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Tobacco Cessation and the Non-Allopathic Private Physician in India: A Survey in Navi Mumbai, India

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ABSTRACT

Background: Private non-allopathic practitioners are often the first point of medical care for low-income populations in India, and likely encounter a sizeable number of tobacco-users. While there is evidence that physicians' advice for tobacco cessation enhances quit rates among tobacco users, little is known about tobacco-cessation knowledge, attitudes and practices of private non-allopathic practitioners.

Methods: A cross-sectional survey was conducted with non-allopathic private practitioners in Navi Mumbai, India.

Results: Majority (92%) of the practitioners had not received any tobacco-cessation related training. Around 85% never ever-used tobacco; 82.5% said tobacco-use was harmful irrespective of age; and all respondents said tobacco products contained harmful chemicals. However, a third (32.5%) said smokeless tobacco was less harmful than smoking and 52.5% said tobacco-use was socially acceptable in India. Only 10% were aware of methods to measure nicotine dependence. Although 97.5% thought tobacco use was high among their patients, only 15% recorded individual tobacco-use in patient files; and a third (35%) referred the patient to cessation services. Female practitioners were more likely to refer for cessation (p=0.043).

Conclusion: Only one in three practitioners referred tobacco-user patients to cessation or screening services indicating an urgent need for training and sensitization of private non-allopathic practitioners to increase the reach of tobacco-cessation services in India.

Keywords: Tobacco cessation services, non-allopathic practitioners, private physicians, AYUSH, India

INTRODUCTION

Tobacco use is one of the top five risk factors that drive all mortality and morbidity in India, amounting to one million or 9.5% of all deaths.[1,2] It is estimated that around 266 million of India's population are tobacco users. Most tobacco-users start early, initiating daily tobacco use at a mean age of 18.9 years,[3] thereby increasing the risk of heart disease and mortality in younger people. Cessation of tobacco-use reduces the morbidity and mortality directly associated with tobacco consumption[4,5] and also decreases blood pressure and the chances of heart attack, stroke, lung and other cancers.[3]

Article 14 of Framework Convention for Tobacco Control (FCTC) recommends making tobacco cessation accessible to all through provision of counselling and appropriate services through existing infrastructure, including primary healthcare centers and any other health service, along with the involvement and training of healthcare professionals and associations from different streams of medical practice to provide at least brief advice.

Affordability of cessation services and active inclusion and participation of all stakeholders providing healthcare services is also emphasized.[6-8] Tobacco cessation is a component of India's National Tobacco Control Programme,[9] which directs setting up of tobacco cessation centers in District Hospitals and providing free pharmacotherapy and counselling services. Additionally, there is a national level tobacco-cessation Quitline with a toll-free number; and a mobile-based strategy called m-Cessation with messages sent to enrollees to encourage and support their quit efforts.[10]

A vast majority of Indians, 72% of rural population and 79% of their urban counterparts, access healthcare through private providers, consisting of general practitioners, family physicians, nursing homes, private hospitals, and charitable institutions.[11] In 2016, about 65% of the health care expense was through out-of-pocket spending while the government share was about 25%.[2,12] Private physicians are often the first point of medical contact for the majority of the population. India also has a large number of recognized non-allopathic or complementary medicine physicians, known as AYUSH, which stands for the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy, earlier known as the Department of Indian System of Medicine and Homeopathy. In 2017, the number of registered AYUSH doctors in India stood at 773,668; many of whom practice in underserved urban and rural areas.[12]

Physicians play an important role both as advisers—influencing smoking cessation—and as role models.[13] Several studies have found that advice from doctors helps people who smoke to quit. Even when doctors provide brief simple advice about quitting smoking, this increases the likelihood that a person who smokes will successfully quit and remain a non-smoker 12 months later.[14] Behavioural interventions including those provided by healthcare providers are effective for smokeless tobacco users also.[15] Practitioners' knowledge of the harms of tobacco, warning signs, and of related screening and referral services are thus vital to providing tobacco cessation support and advice. However, according to GATS 2, only 55% of smokers and 37% of smokeless tobacco users were asked about their tobacco use in the preceding 12 months by their healthcare provider and 49% and 32% respectively were advised to quit.[3]

