

**Capacity building of healthcare professionals to create a workforce trained in tobacco dependence treatment at different levels of healthcare settings in Maharashtra, India**

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## **ABSTRACT:**

### **Background:**

According to the Global Adult Tobacco Survey 2016-17, while 55% and 50% of smokers and smokeless tobacco (SLT) users intended to quit tobacco use, only 49% and 32% of them respectively were advised by healthcare providers to do so. Global Health Professional Students Survey, India showed a general lack of training on tobacco cessation.

LifeFirst, an initiative of Narotam Sekhsaria Foundation and Salaam Bombay Foundation, with support from Dana Farber/Harvard Cancer Centre, initiated a training programme with an aim to build a team of competent healthcare professionals (HCPs) with skills to provide evidence-based tobacco dependence treatment in a variety of healthcare settings across Maharashtra, India.

### **Methods:**

One-day sensitisation training programmes were conducted for various HCPs from public, private, primary and tertiary healthcare settings. The training covered tobacco use in India; tobacco control policies and initiatives; tobacco use and dependence and providing brief intervention through 5As and 5Rs.

Trainees interested in starting tobacco dependence treatment within their practice underwent a Level 2 (two-day) training covering nicotine dependence, trans-theoretical model, behaviour modification and motivational interviewing.

Pre and post-test surveys were conducted through self-administered questionnaires.

### **Results:**

75 training sessions were conducted for Level 1 (one-day sensitization) trainings which were attended by 2866 healthcare professionals (HCPs). 32 Level 2 (two-day counsellor training) training sessions were conducted and attended by 610 HCPs.

50% of these were nurses, 12% dentists, 5% physicians and about 20% medical and dental students. 16% had a past training on tobacco cessation. Average knowledge scores increased by 40%. Proportion of HCPs who perceived their skills to practice 5As as very good and excellent increased by 75% and the confidence to motivate patients doubled. 78% showed interest in undergoing intensive training for providing cessation counselling.

### **Conclusion:**

While the project reinforced the need for cessation training for HCPs, it also showed that the LifeFirst training had a positive impact on the knowledge, perceived ability and confidence for providing tobacco cessation among the HCPs.

**KEY WORDS:** LifeFirst, training, tobacco dependence treatment, cessation, healthcare provider

## INTRODUCTION:

India faces unique challenges in controlling the tobacco epidemic with high rates of smokeless tobacco use and a uniquely diverse array of tobacco products.

According to the Global Adult Tobacco Survey (GATS) India report 2016-17<sup>1</sup>, the prevalence of tobacco use in India is very high with 42% of the adult male population and 14% of the adult female population using tobacco in some form. Following are a few salient features from the report:

- India is home to 267 million current tobacco users equating to 29% of adults in India.
- 18% adults in India use smokeless tobacco, 7% use smoked tobacco and 3% use both forms of tobacco.
- In most cases, healthcare providers do not ask patients about their habit of tobacco use or advise them to quit. About 53% smokers and 34% users of smokeless tobacco were asked about tobacco use history by a healthcare professional<sup>2</sup> while 49% and 32% were respectively advised to quit.
- Half of smokers (55%) and smokeless tobacco users (50%) plan to quit or have thought about quitting tobacco use.
- 39% smokers and 33% smokeless users had made attempts to quit in the past year.

Data from the India Global Health Professional Students Survey (GHPSS) conducted between 2005 and 2008, showed a general lack of training among dental, medical, nursing and pharmacy students in patient cessation counseling techniques<sup>3</sup>. Even though most students from all four disciplines expressed the need for cessation training, very few (ranges from 29.1-54.8%) reported having ever received formal training in their professional school<sup>4</sup>. Nearly 90% third year medical students believed that health professionals should get specific training on cessation techniques but only about 22% had learned cessation approaches to use with patients<sup>5</sup>. Preparedness for cessation is also found to be low among physicians at primary care level<sup>6</sup>.

In spite of presence of willingness to quit and quit attempts being made by tobacco users, healthcare professionals have not been identifying a majority of tobacco users and a very small proportion have been advised to quit in spite of the fact that simple advice by healthcare providers has an effect on cessation rates and that even a brief advice intervention increases quitting among smokers.<sup>7</sup> For smokeless tobacco users, healthcare professionals may help their patients to stop tobacco use by showing them the damage caused in their mouths<sup>8</sup>.

The GATS India report recommends that health professionals in the country need to be sensitized and trained on importance of asking all patients about the habit of tobacco use and offering help to quit tobacco use and that strengthening of tobacco cessation services is needed to make the same available across the various levels of the health care delivery

systems<sup>i</sup>.

