

Evaluation of Tobacco Cessation Counseling Program and the Challenges Identified

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Abstract

Background: The prevalence of tobacco use is high in India, with nearly half of males and one-fifth of females using tobacco in some form. An effort has been made to offer help to quit tobacco use among patients by initiating tobacco cessation counseling (TCC) services in our Institution. The aim was to assess the effectiveness of TCC program among tobacco users. **Methods:** The evaluation of the TCC program was carried out by reviewing of records enrolled from January 2014 to March 2016. The baseline information of the enrolled subjects was assessed for tobacco use status. The post-intervention follow-up details of the current tobacco users were analyzed for quit status, and the tobacco quit rate was determined. Chi-square test was applied for statistical analysis. **Results:** Of the 1472 current tobacco users, 95.9% were males and 4.1% were females. An overall quit rate of 5.2% was recorded with women having 2.73 times higher quit rate than men ($P = 0.004$). Losses to follow-up were very high. **Conclusion:** A lower tobacco quit rate was recorded due to high losses to follow-up. Integration of proactive follow-up measures while designing the public health program is required, to overcome the challenge “high losses to follow-up” and to achieve a better response and outcome.

Keywords: Behavioral counseling, challenges in tobacco cessation counseling, evaluation of tobacco cessation counseling, tobacco cessation counseling, tobacco quit rate

BACKGROUND AND PURPOSE

India is the third largest producer and second largest consumer of tobacco products in the world. As per the Global Adult Tobacco Survey, the prevalence of tobacco use in India is 34.6% with 47.9% of males and 20.3% of females using tobacco in some form.^[1] Men smoke and chew tobacco, whereas women mainly chew tobacco, except in a few places where the prevalence of smoking among females is higher.^[2]

According to the WHO, tobacco kills around 6 million people every year. More than 5 million deaths are due to direct tobacco use, while 6 lakh deaths are non-smokers being exposed to secondhand smoke.^[3] In India, nearly 8–9 lakh people die every year due to diseases related to tobacco use.^[4]

Hence, an effort has been made to offer help to quit tobacco by initiating tobacco cessation counseling (TCC) services in the department of public health dentistry in our Institution. The program was conducted as a routine oral healthcare service in our Institution, and it was evaluated with the following objectives to assess:

1. The proportion of subjects who successfully quit tobacco
2. The proportion of subjects with reduced tobacco intake up to 50% or more
3. The proportion of subjects with “no change”
4. The existing structure and process.

METHODS

A retrospective cohort design was used to evaluate the TCC program conducted in the Department of Public Health Dentistry, Mahatma Gandhi Post Graduate Institute of Dental Sciences. The TCC was based on the “5A’s” approach described in the training manual for tobacco cessation developed by the Ministry of Health and Family Welfare, Government of India,^[5] and WHO-SEARO.^[6] The data for the present evaluation were

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collected from the existing records enrolled from January 31, 2014, to March 31, 2016. Records of subjects who currently use tobacco in any form and participated in cessation counseling were included in the evaluation. Ex-tobacco users who participated in the counseling were excluded from the evaluation process. The pre- and post-intervention data of the current tobacco users were evaluated, and the tobacco quit status was analyzed and the quit rate was determined. A subject was considered “quitted tobacco” when the user was abstained from tobacco continuously for a duration of 2 weeks. The proportion of subjects with “reduced tobacco intake up to 50% or more” and subjects with “no change” compared to baseline were estimated. A subject was considered “lost to follow-up” when there was no follow-up report after the initial/baseline visit.

Frequency tables and proportions were used to present the data. The Chi-square test was applied to test the significance of difference in quit rates between genders. A $P < 0.05$ was considered statistically significant. The analysis was done using SPSS version 17 (SPSS statistics for Windows, Chicago: SPSS Inc) software.

RESULTS

All the subjects who gave verbal consent were given TCC intervention and registered. Four individuals were not willing to participate in the TCC and hence not registered. Of the 1519 subjects counseled, 95.7% were males and 4.3% were females. 97% were current tobacco users and 3% were ex-tobacco users [Table 1].

The ex-tobacco users were not included in the final analysis. Thus, the total participants became 1472 current tobacco users wherein 145 reported for the first follow-up and 18 reported for the second follow-up.

