

## **Impact of brief motivational smoking cessation intervention: a short study**

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### **SUMMARY**

Doctors and other healthcare professionals are in a unique position to advice smokers to quit by their ability to integrate the various aspects of an effective counseling. Strategies used for smoking cessation counseling differ according to the patient's readiness to quit. For smokers who do not intend to quit smoking, physicians should inform and sensitize about tobacco use and cessation. For smokers who are dissonant, physicians should use motivational strategies, such as discussing barriers to cessation and their solutions. For smokers ready to quit, the physician should show strong support and help set a cessation date. Physician counseling for smoking cessation is among the most cost-effective clinical interventions. We evaluated the effect of motivation on patient's smoking habit and then quantified the data in term of percentage of patient's who successfully had quit smoking. We examined Reasons for smoking, Cigarette Record/Time/Urge/Mood, and Barriers in smoking cessation and their association with successfully quitting smoking. Smokers smoked for pleasure and some were habitual to it. There was no specific time/urge for smoking. The smokers smoked anytime in friend circle. The main barrier in smoking cessation was that the subjects had too many friends who smoked and they found it irresistible to stop smoking in their company.

Keywords-smoking, tobacco cessation, motivation

### **I. INTRODUCTION**

Smoking represents the single most important cause of premature death and potentially lost life years in the developed countries. The extent of the damage it causes to health, society and the economy is often substantially underestimated. Smoking is defined according to WHO definition of 1995 as the subjects who have smoked at least 100 cigarettes and currently smoke on daily basis.<sup>1</sup> Smoking cessation has a major health impact. Smokers who quit before they are aged 35 years can expect a life expectancy similar to those who have never smoked.<sup>2</sup> About 40% of current smokers attempt to quit each year and 4% to 6% are successful thus each year about 2% smokers quit for good.<sup>3</sup> The four main methods of reducing the health consequences of tobacco are: (i) reducing the number of people who initiate tobacco use; (ii) increasing the number of tobacco users who stop; (iii) increasing the number of continuing tobacco users who switch to less harmful forms of tobacco use; and (iv) decreasing non-smokers' exposure to environmental tobacco smoke. Smokers generally do not stop smoking without first deciding that this is a desirable outcome and making a conscious decision to do so. However, it has become clear that a large proportion of smokers who decide that they would like to stop smoking and make attempts to do so are unsuccessful. Consideration should be given to two of the main factors which determine whether or not an individual smoker stops smoking: motivation (desire/intention to stop smoking) and addiction (compulsive smoking characterized by impaired voluntary control, also often called 'dependence').<sup>4</sup> Smoking is also considered one of the major causes of tooth loss.<sup>5</sup> Systemically Cigarette smoking can effect immune and inflammatory responses by reducing antibody production and by inhibiting several blood neutrophil function, in particular chemotactic and phagocytic activities thus directly weakening the host's defense response.<sup>6</sup>

The 5 A's in initiating assessment and intervention with tobacco users are 1) Asking the patient if he or she uses tobacco: identify and document tobacco use status for every patient at every visit. 2) Advising the patient to quit tobacco use 3) Assessing the patient's willingness to quit tobacco use. 4) Assisting the patient in their quit attempts. 5) Arranging follow-up contacts and relapse prevention.<sup>2</sup> Motivation is a complex construct and motivating behavior change can be difficult. Increasing one's awareness of a personal risk or harm cause by unhealthy habits could theoretically increase motivation for behavior change. When paired with accessible, effective treatment providing feedback about biological indices of smoking related harm, this could also promote treatment utilization and thereby help smokers quit.<sup>7</sup> The purpose of this study was to evaluate the effect of motivation on patient's smoking habit and quantify the data in terms of percentage of patient's who successfully quit smoking.

## II. MATERIALS AND METHODS

### Study Design

100 subjects who agreed to participate in the study were enrolled for this short term pilot study. All the patients except 10 patients participated in the study followed up till the end of study. Among the 10 drop out subjects 6 left the study without telling any reason and 4 subjects didn't complete the study due to their own personal reasons. The subjects were followed up for a period of three months.

### The subjects were divided into the following two groups:

**Group 1-** Included the subjects who completely quitted smoking. The number of subjects in this group was 30 (n=30)

**Group 2-** Included the subjects who reduced smoking but did not completely quitted smoking. The number of subjects in this group was 60. (n=60)

### Inclusion Criteria

- Subjects 18 years or older.
- Subjects who could read and write in English.
- Subjects who were not currently receiving any smoking cessation treatment and have not received smoking cessation treatment in the past.
- Subjects having no significant physical and mental impairment.

