

EDUCATION TECHNOLOGY & SOCIAL ECONOMIC REALITY - THE BANGLADESH PERSPECTIVE -

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Abstract: Education is the first mandatory clause for overall development of any country. These days use of media is an essential component of teaching-learning strategies to achieve various national goals—socioeconomic and cultural. Particularly in the South Asian region where poverty level is exceptionally very high and very poor literacy rate in contrast with the developed countries there education providers, faced with these challenges are seeking new ways of educational technology to impart education. The approach of technology depends on the social-economic condition & power of reception and interaction of people etc. The revolutionary development of electronic information & communication technology--Radio and television might be used on this process In Bangladesh considering the social economic reality govt. has been using radio and television broadcasting for mass education broadly since the last one decade. A significant result has already been achieved in the field of mass education of Bangladesh.

Keywords: Approach of broadcasting media, practice, impact.

I. INTRODUCTION

The word information and communication are completely depended on a factor called “Technology”. Only appropriate technology can assure the fruitful usage of information and communication. We have entered into the age of new social revolution by means of rapid development of electronic information and communication technology --- these are Radio, Television and internets and mobile phones etc. These days use of information and communication technology is an essential component of teaching-learning strategies to achieve various national goals—social economic and cultural. We know “Education” is exchange and transformation of information and communications. Education is called the first mandatory clause of social, economic, cultural and overall development of any country. Education means improving the quality of life of every one to create efficient, active, productive and profitable manpower. Toady implementation of education fully depends on appropriate use of technology.

The term ‘Technology’ means the practice, description and terminology of any or all of the applied sciences of commercial value. The use of technology consequently depends on the social-economic condition, life-style and availability of equipments, talent and intellect, power of reception and interaction of people etc.

“All available instruments and channels of information, communication and social action could be used to help convey essential knowledge and information and educate people on social issues. In addition to the traditional means, libraries, television, radio and other media can be mobilized to realize their potential towards meeting basic education needs for all “ [Final report World Conference for All: Basic Learning Needs, Jomtien. Thailand 1990]

This Paper is mainly developed on the perception of Bangladesh. A very small country (14, 3,998.00 square kilometers) of South Asia. Along with her vast population (152.6 million UN 2005), major portion of them are not educated and live below the poverty level. Literacy rate (38%) is lowest among the developing countries. For the past thirty-five years and since achieving the independence Bangladesh has been struggling for education to all by different means. Public education in

Bangladesh generally follows the model established by the British prior to 1947. It lacks of sufficient schools and institutions as well as good teachers or instructors. The existing educational system has shown itself to be unable to respond to the massive demand for increased education. That's why a large numbers of disadvantaged groups continue to be denied access to information, knowledge, skills and technology transfer. Education providers, faced with these challenges are seeking new ways of educational technology to impart education. It is impossible to educate those underprivileged groups through the conventional institutions under a regulatory management. So the question is what would be the alternative?

The revolutionary development of electronic information & communication technology -- Radio and television might be used on this process. As a whole radio and television broadcasting is the most popular, convenient and effective form of information & communication technology to convey all sorts of message and education to the mass people. Other new forms of communication technologies like Internet or mobile phones are considered to be the very effective technology of mass education. These sorts of most advanced technology should not be applicable for all countries like Bangladesh. All most every country of the world has Radio and television broadcasting. After all one hundred years of broadcasting history, most nations' posses more than a respectable level of engineering skills and Broadcasting talent needed to apply the technology in education.

In Bangladesh considering the social economic reality govt. has been using radio and television broadcasting for mass education broadly since the last one decade. A significant result has already been achieved. This paper discusses initial results how broadcasting technology has created a revolution in the education showground of Bangladesh.