Several resources like a training manual for tobacco cessation developed under the National Cancer Control Programme, a manual for dentists and a training module for doctors have been developed by the Ministry of Health and Family Welfare, Government of India and the WHO Country office for India. National guidelines for Tobacco Dependence Treatment<sup>9</sup> have also been developed by the Ministry of Health and Family Welfare, Government of India under the National Tobacco Control Programme (NTCP), but these need to be widely disseminated. Efforts are being made to increase the reach of cessation services through the NTCP which is in its pilot phase in India. The suggestive training plan of the NTCP makes provision for 2 trainings of half-day duration on tobacco cessation per year for 30 healthcare providers each at the state level and 4 such in each of the pilot districts per year<sup>10</sup>.

A few other training programmes on tobacco dependence treatment for healthcare professionals exist but their reach is not enough.

To meet the widespread need of tobacco cessation services, stronger efforts are needed to equip all types of healthcare providers in various settings with trainings on tobacco dependence treatment. The project aims to provide this training to a wide variety of healthcare providers across different healthcare facilities and to create a network of providers that can stay connected and learn from each other.

### **Goal:**

The goal of the project was *“to build a team of competent healthcare professionals with skills to provide evidence-based tobacco dependence treatment in a variety of healthcare settings across Maharashtra, India”*.

### **Key objectives:**

- i. To train about 2000 healthcare professionals in effectively asking about tobacco use and provide brief advice on quitting.*
- ii. Conduct training for about 600 healthcare professionals to provide tobacco dependence treatment to all identified tobacco users through evidence-based cessation techniques.*
- iii. Establish a network of trained healthcare professionals across a wide variety of healthcare settings for providing effective tobacco dependence treatment to people from all social strata.*
- iv. Create a training module for tobacco dependence treatment specially suited for the Indian scenario focusing on smokeless tobacco with the help of innovative internet based training methods and e-apps.*

## **INTERVENTION:**

LifeFirst is a tobacco dependence treatment service, built upon international evidence base, standards and protocols and adapted to the Indian context. Comprehensive counseling, pharmacotherapy and follow-up services are provided. The service aims to deliver a comprehensive, evidence based tobacco treatment at primary, secondary and tertiary health care settings for patients from all social strata. The service is active in tertiary care hospitals, Tuberculosis treatment centres (DOTS centres), private practitioners' clinics etc. Besides healthcare settings, the service is provided at workplaces and schools, with some site-specific modifications made to the process of service delivery. Training and research are important aspects of LifeFirst.

The project was implemented from August 2014 to September 2017.

Various facilities were approached for conducting trainings, initially through the LifeFirst team's personal contacts. A proposal was sent to these contacts regarding the LifeFirst trainings. If required, meetings with the concerned officials at the hospital were conducted to present the trainings and then eventually after their approval training dates were decided upon mutual convenience. At the same time, new initiatives at various other health institutes were also made, either through direct telephone calls or approaching directly to the hospital's medical director or superintendent. On favourable responses, meetings were fixed where a brief presentation of the LifeFirst trainings was made. Follow up was done for finalizing the suitable dates to conduct the training.

For this purpose a LifeFirst docket was printed and presented to the hospital authorities. The docket includes LifeFirst training brochure giving all details about the training and its benefits to the healthcare facility and its patients, a service brochure giving information about the LifeFirst service overall and some details about each site, training content and sample certificate that would be presented to every participant for successfully completing the training program. The training was made available without any cost to the health institutes and as per their convenience. The trainings were tailored to suit different groups of health care providers.

The trainings were made interactive by encouraging participants to discuss on related topics and role plays were performed. The role plays were designed differently for different groups of attendees.

After the training, each participant was provided with the handouts on training slides and a copy of the WHO Toolkit for delivering the 5A's and 5R's.

## Trainings:

Two levels of training were conducted:

- Level 1: Brief Advice Training
- Level 2: Tobacco Treatment Training

- Level 1: Brief Advice Training

Level 1 trainings were conducted for a wide spectrum of healthcare providers from general practitioners, dentists, nurses, consultants etc. for screening and identifying tobacco users during their routine practice and to provide correct information to these regarding the harms of tobacco and the benefits of quitting.

This training session included role-plays for participants to give them hands-on experience of dealing with situations like:

- Systematically asking about tobacco use
- Identifying tobacco users and their types of patterns of tobacco use
- Provide information on the harms of tobacco and benefits of quitting
- Giving brief advice
- Referring to specialist tobacco treatment services where available
- Conducting follow-ups of patients enrolled in the service

Topics covered included prevalence of tobacco use in India, various products being used and commonly used brands. Information was provided on various health effects of tobacco and the contents of its products. Participants were sensitized about tobacco cessation by providing basic knowledge on dependence, benefits of quitting and commonly used models of cessation.

