



ISSN: 2230-9926

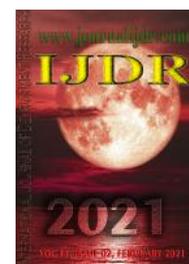
Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 11, Issue, 02, pp.44916-44919, February, 2021

<https://doi.org/10.37118/ijdr.22196.02.2021>



RESEARCH ARTICLE

OPEN ACCESS

THE IMPORTANCE OF THE IMPLEMENTATION OF THE SMOKING PROJECT IN PRIMARY HEALTH CARE, IN THE MUNICIPALITY OF RIO CLARO

Thainá Vitória Spadotto Felipe¹, Marta Teresa Gueldi Linardi Bianchi² and Gabriella Soares de Souza¹

¹Centro Universitário Claretiano, Rio Claro (SP), 13503-257, Brasil; ²Centro de Atenção Psicossocial Álcool e Drogas (CAPS-AD), Rio Claro (SP), 13500-420, Brasil

ARTICLE INFO

Article History:

Received 14th December, 2020

Received in revised form

20th December, 2020

Accepted 14th January, 2021

Published online 28th February, 2021

Key Words:

Nicotine, Smoking, Diseases, Reduction and Cessation.

*Corresponding author:

Lia Maristela da Silva Jacob

ABSTRACT

Purpose: In order to carry out the promotion and prevention, the National Cancer Institute José de Alencar Gomes da Silva (INCA) proposes a National Tobacco Control Program (PNCT), aiming to reduce or cease this habit. Thus, in the municipality of Rio Claro, this project was used only in the Jardim das Flores Health Unit, performing a cognitive-behavioral approach, together with pharmacological follow-up -minimizing the withdrawal symptom-. **Methods:** An epidemiological survey was made from the medical records of patients who joined this project and obtained a decrease or cessation of tobacco use. In addition, the diseases present were evaluated due to the tabagic habit. The Informed Consent Form (TCLE) was used for the collection of these data. **Results:** In the present study, there were significant differences, determining that the project is effective. **Conclusion:** Thus, it obtains benefits for the health of patients, and can be implemented in other Health Units.

Copyright © 2021, Thainá Vitória Spadotto Felipe et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Thainá Vitória Spadotto Felipe, Marta Teresa Gueldi Linardi Bianchi and Gabriella Soares de Souza. 2021. "The importance of the implementation of the smoking project in primary health care, in the municipality of rio claro.", *International Journal of Development Research*, 11, (02), 44916-44919.

INTRODUCTION

The initial milestone in tobacco consumption in the world is long standing. Being related to magical-religious rituals as in the indigenous societies of Central America, being increased mainly in the twentieth century, caused by the incentive to the act of smoking, by advertising campaigns. It is estimated that in the adult world population, about 1.3 billion smokes, with male predominance (47%) compared to females (12%). Tobacco consumption usually begins in adolescence, around 13 to 15 years of age. Being that, the earlier its advent; the severity of dependence will be greater. In the national and international market there is a variety of tobacco products, in which all present nicotine, and can be used in several ways: smoked/inhaled, aspirated, cascade, absorbed by the oral mucosa. Thus, they cause dependence and increase the risk of contracting chronic non-communicable diseases. In Brazil, the predominant form of tobacco use is smoking. Alkaline nicotine, which is present in pipes and cigars, has a greater capacity to be absorbed by the mouth. Nicotine in cigarettes because it is acidic, does not have this capacity by the oral mucosa, so to be infiltrated has the need to be swallowed, reaching the lungs and then the pulmonary alveolus. After approximately 10 seconds it reaches the brain rapidly.

