ORIGINAL ARTICLE

Awareness and utilisation of quitline among current tobacco users in a district in southern india

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Abstract

Background: Tobacco use not only increases mortality, but also causes enormous burden to the Nation's health and economy. The WHO -Framework Convention on Tobacco Control implemented "MPOWER", comprising of an important entity of 'offering help to tobacco users' to quit. Quitline provides evidence-based treatment services to tobacco users and advertising those services has the potential to increase their utilisation. **Objectives**: Our objective was to assess the awareness and utilisation of the newly introduced quitline on tobacco packs among tobacco users. **Materials and Methods**: After obtaining Ethics Committee approval, this cross-sectional study was conducted from March-June 2019 in a purposive sample of tobacco users aged 18 years and above at the point of sale with prior informed consent. The questionnaire included questions on the users' knowledge and utilisation of the quitline. **Results**: Most of the tobacco users (84.6 %) had not observed the quitline on tobacco pack. Amongst those who observed the quitline, 65.5% were smokers, while the smokeless tobacco users who comprised half of the study population were unaware of the quitline. More than 97% of illiterates were unaware of the quitline. Only three tobacco users who were aware of quitline had tried using it. **Conclusion**: Most of the tobacco users had basic education but were not aware of the quitline on the tobacco packs and only a very few of them used the services, highlighting the need to increase its awareness for effective tobacco control.

Keywords

Tobacco Users; Quitline; Awareness; Utilisation

Introduction

Tobacco use has been causing enormous burden to the Nation's health and economy with more than 266 million adults above the age of 15 years using tobacco in any form,(1) underscoring the importance of measures to be taken for quitting. Quitting has both periodic and long standing advantages on the wellbeing of an individual.(2) It however seems challenging due to nicotine addiction, which is also responsible for high relapse rates.(2)

As per the GATS II survey report, one in ten adults use smoke form of tobacco while one in five use the smokeless form with one-third of them making an attempt to quit their tobacco habit. There lies a responsibility on the Government to provide congenial anti-tobacco policies to reduce prevalence of tobacco use.(2) In India, there have been periodical introduction of new policies in an attempt to reduce tobacco burden as recommended by the "MPOWER" principles of WHO -Framework Convention on Tobacco Control.(3) The quitline service 1800-11-2356 was introduced from September 1st 2018 and printing on every tobacco pack along with the text warning was made mandatory .(4,5) The National Tobacco Quitline Service (NTQLS) was launched by the Government of India on the World No Tobacco Day. These services assist tobacco users with a toll free call from the number 1800-11-2356 followed by four calls through the same number to create an individualised plan for quitting like creating a quit date and adjusting to the users' needs and also helps in clarifying their questions.(6) According to the World Health Organization, a similar help line has been under use in more than 50 countries across the globe, out of which only 17 of them are low-middle income countries.(7) These helplines are available at low cost, have potential for high reach, and can be tailored individually and are maintained by the National Institute of Mental Health and Neurosciences.(8,9) Smokers using quitline are twice likely to quit compared to non-users, and those using these services with adjuvant pharmacotherapy are thrice likely to quit.(2)

It has been over two years since the introduction of quitline in India, and there is paucity of information about its awareness and utilisation (10).

Aims & Objectives

To assess the awareness and utilisation of quitline among tobacco users and to further explore the opinion of current tobacco users on recently introduced quitline services.

Material & Methods

This cross-sectional study has been carried out from March-June 2019 after obtaining approval from the Institutional ethics committee (Ref no. IEC153-2019). The petty shops, general shops, grocery stores selling tobacco distributed across the seven taluks of Udupi district were selected by convenience sampling.

The talukas included Udupi, Karkala, Kundapura, Bramhavara, Byndoor, Kaup and Hebri. At each points of sale (PoS), 3-4 tobacco users selected by purposive sampling were interviewed using a semi-structured questionnaire after obtaining a written informed consent. About 15 PoS were covered in each taluka with a total of 105 PoS in the district. The questionnaire gathered information regarding their education, occupation, duration of tobacco use, along with knowledge and utilisation of the quitline. The questionnaire consisted of about 20 questions which took approximately 15 minutes to complete.

