

Received: 19th February 2016 Accepted: 10th May 2016 Conflict of Interest: None

Source of Support: Nil

Original Research

Doi: 10.2047/jioh-08-07-05

Assessment of Improving Communication Skills of Dental Graduates using Live Dental Health Education Programs

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How to cite the article:

Mulamoottil VM, John J, Soman RR, Udayakumar V. Assessment of improving communication skills of dental graduates using live dental health education programs. J Int Oral Health 2016;8(7):767-771.

Abstract:

Background: The mass media are of immense benefit when employed intensively in favor of public health. These media are utilized at all levels of public health in the hope of achieving three major effects: The learning of correct health information and knowledge, the changing of established health attitudes and practices, and the introduction and establishment of new health behavior.

Objectives: This study was conducted to evaluate the improvement of communicative, interactive, and oratory skills among the interns of 2006 and 2007 batch in Pushpagiri College of Dental Sciences by conducting live dental health education program (The Radio Program – Pushpavani Aarogyam).

Materials and Methods: The study was conducted among the interns of 2006 and 2007 batch in Pushpagiri College of Dental Sciences, Tiruvalla. A sample of 73 interns was enrolled for the study. A closed-ended questionnaire in English was sent by E-mail to all interns, and the improvement of communication skills was evaluated. Data were collected from E-mail, which was mailed back by all interns in 2006 and 2007 batch, and percentage was calculated for each answer. For statistical purpose, mean scores were calculated. Data were analyzed with SPSS 16.0 software, and appropriate statistical tests were applied.

Results: Nearly, 91.8% of interns got more knowledge about the subject from their radio program. 93.2% of interns were confident in doing another live dental health education program. 43.8% of interns were confident in attending telephone calls during the radio program. 87.7% of interns had sufficient speech clarity. 74% of interns were tensed while presenting the radio program. 84.9% of interns have improved their mother tongue after radio program. 95.9% of interns had improved their communication skills. 94.5% of interns considered it beneficial and proposed that it should be continued as a curriculum program.

Conclusion: The radio program was found to be highly effective and beneficial to the public as well as to the dental interns who put their efforts in educating the masses. The subject knowledge, presentation skill, communication skills, and self-confidence were found to be significantly improved in dental graduates through the radio programs.

Key Words: Communication skills, dental interns, live dental health education, radio program

Introduction

Health education is believed to promote active thinking and assessment of health-related issues by the public and encourage them to decide for themselves whether they want to change and in what manner. Communication is essentially the transfer of ideas, messages, or information from one person to another. Development of appropriate therapeutic communication skills by health care providers is critical for providing quality patient-centered care. Benefits resulting from effective communication skills by health-care practitioners include higher patient satisfaction and improved clinical outcomes.¹

Even though sound theoretical knowledge and the technical skills are inevitable prerequisites for good practice in the field of dentistry, the role of communicating effectively with the patient cannot be underestimated. This involves an ability to transfer health information to patients using active listening skills, to gather and impart information in a clear and precise manner and to handle patient emotions in a sensitive and empathetic manner.² The ability of the health-care provider to demonstrate empathy, rapport, ethical policies, and professionalism may also prove crucial in creating better awareness of health issues among the public. When dentists demonstrate effective communication skills, enormous benefits are observed including increased patient satisfaction and improved patient adherence to dental recommendations. It is also found to decrease patient anxiety and even lower the rates of formal complaints and malpractice claims.

The most common channel of communication is interpersonal or face-to-face communication. The other methods are mass media such as television, radio, and folk media. Medical and health issues should be debated in the mass media and that would probably benefit common people.³ Among these, radio has many advantages. It has a broader audience than television and can also reach illiterate people being an easily accessible medium. The content of the programs broadcasted from a

station may be modified based on expected differences in the demographics and psychographics of the station's target audience.⁴

Community radio is a model of a democratic medium assisting the work of both public and voluntary organizations as a part of an emerging, non-profit community development sector.⁵ Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST) College, initiated a community radio station housed on the campus named "RADIOMACFAST 90.4" as an added service to the community. It is the first campus community radio in the state of Kerala and 46th in India. RADIOMACFAST believes that the emergence of a knowledge-based society is possible through the focused work at the grass-root level for bridging the evident gaps in knowledge. It realizes that transfer of knowledge is a two-way process.