Cytochrome P450 performs metabolism, being largely hepatic. The main enzyme involved in this metabolism is CYP2A6 - that is, it performs the metabolism of toxic substances, controlling the speed at which they are divided, and the duration in which they are present in the body-. Nicotine induces tolerance, in which there is a need for progressively higher doses to obtain the same effect and dependence, due to the desire to consume it. This is because it acts on the dopaminergic pathways of the mesolimbic system, causing it to reduce thalamus activity. Like other psychoactive drugs, it releases dopamine in a region of the midbrain, stimulating the feeling of pleasure and "reward". In addition, because it is a stimulating substance of the CNS, it leads the individual to the state of alertness and have been reduced to appetite. Overcome the discomfort caused by the first swallows of tobacco - malaise, dizziness, nausea-, the smoker begins to get a pleasant feeling by the use of nicotine. This exposure can lead to the occurrence of several circulatory diseases (hypertension, stroke, myocardial infarction), cancer (lung, oral cavity, esophagus, stomach, colon, bladder, kidneys, cervix), chronic respiratory diseases (chronic obstructive pulmonary disease), eye problems (cataracts and blindness), delayed uterine growth, besides being an important risk factor for communicable diseases, such as tuberculosis.

Moreover, the simple fact that an individual is passively exposed to tobacco smoke already contributes to the onset of respiratory, cardiovascular and lung cancer diseases. Due to the effects and dependence caused by nicotine - psychotropic drug, which is present in tobacco-based products- smoking becomes recognized as a chronic disease, being present in the international classification of diseases (ICD10). The habit of smoking or being passively exposed generates an increase in the mortality rate. In Brazil, it is evaluated that approximately 200,000 deaths per year are as a result of smoking. Thus, at the end of the 1980s, with the objective of health promotion, the management and governance of tobacco control in Brazil has been articulated by the INCA (Ministry of Health through the National Cancer Institute José Alencar Gomes da Silva), including a set of national actions that make up the National Program for Tobacco Control (PNCT). The Program aims to reduce the prevalence of smokers and morbidity and mortality related to the consumption of tobacco products in Brazil following a model with educational, communication, health care actions, along with the adoption or compliance with legislative and economic measures. This research project proposes to quantify the rate of patients who have ceased or reduced the amount of tobacco smoke after going through the existing smoking project in Primary Health Care, of the municipality of Rio Claro.

The meetings are organized and divided into 4 stages, which are:

-) **First month:** weekly meetings, in which the patient is verified and his range of contemplation;
-) **Second month:** evaluation of the number of cigarettes that the patient uses, in addition to an anamnesis (checking how long the patient smokes) and thus, i defined whether to need medication -nicotine patch or anxiolytic Bupropion- to decrease/cease use;
-) **Third month:** meetings held every two weeks to verify how many managed to quit smoking and how many relapsed;
-) Next 9 months: individual consultations in which the quantification of treatment is maintained.

With these programs, Brazil is among the countries with the highest rates of former smokers, according to the medical journal The Lancet. The country also has the lowest rate of male smokers in relation to the total population, compared to the other countries analyzed. In addition, in December 2010, about 127,000 smokers were seen: 80% of them used medication and the cessation rate was 60% after 4 weeks. Therefore, in addition to having more advances in the area of smoking cessation, it is necessary that these projects be available in Primary Health Care so that an increasing number of smokers can quit smoking each year, which can only be achieved if they obtain investment and, in addition, health professionals are committed to this action.

