

# Text Messaging Based Smoking Cessation – Resident Physician’s Knowledge and Beliefs

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## Introduction

Smoking continues to be a widespread problem with 20.8% of Americans continuing to smoke. Text messaging based mobile smoking cessation has been shown to be effective in multiple studies. A recent Cochrane meta-analysis of over 9000 patients found that the patients in the treatment arm had 1.71 times higher six month smoking cessation rates compared to the control group.

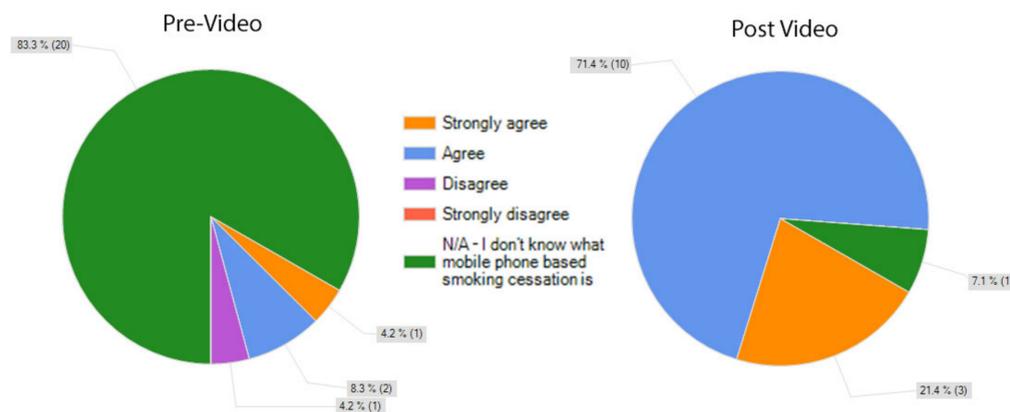
The author hypothesized that most physicians are not aware of text messaging based smoking cessation and that if they had knowledge of it they would be more likely to offer it as an adjunct treatment option.

## Methods

- A literature review was performed regarding the evidence behind mobile phone/text messaging based smoking cessation. Articles from 2005 to 2013 with keywords “mobile phone”, “smoking cessation”, “text messaging” were identified.
- Based on the literature review the author created a short video presentation regarding text messaging based smoking cessation. It can be found online at the URL below.
  - <https://www.youtube.com/watch?v=0VObzKz8p4Y>
- University of Arizona Internal medicine and Family Medicine residents were recruited by emailing the resident email list serve.
- The residents completed a short survey, then immediately afterwards were directed to watch the video presentation.
- One month later residents who completed the initial survey received a follow-up survey to complete.

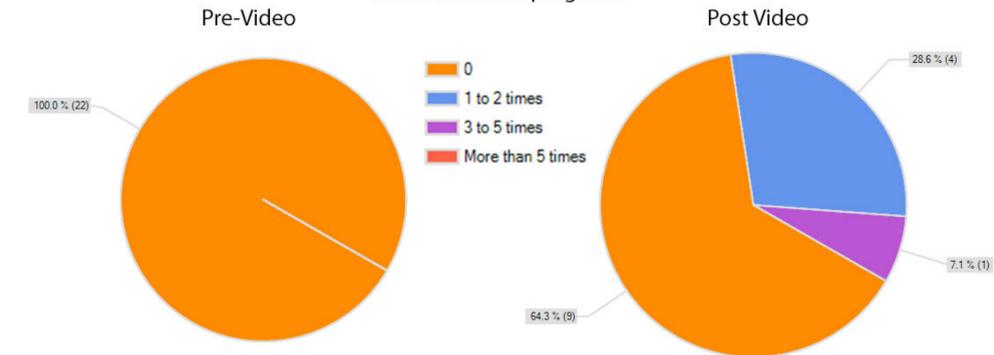
## Results

I plan to recommend mobile phone based smoking cessation to patients.



Questions	Pre-Video Survey		Post-Video Survey	
	N=24	Percentage	N=14	Percentage
1. How often are you discussing smoking cessation with your patients?				
a. Every visit	1	8.3%	2	14.3%
b. Majority of the time	17	70.8%	9	64.3%
c. Sometimes	4	16.7%	3	21.4%
d. Rarely	1	4.2%	0	0%
e. Never	0	0%	0	0%
2. Have you ever heard about mobile phone based smoking cessation before?				
a. Yes	3	12.5%	12	85.7%
b. No	21	87.5%	2	14.3%
3. I plan to recommend mobile phone based smoking cessation to my friends and family.				
a. Strongly agree	1	4.2%	5	35.7%
b. Agree	3	12.5%	8	57.1%
c. Disagree	0	0%	0	0%
d. Strongly disagree	0	0%	0	0%
e. N/A – I don't know what mobile phone based smoking cessation is	20	83.3%	1	7.1%
4. Which service would you recommend?				
a. Text2 Quit	2	8.3%	8	61.5%
b. SmokefreeTXT	0	0%	2	15.4%
c. Other – (free text)				
d. N/A – I have not heard of any of them	22	91.7%	3	23.1%
5. What barriers have kept you from recommending mobile phone based smoking cessation?				
a. Never heard of it	20	83%	1	11.1%
b. Not evidenced base	1	4.2%	0	0%
c. I don't think my patient population would use it	3	12.5%	4	44.4%
d. Not enough time to discuss it during office visit	2	8.3%	7	77.8%
e. Other – free text				
6. Which methods do you currently use for smoking cessation?				
a. ASH line	18	75%	10	71.4%
b. Zyban (Bupropion) or Chantix (Varenicline)	18	75%	8	57.1%
c. Nicotine replacement	23	95.8%	12	85.7%
d. Motivational Interviewing	20	83.3%	10	71.4%
e. Physician advice to quit	23	95.8%	10	71.4%
f. Group Interventions	1	4.2%	0	0%
g. Mobile phone based smoking cessation	0	0%	5	35.7%
7. Did you watch the short presentation about mobile phone based smoking cessation?				
a. Yes	N/A	N/A	11	78.6%
b. No	N/A	N/A	3	21.4%

Over the past month how often have you recommended a mobile phone based cessation program?



## Conclusions

As suspected very few (12.5%) of residents had ever heard of text messaging based smoking cessation. Compared to before watching the presentation providers were more likely to plan to recommend mobile phone based smoking cessation to patients, friends, and family. (12.5% versus 92.8% respectively). Based on these results the intervention changed behavior with 35.7% of providers having had recommended either Text2Quit or SmokeFreeTxt at least once in the month following the intervention compared to 0% prior to watching the presentation.

This study demonstrated that a very brief ten minute educational video had lasting effects on resident knowledge and behavior.

For unknown reasons there was a preference to recommend Text2Quit (61.5%) rather than SmokeFreeTxt (15.4%). This is possibly because Text2Quit is currently undergoing a randomized trial, while SmokeFreeTxt is not. The author prefers to recommend SmokeFreeTxt because you can sign up directly from your cell phone and also because it is run by the National Cancer Institute and not a private company.

## Limitations

- Small sample size
- 41.6% of initial responders failed to complete follow up survey
- Relatively short follow up time period of only 1 month. I do not have any longer term data about whether the trend of recommending text messaging based smoking cessation would persist.
- Generalizability of my results. Resident physicians tend to be younger and more open to use of technology such as text messaging based smoking cessation.

## References

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4. <http://www.text2quit.com>, 5. <http://smokefree.gov/smokefreetxt/>

## Acknowledgments

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