

Conference Paper

Effects of Smoking Cessation Counseling using Anti Nicotine Citrus Candy on Behavioral Changes of Active Smokers in Meteseh Subdistrict, Semarang City, Indonesia

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Abstract

Cigarettes contain harmful substances. One of these, nicotine, has an addictive effect on smokers and it hinders vitamin C supply in smokers' bodies. In this study, socialization about the dangers of cigarette smoking and training housewives as smoking cessation counselors for adult active smokers using anti nicotine citrus candy (ANTRUM) as a health promotion media was carried out. This study aimed to determine the effectiveness of a smoking cessation counseling method for active smokers and analyze the different knowledge levels and attitudes of active smokers toward the dangers of smoking before and after counseling using ANTRUM. This quantitative study used a quasi-experimental method with a non-equivalent control group design. Data were collected through observations and in-depth pre- and post-test interviews. This study was conducted over one month with 30 samples divided into two groups: control and experimental. Samples were determined by a saturated sampling technique carried out in Meteseh Subdistrict, Semarang City, Indonesia. Data analysis used paired t-tests with a significance level of 5%. The results found different knowledge levels and attitudes in active smokers before and after by smoking cessation counseling using ANTRUM. The control group pre- and post-test score was $p = 0.483$ ($p > 0.05$), and the experimental group was $p = 0.019$ ($p < 0.05$). These results show that there was increased knowledge and changes in attitudes in active smokers before and after counseling with ANTRUM in Meteseh Subdistrict, Semarang City, Indonesia.

Keywords: anti nicotine citrus candy, behavior, counseling, smokers

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1. INTRODUCTION

According to WHO, the number of smokers worldwide reached 1.1 billion in 2009, comprising 47% men, 12% women, and 41% children. By 2030, the number of smokers is expected to have risen with the majority being in developing countries. In 2007, Indonesia was fifth world ranked as the largest cigarette consumer (239 billion cigarettes per year) after China (2163 billion cigarettes), the United States (351 billion cigarettes), Russia (331 billion cigarettes), and Japan (259 billion cigarettes) (WHO, 2011).

The proportion of smokers aged 10 years and over was greatest in the Riau Islands, Indonesia, with 27.2% smoking every day (sometimes smoked = 3.5%). Smoking behavior of the population age 15 years and over has not decreased between 2007 and 2013, and it is likely to increase from 34.2% in 2007 to 36.3% in 2013. Both men (64.9%) and women (2.1%) smoke cigarettes. The highest proportion of smokers in 2013 was located in East Nusa Tenggara, Indonesia (55.6%).

Compared with global adults tobacco survey (GATS) research, in the population group aged 15 years and over, the proportion of male smokers was 67%, and according to RISKESDAS in 2013 it was 64.9%, whereas in women, according to GATS research it was 2.7%, and according to RISKESDAS, in 2013 it was 2.1%. This comparison shows that the proportion of male smokers is higher than women smokers according to both RISKESDAS and GATS research. The highest proportion of all active smokers who smoke every day between the ages of 30–34 years was 33.4%: with men (47.5%) smoking more than women (1.1%) [3].

Cigarettes contain very harmful substances, including the drug nicotine. Nicotine has a highly addictive effect like opium. Nicotine inhaled through smoke spreads very quickly from the lungs and reaches the brain in only seven seconds. Arriving in the brain, nicotine stimulates the release of dopamine, a substance that plays a role in nerve function and creates a sense of happiness. However, nicotine stimulates the production of excess dopamine that makes the body feel relaxed. The danger when the dopamine concentration decreases is that people can feel uneasy so they smoke again to feel relaxed. Over time, the body demands greater levels of nicotine intake and this means the smoker does not have a free choice: hence the addiction to cigarettes. Nicotine withdrawal usually lasts for 3 to 5 minutes.

Consuming citrus can remove the desire to light another cigarette. Whether eaten in its raw state, drunk as juice, or packaged as candy, orange has an important role in the process of smoking cessation and acts as a bodily cleanser. Smoking can inhibit

the supply of vitamin C in the body; The most difficult thing about quitting smoking is overcoming the reactions that occur as the body demands the intake of nicotine. When nicotine levels are low, the body will experience some of the symptoms of withdrawal: sleeplessness, irritability, confusion. These symptoms can be easily removed when orange juice is diligently consumed, especially in the first two weeks of quitting smoking. The majority of former smokers have been reported to say that by drinking a mixture of orange juice and cream of tartar (one-half teaspoon) nicotine is immediately eliminated from the body of smokers, thus eliminating the desire to smoke again [22].

