

Educational Short Film versus PowerPoint Based Lecture in School Tobacco Awareness Programs: Study from a Tertiary Cancer Center, Kerala, India

Neethu Ambali Parambil¹, Phinse Mappalakayil Philip¹, Satheesan Balasubramanian², Maya Padmanabhan¹

¹Lecturer, ²Professor, Malabar Cancer Center, Thalassery, Kerala, India

Summary

Multimedia, being more attention-getting and attention-holding, is a powerful tool for mass awareness creation and is used for intervention among students in many studies. Our aim was to see the effectiveness of an educational short film in tobacco awareness generation and to compare it with the traditional lecture-based awareness. Selected schools were divided into two groups as per convenience. Short film was used as intervention in Group 1 and PowerPoint-based lecture in Group 2. The increase in awareness was assessed by a pre and posttest. On analysis, though both methods increased awareness as given by higher posttest score, it is found that the awareness levels showed a statistically significant difference between educational short film on hazards of tobacco and power point-based lecture using Mann–Whitney test. Our study proves that an educational short film carefully scripted and picturized can be used effectively in imparting awareness in school-based tobacco control programs.

Key words: Kerala, school tobacco awareness, short film, tertiary cancer Center, tobacco

Every year tobacco kills more than 8 million people worldwide.^[1] In India, as per Global Youth Tobacco Survey 4 (GYTS-4), 8.5% is found to use tobacco products of any type and 8.4% of nonsmokers are likely to initiate smoking in the coming year.^[2] Age of initiation is reported as 9.9 years for smokeless and 11.5% for smoked tobacco products. Although awareness regarding hazards of tobacco was high among students in various studies in India, they have all reported students to have the habit.^[3,4] Hence, awareness should be targeted at this group as they are highly vulnerable to risk-causing behavior.^[5]

Interventional studies using short informational films were also found effective in improving awareness in disciples such as cervical cancer^[6] and tuberculosis.^[7]

Studies using a short film dedicated for the purpose of creating tobacco awareness among students were rare in literature. Studies support distinctive differences in ways students retain information gathered and applied using multimedia versus traditional modes of instruction.^[8] Mass media campaigns can prevent initiation of tobacco use among youth

and school-based programs with evidence of effectiveness, containing specific components, can produce short-term effects.^[9]

(1) To study the effectiveness of educational short film on tobacco as a tool for school-based tobacco control programs (2) To compare this short film over power point-based lecture in delivering tobacco awareness messages in schools. The study was approved by the Institutional Ethics Committee of Tertiary Cancer Center (TCC).

Kerala, one of the top states in India in terms of education, became the first state to be recognized as completely literate in 1991. The

Address for correspondence: Dr. Neethu Ambali Parambil, Lecturer, Department of Community Oncology, Malabar Cancer Center, Thalassery, Kerala, India.
E-mail: neetumcc@gmail.com

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Submitted: 07-Jun-2021

Revised: 14-Nov-2021

Accepted: 15-Nov-2021

Published: 05-Apr-2022

How to cite this article: Parambil NA, Philip PM, Balasubramanian S, Padmanabhan M. Educational short film versus powerpoint based lecture in school tobacco awareness programs: Study from a tertiary cancer center, Kerala, India. *Indian J Public Health* 2022;66:61-3.

Access this article online

Quick Response Code:



Website:
www.ijph.in

DOI:
10.4103/ijph.ijph_1326_21

Community Oncology Department in TCC situated in South India regularly conducts anti-tobacco campaigns among students.

A cross-sectional study was conducted among students from schools in Kannur, Kasaragod, and Wayanad. The study period was for one academic year districts.

All students belonging to classes eight, nine, ten, eleven, and twelve from interested schools were included.

Schools, where similar anti-tobacco programs were conducted or short films has already been screened were excluded.

The heads of schools were contacted to know their willingness to conduct an anti-tobacco campaign. Some schools directly contacted the TCC to conduct such programs as part of their social or health activities.

The schools were purposefully chosen as per convenience and were divided into two groups (1 and 2). A 6% difference with a power of 80% and 95% confidence interval between the two arms of the study suggests a sample size of 961 in each arm. Gatekeeper consent from the Head of each school was obtained before the study.

In Group 1, the short film was screened and in Group 2, a lecture with PowerPoint presentation was done. In both groups, pre and posttest were conducted using a structured questionnaire [Table 1].

An educational short film “U-TURN” in the local language Malayalam was produced by the TCC for the purpose of creating antitobacco awareness in schools. Importance was given to the fact that the educational message should not overtake the entertainment experience and the entertainment should not overpower the message to be conveyed. After completion, it was screened before a small group consisting of teachers and students to assure acceptability and to see whether messages were rightly conveyed. After necessary editing, the final version was screened before a large audience of students and teachers and approval sought. This film was used as an interventional tool in Group 1. The one-hour duration film with subtitles in English depicts the hazards of active and passive smoking and the positive effects of quitting smoking. It was pictured on events taking place in a local school, which students can easily relate to and even had a few teachers and students from these schools as lead actors. The introduction of the short film was done by a renowned magician, well known among students. In Group 2, PowerPoint-based lecture was used as tool for intervention. The lecture was conducted for one hour in local language using PowerPoint presentation by doctors of TCC with pictures and scientific content relevant to the topic.

