

National Tobacco Quitline: The Preliminary Indian Experience

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Abstract

Background. Tobacco Quitline Services have the potential to reach a large number of tobacco users with the sole objective to provide telephone-based, information, advice, support, and referrals for tobacco cessation and is available free in most developed countries. India too now joins the international tobacco cessation movement with its own National level Tobacco Quitline Service. The purpose of this study is to evaluate the impact and success of National Tobacco Quitline Services (NTQLS) in the first year of its inception

Methods. Collection of data was done by telephonic interview method and was extracted from the National Tobacco Quitline Services (NTQLS) database from May 30, 2016 to May 31, 2017. The tobacco users call at NTQLS toll-free number, assigned to receive four proactive calls from NTQLS. The proactive calls are set according to quit date. The registered subjects require furnishing of details about their tobacco use, history and personal information like name, age, address and other demographic data. The study evaluated the subject's tobacco dependence level. The subjects were offered sessions of counselling and choice to receive self-help material. The severely tobacco dependent subjects were referred to nearest tobacco cessation center.

Results. A total of 60,222 calls hit the IVR (Interacted Voice Response System) of the NTQLS. 16,548 inbound calls were received and 94,900 outbound calls were made by the counsellors. The highest number of callers (46.5%) were from the state of Uttar Pradesh followed by Delhi (11.8%), Maharashtra (8.4%), Madhya Pradesh (4%), Rajasthan (3.8%), Haryana (3.4%), Gujarat (3.0%), Bihar (2.8%), West Bengal (2.8%), Punjab (2.4%), Karnataka (1.8%), Himachal Pradesh (1.3%), Odisha (1.3%), Jammu and Kashmir (0.8%), Telangana (0.7%), Jharkhand (0.6%), Tamil Nadu (0.5%), Andhra Pradesh (0.4%) and Kerala (0.3%). The north-eastern region including Nagaland, Mizoram, Meghalaya, Sikkim and Tripura contributed only 14 calls (0.3%). A total of 5179 callers were registered. There were 5067 (97.8%) male callers and 112 (2.2%) female callers for enrolling in the tobacco cessation programme. Smokeless form of tobacco use was the most prevalent than smoking (61.2% versus 26.4%). Both forms of tobacco (smoking and smokeless) was used by 12.4% of the callers. *Khaini* (47%) was found as the most prevalent smokeless tobacco product followed by *Gutkha* (43%). The number of cigarette smokers was found to be 73% followed by *bidi* smokers (25%). 17% of the registered subjects were found to be severely dependent on tobacco, 44% were moderately dependent whereas 39% had low dependence. Nearly 68% of the callers had already made an attempt to quit tobacco; but were not successful. 2010 callers (38.81 %) successfully quit tobacco upto the last follow-up (proactive call – 4). Successful quitters (89%) did not have any difficulty or very less difficulty in managing withdrawal symptoms.

Conclusions. Our observations suggest that the National Tobacco Quitline Services is freely accessible to the whole country. It is the easiest and most convenient way of tobacco cessation. The response showed that almost 40% of successful quitters were able to maintain tobacco cessation till the last proactive call during the first year of the start of the NTQLS. [Indian J Chest Dis Allied Sci 2018;60:7-12]

Key words: Smoking, Tobacco Quitline Service, Tobacco dependence, Abstinence rate.

Introduction

The Quitline concept is not a new concept in the global drive to promote cessation of tobacco addiction. The development and testing of Quitline

was started in early 1980s in Europe and the United States in an effort to overcome a number of challenges to the information dissemination of the existing cessation programmes in those countries.¹ The accessibility of tobacco cessation center, smoker's

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reluctance to attend the group cessation classes, scheduling and staffing of classes, maintaining practitioner interest in offering routine cessation counselling often proved to be challenging impediments for the success of the cessation programmes.