II. RADIO AS AN EDUCATIONAL MEDIA

“Education is the experience of life itself and radio is the communication of life.” Radio as a broadcasting medium plays an extremely vital role in the information & communication process that is prerequisite for development. Radio – is an intimate medium. Radio has already known as a News Paper without paper cannot be suppressed or confiscated. This is fact, Radio does not demand the virtually exclusive level of audience attention that press or television requires. But listeners can carry radio within them. It can be provide company in the kitchen, or on the factory floor, in a traffic jam on the motorway or in a hostage cell on the outer side of the world. So, on these regards, off all “Mass media”, radio offers the greatest potential for building up a one to one relationship with each member of its audience. Radio can transcended the territory of the state and breaks the barriers of literacy. People have no need to live near to a town or city. They could live very well be in the remotest corner of the country---- to enjoy the benefits of radio broadcasting. And not only their own station, can even they learn form international broadcasting as well if they are able to afford a good receiver. So, radio receivers are widely available, portable and convenient for the listeners. *“Radio also has a developed infrastructure that must be the envy of any developing country operator. In Srilanka, one person in 500 has access to Internet, but virtually every one has to a radio. Bolivia had fewer than five telephone lines per hundred people in 1996, but more than 57 radio receiver per hundred (Girard, 1999).”*

Radio still continues to be an under-utilized technology in education. From an educational provider's point of view it is easy to set up, produce and broadcast programmes. Radio programmes are cheap to make compared to television and video.

III. TELEVISION AS AN EDUCATIONAL MEDIA

Television --- the most popular and common entertaining media rather than all other visual media. Today we are all inherent with this media. Its language is universal. A single frame or picture can express lot of things rather than million of words. It has versatile appeal to all level of human feelings. Even for a least developing country, like Bangladesh, television has achieved the superb

access in the society rather than other scientific utilities such as personal computers and mobile phones. It has become a very common commodity of social life.

As an educator television is the most effective than other media. Television offers real advantage as a medium for public education; television is expensive, in absolute and relative terms.

It is not an intimate medium like radio; it is mainly a family media. Lot of people can enjoy television all together. However, television is unique in being able to achieve effects other media cannot. It can tell a story more compellingly than radio because of the use of visual imagery.

IV. HISTORY OF EDUCATIONAL BROADCASTING IN BANGLADESH

The history of electronic media based education in Bangladesh (Former East Pakistan) dates back 1956 when 200 radio sets were distributed through the country to give education from a distance mood. An audio-visual education center was established in 1962. No further progress was in sight till 1971 when the people of this part fought a bitter struggle to over through the Pakistani occupation forces in the nine months long war and got independence on December 16, 1971 by tell of million lives.

V. BANGLADESH OPEN UNIVERSITY FOR EDUCATIONAL BROADCASTING

The post war Bangladesh was faced with the challenge of meeting the education needs for vas masses. To meet this challenge various measures were taken in different times. At last in October 1992 with a view to imparting education to all, Bangladesh Open University (BOU) was established by an act of the parliament. The main objective of this university is to expend all level of education and knowledge to the every class of people and create efficient manpower. Besides the print media and tutorial services, mainly educations are provided by radio and television programmes. Seven differnet schools offering 22 formal programmes for the students of BOU. At present more than seven hundred thousand students are enrolling in the different programmes of BOU. It has mentioned earlier that Bangladesh lacks of institutions and good infrastructures for proper education. As for example every year nearly fifteen hundred thousand students pass in the Secondary School Certificate Examination (The biggest public examination in Bangladesh) but due to absence of adequate institutions only two third students can get admission and rest of them had nothing to do before 1993 when Bangladesh Open University was established. Problems are as same as for other public examinations. BOU is the last destination for those. Though BOU provides Education in distance mood but without educational broadcasting it would be somewhat impossible for BOU to expand its service.

At the same time 18 non-formal programmes are also produced to create awareness and knowledge about health, environment, basic science, agriculture, food, nutrition etc. for the people of all walks of life. All the programmes of BOU reach to its target people through the National Broadcasting Authority. BOU broadcasts every day 25 minutes radio and 66 minutes TV in six days of week. So, Bangladesh Open University has opened a new vista of media education by means of radio and television. So the educational broadcasting of BOU not only educates its student as well as educates the mass people through the non-formal programmes.