Pre and posttest surveys were conducted before and after the specified intervention, using the same questionnaire, based on the facts in the film and lecture. The structured questionnaire was in the local language (Malayalam) and had 11 domains apart from age, sex, and class in which the student is studying. 1st and 2nd questions dealt with ever tobacco use. 3rd and 4th questions were on the passive

smoking experiences of the students. The remaining 7 questions framed to assess the tobacco awareness level of the students, were based on contents in tobacco products, health consequences of tobacco use, second-hand smoke, tobacco control laws, benefits, and methods of quitting the tobacco habit. The students were assured of confidentiality before filling the questionnaire.

The data were entered using EpiData, version 3.1, EpiData Association, Odense Denmark and evaluated statistically. Descriptive statistics were used to summarize data and median differences in improvement in awareness between groups were analyzed using the Mann–Whitney test.

995 students participated in either arm. About 65% of the students belonged to age groups of 13–14 years. Male-to-female ratio was almost 1:1. Among the ever tobacco users (5.96%), cigarettes and beedis were used at least once by 32.6% and 31.25%, respectively. About 4.2% reported as using smokeless tobacco and 20% reported to have chewed pan (traditional method). About 90.2% of students reported that they were exposed to passive smoking. Places of exposure reported were bus stops (71%), own house (13.8%), shops (44%), roads (15%), movie theater (9%), town, hotel and surrounding environment (5%), club (4%), playground (1%), neighbor’s house (2%), market (1%), and hostel (2%).

On the evaluation of the 7 questions to assess awareness level, it was found that there was significant improvement in the awareness level of students in both groups as evidenced by increased scores in posttest.

On comparison, short film group showed a higher level of improvement in awareness than the conventional lecture group in 5 out of the 7 domains [Table 2]. In two domains which asked for knowledge about the cessation of tobacco habits and the benefits of quitting tobacco, there was no significant difference.

Table 1: Intervention model

Groups	Pretest	Short film	PowerPoint based lecture	Posttest
Group 1	*	*		*
Group 2	*		*	*

Table 2: Comparison between the increase in awareness in group 1 and group 2

Number	Questions	Z	P
1	Substance causing addiction	-7.138	0.001*
2	Cause of lung cancer	-11.518	0.001*
3	Second hand smoke	-5.537	0.001*
4	COTPA Act	-7.726	0.001*
5	Knowledge about cessation	-1.832	0.067
6	Benefits of quitting	-1.479	0.139
7	Name of oral precancerous lesion	-11.302	0.001*

*Statistically significant. COTPA: Cigarettes and Other Tobacco Products Act ,2003

Educational interventions were found to improve awareness levels in many health-related aspects in the majority of studies.^[6,7] Various media like lectures, films, exhibits, face-to-face training using photos, and short scientific texts were used for disseminating health-related information. In our study also both types of interventions were found to improve awareness levels among students significantly. School-based health intervention programs were found effective in preventing the initiation of tobacco habits in previous studies also.^[10] Our study proves that short films can be used as an effective means of awareness generation among students about the hazards of tobacco by delivering messages through entertainment.

Kerala has a very good education system with most of the schools having the facility of smart classrooms, where the film can be screened depending on the convenience of the school. Thus, school authorities can also be made to take the responsibility of conducting tobacco awareness activities. Most of the schools do not conduct such activities due to lack of materials or availability of resource persons for conducting such campaigns.

The major work of doctors from TCC lies in treatment. Short films can reduce the workforce required for anti-tobacco activities. It can be screened even to large groups or multiple times and as evidenced by research, repeated sessions are required for sustained effects.^[3,10]

In our study, ever tobacco use was 5.6%, which was less than previous studies conducted among students in Kerala which was 9.85% and 6.9%.^[3,4] Hence, creating awareness at a younger age will help in preventing the tobacco epidemic, which is driven by the early age of initiation of the habit. More than 90% of students have reported to have been exposed to passive smoking. Another study from Kerala in 2011 has reported exposure of only 56%.^[3] This points to the fact that smoke ban in public places has to be made more stringent and laws strengthened.

A Korean study about the effects of smoking scenes in films on smoking cravings of adolescents found that cravings were less in those who actively sought health information.^[11] We believe that our short film will also help in reducing high-risk behaviors among adolescents. Educating children about tobacco hazards and the benefits of tobacco cessation can play a role in stopping tobacco habits among their family members also.^[3] Thus, the film can help in disseminating messages beyond the school premises. This mode of awareness was highly accepted and appreciated by students and teachers as per our experience.

Although the short film far excelled in improving anti-tobacco awareness than lecture, in the two domains which asked about

knowledge on cessation and benefits of quitting, there was no significant difference between the two. More attention has to be given during the making of the short film and picturization should make sure that the messages are rightly conveyed. We could not conduct a follow-up study to see the sustainability of knowledge gained and influence on family members.

Acknowledgment

We thank all the students, teachers and staff whose participation made this study possible. We thank the cast and the entire crew of the short film. We also acknowledge the dedication of the Headteacher and staff for giving permission for shooting in their school

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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