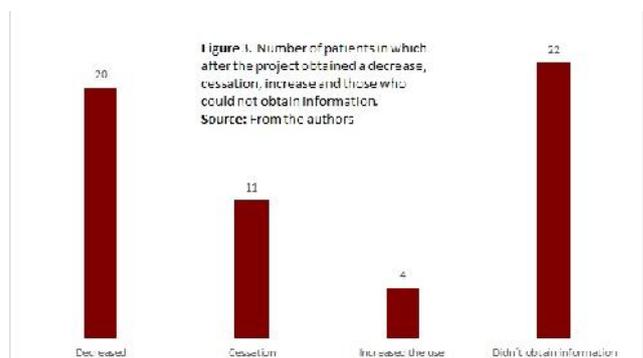
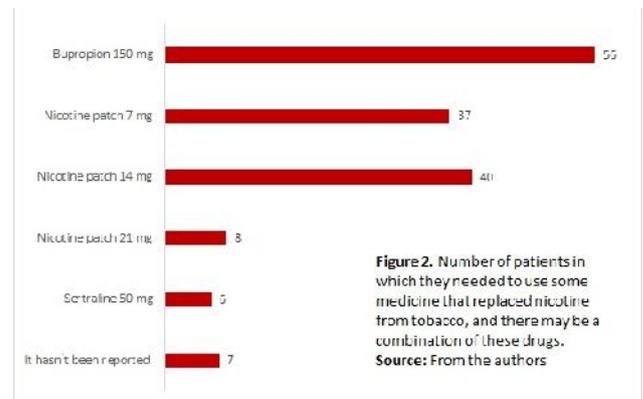
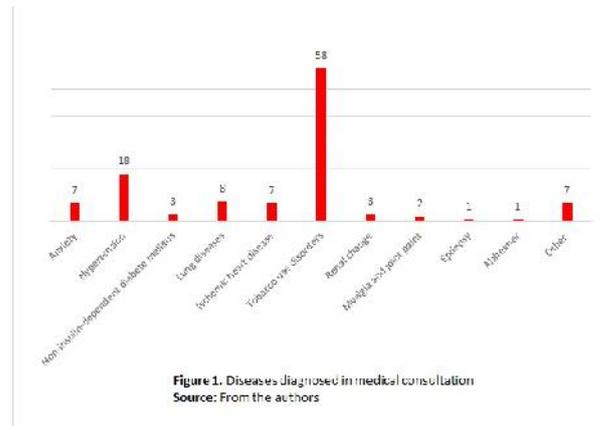
MATERIALS AND METHODS

An epidemiological survey was carried out using the medical records of patients who participated in the smoking project at the Jardim das Flores Unit and obtained a decrease, cessation and those who reported having returned with tobacco use and whether they used medication or adhesive to try to decrease or cease. In addition, a complementary epidemiological survey was carried out to verify the main diseases of the project participants, correlated with tobacco use. These surveys were conducted using the Informed Consent Form (TCLE), respecting the integrity and identity of the patient. Being sent to the Research Ethics Committee and submitted at the Brazil Platform.

RESULTS

The quantification of patients who left the name for participation in the program between 2016 and 2019 was quantified, totaling 648 interested parties. However, only 59.27% (115 patients) entered, not obtaining a total at the end, in which 57 patients completed the

project. And 172 are on the waiting list to be contacted for the next group. According to Figure 1, based on the source of data such as the CAPS, it demonstrates the main diseases diagnosed by the physician of the Health Unit. In addition, the number of patients who needed to use some type of medication that replaced nicotine from tobacco was verified. The use of some medications present in the Unified Health System (SUS) plays a well-defined role in the smoking cessation process, with the main role of minimizing the symptoms of nicotine withdrawal syndrome, facilitating the intensive approach of smokers. However, these drugs should not be used alone, but in association with a good medical and psychological approach, and there may be a combination of more than one type of medication per patient. According to Figure 2, also based on the data source, the use of drugs that replaced nicotine was visualized, and there may be a combination of more than one drug per patient.



After these data, the number of patients who obtained the decrease was analyzed; cessation; or increased tobacco use. Being present in the 3rd figure, using a public domain basis to obtain these results. Thus, the Statistical Analysis was performed - through the Bioestat 5.3 program- of the patients in which they presented values of the amount of cigarettes smoked per day before, during and after the project. Thus, the mean and standard deviation of these three samples were calculated and the Lilliefors Test was performed to verify normality, not obtaining it.

