

## Intention Consistency and Smoking Cessation Behavior in Civil Servants

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This research was aimed to explore the consistency of intention to stop smoking in related to Smoking Attitude, Social Support and Self Efficacy of civil servants at 6 Central Java's regency. Regression analysis revealed that there was 37,1% common variance between Smoking Attitude, Social Support and Self Efficacy toward Smoking Cessation. From 266 research subjects there were 192 reported their intention to stop smoking, 41 intended to come to the smoking cessation training, however only 34 (12,79%) really participated in the smoking cessation training program.

*Keywords:* intention; stop smoking behavior; government workers

Tujuan utama penelitian ini adalah untuk mengetahui sejauh mana konsistensi niat untuk berhenti merokok dikaitkan dengan seberapa besar pengaruh Sikap terhadap Rokok, Dukungan Sosial, Kemampuan yang Dirasakan berpengaruh terhadap Niat untuk Berhenti Merokok, pada karyawan Sekretariat Daerah Kabupaten/Kota di Jawa Tengah. Melalui uji Analisis Regresi diperoleh hasil yang menunjukkan bahwa Sikap terhadap Rokok, Dukungan Sosial dan Kemampuan yang Dirasakan berpengaruh secara sangat signifikan terhadap Niat untuk Berhenti Merokok dengan sumbangan bersama ke tiga variabel sebesar 37,1%. Hasil lanjutan menunjukkan bahwa dari 266 subyek terdapat 192 yang berniat untuk berhenti merokok, dan dari 192 terdapat 41 yang tertarik untuk mengikuti pelatihan berhenti merokok, dan secara keseluruhan hanya 34 subyek (12,79%) yang hadir dalam pelatihan yang dilaksanakan di masing-masing Kabupaten/Kota.

*Kata kunci:* niat, perilaku berhenti merokok, karyawan pemerintah

Smoking is a harmful behavior, not only for those who smoke, but also for people surrounding. Smoking behavior shows variability of intra and inter individual (Gilbert, 1996; Loeksono & Wismanto, 1999). Cigarette smoke contains many toxic chemical substances that harm many people, so DKI Regional Government issues Legislation about Pollution Control No 75, 2005, ratified by DKI Legislators on February 5, 2005 (DPRD DKI, 2005) Regional Legislation was renewed with Smoking Prohibition in any building in DKI Jaya (Jakarta). Smokers are allowed to smoke outside the building (Peraturan Gubernur DKI, 2010). This regulation limits the freedom of smoking and need to be followed by other regional governments.

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Most of the society are aware of the danger elicited by smoking. In fact those who understand the danger of smoking, those who are highly educated, even health workers, doctors and nurses smoke too. Although the warning of the harmful effects of cigarettes are already written on the cigarette pack, it does not make smokers grow less.

Smoking behavior can cause work inefficiency because smokers need time to enjoy their cigarettes. Observation in Semarang Secretariat, public is served while public servants enjoy smoking, so the people served are passive smokers too. People who need to be served are disturbed by this reality. The issuance of DKI Jaya legislation on pollution control No 88, 2010 prohibits smoking inside the building and smokers should smoke outside the building.

The tendency of smoking varied around the world. In Europe, America and Canada, the trend is going down, whereas in Asia, North Africa and Latin America, the trend is going up along with lesser years of age to start smoking (WHO, 2003). According to Hanafiah (2010), Chairman of National Commission of Tobacco Control stated that Indonesia is the third in

number of smokers around the world, around 65 million with mean of 15-19 years of age, and 70% come from lower middle society.

Smoking is a complex behavior, started by different variables, in the early stage of life (Smet, 1994), caused by model in the neighborhood or social pressure from friends or groups or environment rejection if not smoking. (Loeksono & Wismanto, 1999). Addiction to smoking is caused by interpretation of smoking effects felt while individuals are smoking (Vinck, 1993).

From motivation stand point, a change in behavior has three subsequent components, namely (1) motivating state, behavior as a response to stimulation or hormonal secretion, (2) motivating behavior, behavior as to meet the needs and instrumental in character (3) satisfied condition, behavior aimed at keeping homeostasis or balance (Spielberger, 2002). Based on motivation, almost every behavior has certain tendency.

When smoking habit is already set, social factors play important role to keep smoking to last. Besides, nicotine has biphasic effects, as stress reduction and as arousal improvement (Ashton & Stepney, 1982; Warburton & Wesnes cited in De Vries, 1989).