Among the current tobacco users who were counseled, 5.2% of the participants self-reported to have quit tobacco. In men, the quit rate was 4.8% whereas a higher cessation rate of 13.1% was recorded in women. This difference in observation was statistically highly significant ($P = 0.004$) [Table 2]. Fifty-two (3.5%) of the current tobacco users (male) reported to have reduced tobacco intake by 50% or more and 17 (1.2%) males reported with “no change” in their tobacco use status.

Two participants who required psychiatric support were referred to specialized hospital for further management. 1327 (90.1%) participants were lost to follow-up.

DISCUSSION

In the current evaluation, the overall tobacco quit rate recorded was 5.2%. Studies in Western countries,^[7-9] as well as in India,^[10,11] indicate improved quit rates with the addition of pharmacotherapy to behavioral counseling. In the present program, the only mode of cessation service given is face-to-face counseling, irrespective of the level of nicotine dependence. The medium and high nicotine dependents must be identified, and appropriate pharmacotherapy may

Table 1: Distribution of subjects reported for tobacco cessation counseling by tobacco use status

Tobacco use status	Male, n (%)	Female, n (%)	Total, N (%)
Current tobacco users	1411 (95.9)	61 (4.1)	1472 (97)
Ex-tobacco users	43 (91.5)	4 (8.5)	47 (3)
Total	1454 (95.7)	65 (4.3)	1519 (100)

Table 2: Distribution of tobacco quit rate according to gender

Gender	TCC given (N)	Quitted (n)	Quit rate (%)
Male	1411	68	4.8*
Female	61	8	13.1*
Total	1472	76	5.2

* $\chi^2=8.218$, $df=1$, $P=0.004$. TCC: Tobacco cessation counseling

be provided. This requires training of the service providers in delivering pharmacotherapy. In our evaluation, women recorded 2.73 times higher quit rate than men. The factors associated with improved outcomes in women are the use of smokeless form of tobacco,^[12] which may be combined with the realization of social responsibility toward their family health and welfare and the effect of counseling. The observed low quit rate among men may be partly due to peer pressure, work pressure,^[13] illiteracy or low educational level,^[14,15] nicotine dependence,^[16] and alcoholism.^[17]

It is evident that follow-up^[18,19] is a very important component of care to ensure better outcome. Unfortunately, in the present program, a low response rate of 9.9% was recorded although the recommended target goal for follow-up response rate for behavioral changes is 50%. Factors that attribute to the high losses to follow-up may be the lack of intention to quit or the deeply ingrained cultural attitudes to maintain tobacco use^[4,20] or the distant places of residence or the lack of recall system. However, these high losses to follow-up pose a major challenge not only to the outcome of the program but also for the cause and effect relation of the TCC program, despite an accurate planning and implementation of the program.

It is also evident from the present program that high losses to follow-up are inevitable in public health programs due to various factors. Hence, designing a public health program with proactive follow-up measures such as telephone recall system^[21] or sending reminder letter/postcard^[22] or providing telephone counseling following initial face-to-face counseling would improve the response rate (follow-up rate) as well as quit rate. The importance of telephonic recall system is substantiated by the study of Mony *et al.*^[23] from the outpatient tobacco cessation clinic in Chest Medicine Department, Bengaluru, Southern India, wherein 56% of the patients enrolled were successfully contacted telephonically and were followed up though the loss to follow-up was 44%.

CONCLUSION AND RECOMMENDATIONS

The TCC program recorded a low quit rate due to high losses to follow-up. Evaluation of the cessation program resulted in identification of the challenges in the existing setup, which in turn affect the response of the participants to counseling and the outcome of the program. Implementation of certain proactive measures in the present program can successfully improve the response rate as well as the quit rate. The following are the recommendations that could be made in this context.

1. An active reminder system such as telephone and letter/postcard may be introduced to provide a reminder notification for follow-up. One or two phone calls after an initial face-to-face counseling may increase the response rate
2. A proactive telephonic counseling may be tried for patients who fail to turn up in spite of reminder calls which may increase their chance of quitting
3. The carbon monoxide breath analyzer or biochemical validation may be used as a health education tool to increase the interest and confidence level of the participants and improve the outcome apart from confirming the abstinence from tobacco
4. Further training and expansion in tobacco cessation services such as pharmacotherapy to treat medium and high nicotine dependents are required
5. To identify the predictors of quitting tobacco use.

The prime intention of presenting this program is to highlight the actual difficulties encountered in the present setup during its implementation in developing countries like India.

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Conflicts of interest

There are no conflicts of interest.

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