- Level 2: Tobacco Treatment Training

Level 2 trainings enabled the healthcare providers to provide tobacco dependence treatment to identified tobacco users through cessation techniques like motivational interviewing, behavioral modification etc. Trainees were able to provide this on their own in their own clinical settings and were also able to set up cessation services on a larger scale within organisations or institutions.

All Level 1 certified Tobacco Treatment Practitioners could enrol for the Level 2 training. This module covered all core competencies required for providing effective, evidence based treatment. This was a detailed session on all the aspects of tobacco cessation. The trainees learnt about

- All aspects of nicotine dependence,
- Evidence-based techniques of providing cessation in Indian healthcare settings,

This training equipped the participants in conducting detailed counseling sessions for tobacco users and provide them support for quitting by understanding their dependence, identifying triggers, helping them with coping mechanisms for withdrawals and urges and helping them to change their behaviour. Basics of Nicotine Replacement Therapy (NRT) wer also covered in this training. They were also trained to maintain records of the sessions to monitor progress of individual patients as well as conduct timely follow-ups.

Role plays were conducted at appropriate stages of the training for dealing with situations like:

- Relapse
- Withdrawals
- Conducting follow-ups
- NRTs

- Training module

A training module was created based on existing trainings. The curriculum was developed based on core competencies recommended by various internationally recognized training programmes. These include the Mayo NDC, the Association for Treatment of Tobacco Use and Dependence (ATTUD), National Center for Smoking Cessation and Training, National Health Service, UK and so on. The learnings were adapted to the local tobacco use patterns and behaviour of tobacco users based on the evidence gathered through above mentioned internationally recognized trainings, few tobacco cessation interventions across the country and mainly from the LifeFirst tobacco treatment service.

The content of the modules was developed by the core project team of medical doctors and psychologists. The modules were developed specific to India on the basis of available knowledge base and made context specific including smokeless tobacco. The modules were designed in the form of training presentations in collaboration with the Dana Farber / Harvard Cancer Centre, Boston, USA specializing in combining evidence-based practice with creative expertise.

Trainings were offered to healthcare professionals from

- Public hospitals
- Private hospitals
- Medical schools
- Dental schools
- Government primary healthcare centres
- NGOs
- Private medical practitioners

The trainees form a resource which is present in all types of healthcare facility settings right from the community level through Government run Primary Health Centres, Private Medical Practitioners and Dentists to the secondary and tertiary level hospitals through specialists and clinicians. This network of trained healthcare providers can also work together and provide complementary services by establishing referral mechanisms within the network as well as from other sources.

- Pre and Post-Test evaluation

Pre and Post-Tests were conducted for both levels of trainings to record the level and change of knowledge, behaviour and practices of the participants.

- Online training:

Knowing the busy schedule of health care professionals an online training module is being developed. This is in the testing phase and will be launched soon. Practitioners will be able to take up training after registering into an online system.

Registered trainees will have access to presentations and relevant resource material which they can study for a period and then attempt a certification test. On successful completion they will be given a downloadable e-certificate.

#### **ANALYSIS:**

All data collected was coded and entered in MS excel. Change in the mean score for scale measurements will be used to compare pre and post-test results.

#### **ETHICAL CONSIDERATIONS:**

Ethical clearance was obtained from the External Joint Ethics Committee of the implementing organisations.

#### **RESULTS:**

75 training sessions were conducted for Level 1 (one-day sensitization) trainings which were attended by 2866 healthcare professionals (HCPs). These were conducted for government and private institutes, as well as medical and dental colleges. Trainings have also been conducted in certain NGOs working in the area of health.

State level trainings for counsellors and social workers of the National Tobacco Control Programme were also conducted in coordination with the Public Health Department of the State Govt. of Maharashtra for NTCP staff from 32 districts.

32 Level 2 (two-day counsellor training) training sessions were conducted and attended by 610 HCPs.

50% of these were nurses, 12% dentists, 5% physicians and about 20% medical and dental students.

The HCPs who attended the Level 1 trainings included:



- Doctors - includes MBBS, BAMS, BHMS, Post-graduate specialists
- Dentists
- Medical students – includes interns and final year students
- Nursing staff
- Physiotherapist, Dietician, Pharmacists
- Psychologist, Medical Social Worker, Counsellor
- DOTS providers working with the National Tuberculosis Programme
- Outreach Social Workers from NGOs working in the field of health
- Voluntary social workers

The HCPs who attended the Level 2 trainings consisted of mainly dentists, psychologists, counsellors and dental interns.