### Exclusion Criteria

- Subjects less than 18 years of age
- Subjects who could not read and write in English
- Subjects who were receiving smoking cessation treatment
- Subjects with physical and mental impairment

Following data /information about the subjects was recorded on a pre formed Performa:

- Detailed history focusing on information related to reasons for smoking, cigarette record (time, situation/urge/mood).
- Barriers in quitting smoking.

### Results

Questions were designed to explore the barriers and facilitators to smoking and smoking cessation. Participants were asked about their current smoking behavior (Cigarette Record/Time/Urge/Mood, Reasons for smoking and Barriers in quitting Smoking) and current motivation to quit. Motivation to quit was high and the subjects who failed to completely quit reduced smoking up to the half. "Willpower" was the most common approach to quitting.

The following results were noted:

#### Cigarette Record/Time/Urge/Mood (Table 1)

**In Group 1** majority of the subjects 60% (18 subjects) smoked in friend circle which did not include any specific time/urge/mood followed by 26.7%(8 subjects) of the subjects who smoked after breakfast/lunch/dinner. 20% (6 subjects) smoked early morning.

**In Group 2** majority of the subjects 56.7% (34 subjects) smoked in friend circle which did not include any specific time/urge/mood followed by 46.7% (34 subjects) of the subjects who smoked after breakfast/lunch/dinner. 26.7% (16 subjects) smoked early morning.

#### Reasons for smoking (Table 2)

**In Group 1** the main reason for smoking was that 46.6% (14 subjects) of the subjects found smoking to be pleasurable followed by 40% (12 subjects) of the subjects who were habitual to smoking. 26.6% (8 subjects) smoked because it helped them in relaxation, 13.3% (4 subjects) found smoking increased their concentration and reduced their tension. Least reason for smoking in this group was craving for tobacco which was found in 10% (3 subjects) of the subjects.

**In Group 2** the main reason for smoking was that 56.6% (34 subjects) were habitual followed by 38.3% (23 subjects) who smoked as it helped them in relaxation. 30% (18 subjects) smoked as it gave them pleasure and reduced their tension. Only 26.6% (16 subjects) smoked because they had craving for smoking. Least reason for smoking in Group 2 was that 33% (2 subjects) subjects smoked as it helped them in concentration.

### **Barriers in quitting Smoking (Table 3)**

The main barrier in quitting smoking in **Group 1** in 50% (15 subjects) was that the subjects had too many friends/family who used tobacco followed by 30% (9 subjects) who thought that they will become too nervous or anxious or tense if they quitted smoking.

The main barrier in quitting smoking in **Group 2** in 53.3% (32 subjects) was that the subjects had too many friends/family who used tobacco followed by 33.3% (20 subjects) who thought that they will miss or crave for tobacco too much and will become too nervous or anxious or tense if they quitted smoking. Other reason for smoking was that smoking helped in relaxation and increasing their concentration and reducing their tension.

### **III. DISCUSSION**

The participants in this study were smokers and they thought that only intensive measures would help them to stop but also that all that was really required was willpower. They felt that their addiction to smoking was not taken as seriously as addiction to heroin or alcohol. They knew little about the services available to help them, but perceived them to be ineffective and expensive despite evidence to the contrary.<sup>8</sup>

In majority of the subjects, the cigarette-record i.e time/urge/mood in both the groups did not correspond to any particular time/urge or mood and smoking was mainly done in friend circle. According to Bryant et, 2011 the main reasons for initiating smoking included to fit in with friends and having brothers, sisters, and parents who smoked. Participants in their study reported that the amount they smoked increased remarkably when they were socializing with friends and family who were also smokers and when drinking alcohol. Previous research suggests that children who smoke cause their non-smoking peers to take up the habit through strategies such as coercion, teasing, bullying and rejection from a desired group, however the concept 'readiness to smoke' may be more relevant than assumptions about pupils succumbing to peer pressure against their will. Pupils who are ready to smoke knowingly hang out with peers who will facilitate their entry into smoking behavior.<sup>9</sup> After peer pressure the association of smoking with meals was found.