Therefore, because it contains three related samples and because it is a nonparametric test, the Friedman Test was applied, in which significant differences were presented between the before/during and before/after the project, due to the (*p) value being less than 0.05. Significant differences are expressed, since 75% of patients smoked more than 20 cigarettes per day and during/after the project obtained a decrease and/or cessation, becoming considerable data and thus achieving the following benefits:

- After 20 minutes: blood pressure and pulse return to normal;
- After 2 hours: nicotine is no longer present in the blood;
- After 8 hours: the level of oxygen in the blood is normalized;
- After 12 to 24 hours: lungs already work better;
- After 2 days: smell has improved perception and taste tastes better the food;
- After 3 weeks: breathing will become easier and blood circulation will also improve;
- After 1 year: the risk of death from myocardial infarction is reduced by half
- After 5 to 10 years: the risk of having a heart attack is equal to that of people who have never smoked
- After 10 years: the risk of mouth cancer decreases by 4 to 15 times, equaling the chance of having the disease with whom they never used tobacco.

DISCUSSION

The long-term use of tobacco, besides generating a series of diseases, evidences the comorbidity between smoking and psychiatric diseases - as reported in this project, the high prevalence of disorders caused by the use of the same - was verified. This is due to the fact that nicotine intervenes in the role of neurotransmitters, exerting neuroendocrine actions, influencing psychopathological conditions. These patients diagnosed with anxiety and depression feel good smoking because nicotine is anxiolytic and contributes to the relief of symptoms. In the case of hypertensive patients - the second highest rate of patients in the project- before the III Brazilian Congress of Arterial Hypertension (Brazil, 2001), smoking induces resistance to the effect of antihypertensive drugs. Moreover, nicotine, because it has vasoconstrictor effect and causes an increase in low-density lipoproteins and platelet aggregation, ends up contributing to the formation of thrombi, atherosclerosis, acute myocardial infarction and complications of arterial hypertension. With this, one should evaluate the condition of each patient addressing the degree of dependence, motivation and history of the person's past. Thus, seeking to guide and plan a group treatment - to work with the motivational - and individual - parts to assess the integrality of the subject to smoking - both stages being carried out in the Health Unit that contains the smoking project. Pharmacological support aims to assist the cognitive-behavioral approach, elaborated in a group. Medications aim to control withdrawal symptoms by smoking cessation, according to data established by the Consensus on The Approach and Treatment of smokers (2001). Thus, pharmacological treatment can be performed in two ways: nicotine replacement therapy and non-nicotinic scans, in which both are present in the Unified Health System.

They are considered as first-line drugs, nicotine replacement therapy (NRT) alone or associated and bupropion, alone or associated with NRT. The dosage of the patches varies according to the degree of physical dependence on nicotine, evaluated by the Fagerström Score or simply by the number of cigarettes smoked per day. In the first weeks, the nicotine dose should be approximated to the patient's daily cigarette consumption and after a few weeks, be gradually reduced, since withdrawal symptoms tend to decrease.³¹ It is worth mentioning at the beginning of treatment that the concentration of nicotine in the blood that the drugs release is lower than that achieved by inhaled tobacco smoke, which decreases and hinders the chances of dependence. Bupropion Hydrochloride is an antidepressant that aids in cessation. The mechanism of action of this drug can be explained by the reduction of neuronal transport of neurotransmitters -dopamine

and norepinephrine- or antagonism to nicotinic receptors, leading to a decrease in compulsion and desire for the use of cigarettes. Although relevant, the treatment of depressive comorbidity does not fully explain its effect. The use of this drug should be started one week before the date set for cessation, and this date is discussed in the group, where it addresses the cognitive-behavioral part.

The combination of nicotine replacement therapy and bupropion hydrochloride may alleviate the symptoms of withdrawal syndrome and increase cessation rates when compared to monotherapy options, according to studies. However, it should be noted in its use, as it generates an increase in its side effects. Thus, due to the consequences generated by smoking and the therapeutic complex - cognitive-behavioral and drug issue-, treatment for smoking cessation should be recognized and prioritized in basic health units, as well as for diseases such as hypertension or diabetes. Smoking cessation therapy has been referred to as the "gold standard" of cost-effectiveness in health care, and the cost of implementing the smoking control program -with professional training devices and the acquisition of medications- is neither costly as the treatment of other cardiovascular risk factors or tobacco-related diseases.