Medical practitioners, even in the private sector, are well suited to offer effective counselling, as they already have prior knowledge of patients and their social environments.[16] The ability of a physician to understand and provide adequate information to an individual seeking support for tobacco cessation is one of two key elements in predicting the success of tobacco cessation services; the other being the ability of the patient to assimilate this information and adhere to the advice provided.[7] Consequently, training private practitioners in providing tobacco cessation advice and referral to appropriate services is critical in order to attain large-scale success in tobacco control efforts in the country. Since a substantial number of private practitioners are non-allopathic, it is imperative to include them in the envisioned goal of providing successful tobacco cessation services to the population. While the knowledge and practices of physicians from the State Health Departments of many states of India have been studied, there are very few studies about the private sector.[17]

This study aimed to assess tobacco cessation-related knowledge, attitudes, and practices among non-allopathic private practitioners in Navi Mumbai. Findings from this assessment are expected to facilitate the design of a tobacco-cessation training program for non-allopathic private practitioners.

METHODS

A cross-sectional study, using a structured questionnaire and face-to-face interviews, was conducted with forty non-allopathic private practitioners in the Navi Mumbai Municipal Corporation (NMMC), located near the city of Mumbai in western India. A list of non-allopathic (AYUSH-trained) private practitioners practicing in the geographic areas covered under two urban health posts, Digha and Ilthanpada, was obtained from the NMMC administration. Additionally, to ensure exhaustiveness of the list, one research assistant visited the two communities to gather information on practicing AYUSH physicians from local pharmacists, medical representatives, and pathology laboratories. Private practitioners of any stream who had a medical clinic in the designated areas covered by the two health posts mentioned above; self-identified as practitioner of recognized non-allopathic schools of AYUSH; charged a fee for healthcare services provided to the patient; and were not currently employed by the Government were included in the final list for face-to-face interviews. Physicians, who met these inclusion criteria, were contacted for scheduling a face-to-face interview at a time of their convenience. A trained interviewer conducted each interview, lasting about 30 minutes, after written informed consent was obtained from each respondent. The questionnaire captured areas of information such as socio-demographic details, consumption of tobacco products by self, knowledge of tobacco-related harms, attitudes towards tobacco, provision of cessation-related advice and referral to cessation centers, and any relevant training received.

Data were entered in MS-Excel 2007 and analyzed using SPSS software version 16.0. The dependent variable was a dichotomous response to the question on the practitioner's usual practice with respect to a patient who was tobacco user: referral for cessation or related screening services for cancer and tobacco-related diseases or do nothing or give some information. First, descriptive frequencies were generated for all variables including socio-demographics, years of practice, and knowledge, attitude, and practice related to tobacco. Second, bivariate analysis was conducted using chi-square tests wherein all independent variables were converted to nominal type and tested with the dependent variable, which was also nominal.

RESULTS

A total of 40 physicians who were practising in the community and accessible to the patients on almost all days were interviewed. The mean age of the practitioners was 37.5 years with a median of 36 years; and 87.5% (n=35) were males. Slightly over half of the respondents (52.5%; n=21) had a degree in Homeopathic Sciences while the remaining 47.5% (n=19) had training in Ayurveda or other AYUSH disciplines. The respondents had spent an average of 9.5 years in practice (median was 9 years). About 85% (n=34) of respondents had never ever-used tobacco personally; and 92.5% had never participated in any training related to tobacco control or cessation.

More than half (52.5%; n=21) responded that tobacco use was socially acceptable in India and 85% said that tobacco use is higher in lower socioeconomic groups. Around 4 in 5 respondents (82.5%; n=33) agreed with the statement that tobacco-use was harmful irrespective of age of the user; and despite all respondents agreeing that tobacco products contain harmful chemicals; nearly a third (32.5%) said that smokeless tobacco was less harmful than smoking. Only 10% were aware of methods to measure nicotine dependence, and less than one in five (17%) were aware of the Cigarette and Other Tobacco Products Act (COTPA). Slightly less than one in five respondents (17.5%) thought tobacco was not as addictive as some other narcotics.