According to social learning theory, human behavior is related to environment and situation, and behavior is a product of interaction between man and environment, in a reciprocal influence (Hewstone, Schut, De Wit, Bos & Stroebe, 2007).

Generally, smoking behavior is influenced by several factors, namely:

**Behavior is preceded by intention.** Intention to behave is influenced by attitude toward the behavior (Kazarian & Evans, 200). Specific attitude can predict behavior, the more positive attitude the greater intention to do it. Attitude is cognitive and affective status toward certain objects.

**Social environment.** Individual smokes because his environment is full of smokers. Evans *et al* (cited in De Vries, 1989; Sarafino, 1990) stated that social factors have direct and indirect influence on individuals. Direct influences could be to offer, seduce, challenge or tease. Indirect influence could be group leaders, models, teachers, the most beautiful in the group. If they are smoking, others will follow. Social factors could also play as control factors on individual behavior. If social environment does not like smoking, it supports those who want to quit (Cohen, Underwood & Gotlieb, 2000). Social environmental drive to behave approved by social environment is usually called as social support.

**Enjoyment, less anxiety, and self confidence.** Levy *et al* (1993) and Sitepoe (1997) stated that in smoking, individuals find enjoyment, stay away from anxiety, and get self confidence. Psychological factors are important for those who want to quit smoking, in the form of self confidence of the ability to quit smoking. Those who have greater confidence or commitment will be successful to quit smoking.

**Biological factors.** Biological factors reveal that the higher nicotine level is in the blood, the greater the addiction of the smokers will be (Aston & Stephey, 1982; Warbuton & Wesnes in De Vries, 1989; Aditama, 1992; Sitepoe, 1997). For those who have been addicted, smoking is done just to meet the body's need of nicotine.

**Socio-cultural factors.** Socio-cultural factors also influence individuals to be smokers. People's habit, economic and educational level, job also give influence (Lantz, Jacobson, Warner, Wasserman, Pollack & Berson, 2000; WHO, 2003).

Intention, attitude towards smoking, ability to take action are supposed to be strong internal factors that give influence on smoking behavior, whereas social support, people's habit, economic level, kinds of work are weak external factors that influence on smoking behavior.

Based on the literature, the hypothesis of this study was: Attitude towards smoking, social support, ability to quit smoking has influence on intention to quit smoking.

## Method

This study was a survey with 4 main variables and some additional variables. The main variables of this study are: attitude towards smoking, social support, ability to quit smoking, and intention to quit smoking.

Operational definitions of this study are: 1) Attitude towards smoking behavior is research subjects' support or rejection to smoking behavior, with three indicators; cognitive, affective, and conative. Bigger score means more supportive to smoking behavior. 2) Social support is the strength of support taken by research subjects from people surrounding to quit smoking. Bigger score means greater support in the forms of informational or emotional support. 3) Ability to quit smoking is a feeling of being able to quit smoking. Bigger score means that the subject feels able to quit smoking. 4)

Intention to quit smoking is strong or weak intention to quit smoking. Bigger score means greater intention. Additional variables are: smoker or nonsmoker parents, families, brothers, and duration of smoking.

### Research Subjects.

Population of this study is civil servants of Secretariat of Kabupaten/Kota in Central Java who have the habit of smoking, and willing to give data needed. Sample of 266 civil servants who smoke accidentally taken from 6 Kabupaten/Cities, randomly selected from 33 Kabupaten/Cities in Central Java.

### Research Instruments

Data from main variables was taken using Likert model, questionnaire was taken for additional data. Questionnaire validity based upon content validity, and calculated as *corrected item-total correlations*. Reliability was estimated from Cronbach Alpha reliability.

Questionnaire on smoking behavior consists of 12 items containing three indicators, cognitive, affective and conative. Questionnaire on attitude consists of 4 items of emotional support and 3 items of informational support, whereas questionnaire on ability consists of 4 items, and questionnaire on intention consists of 5 items.

### Data Analysis

Data was analyzed using descriptive analysis, chi square, bivariate correlation and regression according data characteristics, using SPSS 13.

## Results

### Subject characteristics

Number of subjects is 266 people originated from Kabupaten Sukoharjo (48 people); Kabupaten Banjarnegara (48 people) and Kabupaten Grobogan (49 people), whereas subjects from peripheral regions were from Kabupaten Jepara (41 people), Batang (51 people) and Tegal 29 people). Details of subject characteristics could be seen in table 1.

