Original Research Article

Exploring practices of tobacco consumption and preparedness towards tobacco cessation amongst primary health care physicians in a selected district of Maharashtra, India

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ABSTRACT

Background: Doctors have a crucial role in the tobacco control activities, however there is a limited published evidence about their preparedness and practices regarding tobacco cessation amongst them. Hence, a study was undertaken to assess knowledge, attitude, and practices in the above context amongst the doctors working in the government health set up in Maharashtra.

Methods: A cross sectional study was undertaken in a randomly selected district of Maharashtra. Out of 112 primary health care doctors, 74 (66%) participated in the study. Strict confidentiality was maintained during the process of data collection. The data was entered and analysed in the Microsoft Excel. The study was completed in October 2016-January 2017. All the required permissions including ethical clearance were obtained.

Results: Nineteen (25.67%) primary health care physicians had self-reported tobacco use, of them 10 (52.64%) were present tobacco users and 9 (47.36%) were using tobacco in the past. Out of 74 participants, 16 (21.63%) reported tobacco use in the family members. Twelve (63.16%) tobacco users had thought of quitting tobacco and 9 (47.37%) have tried to quit tobacco. Majority (97.3%) of the participants asked for tobacco history while 65 (87.84%) doctors had assessed quantity of tobacco use. Only 5 (6.76%) participants have received training for tobacco cessation.

Conclusions: Well trained manpower for tobacco cessation in the government health set up can serve as a change agent for creating tobacco free environment across the country due to their huge potential to reach the masses.

INTRODUCTION

With 40 million deaths annually, non-communicable diseases supersede communicable disease in mortality burden where tobacco use is one of the important risk factors. Of these 15 million are premature deaths (in the age group of 30-69 years), 80% are from low and middle income countries with a risk of falling for vicious cycle of poverty. Direct tobacco use has contributed to more than 6 million mortality while equivalent burden is faced due to second hand usage of smoking form of tobacco globally. Apart from this, smoking form of tobacco use is also linked with increased risk of communicable disease mortalities. Tobacco epidemic poses a threat not only to the human and environmental health but also jeopardizes the socioeconomic wellbeing at the global level. There has been significant increase in the population covered by at least one comprehensive tobacco control measures since 2007 after introduction of provisions under Frame Work Conventions Tobacco Control Program through collective efforts across the globe. However, with 7 million mortality every year, much more than the combined mortality due to tuberculosis, malaria and HIV worldwide, tobacco epidemic still remains the one of the hardest public health challenges.
Tobacco use in India is rooted traditionally since ancient ages through as one of ingredients of paan popularly known as tambula. Though India has shown 6% decline in the adult tobacco usage as compared to past, however the fact that our country still remains the second largest producer and consumer of tobacco all over the world cannot be ignored.\(^3,4\) Maharashtra showed decline in the percentages of tobacco users over the period of time. However, it is not reflected in to the sheer numbers due to large population of the state. Also there has been phenomenal increase in the rate of tobacco consumption amongst teenagers in Maharashtra as compared to the past.\(^5\)

Impact of detrimental efforts of tobacco is much more profound in India due to its popular usage, and with very limited facilities to fight the menace. Tobacco control measure efforts in our country have been complex due to multiple sociocultural, political and economics issues. Though Tobacco Cessation Centres were established in India a long time back, they could not be very much effective due to limited numbers and outreach also minimal health seeking behaviour of the general public for quitting the same.\(^6\) Community based approach for tobacco cessation was proven to be more successful than Tobacco Cessation Centre based approach in India.\(^7\) However, missed opportunity for tobacco cessation existed for a long time due to implementation of National Tobacco Control Program in isolation with other national health programs in our country. In order to substantiate these efforts, mobile based tobacco cessation counselling services have been introduced in India.\(^8\)

Worldwide it is a known fact that doctors and paramedical workers are of paramount importance in tobacco cessation services.\(^9\)-\(^12\) Apart from this, physicians can lead or support tobacco control activities at the community level. Also health professional organizations can set example for other organizations by embracing the tenants of the health professional code of practice on tobacco control.\(^13\)

There is an ample of published literature about the prevalence of tobacco usage and cessation practices amongst medical fraternity worldwide.\(^14\)-\(^17\) However there is a limited published evidence about their preparedness and practices regarding tobacco cessation amongst them.\(^18\)-\(^24\) India including Maharashtra which is bearing a huge burden of tobacco users both in the present and in the near future is no exception to this situation. In this view, a study was undertaken to assess knowledge, attitude, practices in the above context amongst the doctors working in the government health set up in Maharashtra.