The mean number of walk-in patient-interactions in their clinics was an average of roughly 680 a month with a median of 600 a month. Thus, the surveyed practitioners interacted with roughly 20 to 24 patients each day; these walk-in interactions could include repeat patients. Nearly all the respondents (97.5%; n=39) said that tobacco use was high among the patients they served; however, two in five (40%; n=16) talked to less than ten of these daily walk-in patients about tobacco and its harms; and 85% (n=34) did not record individual tobacco-use in the patient files or notes. With respect to their usual practice with a patient who was a confirmed tobacco-user, which was also the dependent variable in the bivariate analysis, only a third (35%; n=14) said they referred the patient to cessation or related services such as screening; while remaining 65% (n=26) of the respondents said they either did nothing or gave some information.

Bivariate analysis found the gender of the practitioner to be significantly associated with the dependent variable; females were more likely to provide referral for cessation or other relevant services (p=0.043). None of the other variables such as age of the respondent; number of years in practice; use of tobacco by the practitioner; receiving training on tobacco cessation; or other knowledge or attitude items were found to be significantly associated with providing referrals.

DISCUSSION

According to the recent Global Adult Tobacco Survey from India,[18] around 55% of current smokers and 50% of smokeless tobacco users, aged 15 or above, expressed interest in quitting. Slightly less than 2 in 5 (38.5%) smokers and a third (33.2%) of smokeless tobacco-users made an actual attempt to quit tobacco in the 12 months preceding the survey. However, half of all cigarette smokers (47%) and smokeless tobacco users (49%) who attempted to quit, were unable to sustain their quit status for even a month. Most of those who attempted to quit did not take the assistance of any formal methods; and very small proportions actually used pharmacotherapy, including nicotine replacement therapy, prescription medicine, counselling, or governmental cessation clinics and telephone Quitline.[3]

Broadening the net of cessation services to include private practitioners is important for success because majority of Indians avail of medical services from private health care providers. Furthermore, private practitioners of various non-allopathic medical streams such as Homeopathy, and Ayurveda, among other disciplines, form an important component of the health care service available to Indians. Therefore, it is critical to include non-allopathic practitioners in order to widen the reach of national tobacco cessation efforts, and to ensure that this group of practitioners receive tobacco-cessation related training.

This study was conducted to understand the knowledge, perceptions and practices of non-allopathic or AYUSH private medical practitioners with regard to tobacco cessation so that appropriate cessation interventions could be designed.

Table 1: Description of socio-demographic variables and knowledge, attitudes and practices of private medical practitioners along with bivariate analysis (dependent variable is "referred to cessation")