Various advantages of National Tobacco Quitline Services (NTQLS) that make it popular among countries to have their own Quitline services. Till 2009, 53 countries reported to World Health Organization (WHO) that they have at least one toll-free national Quitline.² Out of these 53 countries, 32 (60%) were high-income countries, representing over half of all high-income countries in the world. Only four low-income countries (8%) and 17 middle-income countries (18% of all middle-income countries in the world) reported to have initiated a national toll-free Quitline Service.²

In India, on 31st May 2012, tobacco cessation pharmaceutical company, Nicorette started a helpline at Mumbai; similar to tobacco Quitline that provides information/techniques to help tobacco addicts to quit smoking, but due to operational glitches, the service could not sustain itself. Some other private corporate houses involved in manufacturing of tobacco cessation medications had started a web-based counselling service for tobacco cessation.

Later in 2016, Government of India rolled out its first National Tobacco Quitline Services on the eve of the "World No Tobacco Day". As of now, this free of charge service is available in English and Hindi; can be used by all tobacco users, friends and families of tobacco users and even health-care practitioners to deliver information, advice, support, and referrals for tobacco cessation therapy to patients.

The NTQLS have the potential to significantly impact the overall cessation rate; while reducing relapses. Most importantly, the services of NTQLS can be accessible from anywhere, at any time, at no cost to the tobacco user. It offers confidential, personalised and tailored support to motivate the quit attempts in an individual addicted to tobacco. It is estimated that NTQLS has the potential to decrease the economic cost attributable to tobacco use from all diseases in India.

As the tobacco users using NTQLS quit their tobacco addiction habit; ultimately this would reduce the number of tobacco users in India. Consequently, the number of people affected by the tobacco related diseases would be reduced, thereby reducing the economic burden of tobacco. The ambitious project completed its one year on 30th May 2017. Therefore, the objective of this one-year preliminary NTQLS data is to present our experience regarding successes, challenges and evaluate the outcomes as well as the future plans in this new NTQLS concept introduced in our country at a national level.

Methods

National Tobacco Quitline Services is designed to help tobacco users to quit the addiction by answering their queries, setting a quit date, formulating a personalised quit plan, and follow-up with four proactive calls through a dedicated toll-free number 1800-11-2356, that can be reached daily between 8 AM to 8 PM, except one day (on Monday) weekly off. The call is first hit on the interactive voice response system (IVR); when a caller calls at NTQLS toll-free number. Thereafter, the call is segregated according to the language selection (presently English and Hindi). All this mechanism goes from Primary Rate Interface line to Gateway to Server to Power over Ethernet Switch and finally landing on counsellor's Internet Protocol Phone.

The NTQLS allows both reactive and proactive calls. The reactive call includes the registration, present and past tobacco use history and personal details of the subjects and also about counselling session(s) whenever a caller feel the need for help. The proactive call comprises of four outbound calls tailored to provide tobacco cessation service, usually complete within four to eight weeks depending upon the caller's tobacco quitting status.

If a tobacco user is not able to quit up to the planned quit date, a new quit date is set and the process of all proactive calls continue as earlier. The first proactive call is made 3-4 days before the set quit date, second proactive call on quit date, third proactive call 3-7 days after the quit date and fourth proactive call 1-3 weeks after the 3rd proactive call date (Figure 1).

The intervention is being provided by a trained tobacco counsellor who have been trained especially in theoretical and practical approaches of motivational interviewing, following the WHO telephone counselling protocols. These include 5As (Ask, Advise, Assess, Assist and Arrange); 5Rs (Relevance, Risks, Rewards, Roadblocks, Repetition) in a time period of approximately 15-minute counselling session. Subsequently, the telephonic IVR counselling sessions are further increased to moderate (≤ 30 minutes) and intensive counselling (30–40 minutes) sessions, depending upon the requirement of the tobacco user.

The conversations on calls are being tapped to monitor and assure the quality of counselling. The Heaviness of Smoking Index (HSI) is being used to measure the tobacco dependency, which is the shorter version of the full Fagerstorm Test for Nicotine Dependency (FNTD); contain two questions: (1) how many cigarettes per day do you usually smoke and (2) how soon after waking up do you smoke your first cigarette? The level of nicotine dependence is considered low for individuals with scores 0-1, moderate with scores 2-3, and high with scores 4-6.