The following figure-1 demonstrates the creditability of BOU: -----

Year	Students Enrollment at BOU
1992	5075
1993	6121

1994	10597
1995	28854
1996	27756
1997	30376
1998	42471
1999	37550
2000	72032
2001	58844
2002	82660
2003	82424
2004	106634
2005	122875

Figure: 1. Source: Students Support Service Division

1. Bangladesh Bureau of Statistic (2004), Ministry of Planning Government of Bangladesh.
2. Bangladesh Bureau of Educational Information and Statistic –2006.
3. Bates, A.W (1984) Broadcasting in Education: an Evolution. Communication and Society Series, London Constable.

VI. EDUCATIONAL BROADCASTING IN GOVT. MEDIA

Bangladesh Betar (Radio) is the largest electronic media of Bangladesh. It is a state-owned radio broadcasting organization. Bangladesh Betar broadcasts programmes through 10 regional stations and several units or offices. Total broadcasting hour 170 hours 10 minutes / Day. On an average, per day Betar broadcasts 315 minutes of programmes per day through all the stations for the students of primary, secondary, higher secondary level, for the illiterate. Population, Health & Nutrition Cell of Betar produces programmes on issues like resisting child-marriage, building up public opinion for getting married at a reasonable age, motivating people in favor of small family, eradicating all forms of superstitions, ensuring proper maternal and child care to control death rate of children and pregnant women, disseminating basic facts about health and nutrition. Besides this Betar also produces programmes for current issues and awareness according to public demand.

Bangladesh Television (BTV) is also state-owned Television network in Bangladesh. It is carried out through one center, one sub center and 18 really stations. The average transmission time of BTV a daily stand at 14 hours. Educational broadcasting: 60 minutes /day.

VII. EDUCATION TECHNIQUE FOR BROADCASTING MEDIA

To whom (Listeners/ Viewers),
 What (Contests) and
 What for (Educational goal)

VIII. EDUCATIONAL PROGRAMMES ARE MAILLY TWO TYPES

Programmes for schools (formal programme-curriculum based)
 Programmes for life long education (Informal education)

4. "Education Watch 2001- Renewed Hope, Daunting Challenges, State of Primary Education in Bangladesh" Campaign for Popular Education (CAMPE). University Press, June 2002.

IX. SCRIPTING FOR EDUCATIONAL RADIO

The absence of colour, light and picture is indeed a serious limitation of radio broadcasting; despite these handicaps a fruitful radio programme can create a massive impact on all of basic human feeling. Education through radio should be very distinct, direct and define. Complex topic, sentences & words, which creates confusion to the listeners should be try to avoid in all concern. As for example the mathematical or scientific terms may not be suitable or appropriate in radio. Topics on literature, history, religion, poetry, basic health, nutrition, laws etc. would be good for radio programmes. Because listeners creates an imaginary scene in his mind when they listen a radio programme. A fruitful educational programme in radio is a true "Word Vision". Generally the listeners' can memorize only 30% to 40% content of total programme. That's why it is very necessary for every educational radio script may be written in three parts first summary of main topics, Secondly brief discussion and finally summarized the whole topic once again.

X. SCRIPTING FOR EDUCATIONAL TELEVISION

Like educational radio programmes, television programmes have the same formats with some extra benefits to add dances, animation, and computer graphics etc. Television programme is relatively flexible or more complex and critical than radio. Television has lot of scope to describe the topic in various ways due to its visual support that's why it seems to be flexible than radio. A single picture or single frame s is somewhat more powerful than millions of words. On the other hand due to audio-video are incorporating at the same time, so, fraction of fault or misinterpretation will be totally despoiled the programme. On this context an educational television programmes demands lot of care, research and intonation rather than radio programme. The producers should be very care full on the costumes, make-up, get-up, physical attitude and personality of the anchors as well as on scenery, props etc. It requires sufficient and adequate visual support to establish the topic. Nothing is hidden in television programme and viewers have no chance to create any imagination. Like educational radio programme, television script has scope to do the same practice to make more fruitful and effective.