"RADIOMACFAST 90.4" was launched in November 1, 2009. It is an initiative aimed primarily on community development using radio as its medium. Through the medium of radio, MACFAST is not just useful for the community but also fulfills a very important responsibility toward it. Within a short period, different strata and subjects from all levels of society were taken up for the purpose of study and research, and this was further brought toward the listener. Radio stations provide an important opportunity for locals to voice their opinions on local health-related issues in a format generally renowned for its light-hearted approach to engaging listeners.⁶

Radio MACFAST 90.4 has conducted a survey among the households in Tiruvalla, Chengannur, Changanassery Municipalities and ten Panchayaths in Central Travancore. The study intended to identify the efficacy of the program broadcasted along with mapping out the present listener strength. The study incorporated data collection from 2500 respondents through multistage random sampling among a population comprising of 15 lakhs. It is interesting to note that we had a population, in which 37% are graduates. The survey result shows that among the bouquet of 53 programs, Pushpavani Aarogyam is one among the three best program.

Pushpagiri College of Dental Sciences is an institution affiliated to Mahatma Gandhi University, Kottayam, Kerala, which was started in the year 2006 with an annual intake of 50 students. The new batches in the College are now under Kerala University of Health Sciences. It is situated near the state highway, which caters the people from Alappuzha and Pathanamthitta Districts.

Pushpagiri College of Dental Sciences and RADIO MACFAST have joined to conduct a live dental health education program which was named as "PUSHPAVANI AAROgyAM." As part of a curriculum of internship, this program started 2½ years back and had completed 140 h. Pushpavani Aarogyam is a

1 h program conducted in RADIO MACFAST 90.4 on every Thursday from 9.00 to 10.00 am. For this radio program, a topic is chosen and a script is prepared and rehearsed.

The assessment of the radio program was done including various criteria such as subject knowledge, speech clarity, modulation, content, and confidence. It also helped the interns in improving their communication skill. The program reached out to around 10.35 lakh listeners, creating awareness on dental-related topics (as per the survey conducted in MACFAST College⁷).

This program is a tripod program, which is shown in Figure 1.

Materials and Methods

The study was conducted among the interns of 2006 and 2007 batch in Pushpagiri College of Dental Sciences, Tiruvalla. A sample of 73 interns was enrolled for the study.

A closed-ended questionnaire in English was sent by E-mail to all interns. Assessment of improvement of communication skills was evaluated based on five criteria.

1. Subject knowledge
2. Content
3. Speech clarity
4. Modulation
5. Confidence.

Data were collected from E-mail, which was mailed back by all interns in 2006 and 2007 batch, and percentage was calculated for each answer. For statistical purpose, mean scores were calculated. For questions, yes answer was given score Y, and score N was given for no answers. Data were entered into Excel and analyzed with SPSS 16.0 software, and appropriate statistical tests were applied.

Results

Out of 73 interns, 39 (53.4%) interns were in 2006 batch and 34 (46.8%) interns in 2007 batch.

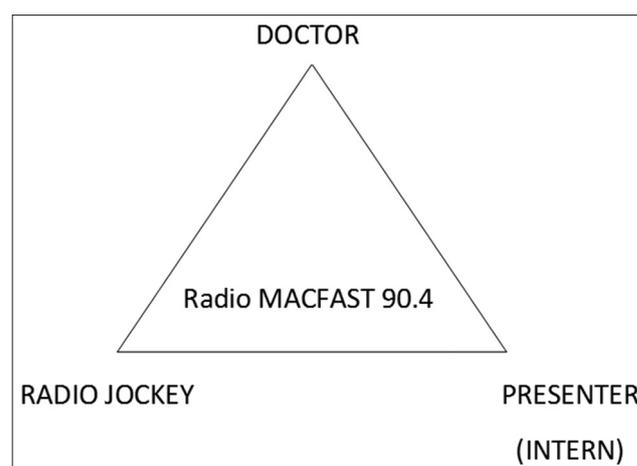


Figure 1: Tripod program.

The response regarding questions on improving communication skills of dental graduates using live dental health education program (radio program). Answers are based on yes or no with the questions (Table 1).

Knowledge of the subject

Around 91.8% of interns got more knowledge about the subject from their radio program (Figure 2).

Confident in doing another live dental health education program

Around 93.2% of interns were confident in doing another live dental health education program (Figure 3).