Referral information such as nearest tobacco cessation clinic is provided to the interested participants. Tobacco quit pack consisting of tobacco quit calendar and tobacco quit guide is also mailed to the interested callers by post or e-mail. The quitting status is analysed on 4th proactive call which is almost after four weeks of follow-up post-tobacco cessation.

Results

A total of 60,222 calls at IVR of the NTQLS were made during the study period May 30, 2016 to May 31, 2017. 16,548 unique calls received by the counsellors. Unique calls means which are made by unique callers and do not include any repeat numbers. Number of outbound calls made by the counsellors were 94,900 (Figure 2).

Most of the calls were made from Uttar Pradesh representing 46.5% of total calls, followed by Delhi (11.8%), Maharashtra (8.4%), Madhya Pradesh (4%), Rajasthan (3.4%), Haryana (3.4%), Gujarat (3.0%), Bihar (2.8%), West Bengal (2.8%), Punjab (2.4%),

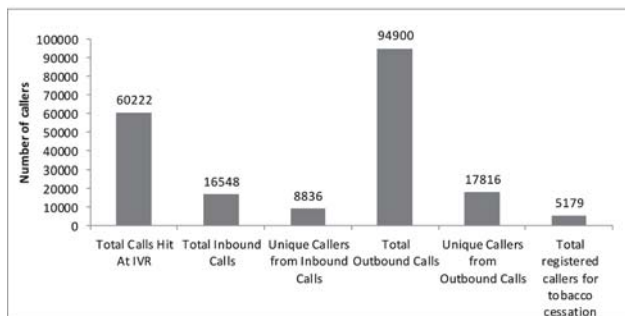


Figure 2. Call identification of National Tobacco Quitline Services (30th May 2016 to 31st May 2017). The y-axis depicts the number of calls. The x-axis depicts the call category, i.e. total calls hit at IVR, total inbound calls, unique callers from inbound calls, total outbound calls, unique callers from outbound calls, and total registered callers for tobacco cessation.

Karnataka (1.8%), Himachal Pradesh (1.3%), Odisha (1.3%), Jammu and Kashmir (0.8%), Telangana (0.7%), Jharkhand (0.6%), Tamil Nadu (0.5%), Andhra Pradesh (0.4%) and Kerala (0.3%). North-Eastern region including Nagaland, Mizoram, Meghalaya, Sikkim and Tripura contributed only 14 calls (0.3%) (Figure 3).

A total of 5179 callers were registered. There were 5067 (97.8%) male callers and 112 (2.2%) female callers for enrolling in the tobacco cessation programme. Smokeless tobacco was used by 3169 (61.2%) of the registered subjects at NTQLS followed by 26.4% of tobacco smokers and 12.4% had dual use of tobacco.