5. Educational Broadcasting-by Sita Ram Sharma & A.L Vohra.

6. "Film and Television in Education"- The handbook of the British Universities Film & Video council: Second edition. Edited by Chris Dry.

7. Government of the Peoples Republic of Bangladesh, Bangladesh Open University Project Performa, 1991-1992, page on 12-13

XI. P IMPLICATION OF BROADCASTING MEDIA IN EDUCATION

It has mentioned earlier that electronic media based educations are an effective means to educate the public for the developing countries of South Asia. In Bangladesh Education is the fundamental to the development. In Bangladesh absence of adequate teaching institutions and qualified teachers are the major factors for all sorts of education. The government has placed a high priority on it, particularly at primary level. The student teacher ratio is 63 to 1 the worst in Asia. Average student/teacher contact time is 2.5 hours per day, one of the lowest rates of the world. There are lots of problems in the education sectors – among all absence of good teachers are the main reasons. Broadcasting media may come forward on this issue. A good teacher and instructor can teach in classroom in front of a few students but through radio and television it can be reached to the

millions of students. Due to high illiteracy rates and low level of schooling among disadvantage groups, in many developing countries continuous to limit their ability to lift themselves out of poverty. So, it is a great advantage for expands education to each and every one.

XII. COMPARATIVE COST-EFFECTIVE ASPECT OF RADIO AND TELEVISION

The approach of any technology consequently depends on the social-economic condition, life-style and availability of equipments, talent and intellect, power of reception and interaction of people etc. The following figures are demonstrating the actual reality:

Name of Media	Approximate unit price
Two band (FM & MW) Radio receiver	USD\$ 04.00 – USD\$05.00.
36cm Black & White Television receiver	USD\$ 50.00 – USD\$60.00. License fee: USD\$ 04.28 for one time only.
Moderate Personal Computer set	USD\$ 500.00 – USD\$1000.00. Internet charge: USD\$ 0.57/hour
Mobile phone	USD\$ 50.00 – USD100.00. Call charge :USD\$ 0.072/ minute

Figure: 2. Proportional cost study of others communicative media with radio & television

Name of Media	Users ratio (Set /Person)
Radio	130: 1
Television	230: 1
Moderate Personal Computer	6000 : 1
Mobile phone	No reliable report.

Figure: 3. Proportional user of others communicative media compare to radio & television.

Name of Media	Facilities / Access
Radio	Nation wide coverage / extremely easy to operate & maintenance.
Television	All most every corner (97.77%) under the network/ easy to operate & maintenance.
Moderate Personal Computer	Mainly divisional & some districts town have the internet service / Fully an intimate medium, complicated, some extend it requires proper training to operate. To get the at least moderate facilities, it requires very good infrastructures ---like uninterrupted power supply and telecommunication system as well as availability of technical expertise. *Only 58% of total country is under electrification though it does not fully exist all the time.
Mobile phone	Some privet companies claim they have nation wide coverage.

Figure: 4. Comparative facilities & accessibilities of all media.

XIII. SUCCESS OF GOVT BROADCASTING MEDIA IN BANGLADESH

Though the report of Bangladesh Betar is not satisfactory as a mass educator but Bangladesh television (BTV) is more success on that issue. Examples:

”Mati O Manush” is a pioneer programme, starting from mid 1980s, has created a revolution to the agriculture sector of Bangladesh. Lot of unemployed people finds their way to establish themselves in the agriculture sectors.

“Mina” an educational cartoon show has become the most popular one for ever, started in 1985. All sorts of most essential basic information & education have come out from that show.

Besides these two TV serial “*Shabuj Shathi*” and “*Shabuj Chhaya*” is the best example how Television acts as a Mass Educator.

*Case study one: Impact of the “*Shabuj Shathi*” in Bangladesh

Research by: Population Communication Services (PCS) project of Johns Hopkins University Center for Communication Programs (JHU/CCP). COMMUNICATION Impact! December 1999, Number 7.