**METHODS**

A cross sectional study was undertaken in a randomly selected district of Maharashtra. All 112 doctors working at 67 primary health centres in the district were contacted personally in the monthly review meeting at the District Health Office. Nature of the study was explained to all the participants and they were invited to participate after obtaining informed consent. Pretested questionnaire detailing self tobacco use and tobacco cessation practices were distributed. The participants were followed up personally at the time of monthly review meetings at the District Health Office as well as telephonically for three times. Seventy four doctors (66%) had completed and returned back the questionnaire.

The study was completed in October 2016- January 2017. Strict confidentially was maintained during the process of data collection, the data was entered in the Microsoft excel and was analysed. All the required permissions including ethical clearance were obtained.

**RESULTS**

Response rate of 66% indicates a low priority of the participants towards this important public health issue. Out of the 74 participants, majority 44 (59.45%) were Allopathic graduates, 29 (39.20%) were Ayurvedic graduates and one (1.35%) had Allopathic post graduate degree. As far as gender was considered, male [62(83.78%)] outnumbered females [12(16.22%)]. Most of the participants [60 (81.10%)] were from 25-40 years age group while 9 (12.16%) were from 40-50 years age and 5 (6.74%) belonged to 51-60 years age group. Mean age of the participants was 36.91 years and mean years of service in the government health set up was 10.44 years.

Nineteen (25.67%) primary health care physicians had self-reported tobacco use, of them 10 (52.64%) were present tobacco users and 9 (47.36%) were using tobacco in the past. Amongst them, smoking form was preferred by 12 (63.15%) respondents while smokeless and combined forms of tobacco were preferred by 3 (15.8%) and 4 (21.05%) participants respectively.

Amongst the current tobacco users 4 (40%) were consuming tobacco on daily basis while 6(60%) had less than daily basis. Amongst the past tobacco users, 5 (55.5%) and 4 (44.45%) reported tobacco use on daily basis and less than daily basis respectively.

**Figure 1: Reasons for consuming tobacco amongst doctors.**
Reasons for consuming tobacco were as below in the Figure 1.

Out of 74 participants, 16 (21.63%) reported tobacco use in the family members, mainly in the smokeless form [9 (56.25%)] followed by the smoking form [3 (18.75%)] and both [4 (25%)]. Only 37 (50%) respondents knew concept of passive smoking correctly. There was no difference in context with the knowledge about passive smoking amongst Allopathic [25 (55.55%)] and Ayurvedic doctors [12 (41.37%)] (p=0.23). Majority of participants 53 (71.63%) reported exposure to passive smoking at public places.

Only 19 (14.06%) participants thought even a single cigarette, bidi or pouch of smokeless form of tobacco was harmful. Surprisingly 7 (5.18%) respondents thought that 2-5 cigarettes, biddis or other smoking forms and pouches of smokeless form of tobacco were harmful while 19 (14.06%) respondents were of opinion that smoking of more than 5 cigarettes, biddis or packets of smokeless form of tobacco could harm human health.

Many respondents 52 (70.27%) had noticed anti-tobacco information during past 30 days. More than half of the participants 58 (78.37%) had observed health warning on tobacco products in past 30 days. However, only 16 (21.62%) doctors were aware about the provisions under The Cigarette and Other Tobacco Product Act 2003.

Twelve (63.16%) tobacco users had thought of quitting tobacco and 9 (47.37%) have tried to quit tobacco.

