

Quit Rate and Determinants among Thailand National Quitline Callers

Background:

Thailand National Quitline (TNQ) has provided free reactive and proactive telephone services by well-trained health profession tobacco cessation specialists to Thai Population since January 14, 2009. The main purpose of its establishment was to replace the existing multiple, uncoordinated quitlines. Supported by The MOPH, Thai Health Foundation and Thai Health Professional Alliance, TNQ and its number "1600" is widely publicized and advertised through public media and on tobacco product packaging.

TNQ services, supported by the systematic telephone system and data based systems, include brief intervention to all callers and assisting individual to initiate quitting smoking and maintaining a smoke-free life, using evidenced-based protocol developed by TNQ. The 20-30 minutes initial intensive counseling session, based on Transtheretical Model, is arranged for a client with moderate to high level of confidence to quit, aiming to develop a high level of confident to quit with a personal plan of confronting nicotine craving and withdrawal symptoms, including tips on changing habitual and emotional triggers of smoking and maintaining healthy diet and exercise. Six proactive support calls and follow up are scheduled at 3-7 days, 14 days, 1 month, 3 months, 6 months, and 1 year after quit date. Finally, it's essential to concluded lessons learned for further improvement for the quality tobacco cessation services.

Purpose:

To evaluate outcome of Quit intervention regarding Quit rates and determinants.

Methods:

The data retrieved from the TNQ data base system, regarding smoking-related characteristics of smokers who received counseling from Quit counselors from January 2009 to June 2010 were analyzed by researchers. Among 24,714 clients, only 18,469 (74.73%) of clients did agree with the call-back- services support. Of this number, TNQ was able to make the support calls for approximately half of them (10,822 or 58.59%). Quit rate referred to remaining abstinence for 7 days, 1, 3, and 6 months after quit date.

Results:

Sample characteristics;

After 18 months of service, January 2009 - June 2010, TNQ offered counseling services to 24,714 clients. Of these, the majority group who were female (87.6%), age between 25-59 years (62.8%), consuming less than 10 cigarettes per day (42.79%), had 1-5 quit attempts (62.57%), and set the quit date after received counseling (74.73%).

Logistic regression analysis

The determinants of smoking are show in Table 1. Older adults had higher chance to quit smoking than the younger ones at 1 month follow up (OR = 1.011, 95% CI = 1.001-1.020) and 3 month follow up (OR = 1.014, 95% CI = 1.002-1.026). The age between 25-59 years at 7 day follow up had higher chance to quit smoking than the other one (OR = 1.619, 95% CI = 1.050-2.497). There was no statistically significant difference in the odds of quitting smoking between ages of smokers at 6 month follow up after controlling for other variables.

Smokers who had lower level of nicotine dependence (smoke (the 1st cigarette 30 minute after woke up) tended to quit smoking more than those who had higher level of nicotine dependence (the 1st cigarette is smoke within 5 or 30 minutes after they woke up) at 1 month follow up (OR = 1.476, 95% CI = 1.012-2.154). However, level of nicotine dependence did not have a significant impact on quitting smoking at 7 day, 3 month and 6 month follow up.

Prior quit attempt was related to quitting smoking in negative manner. Smokers with prior quit attempts had less chance to quit smoking than smokers who had made 1st quit attempt at 7 day and 1 month follow up. (OR = .354, 95% CI = .174-.723; OR = .268, 95% CI = .130-.552). However, the same manner was not found at the 3 month and 6 month follow up. When focusing on daily smoking, occasional smokers had higher chance to quit smoking than regular smokers at 7 day follow up (OR = 4.859, 95% CI = 2.054-11.486), but no impact was found at 1 month, and 3 month follow up.

Interestingly, smokers who reported high intention to quit had lower chance to quit smoking than those who had indicated low intention to quit at 1 month follow up (OR = .930, 95% CI = .881-.981). While, the smokers' self-reported level of confidence to quit of smokers had impact on chance to quit smoking at 7 day, 1 month and 3 month follow up (OR = 1.087, 95% CI = 1.032-1.144; OR = 1.044, 95% CI = 1.007-1.082; OR = 1.051, 95% CI = 1.011-1.092)

Finally, gender, daily consumption of cigarettes and number of prior quit attempts were found having no statistically significant difference in the odds of quitting smoking at 7 day, 1 month, and 3 month follow up after controlling for other variables.

Table 1 Adjusted odds ratio of factors of quitting smoking: 7 day, 1 month, 3 month, follow up

Variable	Adjusted odds ratio (95% CI)		
	7 day	1 month	3 month
Age:			
15 - 18	1.001(.992-1.009)	1.011 (1.001-1.020)*	1.014(1.002-1.026)*
19 - 24	1.150(.708-1.868)	1.201(.668-2.161)	.778(.361-1.677)
25 - 59	1.275(.808-2.010)	1.389(.803-2.404)	.870(.429-1.762)
25 - 59	1.619(1.050-2.497)*	1.645(.984-2.751)	1.393(.735-2.640)
≥ 60	2.081(1.020-4.245)	1.501(.673-3.352)	1.821(.708-4.682)
Gender: Female	.879(.407-1.896)	1.995(.701-5.675)	3.628(.733-17.963)
Male	.638(.283-1.442)	1.453(.489-4.315)	2.107(.399-11.119)
Time of the 1 st cigarette after waking			
Within 5 min	.923(.684-1.247)	1.220(.847-1.759)	1.039(.631-1.712)
Within 30 min	.893(.640-1.246)	1.139(.764-1.698)	1.243(.729-2.120)
> 30 min	1.065(.780-1.454)	1.476(1.012-2.154)*	1.550(.936-2.567)
Daily consumption of cigarettes	.991(.976-1.006)	.990(.973-1.007)	.971(.939-1.004)
Prior Attempts to quit: Yes	.354(.174-.723)*	.268(.130-.552)*	.360(.123-1.051)
No	.875(.414-1.850)	.500(.231-1.083)	.798(.260-2.445)
Number of quit attempts	.875(1.003-1.010)	1.003(.999-1.007)	1.005(1.000-1.010)
Daily smoking: Regular	1.484(.700-1.896)	.858(.421-1.747)	2.009(.486-8.310)
Occasional	4.859(2.054-11.486)*	1.680(.690-4.089)	5.709(1.230-26.512)
Intention to quit	.980(.928-1.036)	.930(.881-.981)*	.939(.873-1.009)
Confidence to quit	1.087(1.032-1.144)*	1.044(1.007-1.082)*	1.051(1.011-1.092)*

* p < .05

Conclusion:

Determinants of quitting smoking among TNQ users included age, time when the 1st cigarette is smoked after waking up, level of nicotine dependence, prior quit attempts, being occasional smokers, intention to quit, and confidence to quit.

Implications:

As it was the first report of TNQ after 18 months of its establishment, several limitations should be noted. Thus, future research should be replicated to confirm these preliminary results. In addition, research using data retrieved from the data base system should be reevaluated. Furthermore, point prevalence abstinence and continuous abstinence should be considered as outcome measures.



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