Table 1

*Characteristics of Research Subjects*

Characteristics	Span	Mean	SD
Age	21 - 56	41.02	8.307
Latest education/highest education	1 - 18	13.70	2.832
Years of being a civil servant	1 - 4	2.71	.584
Years of smoking	1 - 39	19.15	8.976
Years in trying to quit smoking	0 - 35	3.04	3.554

The youngest subjects who smoked was 21 years old, and the oldest was 56 years old. The lowest education was elementary school first grade, and the highest education was graduate /strata 2, score 18, length of smoking 39 years, trying to quit smoking 35 times. Smokers usually came from family in which parents are smokers too (Utami & Winarno, 1999; Manoppo, 2006), and that happened in this study too.

Table 2

*Status of Smoking Behavior on Parents or Relatives Living in the Same House.*

		Relatives who smoke		
		No	Yes	Sum
Parents	Non smokers	24	45	69
	Smokers	36	140	176
	Sum	60	185	245

The data showed that 21 subjects did not answer questionnaire. Subjects who had parents or relatives smoking were 140 people. Subjects whose parents were nonsmokers were only 24 people. Coefficient of *Chi Square* ,  $p = 0,03$ . It proved that smokers come from families and relatives who smoked.

### Bivariate correlation analysis

Corrected item-total correlations and Cronbach Alpha reliability test was shown on table 3.

Table 3

*Analysis of Corrected Item-total Correlations and Cronbach Alpha Reliability.*

Scale	Corrected item - total correlations	Cronbach Alpha
Attitude towards smoking	.207 – .606	.808
Social support	.380 – .631	.714
Ability	.475 – .597	.771
Intention to quit smoking	.521 – .578	.773

Analysis of intercorrelation was shown in Table 4.

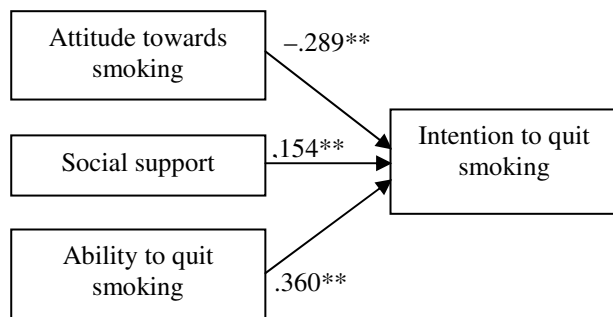
**Table 4**  
*Result of Bivariate Correlation Analysis*

	Intention to stop smoking	Note
Start smoking	$r = .031$	Not significant
Latest education	$r = .086$	Not significant
Knowledge of danger of smoking	$r = .250$	Highly significant
Attitude toward smoking	$r = -.357$	Highly significant
Social support	$r = .240$	Highly significant
Ability to quit smoking	$r = .559$	Highly significant

Table 4 showed that length of time smoking and latest education are not correlated with intention to quit smoking. Knowledge of the danger of smoking, social support, and ability to quit smoking all have correlation with intention to quit smoking. Attitude has a negative correlation with intention to quit smoking, meaning that the more positive attitude towards smoking the less intention to quit smoking.

### Regression Analysis.

Regression analysis of variables was shown.



Note: \*\* = Standardized Beta Coefficient with  $p \leq .01$ .

**Figure 1.** Regression analysis attitude towards smoking, social support, and ability being felt with intention to quit smoking.

Intention to quit smoking is influenced by several factors such as attitude towards smoking, social support, ability being felt to quit smoking. If individuals have negative attitude towards smoking (reject), high social support to quit smoking, and have high ability to quit smoking, the intention to quit smoking is also high, and vice versa. Together those three variables are accounted for 37.1% of variance towards intention to

quit smoking, and 62.9% is accounted from other than those three variables.

Out of 266 subjects, 192 subjects have the intention to quit smoking (72.18%). Strategy to quit smoking are offered to these 192 people that will be done in their own office. Forty one (21.35%) subjects are willing to attend training and in reality only 34 subjects (12.78%) come up. Training of the strategy of quit smoking is published through posters in each working unit or through announcement letters.