Majority of the subjects who quitted smoking completely smoked for pleasure and were not habitual to it whereas the majority of the subjects who reduced smoking were habitual to it and they found difficult to quit smoking completely. Smoking as a stress relief mechanism is just an excuse many smokers know this but continue to lie to themselves because it prevents them from admitting that they cannot stop smoking.

Peer pressure was the main barrier in quitting smoking in both the groups. Research findings reveal that adolescent peer relationships contribute to adolescent cigarette smoking. Youth who are friends with smokers have been found to be more likely to smoke themselves than those with only nonsmokers as friends. However the adolescents make active choices about many aspects of their lives including drug use. Thus they seek out or avoid contexts in which smoking occurs and choose friends who like themselves may or may not smoke.<sup>9</sup> Others barriers were that the subjects thought that they will become too nervous or anxious or tense when they quit and they craved for tobacco. Smoking was described as relaxing, calming, a good way to relieve boredom and a "best friend" and a "superglue" that could hold a person together during stressful times.<sup>10</sup> Craving for tobacco was found least in the group which quitted smoking completely.

### **IV. CONCLUSION**

The most important aspect to smoking cessation is maintaining the motivation to make multiple attempts. Thus, quit attempts should be thought of like practice sessions in learning a new skill-at some point one hopes to "get it right," but one should not put undue hope on any single given quit attempt, and take solace in knowing the probability of success increases with each try. Health professionals should ask all their patients whether they smoke and whether they are willing to quit. At a subsequent step it should be explained to every smoking patient why and to what extent smoking cessation would, for medical reasons, favorably change their future health. This short sequence to perform hardly takes more than two minutes. More detailed cessation counselling is required only if the patient is ready to stop. Future studies should involve data covering large population groups for larger period of time. The role of tobacco substitute drugs as a replacement for smoking should also be explored.

### **REFERENCES**

- [1]. Eckert, T., Junker C.(2001). Motivation for smoking cessation:what role do doctors play? *Swiss med wkly*, 131,521-526.
- [2]. Cornuz, j., Willi C. (2008). Nonpharmacological smoking cessation interventions in clinicsl practice. *European Respiratory Review*, 17(110), 187-191.
- [3]. John, R.,Hughes. (2003). Motivating and Helping Smokers to Stop Smoking. *J.Gen Intern Med*, 18, 1053-1057.
- [4]. Foulds, J. (1996). Strategies for smoking cessation. *British Medical Bulletin*, 52(1), 157-173.
- [5]. Jansson, L.,Lavstedt S.(2002). Influence of smoking on marginal bone loss-prospective study over 20 years. *J Clin Periodontol*,29, 750-756.
- [6]. Giannopoulou, C.,Genco, A., Cimasoni, G. (1999). Effects of nicotine on periodontal ligament fibroblast in vitro. *J Clin Periodontol*,26, 49-55.

- [7]. Jennifer, BMC.,Ludman, EJ.,Grothaus, L.,Pabiniak, C.,& Richards,J.(2009). Impact of a brief motivational smoking cessation intervention:The Get PHIT trial. *Am J Prev Med*,37(2), 116-123.
- [8]. Roddy,E.,Antoniak,M.,Britton,J.,Molyneux, A.,& Lewis, S.(2006). Barriers and motivators to gaining access to smoking cessation services among deprived smokers-a qualitative study.*BMC Health Services Research*,6, 147.
- [9]. Michell,L.,West,P.(1996). Peer pressure to smoke:the meaning depends on the method.*Health Education Research*,11(1),39-49.
- [10]. Braynt, J.,Bonevski,B.,Paul,C.,O'Brien,J.,& Oakes,W.(2011).Developing cessation interventions for the social and community service setting: A qualitative study of barriers to quitting among disadvantaged Australian smokers. *BMC Public Health*, 11,493.