Acknowledgements

I thank the Claretian University Center for having funded the research with the scientific initiation program scholarship (PIC).

REFERENCES

- Anthonisen, N. R. *et al.* 2005. The Effects of a Smoking Cessation Intervention on 14.5-Year Mortality. *Annals of Internal Medicine*, Philadelphia, v. 142, p. 233-239.
- Bandini, M. 2006. Impacto de ações de promoção da saúde incluídas no Programa de Controle Médico de saúde ocupacional de empresa do ramo alimentício. Tese (doutorado). Faculdade de Medicina da Universidade Federal de São Paulo. Departamento de patologia. São Paulo. 246p.
- Brasil. Ministério da Saúde. Instituto Nacional de Câncer - INCA. 2001. Coordenação de Prevenção e Vigilância (CONPREV). Abordagem e T Abordagem e Tratamento do Fumante - Consenso 2001. Rio de Janeiro: INCA, 38p. il
- Disponível em: http://portal.saude.sp.gov.br/resources/ses/perfil/profissional-da-saude/homepage//tratamento_fumo_consenso.pdf Acesso em: 20/11/2019
- Brasil. 2012. Ministério da Saúde. Instituto Nacional de Câncer José de Alencar Gomes da Silva. Fundação Oswaldo Cruz (Fiocruz). O controle do tabaco no Brasil: uma trajetória. Rio de Janeiro: INCA.
- Brasil. 2015. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Estratégias para o cuidado da pessoa com doença crônica: o cuidado da pessoa tabagista / Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica. – Brasília: Ministério da Saúde.
- Cardoso, A.R. 2011. Tabagismo entre adolescente: tabagismo como problema de saúde pública no mundo e no Brasil. In Tabagismo: Relevância da temática na educação. Ano XXI. Boletim 06 maio 2011. ISSN 1982-0283.24.p. Disponível em: <http://www.tvbrasil.org.br/fotos/salto/series/15013006-Tabagismo.pdf>. Acesso em: 13/08/2019
- Dautzenberg, B. *et al.* 2007. Pharmacokinetics, safety and efficacy from randomized controlled trials of 1 and 2 mg nicotine bitartrate lozenges (Nicotinell®). *BMC Pharmacology and Toxicology*, London, v. 7, n. 1, p. 11.