Confidence in attending telephone calls

Around 43.8% of interns were confident in attending telephone calls during radio program (Figure 4).

Speech clarity

Around 87.7% of interns had sufficient speech clarity (Figure 5).

Tension during radio program

Around 74% of interns were tensed while presenting the radio program (Figure 6).

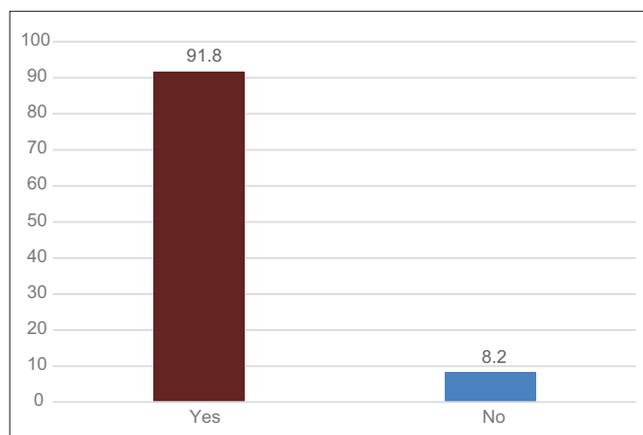


Figure 2: Knowledge of the subject.

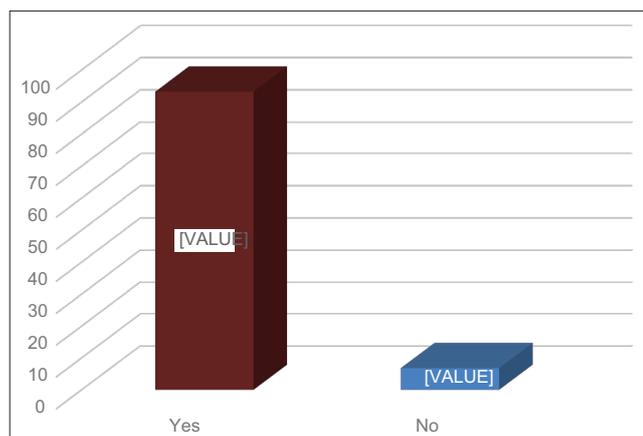


Figure 3: Confident in doing another live dental health education program.

Improvement of mother tongue

Around 84.9% of interns have improved their mother tongue after radio program (Figure 7).

Table 1: The response regarding questions on improving communication skills of dental graduates using live dental health education program (radio program). Answers are based on yes or no with the questions.

Questions	Options	Number	Percentage
Did you have adequate knowledge about the subject that was presented for your radio program?	Yes	66	90.4
	No	7	9.6
Did you get more knowledge about the subject from your radio program?	Yes	67	91.8
	No	6	8.2
Did you feel your preparation was sufficient for the radio program?	Yes	55	75.3
	No	18	24.7
Was there sufficient speech clarity?	Yes	64	87.7
	No	9	12.3
Did you have adequate content about the subject that was presented?	Yes	63	86.3
	No	10	13.7
Were you tensed while presenting your radio program?	Yes	54	74
	No	19	26
Did you get support from entire team?	Yes	71	97.3
	No	2	2.7
In which radio program, did you find your knowledge and confidence improved?	Single	50	68.5
	Combined	23	31.5
Does your self-confidence increase after radio program?	Yes	71	97.3
	No	2	2.7
Are you confident in attending telephone calls during radio program?	Yes	32	43.8
	No	41	56.2
Do you think the radio program had influenced to the people?	Yes	70	95.9
	No	3	4.1
Have you got any critical evaluation from chief co-ordinators after the radio program?	Yes	56	76.7
	No	17	23.3
Did you feel that your mother tongue has improved after radio program?	Yes	62	84.9
	No	11	15.1
Did you think that your communication skills have improved after the radio program?	Yes	70	95.9
	No	3	4.1
Are you confident in doing another live dental health education program?	Yes	68	93.2
	No	5	6.8
Do you think it is beneficial and to be continued as a curriculum program?	Yes	69	94.5
	No	4	5.5