It’s a 13 part TV serial on integrated family planning and Family health service. It went on BTV in October 1997. The impact of *Shabuj Shathi* is witness to the power of Entertainment-Education drama when it is designed, written and produced with painstaking care. Evaluation of drama was carried out by a nationally representative in rural and urban areas. Sample survey of 10,400 men and women from 15 to 49 years of age (OMQ, 1998). Analysis of the impact of the drama was conducted on a sub sample of 4,566 married women ages 16 to 49, weighted by region and urban/rural residence. An index of overall health knowledge was constructed from a series of questions about safe motherhood, childhood diseases, HIV/AIDS, nutrition and goiters. The following two graphs (Figure 5 & 6) are showing the potentiality of this TV serial:

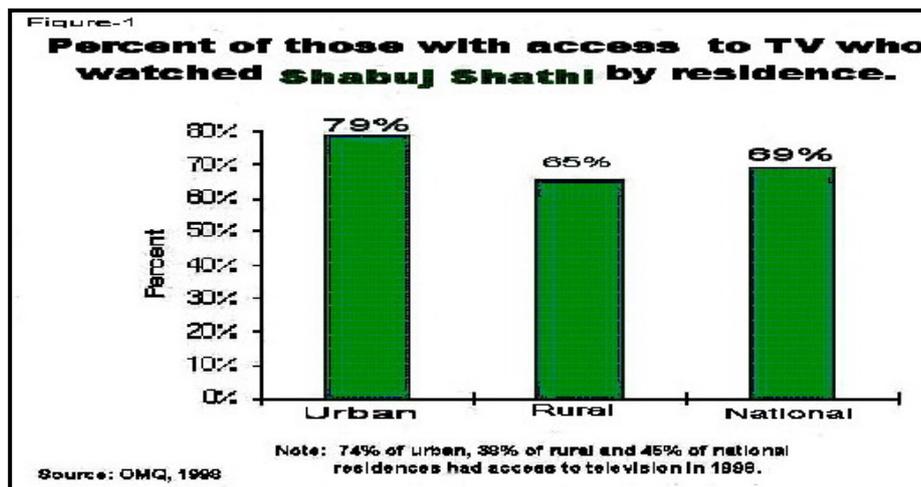


Figure: 5. Percentage of those who had access to watch TV in residence.

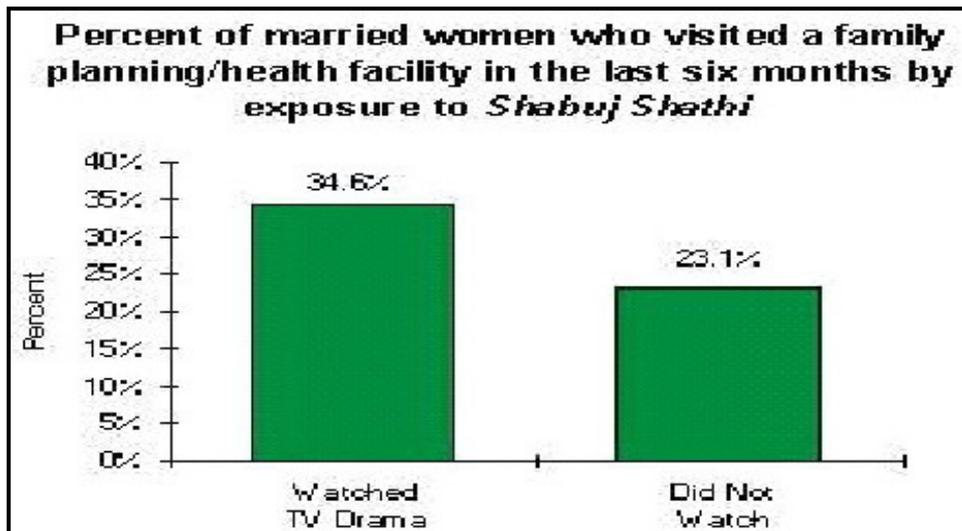


Figure: 6. Percentage of married woman who visited health clinics by exposure of Shabuj Shathi.