Following table number one shows tobacco cessation practices of primary health care doctors while rendering patient care:

| Tobacco cessation practices | Yes (%) | No (%) |
|----------------------------|---------|--------|
| Ask about tobacco history  | 72 (97.3) | 2 (2.7) |
| Assess quantity of tobacco use | 65 (87.84) | 9 (12.16) |
| Advice quitting for tobacco user | 71 (96) | 3 (4) |
| Approached by patient for help in quitting | 52 (70.27) | 22 (29.73) |
| Special clinics required for tobacco quitting | 69 (93.24) | 5 (6.76) |
| Feel confident to help tobacco users for cessation | 45 (60.82) | 29 (39.18) |
| Interested in training | 64 (83.53) | 10 (16.47) |
| Aware about The Cigarettes and Other Tobacco Products Act, 2003 | 16 (21.62) | 58 (78.38) |

More number of Allopathic doctors [44 (97.98%)] used to ask patients about tobacco use as compared to Ayurvedic doctors [23 (79.31%)] with the government health services (p=0.008). Fifty one (68.91%) participants always assessed quantity of tobacco use amongst the tobacco user patients.

Eleven (14.87%) doctors thought that they should help tobacco users to quit tobacco while 4 (5.4%) thought that the community health workers should do the same. More number of the respondents 59 (79.73%) were of opinion that helping tobacco users to quit tobacco was the combined responsibility of doctors, community volunteers, school teachers, family members as well as friends and religious leaders.

The need for specialized tobacco cessation clinics was echoed by the majority 69 (93.24%) of the participants. Preferences given by the participants about location of tobacco cessation facilities were Primary Health Centers [34 (45.95%)], Rural Hospitals [8 (10.81%)], Community Health Centers [1 (1.35%)], Medical colleges [2 (2.7%)], Institution [6 (8.1%)] and all of above [13(17.56%)].

Sixty four (86.48%) participants were keen to receive tobacco cessation counselling and medical management of tobacco quitting, however 5 (6.76%) participants have received training for tobacco cessation

Only 48 (64.86%) thought that they can play positive role in the tobacco control activities but could not elaborate the same.

**DISCUSSION**

In our study response rate of 66% indicate low priority amongst the participants towards this important public health issue. Response rate varied from 65.1 - 83.8% in the studies conducted amongst health services doctors elsewhere.21,22,16

Tobacco use was prevalent among 19(25.67%) participants of which 10 (52.64%) were present tobacco users and 9 (47.36%) had used tobacco in the past. Prevalence of tobacco use was variable in the studies conducted amongst doctors working in the government health set ups elsewhere.20,24,16 Lower number of self-reported tobacco use in our study may be attributed to the socio-demographic conditions of the participants, impact of National Tobacco Control Program activities in our country and absence of biochemical validation of tobacco use amongst the participants.

In our study only 19 (14.06%) thought that even a single cigarette, bidi or pouch of smokeless for of tobacco is harmful while in a study conducted elsewhere in India 68 (45.9%) and 65 (44.2%) doctors thought that even a single cigarette and one bidi is harmful respectively.20 In our study, 12 (63.16%) tobacco users had thought of quitting tobacco and 9 (47.37%) have attempted to quit tobacco, while in another study conducted elsewhere
outside India 80% primary health care physicians were successful to quit tobacco for at least one week.\textsuperscript{16}

In this study, 72 (97.3\%) of the doctors working in the primary health set up used to ask patients about tobacco use while other study from India 72 (86.2\%) of the physicians asked patients about tobacco use during assessment.\textsuperscript{20} Another study conducted amongst primary health care physicians abroad, 91.4\% had optimistic opinion about eliciting tobacco history from their patients.\textsuperscript{16}

In our study 87.84\% of the primary health care physicians admitted that they assess quantity of tobacco use amongst tobacco users while in another study 95.3\% of the participants said that they quantify the tobacco use amongst their patients during consultation.\textsuperscript{20} This could be attributed to the difference in the knowledge about the dose effect response relationship of tobacco amongst the participants.