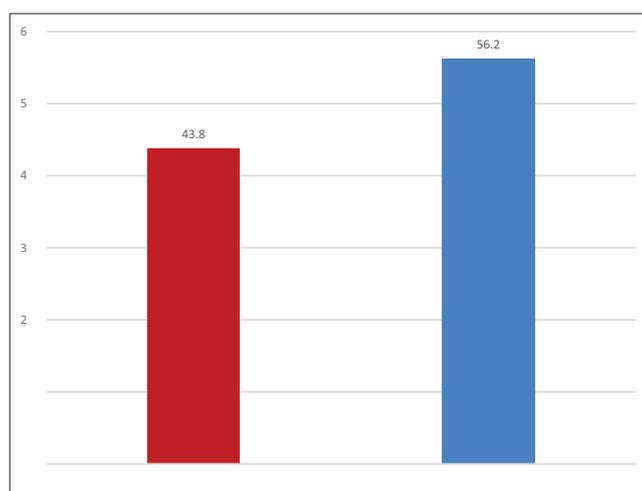


Figure 4: Confidence in attending telephone calls.

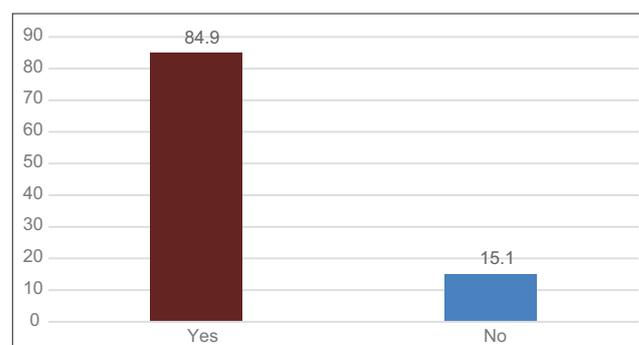


Figure 7: Improvement of mother tongue.

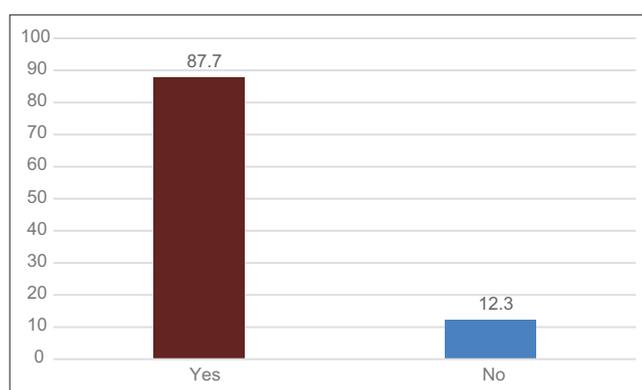


Figure 5: Speech clarity.

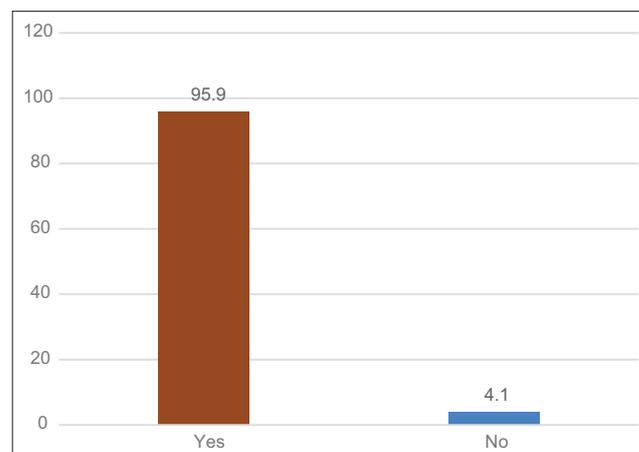


Figure 8: Improvement of communication skills.

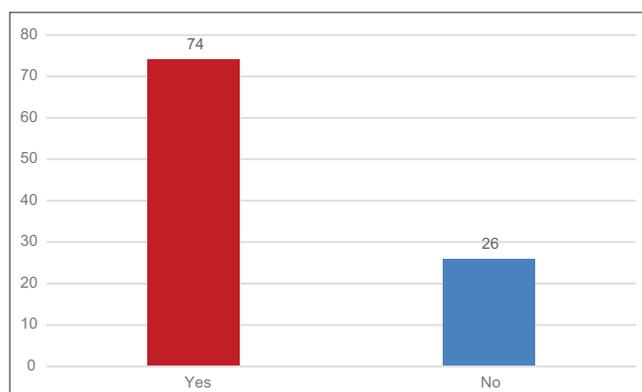


Figure 6: Tension during radio program.