Pre and post training assessment was conducted to estimate perceived changes among the trainees.

Average knowledge scores increased by 40%. Proportion of HCPs who perceived their skills to practice 5As as very good and excellent increased by 75% and the confidence to motivate patients doubled.

Among the Level 1 trainees, only 16% had a past training on tobacco cessation. Thus this training was a true effort to fill in the training gap in the field of tobacco cessation in India.

Tobacco cessation centres have been started in 1 private hospital, 5 dental colleges and several private practitioners (dentists and doctors) have started providing brief advice as a part of their routine care.

The tobacco cessation centres cater to patients referred from various outpatient departments as well as patients admitted to the hospitals.

Feedback forms were also given to the participants to rate the trainings on 6 parameters: Organisation, Content, Trainer, Presentation, Confidence to deliver Brief Advice after the training and Overall training on a scale of 1 to 5. Overall, the training received an average score of 4.7 out of 5. The mean scores for content of the training, trainer, presentation and their confidence in providing cessation were 4.7, 4.8, 4.5 and 4.6 respectively.

Common feedback received from participants:

- HCP's who have attended the training felt that they could now systematically counsel the patients.
- The presentation and explanation was simple and easy to understand.
- The training program was well planned and organized.
- Increased awareness on tobacco
- They also felt more responsible as HCPs, as they realized the importance of their role in tobacco cessation.

- Participants were willing to practise it on their patients after the training as they felt more equipped to counsel them.
- They found the training program very interactive and expressed that the role plays and group discussions helped them to understand better.
- Use of acronyms was found to be very innovative and highlight of the training program e.g. 5As, 5Rs, 4 Ds, STAR, etc.
- Dentists are finding the training program very useful in their practice as it is directly linked to the treatment of their patients (particularly with the very high prevalence of smokeless tobacco use in India)
- They also felt that such training programs should be mandatory for every HCP.

### **INTERPRETATION:**

The trainings were effective in reaching the expected outcome of sensitisation of healthcare providers and also motivated a few of them to start providing cessation services in some centres. Some hospitals and dental schools have now established tobacco cessation centres within their systems as a result of these trainings.

However, the process of approaching these institutes for trainings, convincing them about the need for the training and later on convincing them about the need for establishing the cessation centres was a difficult task.

The major category of HCP's trained are nurses, as the no. of nurses in every hospital is very high and they are the ones who spend maximum time in patient care. Hospitals are more willing to get the nurses trained, as they are not able to spare their doctors for trainings, due to the busy nature of their duties. The importance of tobacco cessation is on the rise among the dental health department as there a very high co-relation between oral cancer and tobacco consumption. This can be easily identified by the dentist during oral screening among the patients.

Following are some of the challenges encountered during implementation of the project and a few ways of overcoming these challenges developed by the implementing team:

<b>Challenges</b>	<b>Overcoming the Challenges</b>
Tobacco cessation is not a priority in any healthcare setting.	Initial sensitisation of decision-makers with regular follow-up
Awareness about such measures is low even among the healthcare professionals.	People aware about LifeFirst advocated for trainings in other settings

Hospitals reluctant to permit staff to attend full-day trainings – open for 2 half days or even 3 hours over 2 days. Time constraints of level 2 trainings for 2 days	Trainings over 2-3 half days. Changes in the module
Mixed Batches have to be conducted in some cases i.e. mixing doctors and nurses in the same training group.	Conducted mixed batch trainings for hospitals
Healthcare institutions not able to send Doctors for training.	<ul style="list-style-type: none"> <li>• Scheduling of batches in mutual understanding with the organisation as per their convenience – Saturdays and Sundays also.</li> <li>• Huge no. of nurses and dentist trained.</li> <li>• Online training module developed</li> </ul>
Language barrier	Training conducted in Hindi or Marathi for non-doctors

#### **CONCLUSION:**

Tobacco cessation trainings are now being accepted as a part of health care providers' skill trainings. Nurses, dentists, psychologists and counsellors are especially interested in these. Dental schools have particularly taken up initiatives to set up cessation centres within their settings. These are sustainable models as they are being run by their own staff after initial trainings and facilitation from LifeFirst.

LifeFirst plans to continue the training programme be specifically targeting dental schools and tertiary hospitals along with private practitioners. However, due to the absence of financial support for a large scale training programme, individual institutions will be approached and only those willing to start cessation centres will be provided trainings. Another aspect being explored is to charge fees for the trainings to cover costs.

#### **FUNDING:**

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