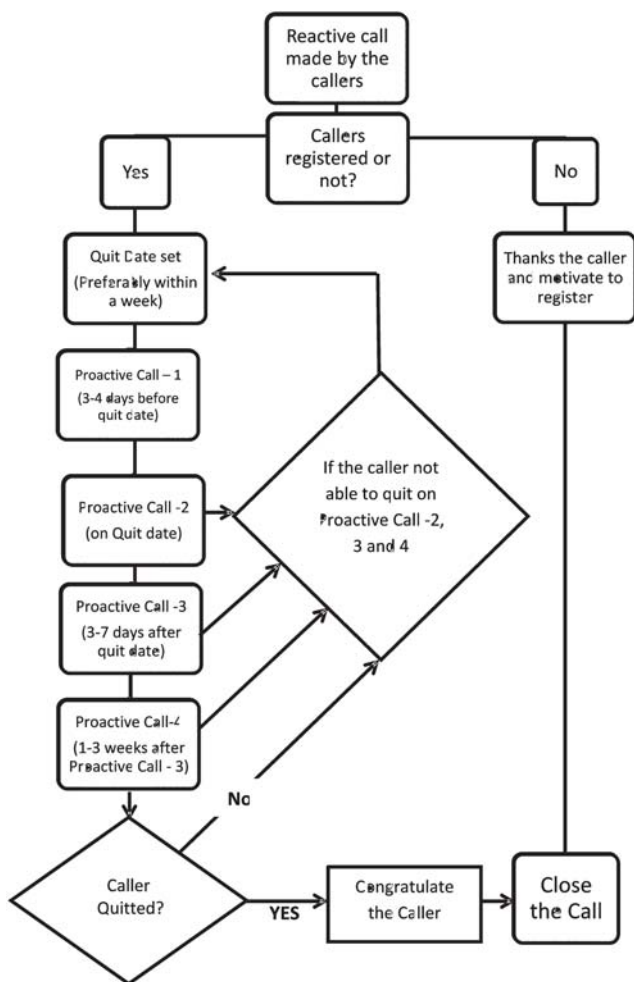


Figure 1. The figure depicts the counselling process of National Tobacco Quitline Services after a reactive call received.



Figure 3. The figure represents the number of callers from different states, who registered themselves for tobacco cessation programme at National Tobacco Quitline Services 30th May 2016 to 31st May 2017. Data shown as number along with percentage.

Khaini was found to be the most prevalent among the 47% (1363) of the registered smokeless tobacco users, followed by *gutkha* (1309 subjects, 41.3%). It was observed that 37% of the callers keep tobacco in mouth for more than 20 minutes in a day; whereas 3.8% keeps tobacco for more than one hour per day.

The study further observed that 67.7% callers tried to quit prior to calling to NTQLS; but relapsed after quitting. The common factors for relapse included stress, depression, anxiety, and health issues found in 46.2% users; whereas 22.3% were influenced by social and environmental factors. In the present study, it has been observed that 1380 (26.7%) tobacco users were drinking alcohol also (Table). Nearly half of the callers at NTQLS spent more than INR500 per month on their tobacco use.

In the present study, 30.7% of the registered tobacco users were taking tobacco within 5 minutes of waking, 30.9% within 6-30 minutes and the remaining 38.4% subjects use tobacco after 30 minutes (Table). Tobacco dependency was found to be the highest among 17% of the registered tobacco users, while 44% were moderately dependent and 39% had low dependency on tobacco. Nearly 70% of the callers were open to discuss their tobacco quit plan with their friends, family members and seek help from them.

Table. Demographic data of registered subjects at National Tobacco Quitline Services (30th May 2016 to 31st May 2017)

Variables	Number of Callers (n=5179) No. (%)
Gender	
Male	5067 (97.8)
Female	112 (2.2)
Age (in years)	
<14	22 (0.4)
15-24	1511 (29.2)
25-64	3548 (68.5)
>65	98 (1.9)
Marital Status	
Married	2983 (57.6)
Unmarried	2181 (42.1)
Divorced/Widowed	15 (0.3)
Education	
Illiterate	119 (2.4)
1 st -10 th Class	1303 (25.1)
11 th - 12 th Class	1291 (24.9)
Diploma after 12 th class	113 (2.2)
Graduation	1695 (32.7)
Post-Graduation	430 (8.3)
Professional degree	228 (4.4)
Occupation	
Unemployed	237 (4.6)
Retired	100 (1.9)
Student	1065 (20.5)
Self-employed/Business	1507 (29.1)
Government sector employee	315 (6.1)
Private sector employee	1955 (37.8)

Table cont.