Description of variable	Univariate	Bivariate analysis		Exact p value of chi square or t-test
	N =40 (%)	Did not refer	Referred	
Age of respondent (Median=36 years; Mean=37.53; SD=7.376)				
Less than equal to 36 years	21 (52.5%)	15 (71.4%)	6 (28.6%)	0.51
More than 36 years	19 (47.5%)	11 (57.9%)	8 (42.1%)	
Gender				
Male	35 (87.5%)	25 (71.4%)	10 (28.6%)	0.043
Female	5 (12.5%)	1 (20.0%)	4 (80.0%)	
Medical education/training received				
BHMS / DHMS (Homeopathy)	21 (52.5%)	11 (52.4%)	10 (47.6%)	0.105
BAMS / Other (Ayurveda tradition)	19 (47.5%)	15 (78.9%)	4 (21.1%)	
Number of years in medical practice (Median= 9.5 years; Mean 11.13; SD 6.884)				
Less than equal to 9 years	20 (50%)	14 (70.0%)	6 (30.0%)	0.741
More than 9 years	20 (50%)	12 (60.0%)	8 (40.0%)	
Participated in training or workshop on tobacco cessation				
Yes	3 (7.5%)	2 (66.7%)	1 (33.3%)	1
No	37 (92.5%)	24 (64.9%)	13 (35.1%)	
Ever-used used tobacco personally				
Yes	6 (15%)	5 (83.3%)	1 (16.7%)	0.399
No	34 (85%)	21(61.8%)	13 (38.2%)	
Tobacco use is socially acceptable in India				
Disagree	19 (47.5%)	12 (63.2%)	7 (36.8%)	
Agree	21 (52.5%)	14 (66.7%)	7 (33.3%)	1
Tobacco use is higher in lower socio-economic strata				
Yes	34 (85.0%)	21 (61.8%)	13 (38.2%)	0.399
No	6 (15.0%)	5 (83.3%)	1 (16.7%)	
Tobacco products contain harmful chemicals				
Yes	-	-	-	-
No	40 (100%)	26 (65.0%)	14 (35.0%)	
Tobacco use is harmful irrespective of age				
Disagree	7 (17.5%)	5 (71.4%)	2 (28.6%)	1
Agree	33 (82.5%)	21 (63.6%)	12 (36.4%)	
Smokeless tobacco is less harmful than smoking cigarettes or tobacco				
Disagree	27 (67.5%)	16 (59.3%)	11 (40.7%)	0.316
Agree	13 (32.5%)	10 (76.9%)	3 (23.1%)	
Tobacco use is as addictive as narcotic substances				
Disagree	7 (17.5%)	4 (57.1%)	3 (42.9%)	0.679
Agree	33 (82.5%)	22 (66.7%)	11 (33.3%)	
Aware of methods to measure Nicotine dependence				
Yes	4 (10%)	4 (100.0%)	-	
No	36 (90%)	22 (61.1%)	14 (38.9%)	0.278
Aware of Cigarette and Other Tobacco Products Act (COTPA)				
Yes	7 (17%)	6 (85.7%)	1 (14.3%)	0.387
No	33 (83%)	20(60.6%)	13 (39.4%)	
How would you characterize the prevalence of tobacco use among your patients?				
High	39 (97.5%)	25 (64.1%)	14 (35.9%)	1
Low	1 (2.5%)	1 (100.0%)	-	
Average number of walk-in patients every month (Median = 600; Mean = 680.45; SD = 377.42)				
Less than equal to 600 (median)	22 (55.0%)	13 (59.1%)	9 (40.9%)	0.51
Greater than 600	18 (45.0%)	13 (72.2%)	5 (27.8%)	
Of the walk-in patients seen every day, what number do you ask about tobacco use?				
None or less than equal to 10	16 (40.0%)	9 (56.2%)	7 (43.8%)	
Greater than or equal to 11	24 (60.0%)	17 (70.8%)	7 (29.2%)	0.5
Where do you record the tobacco use of patient?				
Do not record	34 (85.0%)	21 (61.8%)	13 (38.2%)	0.285
In my notes	4 (10.0%)	4 (100.0%)	-	
On the prescription given to patient	2 (5.0%)	1 (50.0%)	1 (50.0%)	
Clinical behavior with patient who is tobacco-user				
Ask verbal questions only	11 (27.5%)	8 (72.7%)	3 (27.3%)	0.715
Conduct oral examination	29 (72.5%)	18 (62.1%)	11 (37.9%)	
What is your usual action with any patient who is tobacco user?				
Do nothing or give information	26 (65%)			
Refer to cessation or testing services	14 (35%)			

The study reveals mixed findings with respect to knowledge and practices related to tobacco cessation. The median number of years in practice was 9, yet more than 4 in 5 of the respondents (90%), in the urban area of Navi Mumbai, were not aware of methods to measure nicotine dependence or of government laws to prevent and control tobacco such as Cigarettes and Other Tobacco Products Act, 2003 (COTPA) (83%). However, more than four-fifths of the respondents unanimously stated that tobacco is harmful, all of them said there were dangerous chemicals in these products, and 82.5% said tobacco use was harmful irrespective of age. Yet, nearly 85% of the respondents did not record their patients' tobacco use behaviour and only one in three (35%) reported that they refer a tobacco user to cessation or some related service such as screening for cancer or tobacco-related diseases. It will be helpful if in the future a survey is conducted among patients to provide an estimate of how many of them actually received advice and referral related to tobacco cessation. This will help us get more accurate estimates of tobacco cessation advice at the family practitioner level in India.

This study found that female practitioners were more likely to refer a patient as compared to their male counterparts. It is not clear from these data as to why female physicians are more likely to refer. We examined the number of respondents that had received tobacco-related training (7.5%) to see if they were all female, but that was not the case. Therefore, this finding needs to be further examined in future research in diverse regional settings and also with allopathic practitioners.

