

# **Cessation of smoking among Family Health Strategy users**

Cessação do tabagismo entre usuários da Estratégia Saúde da Família

Cese del tabaquismo entre usuarios de la Estrategia de Salud Familiar

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#### ABSTRACT

**Objective:** to describe the cessation of smoking among Family Health Strategy users. **Method:** this longitudinal study was conducted at two primary care units from June to December 2016 with smokers participating in the Smoking Treatment Program. Cessation was described according to sociodemographic, smoking history and program participation variables. The bivariate analyzes were based on Fisher's exact test, non-parametric Mann-Whitney U tests, and Spearman's correlation; a 5% significance level was adopted. **Results:** cessation of smoking was found to be statistically related to male sex, medication use, and number of program sessions that the individual attended. **Conclusion:** this study showed that cessation of smoking is influenced by male sex, participation in smoking treatment program sessions, and use of medications offered by the Unified Health System.

Descriptors: Smoking cessation; family health strategy; public health nursing; longitudinal studies.

#### RESUMO

**Objetivo:** descrever a cessação do tabagismo entre usuários da estratégia saúde da família. **Método:** estudo longitudinal realizado em duas unidades de atenção básica no período de junho a dezembro de 2016 com usuários tabagistas participantes do Programa de Tratamento do Tabagismo. A cessação do tabagismo foi descrita segundo variáveis sociodemográficas e variáveis relacionadas à história tabagística e à participação no Programa. As análises bivariadas se basearam no teste exato de Fisher, nos testes não paramétrico U de Mann-Whitney e Correlação de Spearman); foi adotado nível de significância de 5%. **Resultados:** verificou-se que sexo masculino, uso de medicamento e número de sessões que o indivíduo participou relacionaram-se estatisticamente à cessação do tabagismo. **Conclusão:** O presente estudo evidenciou que a cessação do tabagismo é influenciada pelo sexo masculino, participação nas sessões propostas pelo programa de tabagismo e uso de medicamentos oferecidos pelo Sistema Único de Saúde.

Descritores: Abandono do hábito de fumar; estratégia saúde da família; enfermagem em saúde pública; estudos longitudinais.

#### RESUMEN

**Objetivo**: describir el cese del tabaquismo entre usuarios de la estrategia de salud familiar. **Método**: estudio longitudinal realizado en dos unidades de atención básica en el período de junio a diciembre de 2016 junto a fumadores participantes del Programa de Tratamiento del Tabaquismo. El cese del tabaquismo se describió según variables sociodemográficas y variables relacionadas con la historia del fumador y la participación en el Programa. Los análisis bivariados se basaron en la prueba exacta de Fisher, en las pruebas no paramétricas U de Mann-Whitney y la Correlación de Spearman); se adoptó un nivel de significancia del 5%. **Resultados:** se verificó que el sexo masculino, el uso de remedios y el número de sesiones en que el individuo participó están relacionados estadísticamente al cese de fumar. **Conclusión:** el presente estudio evidenció que el cese del tabaquismo es influenciado por el sexo masculino, la participación en las sesiones propuestas por el programa de tabaquismo y el uso de remedios ofrecidos por el Sistema Único de Salud.

Descriptores: Cese del hábito de fumar; estrategia de salud familiar; enfermería em salud pública; estudios longitudinales.

## **INTRODUCTION**

The World Health Organization points out that tobacco kills up to half of its consumers, which corresponds to about 6 million people per year on the planet. In addition, almost 80% of them live in developing countries, being one of the main causes of death and illness in the world<sup>1</sup>.

In Brazil, given the advances achieved by the National Program for Tobacco Control, a significant decrease occurred in the prevalence of smokers among adults and stability of the mean at the beginning of tobacco consumption. Despite this progress, a small increase was however observed in the stated average number of cigarettes smoked per day<sup>2</sup>.

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The importance of smoking treatment in the Unified Health System (SUS) and Basic Health Units (BHU) in the context of the Psychosocial Care Network are highlighted by actions of mental health promotion, harm reduction, and care of people with problems arising from the use of alcohol, tobacco and other drugs. These actions are shared with other network points whenever necessary<sup>3</sup>.

Although about 80% of smokers wish to quit smoking, only about 3% can do it without aid each year. This highlights the importance of promoting incentives in basic care services to stimulate smoking cessation<sup>4</sup>. Knowing and understanding the factors associated with smoking cessation may provide support to increase smoker's adherence to their decision to stop smoking. Although frequent campaigns encourage people to stop smoking in Brazil, little is known about the real reasons that lead people to abandon such dependence<sup>4</sup>. Therefore, the aim of the present study was to describe smoking cessation among users of the Family Health Strategy.

## **LITERATURE REVIEW**

In 2013, the Ministry of Health updated the guidelines for the care of smokers in the framework of the Network for Health Care of People with Chronic Diseases in the SUS (Ordinance No. 571), transferring care to the smoker to the basic care level<sup>5</sup>.

Basic care is developed to act as close as possible to people's lives, being the gateway, caregiver officer, and coordinator of the Health Care Network. Such services have been installed near where people live, work, and study. They play a central role for the population by ensuring access to quality health care<sup>6</sup>.