Types of tobacco	
Smoking	1366 (26.4%)
Smokeless	3169 (61.2%)
Smoking and smokeless both	644 (12.4%)
Income per month (in INR)	
Nil	1355 (26.2)
<10000	1088 (21.0)
1000-30000	2140 (41.3)
31000-60000	497 (9.6)
61000+	99 (1.9)
Expense per month on tobacco (in INR)	
<500	2452 (47.3)
500 - 1000	1024 (19.7)
1000 - 5000	1546 (29.8)
>5000	157 (3.1)
Tobacco use (in years)	
1-10	3475 (67.1)
11-20	1190 (23)
21-30	339 (6.5)
30 and above	175 (3.4)
Quantity of tobacco smoke/chew per day*	
1-10 Qty	2979 (57.5)
11-20 Qty	1534 (29.6)
20 and more	666 (12.9)
Keeping SLT in mouth (in minutes)	
1-20	2876 (55.5)
21-40	590 (11.4)
41-60	222 (4.3)
>61	125 (2.4)
Do not use SLT	1366 (26.4)
How soon after waking, do caller use tobacco	
Within 5 minutes	1657 (32)
6-30 minutes	1559 (30.1)
30-60 minutes	793 (15.3)
>60 minutes	1170 (22.6)
Family history of chew/smoke tobacco	
Alcohol use	1380 (26.7)
Previous quit attempt	1547 (29.9)
Intervention	3523 (68)
Behavioral counselling only	5097 (98.4)
Behavioral counselling and referral to TCC	82 (1.6)

Note: Qty = Quantity of tobacco, which could be smokeless viz. *paan*, *gutkha*, *Khaini* etc. and smoking viz. *bidi*, cigarette, *hookah*, etc. For smoking Qty is in numbers and for smokeless, Qty is in number of times in a day.

Definition of abbreviations: SLT=Smokeless tobacco; TCC=Tobacco Cessation Centre

The data of the present study revealed that 3.3% of the registered subjects had hypertension, 2.2% diabetes melitus, 0.7% myocardial infarction, 0.12% cerebrovascular accident, 1.9% asthma and other respiratory problems, 0.1% cancer and 0.3% have sexual dysfunction.

The results of the present study showed that 2010 (38.8%) tobacco users successfully quit their tobacco use with the help of telephone counselling till the last follow-up call (proactive call number 4). It has been observed that 88.9% of the successful quitters did not found

any difficulty or had limited difficulty in managing withdrawal symptoms; 4.8% had physical symptoms and 3.1% had behavioural symptoms. Nearly 3% callers had quit till the third proactive call and heading towards the 4th proactive call. Overall, 96.2% of quitters reported that NTQLS services benefited them in quitting tobacco. Around 0.5% quitters had relapse symptoms.

Discussion

Quitline services provide access to large population of tobacco users who need help to quit. The number of callers reflected the interest shown in the Quitline service in our country and the preliminary first 12-month data revealed that the people in India are interested in telephonic tobacco cessation counselling. According to second Global Adult Tobacco Survey (GATS – 2016), India has 267 million tobacco users.³ WHO suggests that tobacco Quitline has the potential to reach 4% to 6% of total tobacco users per year in a country.¹ In this study, 16,548 inbound calls in a year without any active promotion of the campaign *viz* through commercials or advertisements showed that a good proportion of active self participation of tobacco users. It is estimated that this number represents 0.006% of the total tobacco users in India.

In United States, about 400,000 smokers are served annually by 50 state Quitline services, representing about 1% of the 4 crore smokers in the United States.⁴ In the first year of the operation, the Australian National Quitline received 144,000 calls, representing 4% of all Australian smokers aged 18 years or more.⁵ Our results showed that the female participation in Quitline tobacco cessation programmes was very low; 2.2%, (n=112) in comparison to males (9.8%, n=5067). There are 65 million female tobacco users in India.³ In Indian population, women tobacco users in rural areas are more than the urban areas (5.1 crore *versus* 1.4 crore). Lower education level in women in rural areas was an important factor associated for not accessing the services of Quitline programmes whereas Quitline from other countries, such as California, Massachusetts, Scotland and Hong Kong reported a higher proportion of female callers.⁶

In our study, it has been found that the participation of married callers (2983, 57.6%) was higher than unmarried callers (2181, 42.1%); whereas percentage for widowed and divorced were 0.15% and 0.14%, respectively. This is an indicator that married people are more concerned to quit tobacco. Quitline in Iran also had shown the higher rate of married callers (72.2%).⁷ Lower participation of illiterate callers (2.4%) at our Quitline showed the lack of awareness of telephone based counselling among them.