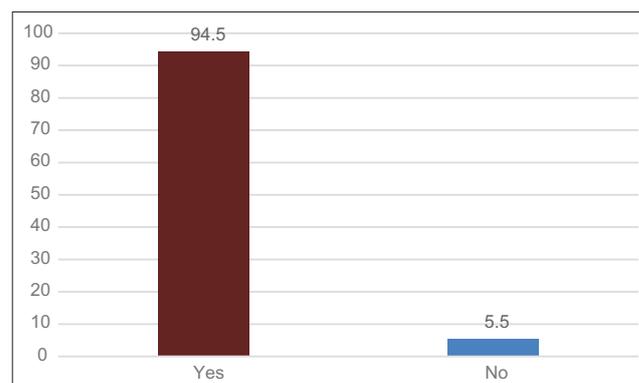


Figure 9: Beneficial as a curriculum program.

Improvement of communication skills

Around 95.9% of interns have improved their communication skills (Figure 8).

Beneficial as a curriculum program

Around 94.5% of interns considered it beneficial and to be continued as a curriculum program (Figure 9).

Discussion

The behavioral sciences and communication skills have been accepted as important components of dental education

by general dental practitioners as well as specialists in the concerned fields. The development of mass media platforms enables non-media professionals to participate in a newly accessible media environment, not just as a passive audience member but also as active multimedia producers. The use of radio broadcasting as a substitute for traditional forms of interpersonal communication is reported to have immense benefits.⁸

A recent study by Smith *et al.*, in 2011, assessed the radio as a source of health information and identified contributing factors to listeners' intentions to change health-related attitudes and behavior. After listening to a 1-h health-talk radio

program, 99 participants completed an Internet-based survey instrument; and the results obtained indicated that 27.3% of participants regularly obtained health information from the radio and 68.7% from the internet; 92.9% of participants reported an increase in knowledge, and 65.7% reported intentions to change health behaviors. Participants were more likely to report changes in their health-related behaviors if they obtained health information from multiple sources. Evidently, the implications of this study emphasize making radio content available via the internet.⁹

Consolidation of the radio industry has led to a reported decrease in localism. This prevents the public from having the access to interact with an important medium for disseminating information about areas of interest, particularly health-related issues.¹⁰ Hence, the radio industry should be promoted in favor of dissemination of health information.

The current study involved analysis of responses from a sample size of 73 interns of Pushpagiri College of Dental Sciences, Tiruvalla, Pathanamthitta. From the results obtained, it can be inferred that the communication skills of dental graduates have improved through the radio program. 90.4% of interns have adequate knowledge about the subject that was presented in the radio programs. About 91.8% of interns got more knowledge of the subject from the radio program. 75.3% of interns felt the preparation was sufficient for the radio program. 87.7% of interns had sufficient speech clarity. 86.3% of interns had adequate content about the subject that was presented. 74% of interns were tensed while presenting the radio program. Around 97.3% of interns got support from the entire team. 68.5% of interns found that their knowledge and confidence had improved in the single radio program. About 97.3% of interns had increased self-confidence after the radio program. Only 43.85 of interns were confident in attending telephone calls during the radio program. 95.9% of interns believed that the radio program had influenced the people. About 76.7% of interns got a critical evaluation from chief co-ordinators after the radio program. 84.9% of interns felt that their mother tongue had improved after radio program. 95.9% of interns thought that their communication skills had improved after the radio program. The program had such an impact on the interns that 93.2% of interns were confident in doing another live dental health education program and about 94.5% of interns suggested that it would be beneficial to continue such programs as part of the curriculum program.

Conclusion

The radio program was found to be highly effective and beneficial to the public as well as to the dental interns who put their efforts in educating the masses. The subject knowledge, presentation skill, communication skills, and self-confidence were found to be significantly improved in dental graduates through the radio programs.

Acknowledgement

We would like to thank Dr. Benley George, Head of the Department of Public Health Dentistry, for guiding us throughout the research. We would like to thank all interns who spend their valuable time to understand our study and took an initiative in filling the questionnaire. We would also like to thank Dr. Shibu Itty Mathew and Dr. V. George Mathew of MACFAST, for providing us with valuable information.

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