## Discussion

Analysis of smoking behavior of parents and relatives in the house shows that social environment is significantly correlated with subjects' smoking behavior. Smokers usually inherit their habit from parents and relatives, and this is accordance with Jackson's study (2002) who found that parents do not influence their children directly during childhood and adolescence. Henriksen and Jackson (1998) stated young individuals whose parents smoked, start smoking and never stop. Parents who smoke do not have power to tell their youngsters not to smoke because they do not set a good example. Those conditions exist in this study.

From psychological standpoint, phenomena are always influenced by many factors, internal as well as external. Internal factors in this study are attitude towards smoking and ability to quit smoking, whereas external factor is social support.

Intention to behave is set by specific attitude toward the behavior itself (Kazarian and Evans, 2001). Specific attitude towards smoking has a great influence on intention to quit smoking. Bivariate correlation analysis shows that attitude towards smoking has a significantly negative correlation with intention to quit smoking (shown in table 3). The more negative the attitude, the greater the intention to quit smoking. They probably have the notion that smoking is useless and bad for their health, and have greater intention to stay away from smoking. Kim (2005) examined 259 subjects and found correlation coefficient .127 between attitude towards smoking and intention to quit smoking.

Ability to quit smoking alone or with other variables show strong relation with intention to quit smoking. This result is in accordance with what is found by Sterling *et al* (2007) who tested correlation between ability to quit smoking and intention to stay smoking on 19,966 students in Texas. Results show that ability to quit

smoking is directly or indirectly correlated with intention to stay smoking. Sitepoe (1997) stated that internal factors have influence on intention to do something. If someone wants to quit smoking but the ability to do so is low, the intention is also low. Engels & Willemsen (2004) found that if the ability to quit smoking is low, smoking continues.

Evans (in De Vries, 1989) stated that social factor such as parents' behavior could set examples or drives for individuals to do certain behavior. On the other hand, Cohen, Underwood and Gottlieb (2000) stated that social factors could control individual's behavior. Social support alone or together with other factors are significantly correlated with intention to quit smoking. Emotional support such as appreciative comments when subjects not smoking, and informational support such as giving information about benefits of not smoking or diseases caused by smoking help individuals to quit smoking. Emotional and informational support could come from spouse, relatives, working partners, friends. Social environment which does not like smoking could act as social control for individuals not to smoke.

Social support not only come from families, but also from social environment like friends and working partners. Avenevoli and Merikangas (2003) proved that friends who smoke is the main factor causing someone to smoke. Relationship with friends causes someone to stay smoking with several reasons; 1) Availability of cigarettes, if someone does not carry cigarettes he still can ask his friends; 2) there is a possibility that smoking is a group norm, and 3) they assume that they are more welcome by their groups.

Behavior is consistent if sum of subjects express their intention to quit smoking is the same with sum of subjects participate in the training. Result shows that 192 out of 266 research subjects express their intention to quit smoking, but only 41 subjects enlist to participate the training strategy to quit smoking. The fact that not many people enlisted in the training program (only 21.35%) could be caused by 1) inconsistency of the subjects to do what they want to do; 2) subjects do not really mean what they answer in the questionnaire; 3) subject' answers are just normative, and (4) subjects do not have a great intention or motivation to quit smoking.

Only 34 out of 41 people enlisted in the training program really show up. Based on small scale interview, only 4 people were interviewed, the reasons for those subjects not to come in the training program were sudden task from superior officers, being ill, personal tasks, or they do not really want to participate in the

program. The fact that not many subjects participating the smoking cessation program indicates that a change from intention to action is made certain by the strength of the internal intention or motivation.

Anybody who wants to change his behavior should start with a strong will or internal intention or motivation.

## Conclusion

It is found that attitude towards smoking, social support, and the ability to quit smoking have a great influence on intention to quit smoking, with coefficient of determination 37.1%. This study shows that out of 266 subjects who smoke, 72.18% have the intention to quit smoking, but only 12.78% really want to quit smoking shown by participating smoking cessation program.

A change from intention to action is made more certain by the subject's ability, and not by environment. The ability to quit smoking has a great influence on intention to quit smoking, so an individual who feels to have a good ability to quit smoking, will have a good attempt to make his intention become reality.

This study shows that most of subjects' intention to quit smoking is just a lip service, so it is advised that to quit smoking, people should really understand that smoking is bad for their health and it is truly personal needs to quit smoking since healthy condition is invaluable. The only person who can change the habit is the person himself.

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