Out of all the registered callers who availed the services of NTQLS, the numbers of smokeless tobacco users was the highest. The pattern of smokeless tobacco use has been reported to be highest in India.³ In the population of 26.7 crore adult (aged 15 years or above) tobacco users, 19.9 crore tobacco users used tobacco in smokeless form and 10 crore used tobacco in smoking form.³ In our study, low cost of smokeless tobacco products over the smoking products found the major reason for high use of smokeless tobacco products. Frequency and duration of tobacco use have correlation with potentially malignant lesion and association with oral cancer.^{8,9}

The present study found that 37% of the smokeless tobacco users keep tobacco in mouth for more than 20 minutes a day, 3.8% keep tobacco for more than one hour per day. The postulated reason of keeping tobacco in mouth for longer periods is due to the nicotine element in tobacco.¹⁰ Over a time period, people with addiction build up a tolerance, resulting in longer duration of tobacco to be kept in the mouth.¹¹ In our study, it has been observed that 8.5% of the callers reported co-morbid disorders, thereby highlighting the fact that use of tobacco is associated with comorbid diseases.¹²

Call-back option or proactive counselling has been observed to be very effective in many studies.^{1,13} The comprehensive review conducted by Stead *et al* found that among smokers who contacted Quitline, those receiving multiple sessions of call-back counselling had significantly higher quit rates compared with those not receiving reinforcement with call-back counselling, those who were mailed materials or were provided brief counseling at the first contact.^{14,15} A dose response was found with three or more calls significantly increasing the odds of quitting compared with minimal intervention (e.g., providing self-help materials, brief advice, or pharmacotherapy alone).¹⁶

The protocol mandate of our NTQLS is to make four proactive calls. On the 4th follow-up proactive call; if the caller has abstained tobacco use since the first proactive call, he or she is assumed to be a quitter. On the contrary, if any caller is not able to quit on the set quit date or relapses during any proactive call; then a new quit date is being set for him/her on mutually agreed date.

After the new quit date is set, all the 4 proactive calls are made again by the Quitline counsellors. During our study, of all the registered callers, we were able to contact 5179 (100%) subjects to proactive call-1, 3257 (62.8%) to proactive calls-2, 2382(46%) to proactive call-3 are and 2167 (41.8%) callers to proactive call-4. Out of 5179 callers, 2010 (38.8%) callers had successfully quit till the 4th proactive call. This quit rate is a reflection of a high impact effectiveness of Quitline in India. However, more data

over the years would further clarify as well as strengthen the NTQLS programme in our country. The Hong Kong Quitline reported the point prevalence quit rate after six months at 20%.⁶ The review from three Quitlines in the United States reported 31% of tobacco quit rate.¹⁷ The sustained abstinence rate in Iran tobacco Quitline after 1, 3, 6 and 12 months was 59%, 41%, 31% and 18%; respectively.⁷

There are some limitations of our study. Firstly, the quit rate is based on four proactive calls over a four to eight week period. The quit rate may enhance if the period of proactive calls is further increased. Secondly, the data collection is based on telephonic conversation, which has the potential limitation that the callers may conceal some information which cannot be confirmed in the absence of a face to face interview session with the subject.

Conclusions

Tobacco Quitline is an appropriate and cost-effective method of providing tobacco cessation services for our country. A quit rate of 38.8% among the callers in a year reflects the high impact effectiveness of our tobacco Quitline (NTQLS) in India. It is indeed a milestone in tobacco cessation services that without any structured promotional activity like television commercials and advertising; NTQLS reached to 60,000 tobacco users in a short span of one year. The number of callers could be increased by initiating proper advertisement, motivating illiterate tobacco users or launching awareness programmes regarding the working and functioning of NTQLS in rural India. It is postulated that the success rate may be higher if some tobacco cessation medication could also be provided free of cost to the target callers. Tobacco Quitline is a pioneering concept rolled out in our country to tackle the growing menace of tobacco addiction.