In the SUS, basic care has an important and strategic role to control tobacco use, through its four essential attributes (first access, completeness, longitudinally, and care coordination). This facilitates contact between professionals, health service, and users, as well as building a bond between them. In addition, it is related to the success of treatments, especially those related to changing habits, including cessation of smoking<sup>7</sup>.

People who know and are known by health professionals tend to engage more than others in the agreed and shared care of their health. Ultimately, this promotes a greater adherence and better outcomes, which is very interesting in the smoking cessation scenario and relapse prevention<sup>7</sup>.

The approach of smokers to stop smoking involves cognitive interventions and training of behavioral skills as the central axis, aiming at addiction cessation and relapse prevention. In specific cases, drug support was used<sup>8</sup>. Each smoker is a unique individual: each one has its own history, values, preferences, expectations, and needs. Within the context of the moment, recognition of this individuality is essential for the success of smoking cessation<sup>7</sup>.

## METHOD

This is a longitudinal descriptive study in which we used data obtained in two different moments of the participants' life: the first corresponds to the information collected at the time of their admission into the smoking treatment program in the health units (period 2011-2015) and the second corresponds to the interviews conducted during home visits or at the health units (2016).

The study was conducted at two basic health units that attended within the family health strategy model in the city of Rio de Janeiro, RJ, Brazil. Both study sites had the program for treatment of smokers structured for at least five years. Data were collected in the period Jun-Dec 2016 based on information found in patient records and face-to-face interviews carried out during home visits.

In the first moment, the data found in the initial interview script were informed by the patients during clinical anamnesis for the treatment of smokers (sociodemographic data and smoking history) and used as collection instruments for admission in the program. In the second moment, a questionnaire on the outcome of interest (months in continuous abstinence and data regarding participation in the smoking group) was created by the team, with questions to the participant about being able to quit smoking. If the answer was affirmative, it was asked how long (in months); if the answer was negative, it was asked (1) if he/she has ever managed to stop; (2) for how long; (3) in how many group sessions he/she participated; and (4) whether he/she used medication in that process.



All smokers registered at the study units for participation in the group within the program for treatment of smokers in the period 2011-2015 were considered eligible. Of the total registered users (496), 395 were not found after three attempts to contact and one refused to participate in the study; therefore, 100 users composed the sample in this study.

Socio-demographic variables, variables related to the smoking history, and those related to the participation in the smoking group at the health units were considered as exposure factors. Smoking cessation, i.e., remaining non-smoking for at least six months after the interview, was the outcome of interest to participate in the group. Additional analyzes were performed to identify differences between subgroups in terms of time (months) during which subjects remained non-smoking (continuous abstinence time), even if they have relapsed.

Description of the study group was based on descriptive statistics such as simple frequencies and measures of central tendency (mean and standard deviation), and the Fisher's exact, Spearman's correlation, and Mann-Whitney non-parametric U tests. All analyzes were performed using the Statistical Package for the Social Sciences (SPSS, v.19.0), and the 5% significance level (p < 0.05) was adopted.

In order to meet the terms of the National Health Council Resolution (466/2012), which deals with research with human beings, the study project received approval from the Research Ethics Committee (1,515,331), Escola de Enfermagem Anna Nery. All participants agreed to participate in the study and signed the Free and Informed Consent Term form.

# RESULTS

As shown in Table 1, 49% of participants were unable to quit smoking, 26% had not smoked for at least six months, and 25% had quit smoking for at least a month but relapsed.

**TABLE 1**: Description of smoking cessation among

the study participants. Rio de Janeiro, 2016.				
Smoking cessation outcomes	f	%		
Yes	26	26.0		
No	49	49.0		
Relapse	25	25.0		

Table 2 shows that men, when compared to women, showed a higher frequency of smoking cessation (p = 0.028), as well as a higher mean number of months without smoking (p = 0.038). Participants with complete tertiary education, who lived with a partner, showed a higher mean number of months without smoking, but the differences were not statistically significant.

TABLE 2: Smoking cessation and times (in months) of continued abstinence, according to the sample characteristics. Rio
de Janeiro, 2016.

Characteristics	Smoking cessation			Times of continuous abstinence	
	Yes	No	<b>p</b> (*)		
	f (%)	f (%)		Mean values (±SD)	<b>p</b> (**)
Ages			0.488		0.814
> 52 years	14 (29.2)	34 (70.8)		7.5 (13.3)	
≤ 52 years	12 (23.1)	40 (76.9)		6.8 (12.3)	
Races/Skin colors			0.830		0.683
Whites	14 (27.5)	37 (72.5)		6.6 (11.5)	
Nonwhites	12 (25.5)	35 (74.5)		8.0 (14.2)	
Family incomes <sup>(***)</sup>			0.098		0.174
> 2 minimum wages	14 (35.9)	25 (64.1)		6.8 (9.0)	
≤ 2 minimum wages	07 (18.9)	30 (81.1)		7.0 (15.1)	
Sex			0.028		0.038
Males	11 (42.3)	15 (57.7)		8.9 (11.8)	
Females	15 (20.3)	59 (79.7)		6.6 (13.1)	
Marital status			0.201		0.134
Live with a partner	11 (35.5)	20 (64.5)		9.0(12.6)	
Do not live with a partner	15 (23.1)	50 (76.9)		6.6 13.1	
Education			0.363		0.346
Tertiary	08 (47.3)	09 (52.9)		8.5 (14.0)	
Secondary	04 (13.3)	26 (86.7)		5.3 (12.5)	
Primary	13 (27.7)	34 (72.3)		5.8 (4.8)	