Sample Size: Considering the awareness regarding quitline as 25% (as per the pilot study conducted in the same region) with 95% confidence level and an absolute precision of 5% accounting for 20% non-response, a minimum of 330 tobacco users were needed to be interviewed.

Analysis: The data were entered in the Kobo Toolbox application and exported to excel V16.0. Further statistical analysis was done using the descriptive statistics on SPSS version 15.0. The data have been presented as frequency and percentages for socio-demographic variables and awareness and utilisation of quitline. Chi-square test has been performed to understand the variation in awareness and utilisation of quitline among the tobacco user groups. The variables were recategorized and multivariate regression analysis was performed.

Results

A total of 356 tobacco users were approached and enrolled for the study. The mean age of the users was 41.9 years (SD=13.8). Majority (88.5%) of the users were literate, with fifty percent of them either skilled or semi-skilled workers, and the other half comprised of the unskilled, homemakers, students and those not working. The median duration of tobacco use was 12 years (IQR = 50). Only one third of the respondents (34.7%) used tobacco for more than 15 years. Almost half of the tobacco users used smokeless form of tobacco (48.9%), followed by

smoke form and lastly the dual users, who used both the smoke form and smokeless form of tobacco. All these details are shown in (Table 1).

Awareness of quitline: Most of the tobacco users (84.6%) had not observed any quitline on tobacco packs. About 97.5% of the illiterates were unaware of the quitline. Twenty eight out of 356 tobacco users thought there should be awareness programs or advertisements on quitline as depicted in (Table 1). About 23 (41.8%) out of 55 tobacco users who had seen the quitline on tobacco packs perceived that it was helpful to quit tobacco, while only seven felt it would help prevent uptake. More than 50% of those who were aware of the quitline belonged to the age group 31-50 years.

On univariate analysis, people using smoked form of tobacco, tobacco users aged <30 years, graduates and above and those with lesser number of years of tobacco use were significantly associated with awareness of quitline at a p value of <0.001 (Table 2). Subsequently a multivariate logistic regression model was performed where >30 years was associated with higher odds of awareness of quitline (OR=0.3, 95% CI = 0.1, 0.6); educated at and above preuniversity was associated with 2.7 times higher odds (CI = 1.2, 6.2); not working at 3.5 times higher odds (CI=1,12.5); 15 years of tobacco use had 2.4 times higher odds (CI=1,7.1) and Smokeform of tobacco use associated with 6.4 times higher odds (CI=2.5, 16.1) of awareness of quitline. (Table 3)

Utilisation of quitline: Out of the 55 smokers who were aware of the quitline, only three (5.5%) had utilised the services, implying utilisation was significantly less among those who were aware. Out of the three who used quitline, two users remembered the number. All the three users were educated, of less than 30 years of age and had been using tobacco for upto seven years, but continued to use tobacco after the call. However, none of them knew about the timings to call and one among them had difficulty in connecting to it, while all three of them were unsure regarding its utility. None of them were able to say if they were satisfied with the counsellor's suggestions over phone.

The therapy suggested to the participants were telephonic counselling support, nicotine replacement therapy and other related advice. The quitline counsellor called back two of the three tobacco users for follow up. Among the 55 tobacco users who were aware of the quitline, 6.5% thought the quitline services were useful for quitting tobacco.

Discussion

Our study demonstrates very low awareness of quitline among the tobacco users even after two years of its introduction, more so among less educated, smokeless tobacco users, longer duration of use and people more than 50 years of age. It was observed that smokers at and below 30 years and non-working group (Home maker, students and unemployed) were more aware of quitline. On multivariate regression analysis, it was also observed that inclusion of an interaction of age and occupation in the model identified a significance in interaction as most non-workers group above 30 years were less aware of quitline, the possible confounding factors in our study. Our study additionally hints at poor service utilisation among those who were aware of the quitline.