**Table 1, Cigarette record- Time/urge/mood**

|   |                               | <b>Group 1<br/>(Completely<br/>quitted<br/>smoking)</b> | <b>Group 2<br/>(Reduced<br/>smoking)</b> | <b>Total</b>    |
|---|-------------------------------|---|--|-----------------|
| <b>Early Morning</b>                    | <b>count</b>                  | <b>6</b>  | <b>16</b>                                | <b>22</b>       |
|   | <b>% within the<br/>group</b> | <b>20.0%</b>  | <b>26.7%</b>                             | <b>24.4%</b>    |
| <b>After<br/>Breakfast/lunch/dinner</b> | <b>count</b>                  | <b>8</b>  | <b>28</b>                                | <b>36</b>       |
|   | <b>% within the<br/>group</b> | <b>26.7%</b>  | <b>46.7%</b>                             | <b>40%</b>      |
| <b>Others ***<br/>(friend circle)</b>   | <b>count</b>                  | <b>18</b>   | <b>34</b>                                | <b>52</b>       |
|   | <b>% within the<br/>group</b> | <b>60.0%***</b>   | <b>56.7%***</b>                          | <b>57.8%***</b> |
| <b>Total</b>                            | <b>count</b>                  | <b>30</b>   | <b>60</b>                                | <b>90</b>       |
|   | <b>% within the<br/>group</b> | <b>100%</b>   | <b>100%</b>                              | <b>100%</b>     |

\*\*\* found in maximum number of the subjects

**Table 2-Reasons for smoking**

|                               |                           | <b>Group 1<br/>(Completely<br/>quitted smoking)</b> | <b>Group 2<br/>(Reduced<br/>smoking)</b> | <b>Total</b> |
|-------------------------------|---------------------------|---|--|--------------|
| <b>Helps in concentration</b> | <b>count</b>              | <b>4</b>  | <b>2</b>                                 | <b>6</b>     |
|                               | <b>% within the group</b> | <b>13.3%</b>  | <b>3.3%</b>                              | <b>6.6%</b>  |
| <b>Pleasurable ***</b>        | <b>count</b>              | <b>14</b>   | <b>18</b>                                | <b>32</b>    |
|                               | <b>% within the group</b> | <b>46.6%***</b>                                     | <b>30.0%</b>                             | <b>35.5%</b> |
| <b>Relaxation</b>             | <b>count</b>              | <b>8</b>  | <b>23</b>                                | <b>31</b>    |
|                               | <b>% within the group</b> | <b>26.6%</b>  | <b>38.3%</b>                             | <b>34.4%</b> |
| <b>Reduce tension</b>         | <b>count</b>              | <b>4</b>  | <b>18</b>                                | <b>22</b>    |
|                               | <b>% within the group</b> | <b>13.3%</b>  | <b>30.0%</b>                             | <b>24.4%</b> |
| <b>Craving</b>                | <b>count</b>              | <b>3</b>  | <b>16</b>                                | <b>19</b>    |
|                               | <b>% within the group</b> | <b>10.0%</b>  | <b>26.6%</b>                             | <b>21.1%</b> |
| <b>Habit ***</b>              | <b>count</b>              | <b>12</b>   | <b>34</b>                                | <b>46</b>    |
|                               | <b>% within the group</b> | <b>40%</b>  | <b>56.6%***</b>                          | <b>51.1%</b> |
| <b>Total</b>                  | <b>count</b>              | <b>30</b>   | <b>60</b>                                | <b>90</b>    |
|                               | <b>% within the group</b> | <b>100%</b>   | <b>100%</b>                              | <b>100</b>   |

\*\*\* found in maximum number of the subjects

**Table 3- Main Barriers in quitting Smoking**

|   |                           | <b>Group 1<br/>(Completely<br/>quitted smoking)</b> | <b>Group 2<br/>(Reduced<br/>smoking)</b> | <b>Total</b>    |
|---|---------------------------|---|--|-----------------|
| <b>Too many friends who use Tobacco ***</b>               | <b>count</b>              | <b>15</b>   | <b>32</b>                                | <b>47</b>       |
|   | <b>% within the group</b> | <b>50%***</b>                                       | <b>53.3%***</b>                          | <b>52.2%***</b> |
| <b>Miss or crave tobacco too much</b>                     | <b>count</b>              | <b>5</b>  | <b>20</b>                                | <b>25</b>       |
|   | <b>% within the group</b> | <b>16.6%</b>  | <b>33.3%</b>                             |                 |
| <b>Become too nervous or anxious or tense when I quit</b> | <b>count</b>              | <b>9</b>  | <b>20</b>                                | <b>29</b>       |
|   | <b>% within the group</b> | <b>30%</b>  | <b>33.3%</b>                             | <b>32.2%</b>    |
|   | <b>count</b>              | <b>30</b>   | <b>60</b>                                | <b>90</b>       |
|   | <b>% within the group</b> | <b>100%</b>   | <b>100%</b>                              | <b>100%</b>     |

\*\*\* found in the maximum number of subjects