Notes: SD: standard deviation. (\*) Fisher's exact test. (\*\*) Mann-Whitney's U test. (\*\*\*) minimum wage: R\$880,00 (2016)



Table 3 shows that participants who used medication had a higher frequency in smoking cessation (p = 0.049) and had a greater mean number of months in continued abstinence (p = 0.001).

**TABLE 3:** Frequencies of smoking cessation and times (in months) of continued abstinence among study participants, according to medication use. Rio de Janeiro, 2016.

Characteristics	stics Smoking cessation		Times of continuous ab	stinence
	f (%)	<b>p</b> (*)	Mean values (±SD)	<b>p</b> (**)
Medication use		0.049		0.001
Yes	25 (29.8)		8,3 (13.6)	
No	1 (6.3)		1,3 (2.8)	

Notes: SD: standard deviation. (\*) Fisher's exact test. (\*\*) Mann-Whitney's U test

Additional tests were performed using the Spearman's correlation to determine the correlation between the number of sessions in the group and the time of continued abstinence (p < 0.001). The Mann-Whitney U test was performed to determine the correlation between cessation of the smoking habit and number of sessions in a group (p = 0.005). Regarding smoking cessation outcomes, 23% of participants have quit smoking in the present study (data not shown).

## DISCUSSION

In the present study, it was observed that male sex, medication use, and number of sessions in which the individuals participated were statistically related to smoking cessation. In the general population, prevalence of smoking is higher among men<sup>9</sup>, who are usually the minority in the care services for smokers. This reflects the difficulty of this population to access health services,<sup>10</sup> reinforcing the need to promote health actions that allow a greater approach to this population<sup>11,12</sup>.

In this study, men also showed a higher frequency of smoking cessation and mean number of months in continued abstinence. The difficulty shown by women to quit smoking is highlighted by the relationship between female smoking and pleasure and relief from negative feelings and stressful situations. This was reported during adolescence, when they start smoking<sup>13</sup>. In a study on the symbolic meaning of female smoking, cigarette emerges as a companion associated with coping with certain situations and a source of pleasure in contexts of few relaxation opportunities<sup>14</sup>.

Smoking is a means of obtaining relief from facing feelings such as anxiety, anger, impotence, loneliness, or rejection, as well as overload from work accumulation and marital conflicts. These situations lead many women to seek support in cigarette smoking<sup>14</sup>. Thus, adopting attitudes that help women choose adequate alternatives to relieve tension and stress, in addition to strategies related to motherhood, is important in campaigns to combat smoking<sup>13</sup>.

Women's smoking behavior is more conditioned to their mood and negative affect, whereas men's smoking behavior is more conditioned by the pharmacological response, which is regulated by nicotine consumption<sup>15</sup>. This possibly explains the higher frequency of smoking cessation among men in the current study. The differences between men and women highlight the importance of considering gender specificities when smoking cessation measures are developed and implemented<sup>16</sup>.

Regarding the outcome reported in the present study, 23% of the participants were not smoking for at least six months. This means that therapeutic interventions against smoking have effect on smoking cessation<sup>17,18</sup>. In addition, smoking cessation and continued abstinence showed to be statistically associated with medication use (most of them used nicotine patch), education, and number of group sessions. The cognitive-behavioral therapy associated with medication is effective in smoking cessation and abstinence maintenance, valuing the importance of public programs for smoking treatment<sup>18,19</sup>.

In the present study, 25% of participants also had a relapse. Although the variables involved in smoking cessation and abstinence maintenance have not yet been well defined, it is worth highlighting the high percentage of smoking cessation in the treatment programs. Thus, they seek options to facilitate access to the health services (highlighting the schedule with adequate hours for this clientele to be attended) and promote an adequate training for professionals who participate in treatment programs<sup>18</sup>.

Smoking negatively affects the quality of life of smokers, making their social relations and daily activities difficult. The guidance on smoking that is given to the family health strategy professionals, as well as its implications for health, are relevant and should thus be carried out more frequently<sup>20</sup>. In this sense, the groups for prevention of addiction and



treatment of smokers in primary care services are beneficial to their users. In addition, these groups represent the service *locus* where health professionals have the opportunity to know and monitor users in their social context<sup>21</sup>.

## CONCLUSION

Smoking cessation showed to be associated with male sex, participation in specific program sessions, and use of drugs provided by SUS. This program within SUS, with trained professionals who can understand the complexity of smokers, is important, especially in the primary care. The activity strategies proposed in the National Program for Tobacco Control are important for a greater access and adherence of the smoking population, mainly women smokers. The sample size is a limitation of this study and prevents generalization of conclusions.

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