Almost a third (32.5%) of the respondents thought that smokeless tobacco products were less harmful than smoking cigarettes. There are two likely explanations: first, respondents may associate cigarettes with harmful chemicals, and second, nearly half (52.5%) of the respondents believed that tobacco use is socially acceptable in India. Smokeless tobacco is seen as a traditional practice many rural communities in Maharashtra.[19] However, this notion about smokeless products among private practitioners needs examination in future research because it can affect tobacco cessation activities in terms of the criteria used by physicians to determine which tobacco-using patient need counselling.

Respondents reported that patients from lower socioeconomic groups tend to have greater tobacco-use. The mapping of non-allopathic practitioners, mentioned above in the sampling stage, showed that most of the patients served by these physicians were from low-income groups, yet, the corresponding screening or referral rates for tobacco-cessation services were low (35%). It is highly possible that tobacco-cessation has simply not become a part of the routine protocol followed by these practitioners while examining patients; however, one factor that remains unexplored in this study is the perceived cost of cessation services. Depending on the cost of cessation incurred by patients and their families, it is highly unlikely that poorer patients will avail of such services. It could be argued that the government provides cessation services free of cost; but the fact that these poor patients are still using private medical services instead of the local government health care system does provide us clues about their attitudes and perceived barriers to availing government services. Future research has to examine the costs and perceptions related to governmental cessation services among both the private practitioners and their patients.

Several studies have reported similar findings of low or mixed levels of tobacco cessation-related knowledge and practice among medical practitioners in the Indian and regional context. A survey of 339 physicians in Kerala on their practices, skills and perceived need for training in tobacco cessation, revealed that a third of all the doctors always asked patients about tobacco use, especially when patients had lung, heart, mouth disease or cancer; however only one in ten offered useful information on how to quit, and 80% expressed interest in receiving training.[20] A cross-sectional study of 422 medical and dental practitioners in India found dental professionals had better knowledge about tobacco cessation as compared to medical professionals. Furthermore, 92% of the health professionals held the belief that the tobacco cessation counselling provided by them was not effective due to lack of formal training.[21] A cross-sectional survey among 238 physicians working in primary healthcare facilities of the State Health Department in two states of India showed low preparedness for cessation services and that physicians had received very little training.[17]

Studies conducted in various countries in the region have reported similar findings with respect to lack of preparedness of private practitioners with respect to tobacco-cessation. Cross-sectional surveys with 75 family physicians in Egypt[16] and with 167 primary health care providers in Saudi Arabia[22] reported low levels of knowledge and practice related to tobacco cessation among practitioners, despite favourable attitudes towards cessation. Both the studies recommended support and training for medical practitioners to help them understand the significance of the role they play in implementing smoking cessation for patients, individuals, family and the community. Interestingly, in a cross-sectional study of 163 practicing physicians from Karachi, Pakistan,[23] despite low rates of knowledge around tobacco cessation treatment

(5.5%), most physicians (78.5%) reported that they identified every patient's current tobacco use status; and three out of five physicians (61.4%) reported always or almost always advising tobacco users to quit. However, most of the physicians in this study, reported a lack of skills required to implement treatment strategies for tobacco cessation. Similarly, a study in China found that although providers self-reported advising patients to quit smoking, they had low expectations that their counselling was effective in helping patients to quit. Respondents had not received proper training on how to advise patients to quit, and half of them lacked knowledge about nicotine replacement.[24]

CONCLUSION

Training is critical and so is the need for a larger change is beliefs and attitudes among private practitioners from all streams. More than 9 out of 10 private practitioners who participated in this study had not received any formal training or workshop related to tobacco cessation. It is imperative that training workshops be conducted in the future. Most physicians are expected to attend continuing education classes to validate their practice; tobacco cessation can be included as a mandatory segment in all such training platforms. Private practitioners keep some time aside in the week to meet representatives of pharmaceutical companies who use various tools to inform doctors about the products of their respective companies. Similar tobacco cessation representatives or community health workers can be trained to meet private physicians and educate them about cessation. Most physicians in India have access to smartphones, thus, online courses or mobile phone apps can also be created for training. However, one of the most important methods of training future doctors remains the medical school curriculum. Tobacco cessation has to become a part of the medical education curriculum for physicians from all streams of medicine. In conclusion, knowledge and practices of non-allopathic private practitioners have to be improved through targeted training programmes and necessary modifications to the academic curriculum for improving access of the general population to tobacco cessation.

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