Quitline is relatively new in our nation and needs to be evaluated and ours is the first known study to the best of our knowledge, in the country on the awareness and utilisation of the National quitline. Our findings suggest smoke form of tobacco users less than 30 years and graduates were significantly associated with awareness of quitline. Our study findings are similar to that of a study done in U.S. by Kaufman et al (11) wherein less than 35 years were more aware of quitline than 65 and above age group. Our results present with more than three-fourths of tobacco users not being aware of the presence of quitline. This could be attributed to its recent introduction by the Government and also the unrestrained sale of loose cigarettes (95%) (12) that prevents the smoker from looking at the packs. Although quit line on tobacco packs has been introduced recently in India, a study in 2013 on voluntary local reactive helpline initiated for Tobacco cessation in Rajasthan showed a low awareness among the study population,(13) possibly due to dismal Information, Education and Communication (IEC). This is in contrast to a study by Fehily in 2017(14) in an Australian community mental health service, wherein a high awareness (89%) and utilisation (18%) of quitline was observed, probably due to the active media campaigns after the introduction of quitline way back in 1997. However, a multivariable logistic regression revealed that no factors were significantly associated with awareness of quitline.

Quitline is an important entity of the text health warning and past studies emphasize the need to

strengthen health warnings to augment quitline utilisation.(15) In our study, the awareness of quitline in smokers was found to be better compared to the smokeless form of tobacco users. SLT users tend to be more among lower economic strata and are likely to benefit if the information reaches to them and are able to quit the habit. This calls for a systematic approach to impart awareness across all sections of society so that every tobacco user knows about the quitline service.

Previous literature points that the awareness and utilisation of quitline in developing countries was low, (11, 16) but it has been seen that with a range of ancillary measures in place, the utilisation of quitline can be increased. One such measure of an increase in tax on cigarettes along with anti-tobacco propaganda on media increased the utilisation of quitline and website services.(17) Another measure of reinforcing the anti-smoking laws showed improved quitline utilisation. (18,19)

Health warnings are a cost-effective mode of tobacco control and it is known that larger the warnings, better is their impact. The combination of quitline and health warning may augment their awareness and utilisation, as each of them seem to be dependent on one another. For instance, as per a study in New South Wales and Australian Capital Territory, post graphical health warnings in 2006 there was an increase in quit calls by 84% and post introduction of Plain packaging there was an instant sustained increase in quit calls by 78%. (20)

Additional affordable modalities such as mass communication are known to increase the utilisation of quitline especially in LMICs and past studies on quitline utilisation through awareness created by vigorous educational (21) and media campaigns via television, print and radio, (22) provides evidence to its increased utilisation especially on a short term followed by moderate intermediate results necessitating further research.

Conclusion

Despite basic education, most of the tobacco users were unaware of the quitline on the tobacco packs. Majority of tobacco users who were aware of the quitline were smoke form of tobacco users, implying a poor awareness in the other two groups namely dual and smokeless tobacco (SLT) users. Presently, the predominance of SLT users among tobacco users' mandates that quitline is not just important for smoked forms of tobacco but also SLT users.

Recommendation

Since quitlines have been shown to be evidence-based and effective, it is crucial to make tobacco users aware that the quitline exists by effective promotion (which might include mass media). Also, highlighting that quitline is available at no cost to them would eventually increase its utilisation. The integration of mCessation' Programme in the form of text messaging along with quitline services could aid in follow-up and providing continued support to users willing to quit tobacco (2)

Limitation of the study

Our study has a limitation of self-reporting bias from the purposive sample chosen

Relevance of the study

Our study is imperative in the present scenario since quitlines provide treatment services to tobacco users and advertising them and thereby promoting those services has the potential to increase quit line utilisation, which is one of the cost effective means of tobacco control.