References

- World Health Organization. Benefits and rationale for establishing quit-line services. Available at URL: http://who.int/tobacco/publications/smoking_cessation/benefits_and_rationale_est_who_tobacco_quit_line_services.pdf?ua=1. Accessed on September 26, 2017.
- World Health Organization. Worldwide current situation of national quit-line services. Available at URL: http://apps.who.int/tobacco/publications/smoking_cessation/worldwide_current_situation_who_tobacco_quit_line.pdf. Accessed on September 26, 2017.
- GATS. *GATS India Report 2016-2017*. Mumbai: Tata Institute of Social Sciences (TISS) and New Delhi: Ministry of Health and Family Welfare, 2016.
- Cummins SE, Bailey L, Campbell S, Koon Kirby C, Zhu S. Tobacco cessation quitlines in North America: a descriptive study. *Tob Control* 2007;16 (Suppl.1):i9–i5.
- Miller C, Wakefield M, Roberts L. Uptake and effectiveness of the Australian telephone quitline service in the context of a mass media campaign. *Tob Control* 2003;12:ii53–ii58.
- Abdullah AS, Lam TH, Chan SS, Hedley AJ. Which smokers use the smoking cessation quitline in Hong Kong, and how effective is the Quitline? *Tob Control* 2004;13:415–21.
- Ebnahmady A, Jianfar G, Alvanpour A, Hesami Z, Talischi F, Masjedi M. Efficacy of telephone quit-line for smokers in Iran: 12 months follow up results. *Tanaffos* 2011;10:42–8.
- Garg KN, Raj V, Chandra S. Trends in frequency and duration of tobacco habit in relation to potentially malignant lesion: a 3 years retrospective study. *Oral Maxillofacial Pathol* 2013;17:201–06.
- Proia NK, Paszkiewicz GM, Nasca MA, Franke GE, Pauly JL. Smoking and smokeless tobacco-associated human buccal cell mutations and their association with oral cancer: a review. *Cancer Epidemiol Biomarkers Prev* 2006;15:1061–77.
- Balfour DJK. The neurobiology of tobacco dependence: a preclinical perspective on the role of the dopamine projections to the nucleus accumbens. *Nicotine Tob Res* 2004;6:899–912.
- Centers for Disease Control and Prevention (US); National Center for Chronic Disease Prevention and Health Promotion (US); Office on Smoking and Health (US). How tobacco smoke causes disease: the biology and behavioral basis for smoking-attributable disease: a report of the surgeon general. 4, Nicotine Addiction: past and present. Atlanta (GA): Centers for Disease Control and Prevention (US); 2010. Available at URL: <https://www.ncbi.nlm.nih.gov/books/NBK53018/> Accessed on October 6, 2017.
- Britton J. Death, disease, and tobacco. *The Lancet* 2017;389:1861–2.
- Zhu SH, Stretch V, Balabanis M, Rosbrook B, Sadler G, Pierce JP. Telephone counselling for smoking cessation: effects of single-session and multiple-session interventions. *J Consult Clin Psychol* 1996;64:202–11.
- Stead LF, Perera R, Lancaster T. Telephone counselling for smoking cessation. *Cochrane Database Syst Rev* 2006 Jul 19;(3):CD002850.
- Stead LF, Perera R, Lancaster T. A systematic review of interventions for smokers who contact quitlines. *Tob Control* 2007;16:i3–i8.
- Lori P. Enhancing the effect of telephone quitline counseling through proactive call-back counselling. *Chest* 2009;136:1199–1200.
- Vickerman KA, Schauer GL, Malarcher AM, Zhang L, Mowery P, Nash CM. Quitline use and outcomes among callers with and without mental health conditions: a 7-month follow-up evaluation in three states. *BioMed Res Int* 2015, Article ID 817298, 2015. doi:10.1155/2015/817298.