***Case study two: Impact of the “Shabuj Chhaya” in Bangladesh**

Research by :Mai P. Do, D. Lawrence Kincaid, Center for Communication Programs - Johns Hopkins University

The objectives of this 13 episodes TV serial were to improve knowledge and behaviors related to various health issues among men and women. The drama was aired nation-wide between January 21 and May 5, 2000. An audience survey was carried out right after the airing of the drama as one of efforts to evaluate impacts of the drama.

Objectives of the evaluation were:

- To measure the acceptability of the drama among audience,
- To measure the extent of changes in health knowledge and behaviors, especially in terms of their relationship with exposure to the drama.

Exposure to the drama was categorized into three levels: No exposure (having watched none of the 13 episodes), Low exposure (having watched 1-5 episodes) and High exposure (having watched 6-13 episodes). The following figures (7–13) are showing the impact of Shabuj Chhaya on mass people.

8. “Human Development Report 2001” UNDP, Oxford University Press, 2001. Impact of Shabuj Chhaya television drama in Bangladesh Television. Key findings from audience survey – by Mai P. Do, D. Lawrence Kincaid Center for Communication Programs - Johns Hopkins University.

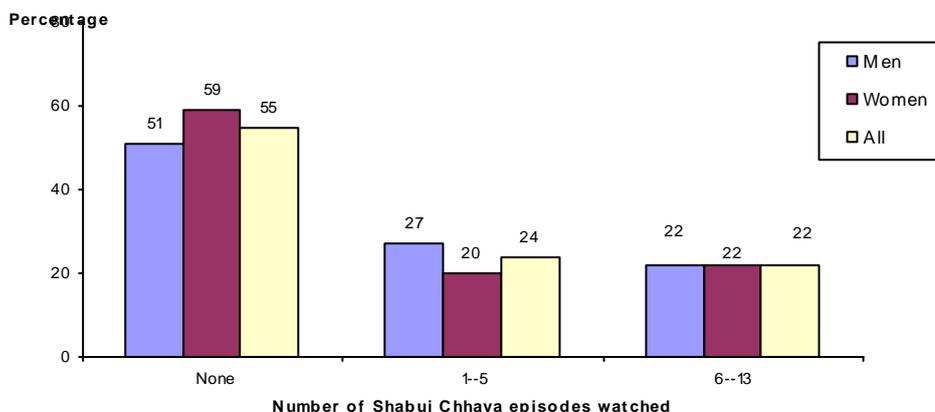


Figure: 7. Number of Shabuj Chhaya drama episodes watched by gender, Bangladesh, 2000

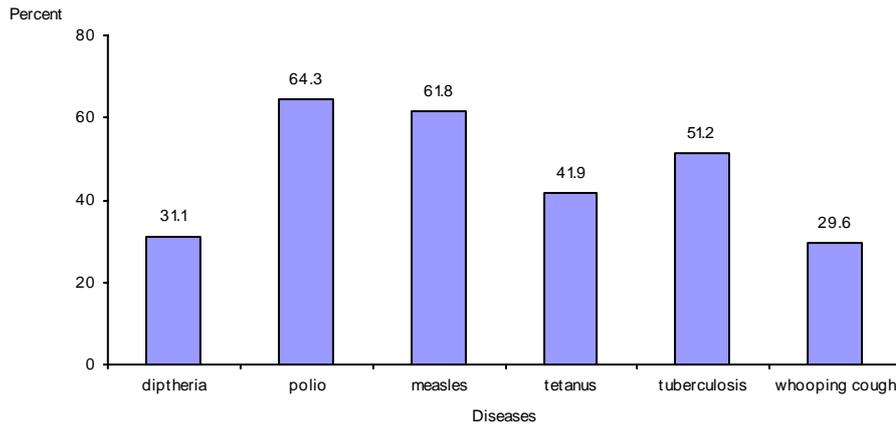


Figure 8. Percent of respondents who could name diseases that are preventable by child immunization, Bangladesh, 2000