In the present study, majority of the primary health care doctors (96\%) advised quitting tobacco to the patients while another study conducted in India revealed that 98.2\% of the doctors working in the government health set up had given advice to their patients about quitting tobacco during consultation.\textsuperscript{20} Agreement level of 92.7\% was observed amongst the primary health care physicians in abroad about advising tobacco quitting to the patients.\textsuperscript{16}

More number of [52 (70.27\%)] of the primary health care doctors in this study were approached by the patients to seek help for quitting tobacco as compared to 47.4\% of the study participants from a southern state of India.\textsuperscript{20}

In this study, 45 (60.82\%) primary health care physicians felt confident to help tobacco users for quitting the same however only 16 (21.62\%) of them were aware about provisions under Cigarette and Other Tobacco Product Act 2003. Higher awareness levels about anti tobacco activities in the primary health care physicians and comparatively lower awareness about the provisions under the Cigarette and Other Tobacco Product Act 2003 could not be compared with the referred literature. Other variables like reasons for consuming tobacco, family history of tobacco use, concept of passive smoking explored in our study could not be compared with the other studies.

In our study 64 (83.53\%) of the participants were interested in receiving training for tobacco cessation while almost equivalent number of the doctors (82.4\%) were positive about willingness to receive tobacco cessation training in another study conducted in India.\textsuperscript{20}

Eleven (14.87\%) participants from this study thought that the doctors should help tobacco users to quit tobacco while 4 (5.4\%) respondents thought that the community health workers should do the same. Fifty nine (79.73\%) respondents were of opinion that helping tobacco users to quit tobacco is the combined responsibility of doctors, community volunteers, school teachers, family members as well as friends and religious leaders. Another study conducted elsewhere in India revealed mixed opinions of the doctors about onus of helping for quitting tobacco.\textsuperscript{20}

The need for specialized tobacco cessation clinics was echoed by the majority 69 (93.24\%) of the participants. Preference about location of tobacco cessation facilities were Primary Health Centers 34 (45.95\%), Rural Hospitals 8 (10.81\%), Community Health Centers 1 (1.35\%), Medical colleges 2 (2.7\%), Institution 6 (8.1\%) and all of above 13 (17.56\%). The most and least preferred choices of location of the tobacco cessation clinics were primary health centers (54.6\%) and private institutions (30.5\%) respectively in a study conducted elsewhere in India.\textsuperscript{21}

In this study only 5 (6.76\%) primary health care physicians have received training for tobacco cessation, where as more number of doctors working in the health service department have received training on tobacco cessation.\textsuperscript{21} In this study, 60 (80.08\%) and 64 (86.48\%) respondents were keen to receive tobacco cessation counselling and medical management of tobacco quitting respectively. Positive attitude towards receiving tobacco cessation training from 77\% to more than 82.9\% was observed in the studies conducted in India.\textsuperscript{20,21}

Only 48 (64.86\%) participants from our study, thought that they can play positive role in the tobacco control activities while 97.8\% were willing to be a part of tobacco control program in another study conducted elsewhere in India.\textsuperscript{21}

Other variables like reasons for consuming tobacco, family history of tobacco use, concept of passive smoking, awareness about anti tobacco activities explored in our study could not be compared with the other studies.

**CONCLUSION**

It is concluded that doctors irrespective of their own tobacco usage history were not well versed neither with the harmful effects of tobacco nor with adequate tobacco cessation skills.

**Recommendations**

Doctors working in the government health set up should be sensitized not only about harmful effects of tobacco but also their role envisaged under National Tobacco Control Program of India. These efforts should be supported through appraisal mechanism for quality assurance purposes. Well trained manpower for tobacco cessation in the government health set up can serve as a change agent for creating tobacco free environment.
across the country due to their huge potential to reach the masses.

**Limitations**

This study included doctors working in the primary health centres in the government health services as participants was the strength of the study. However, attitude and practices by all the participants in the selected district could not be studied. Biochemical validation and further interventions to reduce consumption of tobacco amongst the participants could not be done due to feasibility and time constraints. A scope remains to strengthen tobacco cessation practices offered by them.

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