Authors Contribution

VK and MK conceptualised the work and the manuscript was drafted by SM, RB, RN; critically revised by VK, AK and MK. Data collection activity was coordinated by SM and RB. Data analysis and interpretation was carried out by SM, RB, VK, AK and MK and all authors equally contributed to the final approval of the manuscript. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Tables

TABLE 1 EDUCATION, TOBACCO USE AND QUITLINE AWARENESS AMONG TOBACCO USERS (N=356)

	(N)	(%)
Age		
< 30	84	23.6
31-50	182	51.1
>50	90	25.3
Education status		
Illiterate	41	11.5
Primary (1-7 std) and can read	170	47.8
High School (8-10 std) and Pre-university	118	33.1
Graduate and above	27	7.6
Occupation		
Skilled	77	21.6
Semi-skilled	125	35.1
Unskilled	124	34.9
Home maker	6	1.7
Student	14	3.9
Not working	10	2.8
Years of tobacco use:		
<10 years	165	46.9
11-20 years	99	28.1
>20 years	88	25.0
Form of Tobacco Product used		
Smoke	107	30.1
Smokeless	174	48.8
Both Smoke and Smokeless	75	21.1
Perception that awareness programs and advertisements are needed to increase utilization		
Yes	28	7.9
No	62	17.4
Not sure	198	55.6
No response	68	19.1
Observed any number below the Health warning on a tobacco pack		
Yes	55	15.4
No	301	84.6

TABLE 2 FACTORS ASSOCIATED WITH AWARENESS ABOUT QUITLINE AMONG PARTICIPANTS

Factor	Category	Aware N (%)	Not-aware N (%)
Age	< 30 years	34 (40.5%)	50 (59.5%)
	31-50 Years	21 (11.5%)	161 (88.5%)
	>50 years	0 (0)	90 (100%)
Education	Illiterate	1 (2.5%)	39 (97.5%)
	Primary	10 (5.9%)	160 (94.1%)
	High school and Pre-University	19 (16.1%)	99 (83.9%)
	Graduate and above	25 (87.5%)	2 (12.5%)
Occupation status	Unskilled	9 (7.3%)	115 (92.7%)
	Semi-skilled	13 (10.4%)	112 (89.6%)
	Skilled	21 (27.3%)	56 (72.7%)
	Home maker	0 (0%)	6 (100%)
	Student	12 (85.7%)	2 (14.3%)
	Not working	0 (0)	10 (100%)
Years since tobacco use	<10 years	40 (24.2%)	125 (75.8%)
	11-20 years	13 (13.1%)	86 (86.9%)

	>20 years	1 (1.1%)	87 (98.9%)
Type of Tobacco user	Smoke form	36 (33.6%)	71 (66.4%)
	Smokeless form	7 (4.0%)	167 (96.0%)
	Both Smoke and Smokeless form	12 (16.0%)	63 (84.0%)

TABLE 3 AWARENESS OF QUITLINE AMONG TOBACCO USERS

Variables	N	Aware (1.00)	Not Aware	Univariate OR (95% CI)	P-value	Adjusted OR (95% CI)	P-value
Age:					<0.001		0.002
≤30	84	34 (40.5)	50 (59.5)	1		1	
>30	272	21 (7.7)	251 (92.3)	0.1 (0.1,0.2)		0.3 (0.1,0.6)	
Education:					<0.001		0.015
Illiterate/Primary	211	11 (5.2)	200 (94.8)	1		1	
Preuniversity/Graduate and above	145	44 (30.3)	101 (69.7)	7.9 (3.9, 16.0)		2.7 (1.2,6.2)	
Occupation					<0.001		0.057
Unskilled/ semiskilled/skilled	326	43 (13.2)	283 (86.8)	1		1	
Home maker/student/not working	30	12 (40.0)	18 (60.0)	4.4 (2.0,9.7)		3.5 (1.0,12.5)	
Years since tobacco use					<0.001		0.115
>15	122	5 (4.1)	117 (95.9)	1		1	
≤15	230	49 (21.3)	181 (78.7)	6.3 (2.5, 16.4)		2.4 (1.0, 7.1)	
Type of Tobacco Product					<0.001		<0.001
Smokeless form	174	7 (4.0)	167 (96.0)	1		1	
Smokeform+smokeless form	75	12 (16.0)	63 (84.0)	4.5 (1.7,12.1)	0.002	4.9 (1.8,13.9)	0.002
Smoke form	107	36 (33.6)	71 (66.4)	12.1 (5.1, 28.8)	<0.001	6.4 (2.5,16.1)	<0.001