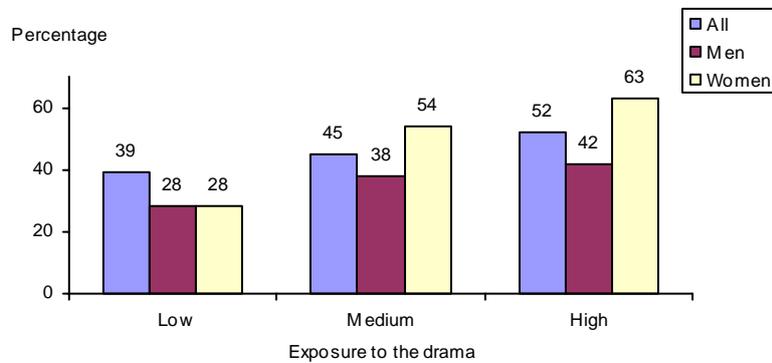


Figure 9. Percentage of people who could name at least a symptom of pneumonia by exposure to the drama and gender, Bangladesh, 2000

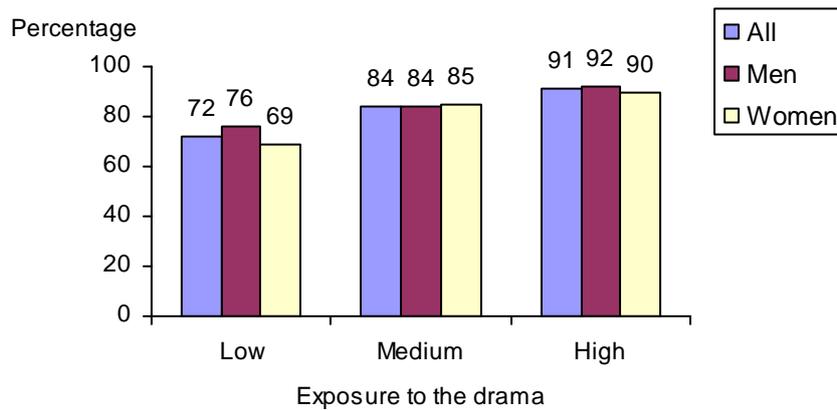


Figure 10. Percentage of people who knew that breast milk should be given to a newborn by exposure to the drama and gender, Bangladesh, 2000

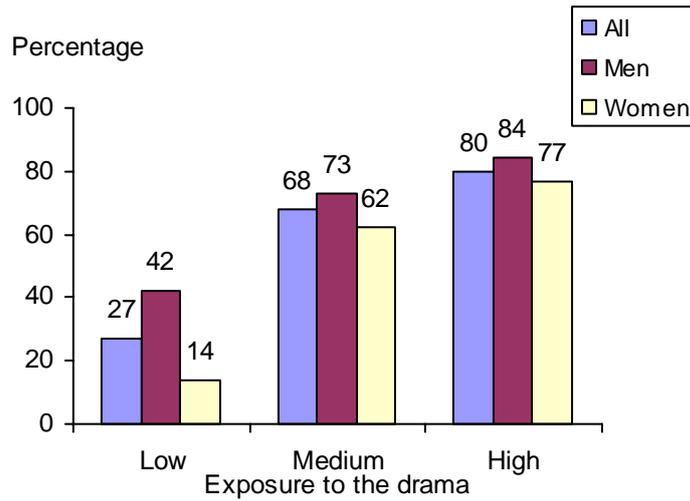


Figure: 11. Percentage of people who ever heard of HIV/AIDS by exposure to the drama and gender, Bangladesh, 2000.