- Fiore, M. C. *et al.*, 2008a. Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline. Rockville, MD: U.S Department of Health and Human Services, May.
- Fiore, M. C. 2000. Treating tobacco use and dependence: an introduction to the US Public Health Service Clinical Practice Guideline. *Respiratory Care*, [S.l.], v. 45, n. 10, p. 1196-1199, Oct.
- Gonçalves, C. M. C.; Meirelles, R. H. S. Abordagem e Tratamento do Fumante. In: Zamboni, M.; Carvalho, W. R. (Eds.). *Câncer do Pulmão*. São Paulo: Atheneu, 2005.
- Herrán, A.; Santiago, A.; Sandoya, M.; Fernández, M.J.; Díezmanrique, J.F.; Vázquez-Barquero, J.L. – Determinants of smoking behaviour in outpatients with schizophrenia. *Schizophr Res* 41: 373-81, 2000.
- Instituto Nacional de Câncer (Brasil). Programa Nacional de Controle do Tabagismo e Outros Fatores de Risco de Câncer. Modelo Lógico e Avaliação. 2 ed. Rio de Janeiro: INCA; 2003.
- Instituto Nacional de Câncer, 2012. Programa Nacional de Controle do Tabagismo no Brasil: avanços e desafios. Disponível em: http://bvsmms.saude.gov.br/bvs/publicacoes/inca/Programa_nacional_de_controle_do_tabagismo.pdf Acesso em: 21/10/2019
- Instituto Nacional de Câncer, 2020. Tabagismo: causa e prevenção. Disponível em: <https://www.inca.gov.br/tabagismo> Acesso em: 13/08/2019
- Instituto Nacional de Câncer. Programa Nacional de Controle do Tabagismo: Tratamento, 2020. Disponível em: <https://www.inca.gov.br/programa-nacional-de-controle-do-tabagismo/tratamento> Acesso em: 15/12/2019
- KAHENDE, J. W. *et al.* A review of economic evaluations of tobacco control programs. *Int. J. Environ. Res. Public Health*, Basel, v. 13, n. 1, p. 51-68, 2009.
- Khurana S, Batra V, Patkar AA, Leone FT. Twenty-first century tobacco use: it is not just a risk factor anymore. *Respir Med* 2003; 97: 295-301.
- Marques ACPR, Campana A, Gigliotti AP, Lourenço MTC, Ferreira MP, Laranjeira R. Consenso sobre o tratamento da dependência de nicotina. *Rev Bras Psiquiatr* 2001; 23: 200-14.
- Ministério da Saúde (BR). Instituto Nacional de Câncer. Tipos de câncer: pulmão Rio de Janeiro: Instituto Nacional de Câncer; 2014.
- Ministério da Saúde; Organização Pan-Americana de Saúde no Brasil. Doenças relacionadas ao trabalho: manual de procedimentos para os serviços de saúde. Brasília: Ministério da Saúde do Brasil, 2001.
- Musk AW, De Klerk NH. 2003. History of tobacco and health. *Respirology* 8: 286-90.
- Nunes, Sandra Odebrecht Vargas *et al.* Avaliação das características clínicas dos fumantes que buscavam tratamento em um Centro de Referência do Sistema Único de Saúde (SUS). *Biosaúde*, [s.l.], v.8, n.1, p.3-24, 2006. O município de Teixeira.
- Disponível: https://www.nescon.medicina.ufmg.br/biblioteca/imagem/tabagismo_proposta_intervencao_reducao.pdf Acesso em: 13/08/2019
- Nunes, SOB. Castro, MRP. and Castro, MSA. 2019. Tabagismo, comorbidades e danos à saúde. Disponível: <http://books.scielo.org/id/sj9xk/pdf/nunes9788572166751-01.pdf>. Acesso em: 13/08/2019
- O Instituto do Câncer contra o cigarro. Revista Veja 29 de maio de 1996, edição 1446, Seção “Carta ao Leitor”. p.29.
- Rose JE, Behm FM, Westman EC, Mathew RJ, London ED, Hawk TC *et al.* PET studies of the influences of nicotine on neural systems in cigarette smokers. *Am J Psychiatry* 2003; 160: 232-33.
- Rosemberg J. Nicotina. 2002. Farmacodinâmica. Ação sobre os centros nervosos. Nicotino-dependência. In: Rosemberg J, Pandemia do tabagismo: enfoques históricos e atuais. Secretaria Estadual de Saúde de São Paulo, Centro de Vigilância Epidemiológica, pp. 43-9.
- Secretaria do Estado de São Paulo. Por quê controlar o tabagismo? Disponível em: <http://www.saude.sp.gov.br/coordenadoria-de-recursos-humanos/conteudos-banners/banner-lateral/qualidade-de-vida/por-que-controlar-o-tabagismo> Acesso em: 21/10/2019
- STEAD, L. F. *et al.* 2012. Nicotine replacement therapy for smoking cessation. *Cochrane Database Syst.Rev.*, Oxford, v. 11, n. 11.
- SULS, J. M. *et al.* 2012. Efficacy of smoking-cessation interventions for young adults: a meta-analysis. *American Journal of Preventive Medicine*, New York, v. 42, n. 6, p. 655-662.
- World Health Organization. Global health risks. Mortality and burden of disease attributable to selected major risks. Geneva: World Health Organization; 2009.
- ZWAR, N. *et al.* 2014. Supporting smoking cessation: a guide for health professionals. Melbourne: The Royal Australian College of General Practitioners, 2011. Updated July.