In addition, orange juice will quickly expel nicotine from the body through urine [11]. Hard candy lasts longer in the mouth so will distract the smoker for longer. The content of citrus fruits will reduce or even eliminate the desire of smokers to smoke cigarettes again. In the current study, a program was conducted in the Subdistrict of Meteseh, on the dangers of smoking and it provided for positive impact that the smokers in that village were no longer to smoke. So, by way of innovation, to help smokers give up by eliminating the effects of nicotine dependence, ANTRUM was used.

The establishment of a Smoking Cessation Community Development by ANTRUM in Meteseh Subdistrict was used to educate the public about the dangers of smoking and promote smoking cessation, especially in wives whose husbands are smokers. Empowerment can help women who are members of the Family Welfare Empowerment "(PKK)" to be a companion and counselor for fathers who want to quit smoking using ANTRUM as an inhibitor of nicotine dependency. As well as the development of Smoking Cessation Community Development by ANTRUM a follow-up plan was also implemented.

2. METHODS

This quantitative study used a quasi-experimental method with a non-equivalent control group design. Data were collected through observations, in-depth interviews, pre and post-testing. This study was conducted over one month with 30 samples divided into two groups: control and experimental. Samples were determined by a saturated sampling technique in the Meteseh Subdistrict, Semarang City. Data analysis used paired t-tests with a significance level of 5%.

3. Results

Most survey respondents were aged 20–50 years, and most respondent’s highest education was senior high school.

TABLE 1: T-test Bivariate Analysis.

Variable	Method	Average		Difference	p-value	Results
		Before	After			
Knowledge	Control	11.25	14.45	3.20	0.048	Differences of knowledge level
	Research	10.55	14.95	4.40	0.019	Differences of knowledge level
Attitude	Control	13.00	16.45	3.45	0.036	Differences of attitude level
	Research	13.55	17.85	4.30	0.027	Differences of attitude level

Table 1 shows that there was a change in the level of knowledge and attitudes before and after the intervention using ANTRUM. This showed an increase in knowledge and change in attitudes with different average values as shown in Table.1

There were significant differences in the level of knowledge about cigarettes and smoking between before (11.25) and after (14.45) intervention ($p = 0.048$) and there were significant differences in the level of knowledge about cigarettes and smoking between before (10.55) and after (14.95) intervention by using ANTRUM ($p = 0.019$). Beside, there were significant differences in the level of the respondents’ attitudes about cigarettes and smoking before (13.00) and after (16.45) intervention ($p = 0.036$) and there were significant differences in the level of respondents’ attitudes about cigarettes and smoking between before (13.55) and after (17.85) intervention using ANTRUM ($p = 0.027$).

4. Discussion

Implementation of stop smoking community development by ANTRUM candy media already 90% done well through the expected target of housewives counseling training proven with the increasing knowledge and attitudes are measured by pre-test and post-test result. It also proven with the formation of Stop Smoking Community Development that consists of a core team of PKK movement. The effectiveness of this program was also proven by the design patterns of ANTRUM candy as the health promotion media to stop smoking have been packaged.

There were many goals that have been achieved by this program, such as it got the positive responds from the local government, the increasing of active smokers self willingness to stop smoking by using ANTRUM candy, the increasing of counselor outreach. For this village environment, people had put the "STOP SMOKING IN MY HOME" up in their house and it certainly made the active smokers especially the fathers not to smoke in their own house. For any other achievements were this program already covered and published by some media such as *Tribun Jawa* and *Barometer* Newspaper, also in 360 Metro TV Program.

Furthermore, the board also formed communities and container smoking cessation counseling in the form of cessation clinic along with a schedule for the sustainability program clinic picket post PKMM. Now the media marketing of candy antrum as a smoking cessation program has also been extended to the general public so not only for Meteseh Village residents only. Candy antrum has been known as a medium for smokers to quit smoking. Client outreach activities still continue to run until after the monitoring and evaluation of Higher Education with the number of patients who had been to the clinic voluntarily want to quit smoking cessation clinic to as many as 15 fathers. Besides Tim Stop Smoking Clinical so heavily in the socialization of cessation clinic using stickers and leaflets to villagers of Meteseh. Empowerment targets described in detail on the progress of work in which the implementation of the program has been running at 95%.'

5. CONCLUSION

The smoking cessation counseling method using ANTRUM for active smokers by using ANTRUM was effective and increased knowledge and changed attitudes in active smokers before and after the counseling provided using ANTRUM as a health promotion media in Meteseh Subdistrict, Semarang City was achieved. Behavioral change, especially in terms of suppressing the number of smokers in the Meteseh Subdistrict was not only achieved by the Smoking Cessation Community Development by ANTRUM but also by the common awareness of both the active smokers themselves, who have a desire to stop smoking, the environment, community leaders, and health care for smoking cessation.

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