Figure 12 & 13 are the comparative study of using contraceptives before and after by exposure to Shabuj Chhay

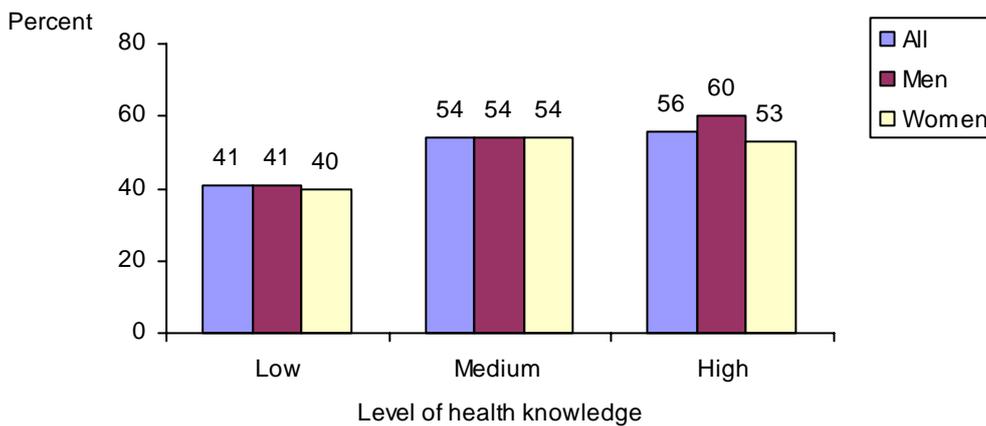


Figure: 12. Percentage of currently married people who were using modern contraceptives by level of health knowledge and gender, Bangladesh, 2000.

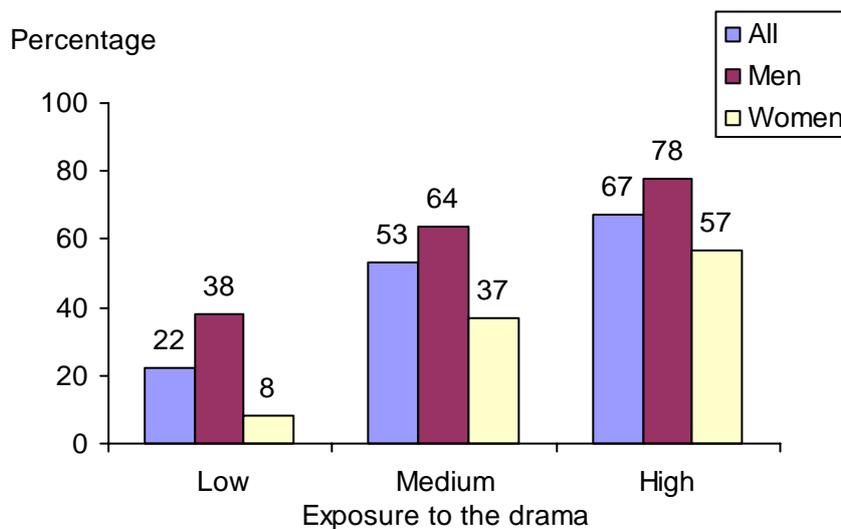


Figure: 13. Percentage of people who could name at least 1 disease preventable by condom use by exposure to the drama and gender, Bangladesh, 2000

These two TV serials on Family planning and Reproductive health education programmes have shown how broadcasting media create a remarkable impact on the people of different category. Due live in a conservative society certainly we fill shy to talk about sex and reproductive health issues. Only Broadcasting media can easily break down these social problems.

In Bangladesh now there are eight satellite privet Bangladeshi TV channels and Four FM privet radio channels. All these channels are fully commercial purpose though they also some time produce some educational spots but these are not countable at all. If government pass out a law that every channels should broadcast at least one educational programme every day, it would be more helpful for impart mass education in Bangladesh.

*In Bangladesh the success rate of child immunization programme [EPI –Extensive Programme for Immunization] is higher than any other country of South and South-East Asia. Now Bangladesh is considered to be a “Polio” free country of Asia.

XIV. CONCLUSION

It is not to say that broadcasting media alone can achieve all the educational goals and solve all the problems faced by the conventional systems. Consideration must be given not only to which medium will most effectively convey a message but also how large an audience is likely to be reached. We can only hope government of these regions should be given more emphasis in media education for improving a nation’s human resource development towards the goal of education for all.

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