are the primary target audience. They are the direct beneficiaries of the sanitation awareness activities. So, the communications strategy should be focused on these primary target groups. **Secondary Target Audience:** Schools teachers and students, anganwadi staff and children, women SHGs, Village Panchayats, religious institutions like temples, churches, mosques, and block level coordinators are the secondary target audiences. Schools will be an intrinsic part of the IEC campaigns. **Tertiary Target Audiences:** State and district level communication managers and officials, department heads, NGOs, private/ corporate partners are the major tertiary target audiences.

**Message and Content Design:** The message should be positive in nature. It should concentrate on avoiding the negative thoughts, perceptions and beliefs about sanitation. Characteristics like individual respect, dignity and pride are the important components of the messages. It is also recommended that the communication campaign includes a symbol, uniform branding and design of creatives, developed in consultation with the community and messages standardized, pre-tested and validated, in order to maximize its impact.

**Capacity Building:** Capacity building for key influencers and leaders among the primary and secondary target group needs to be done in order to take the campaign forward effectively on the field. Children are the best influencers and messengers of sanitation and the communication route of child to child, child to parent and child to community would be one of the effective ways for approaching the communication campaign.

**Celebrity Endorsements:** Celebrities may be used as sanitation ambassadors at the national and regional level. The celebrity endorsement will increase the audience attention. This would also help in better message recall and reinforcement among the people.

**Motivation:** The sanitation related awards and incentives may be considered for motivation. Cleanest school award per block, NGP award for PRI, slogan award, best motivator award, best performer and other incentives are recommended for good motivation.

**IEC Units:** State and district level “Communication and Capacity Development Units (CCDUs)” should be strengthened. Allotting more funds, appointing staff and needy materials are necessary for good sanitation. This unit can produce the IEC materials, methods for sanitation.

**Public-Private Partnership:** Public Private Partnership, the involvement of corporate bodies is very important. In many areas/ sectors the Public-Privet Partnership (PPP) is working well. Sanitation is also one of the important areas where collaboration can take place. Location specific industrial associations can be enrolled in the campaign. Involvement of partners/campaigners, corporates, soap industry, sanitary ware manufacturers, service providers is also important. The PPP can play a significant role and sustain, continue the progress in an effective manner.
Findings and Conclusion

In India the sanitation has low priority and rural India is facing many problems in attaining a good sanitation status. Sanitation awareness and positive behavior is very low due to the socio-economic situation, tradition and mindset. This study found that the reason for this drawback is the poor and inappropriate communication methods that are used in the process. Regional/district action plans on rolling out the communication strategy and utilizing the IEC for sanitation campaigns need to be developed and implemented. Sanitation in the state has to be made aspirational through behavior change communication campaigns. Make open defecation an unacceptable social norm to ensure an open defecation-free Tamil Nadu. The state level communication strategy recognizes that behavior change is not a simple matter of receiving and having information and making an informed choice. Behavior change requires a supportive and enabling environment. The communication approach address the perception gaps - knowledge, attitudes, practices and skills of individuals, families and communities. Therefore, it requires sound understanding of the target audience and the use of an appropriate mix of communication channels - interpersonal, group, community and mass media.

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